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Employer Identification No.)incorporation or organization)Â Â â€‹â€‹â€‹305 College Road East â€‹â€‹Princeton, New Jerseyâ€‹08540(Address of principal executive offices)â€‹(Zip Code)â€‹(732) 329-8885(Registrantâ€™s telephone number, including area code)â€‹Securities registered pursuant to SectionÂ 12(b)Â of the Act:â€‹Title of each classTrading Symbol(s)Name of each exchange on which registeredCommon Stock, $0.001 par value per shareCTSONasdaq Capital Marketâ€‹Indicate by check mark whether the registrant (1)Â has filed all reports required to be filed by SectionÂ 13 or 15(d)Â of the Securities Exchange Act of 1934 during the preceding 12Â months (or for such shorter period that the registrant was required to file such reports), and (2)Â has been subject to such filing requirements for the past 90Â days. Ã¾Â Â YesÂ â˜Â Â NoIndicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to RuleÂ 405 of Regulation S-T (Â§232.405 of this chapter) during the preceding 12Â months (or for such shorter period that the registrant was required to submit such files). YesÂ Ã¾Â No â˜Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of â€œlarge accelerated filer,â€ â€œaccelerated filer,â€ â€œsmaller reporting company,â€ and â€œemerging growth companyâ€ in RuleÂ 12b-2 of the Exchange Act.â€‹Large accelerated filerâ˜Accelerated filerâ˜Non-accelerated filerâ˜‘Smaller reporting companyâ˜‘â€‹If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to SectionÂ 13(a)Â of the Exchange Act. â˜Indicate by check mark whether the registrant is a shell company (as defined in RuleÂ 12b-2 of the Exchange Act). â˜ÂÂ YesÂ Ã¾Â Â NoAs of August 12, 2024, there were 54,429,617 shares of the issuerâ€™s common stock, $0.001 par value per share (the â€œCommon Stockâ€), outstanding.â€‹â€‹â€‹Table of ContentsCytoSorbents CorporationFORM 10-QTABLE OF CONTENTSâ€‹Â Â Â Â Â PagePART I. FINANCIAL INFORMATIONâ€‹Â â€‹Â Item 1. 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Defaults Upon Senior Securitiesâ€‹40Â â€‹Â Item 4. Mine Safety Disclosuresâ€‹40Â â€‹Â Item 5. Other Informationâ€‹40Â â€‹Â Item 6. Exhibitsâ€‹41â€‹â€‹â€‹Signaturesâ€‹42â€‹This Quarterly Report on Form 10-Q includes our trademarks and trade names, such as â€œCytoSorb,â€ â€œCytoSorb XL,â€ â€œECOS-300CY,â€ â€œBetaSorb,â€ â€œContrastSorb,â€ â€œDrugSorb,â€ â€œHemoDefend-RBC,â€ â€œHemoDefend-BGA,â€ â€œK+ontrolâ€ and â€œVetResQ,â€ which are protected under applicable intellectual property laws and are the property of CytoSorbents Corporation and our subsidiaries. This Quarterly Report on Form 10-Q also contains the trademarks, trade names and service marks of other companies, which are the property of their respective owners. Solely for convenience, trademarks, trade names and service marks referred to in this Quarterly Report on Form 10-Q may appear without the â„¢, Â®, or SM symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks, trade names and service marks. We do not intend our use or display of other partiesâ€™ trademarks, trade names or service marks to imply, and such use or display should not be construed to imply, a relationship with, or endorsement or sponsorship of us by, these other parties.â€‹2 Table of ContentsPARTÂ IÂ â€” FINANCIAL INFORMATIONItemÂ 1. Financial Statements.CYTOSORBENTS CORPORATIONCONSOLIDATED BALANCE SHEETSâ€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹June 30,â€‹â€‹ â€‹â€‹2024â€‹DecemberÂ 31,Â â€‹Â Â Â Â (Unaudited)Â Â Â Â 2023â€‹â€‹â€‹Â Â Â Â â€‹ASSETSâ€‹â€‹Â Â Â â€‹Â Â Current Assets:â€‹â€‹Â Â Â Â â€‹Â Â Cash and cash equivalentsâ€‹$ 8,458,708â€‹$ 14,131,137Grants and accounts receivable, net of allowance of $88,017 as of June 30, 2024 and $49,663 at December 31, 2023â€‹Â 7,822,823â€‹Â 6,057,072Inventoriesâ€‹Â 4,316,752â€‹Â 3,680,129Prepaid expenses and other current assetsâ€‹Â 1,357,017â€‹Â 1,834,485Total current assetsâ€‹Â 21,955,300â€‹Â 25,702,823â€‹â€‹Â â€‹â€‹Â â€‹Property and equipment, netâ€‹Â 9,423,649â€‹Â 10,056,354Restricted cash â€‹â€‹ 6,483,958â€‹â€‹ 1,483,958Right-of-use assetsâ€‹â€‹ 11,789,539â€‹â€‹ 12,058,896Other assetsâ€‹Â 3,774,345â€‹Â 3,958,603Total Assetsâ€‹$ 53,426,791â€‹$ 53,260,634â€‹â€‹Â Â Â â€‹Â Â Â LIABILITIES AND STOCKHOLDERSâ€™ EQUITYâ€‹Â Â Â Â â€‹Â Â Â Current Liabilities:â€‹â€‹Â Â Â Â â€‹Â Â Â Accounts payableâ€‹$ 3,047,038â€‹$ 3,802,170Current maturities of long-term debtâ€‹â€‹ â€”â€‹â€‹ 2,500,000Lease liability â€” current portionâ€‹â€‹ 412,067â€‹â€‹ 373,636Accrued expenses and other current liabilitiesâ€‹Â 6,877,163â€‹Â 7,870,149Total current liabilitiesâ€‹Â 10,336,268â€‹Â 14,545,955Lease liability, net of current portionâ€‹â€‹ 12,680,725â€‹â€‹ 12,896,659Long-term debt â€‹â€‹ 13,673,195â€‹â€‹ 2,542,857Total Liabilitiesâ€‹Â 36,690,188â€‹Â 29,985,471â€‹â€‹Â Â Â â€‹Â Â Â Commitments and Contingencies (NoteÂ 6)â€‹Â â€‹â€‹Â â€‹Stockholdersâ€™ Equity:â€‹Â Â Â Â â€‹Â Â Â Preferred Stock, Par Value $0.001, 5,000,000 shares authorized; no shares issued and outstanding at June 30, 2024 and December 31, 2023â€‹â€‹â€‹â€”â€‹â€‹â€‹â€”Common Stock, Par Value $0.001, 100,000,000 shares authorized; 54,306,415 and 54,240,265 shares issued and outstanding as of June 30, 2024 and December 31, 2023, respectivelyâ€‹Â 54,306â€‹Â 54,240Additional paid-in capitalâ€‹Â 307,514,758â€‹Â 305,196,874Accumulated other comprehensive incomeâ€‹Â 2,173,818â€‹Â 529,321Accumulated deficitâ€‹Â (293,006,279)â€‹Â (282,505,272)Total Stockholdersâ€™ Equityâ€‹Â 16,736,603â€‹Â 23,275,163Total Liabilities and Stockholdersâ€™ Equityâ€‹$ 53,426,791â€‹$ 53,260,634â€‹See accompanying notes to consolidated financial statements.â€‹3 Table of ContentsCYTOSORBENTS CORPORATIONCONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSSâ€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â

(56,702)Net lossÂ â€”â€‹ â€‹â€”â€‹ â€‹â€”â€‹ â€‹â€”â€‹ â€‹ (13,478,967)â€‹ â€‹ (13,478,967)Balance at JuneÂ 30,Â 2023Â 44,193,696â€‹$ 44,193â€‹$ 290,199,035â€‹$ 1,328,313â€‹$ (267,476,845)â€‹$ 24,094,696â€‹See accompanying notes to consolidated financial statements.â€‹5 Table of ContentsCYTOSORBENTS CORPORATIONCONSOLIDATED STATEMENTS OF CASH FLOWSâ€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹ â€‹â€‹â€‹Six monthsâ€‹â€‹Six monthsâ€‹â€‹endedâ€‹endedâ€‹â€‹June 30,â€‹June 30, â€‹â€‹2024â€‹2023 â€‹Â Â Â Â (Unaudited)Â Â Â Â (Unaudited)Cash flows from operating activities:â€‹â€‹â€‹â€‹Â â€‹Â Â Net lossâ€‹$ (10,501,007)â€‹$ (13,478,967)Adjustments to reconcile net loss to net cash used in operating activities:â€‹â€‹â€‹â€‹Â â€‹Accrued final feeâ€‹â€‹ 111,422â€‹â€‹ 21,429Non-cash compensationâ€‹â€‹ 199,096â€‹Â (105,488)Depreciation and amortizationâ€‹â€‹ 797,873â€‹Â 660,589Amortization of right-of-use assetâ€‹â€‹ 91,854â€‹â€‹ 110,881Write off of patent costâ€‹â€‹ 249,642â€‹Â 292,806Bad debt expense (recovery)â€‹â€‹ 29,120â€‹â€‹ 13,384Stock-based compensationâ€‹â€‹ 1,562,792â€‹Â 1,400,516Foreign currency translation (gain) lossâ€‹â€‹ 1,969,916â€‹Â (1,075,656)Changes in operating assets and liabilities:â€‹â€‹â€‹â€‹Â â€‹Grants and accounts receivableâ€‹â€‹ (1,952,413)â€‹Â (1,271,716)Inventoriesâ€‹â€‹ (725,998)â€‹Â 1,449,881Prepaid expenses and other current assetsâ€‹â€‹ 574,181â€‹Â 1,649,776Other assetsâ€‹â€‹ 1,124â€‹Â â€”Accounts payable and accrued expensesâ€‹â€‹ (2,032,014)â€‹Â 291,068Net cash used in operating activitiesâ€‹â€‹ (9,624,412)â€‹Â (10,041,497)â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Cash flows from investing activities:â€‹â€‹â€‹â€‹â€‹Â Â Purchases of property and equipmentâ€‹â€‹ (63,421)â€‹Â (300,221)Payments for patent costsâ€‹â€‹ (183,462)â€‹Â (242,378)Net cash used in investing activitiesâ€‹â€‹ (246,883)â€‹Â (542,599)Cash flows from financing activities:â€‹â€‹â€‹â€‹Â Â Â Proceeds from long-term debtâ€‹â€‹ 15,000,000â€‹â€‹ â€”Repayment of long-term debtâ€‹â€‹ (5,000,000)â€‹Â â€”Payment of final feeâ€‹â€‹ (150,000)â€‹â€‹ â€”Payment of loan costsâ€‹â€‹ (640,375)â€‹Â â€”Equity contributions - net of fees incurredâ€‹â€‹ 53,250â€‹â€‹ 1,418,022Proceeds from exercise of stock optionsâ€‹â€‹â€”â€‹â€‹ 197,379Net cash provided by (used in) financing activitiesâ€‹â€‹ 9,262,875â€‹â€‹ 1,615,401Effect of exchange rates on cashâ€‹â€‹ (64,009)â€‹Â (24,348)Net change in cash, cash equivalents and restricted cashâ€‹â€‹ (672,429)â€‹Â (8,993,043)â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Cash, cash equivalents and restricted cash - beginning ofÂ periodâ€‹â€‹ 15,615,095â€‹Â 23,832,026Cash, cash equivalents and restricted cash - end of periodâ€‹$ 14,942,666â€‹$ 14,838,983â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Supplemental disclosure of cash flow information:â€‹â€‹ â€‹â€‹Â â€‹Cash paid during the period for interestâ€‹$ 537,672â€‹$ 173,334â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Supplemental disclosure of non-cash financing activities:â€‹â€‹â€‹â€‹Â â€‹Warrants issued in connection with long-term debtâ€‹$ 690,709â€‹$â€”Issuance of restricted stock unitsâ€‹$ 11,213â€‹$ 183,655â€‹See accompanying notes to consolidated financial statements.â€‹6 Table of ContentsCytoSorbents CorporationNotes to Consolidated Financial Statements(UNAUDITED)June 30, 20241.Â Â Â Â BASIS OF PRESENTATIONThe interim consolidated financial statements of CytoSorbents Corporation (the â€œCompanyâ€) have been prepared in conformity with accounting principles generally accepted in the United States of America (â€œU.S. GAAPâ€). In the opinion of management, the Company has made all necessary adjustments, which include normal recurring adjustments, for a fair presentation of the Companyâ€™s consolidated financial position and results of operations for the interim periods presented. Certain information and disclosures normally included in the annual consolidated financial statements prepared in accordance with U.S. GAAP have been condensed or omitted. These interim consolidated financial statements should be read in conjunction with the audited consolidated financial statements and accompanying notes for the year ended December 31, 2023, included in the Companyâ€™s Annual Report on Form 10-K, as filed with the Securities and Exchange Commission (the â€œSECâ€) on March 14, 2024. The results for the three and six months ended June 30, 2024 and 2023, are not necessarily indicative of the results to be expected for a full year, any other interim periods or any future year or period.As of June 30, 2024, the Companyâ€™s cash, cash equivalents and restricted cash balances were approximately $14.9 million, including approximately $8.4 million in cash and cash equivalents and approximately $6.5 million in restricted cash, the unrestricted portion of which is not expected to fund the Companyâ€™s operations beyond the next twelve months from the issuance of these consolidated financial statements. This matter raises substantial doubt about the Companyâ€™s ability to continue as a going concern. As a result, the accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company continues to pursue additional milestones related to its recently announced Avenue debt facility that would increase its unrestricted cash position by up to $10 million. If these milestones are not achieved, we will need to raise additional capital to support our ongoing operations in the future. Meanwhile the Company continues to evaluate other traditional and alternative sources of capital, including additional less or non-dilutive debt financing, royalty financing, strategic or direct investments, equity financing, and/or combinations thereof. There can be no assurance that management will be successful in these endeavors.â€‹2.Â Â Â Â PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIESNature of BusinessThe Company is a leader in the treatment of life-threatening conditions in intensive care and cardiac surgery using blood purification. The Company, through its subsidiary CytoSorbents Medical, Inc. (formerly known as CytoSorbents, Inc.), is engaged in the research, development and commercialization of medical devices with its blood purification technology platform which incorporates a proprietary adsorbent, porous polymer technology. The Company, through its wholly-owned European subsidiary, CytoSorbents Europe GmbH, conducts sales and marketing related operations for the CytoSorb device. In March 2016, the Company formed CytoSorbents Switzerland GmbH, a wholly-owned subsidiary of CytoSorbents Europe GmbH. This subsidiary, which began operations during the second quarter of 2016, provides marketing and direct sales services in Switzerland. In November 2018, the Company formed CytoSorbents Poland Sp. z.o.o., a wholly-owned subsidiary of CytoSorbents Europe GmbH. This subsidiary, which began operations during the first quarter of 2019, provides marketing and direct sales services in Poland. In the third quarter of 2019, the Company formed CytoSorbents UK Limited, a wholly-owned subsidiary of CytoSorbents Medical, Inc., which is responsible for the management of the Companyâ€™s clinical trial activities in the United Kingdom. In March 2022, the Company formed CytoSorbents Medical UK Limited to provide marketing and direct sales services in the United Kingdom and the Republic of Ireland, a wholly-owned subsidiary of CytoSorbents Europe, GmbH. In October 2022, the Company formed CytoSorbents France SAS, a wholly-owned subsidiary of CytoSorbents Europe, GmbH, to provide marketing and direct sales services in France. In May 2023, the Company formed CytoSorbents India Private Limited to provide marketing and direct sales services in India. CytoSorb, the Companyâ€™s flagship product, was approved in the European Union (â€œEUâ€) in March 2011 and is currently being marketed and distributed in more than 75 countries around the world, as an effective extracorporeal cytokine absorber, designed to reduce the â€œcytokine stormâ€ or â€œcytokine release syndromeâ€ seen in critical illnesses that may result in massive inflammation, organ failure, and patient death. In May 2018, the Company received a label extension for CytoSorb covering use of the device for the removal of bilirubin and myoglobin which allows for the use of the device in the treatment of liver failure and trauma, respectively. CytoSorb is also being used during and after cardiac surgery to remove inflammatory mediators that can lead to post-operative complications, including multiple organ failure. In January 2020, CytoSorb 7 Table of Contentsreceived EU CE Mark label expansion to include the removal of ticagrelor during cardiopulmonary bypass in patients undergoing cardiothoracic surgery. In May 2020, CytoSorb also received EU CE Mark label expansion to include rivaroxaban removal for the same indication.In April 2020, CytoSorb received United States Food and Drug Administration (â€œFDAâ€) Emergency Use Authorization (â€œEUAâ€) of CytoSorb for use in adult critically ill COVID-19 patients with imminent or confirmed respiratory failure. The CytoSorb device has neither been cleared nor approved for the indication to treat patients with COVID-19 infection. The EUA will be effective until a declaration is made that the circumstances justifying the EUA have terminated or until revoked by the FDA.In April 2020, the Company also announced that the FDA had granted Breakthrough Designation for its DrugSorb-ATR Antithrombotic Removal System for the removal of ticagrelor in a cardiopulmonary bypass circuit during emergent and urgent cardiothoracic surgery. The Breakthrough Devices Program provides for more effective treatment of life-threatening or irreversibly debilitating disease or conditions, in this case the need to reverse the effects of ticagrelor in emergent or urgent cardiac surgery that can otherwise cause a high risk of serious or life-threatening bleeding. Through Breakthrough Designation, the FDA intends to work with CytoSorbents to expedite the development, assessment, and regulatory review of CytoSorbentsâ€™ technology for the removal of ticagrelor, while maintaining statutory standards of regulatory approval (e.g., 510(k), de novo 510(k) or premarket approval) consistent with the FDAâ€™s mission to protect and promote public health. In July 2021, the Company received full approval of its Investigative Device Exemption (â€œIDEâ€) to conduct the pivotal STAR-T (Safe and Timely Antithrombotic Removal â€“ Ticagrelor) double-blind randomized control trial (â€œRCTâ€) for up to 120 patients in the United States to support FDA marketing approval. In July 2023, the Company announced that enrollment in the STAR-T trial has completed, and in August 2023, the Company announced completion of the STAR-T trial, following the last scheduled patient follow-up. In December 2023, the Company announced that the independent Data Safety Monitoring Board (the â€œDSMBâ€) performed a final review of the full unblinded data on all 140 patients in the STAR-T trial and concluded there were no issues with device safety, meeting the primary safety endpoint of the study. The Company has also performed the initial data analysis on the primary effectiveness endpoint of STAR-T trial. Based on this analysis, the study did not meet the primary effectiveness endpoint in the overall patient population that underwent different types of cardiac surgeries. However, the study did demonstrate evidence of reduced bleeding complications, including serious bleeding events, in patients in the pre-specified isolated coronary artery bypass graft (â€œCABGâ€) surgery population, representing more than 90% of the overall study population. The topline results of 140-patient, double-blinded, multicenter, pivotal STAR-T randomized, controlled trial were featured as a late breaking presentation at the 104th Annual Meeting of the American Association for Thoracic Surgery (AATS) held in Toronto, Canada on April 28, 2024. The Company believes the safety and effectiveness data from STAR-T will support the parallel regulatory submission of DrugSorb-ATR to the FDA and Health Canada in the third quarter of 2024.In August 2021, the Company announced that it was granted a second Breakthrough Device designation for its DrugSorb-ATR Antithrombotic Removal System by the FDA. This Breakthrough Device designation covers the removal of the Direct Oral Anticoagulants (DOACs) apixaban and rivaroxaban in a cardiopulmonary bypass circuit to reduce the likelihood of serious perioperative bleeding during urgent cardiothoracic surgery. In October 2021, the Company also received full FDA approval of an IDE application to conduct a double-blind, randomized, controlled clinical study for up to 120 patients entitled, â€œSafe and Timely Antithrombotic Removal â€“ Direct Oral Anticoagulants (STAR-D),â€ in the United States to support FDA marketing approval. The study has been postponed while the Company concentrates its clinical focus on STAR-T.If FDA marketing approval is obtained for either the removal of ticagrelor or direct oral anticoagulants indications, the device will be marketed as DrugSorb-ATR in the United States. The DrugSorb-ATR Antithrombotic Removal System is based on the same polymer technology as CytoSorb. In May 2022, the Company announced that the Company entered into a three-year preferred supplier agreement with Asklepios, making CytoSorb available without restrictions to all of the approximately 170 healthcare facilities across 14 states throughout Germany at which Asklepios operates. This includes Asklepios Klinik St. Georg in Hamburg, Germany, which pioneered the use of CytoSorb to remove antithrombotic drugs during cardiothoracic surgery and is well-known for their seminal publications on CytoSorb use for this application during emergency cardiac surgery in patients at high risk of bleeding.In June 2024, the Company announced the launch and immediate availability of its PuriFiâ„¢ hemoperfusion machine in the EU, following approval and certification under the EU Medical Device Regulation (MDR). Prior to this, beginning in June 2022 the company had a non-exclusive agreement with Nikkiso Europe GmbH (â€œNikkisoâ€) to distribute Nikkisoâ€™s PureADJUST stand-alone 8 Table of Contentshemoperfusion pump and accessories in a total of 14 countries. In September 2023, the distribution agreement with Nikkiso expired, and the Company indicated that it would not seek renewal of the agreement.In August 2022, the Company entered into a Marketing Agreement (the â€œMarketing Agreementâ€) with Fresenius Medical Care Deutschland GmbH (â€œFreseniusâ€), which expands the Companyâ€™s strategic partnership with Fresenius by establishing a multi-stage global collaboration to combat life-threatening diseases in critical care. The Marketing Agreement provides for the combined marketing and promotion of CytoSorb with Freseniusâ€™ critical care products by Freseniusâ€™ marketing organization worldwide, excluding the United States. The Marketing Agreement has an initial term of three years, with an automatic renewal for an additional two years at the end of such initial term, subject to earlier termination by either of the parties (the â€œTermâ€). Compared to the prior co-marketing agreement between the parties, the Marketing Agreement intends to increase the commitments from both parties and to ensure an ongoing and consistent level of marketing and promotional activity specifically focused around CytoSorb, where Fresenius will actively market and promote CytoSorb as the featured blood purification therapy for removal of cytokines, bilirubin, and myoglobin on its critical care platforms. Specifically, the Marketing Agreement provides that various Fresenius-led in-person, virtual, social media, and web-based marketing programs and events will feature the CytoSorb therapy and highlight the cooperation between the two companies in the field of critical care during the Term. To help support the increased marketing and promotional efforts of the expanded collaboration, CytoSorbents has agreed to subsidize a portion of the marketing costs through a royalty payment to Fresenius Medical Care based on CytoSorb sales in the intensive care unit on Fresenius Medical Care platforms, excluding the United States. In addition to strengthening and expanding the global marketing of CytoSorb, the Company and Fresenius also plan to work together to bring new innovative solutions to the market. The Marketing Agreement also includes the certification of compatibility of CytoSorb for usage on Freseniusâ€™ current critical care platforms. The launch of this program is expected to occur in 2024.The technology is based upon biocompatible, highly porous polymer sorbent beads that can actively remove toxic substances from blood and other bodily fluids by pore capture and surface adsorption. The Company has numerous products under development based upon this unique blood purification technology which, as of June 30, 2024, is protected by 22 issued U.S. patents and multiple international patents, with applications pending both in the U.S. and internationally. These patents and patent applications are directed to various compositions and methods of use related to the Companyâ€™s blood purification technologies and are expected to expire between 2024 and 2038, absent any patent term extensions. Management believes that any near-term expiring patents will not have a significant impact on the Companyâ€™s ongoing business.Stock Market ListingOn DecemberÂ 17, 2014, the Companyâ€™s common stock, par value $0.001 per share, was approved for listing on the Nasdaq Capital Market (â€œNasdaqâ€), and it began trading on Nasdaq on DecemberÂ 23, 2014 under the symbol â€œCTSO.â€ Previously, the Companyâ€™s common stock traded in the over-the-counter-market on the OTC Bulletin Board.Basis of Consolidation and Foreign Currency TranslationThe consolidated financial statements include the accounts of CytoSorbents Corporation and its wholly-owned subsidiaries, CytoSorbents Medical, Inc. and CytoSorbents Europe GmbH. In addition, the consolidated financial statements include CytoSorbents Switzerland GmbH, CytoSorbents Poland Sp. z.o.o., CytoSorbents Medical UK Limited and CytoSorbents France SAS, wholly-owned subsidiaries of CytoSorbents Europe GmbH, and CytoSorbents UK Limited and CytoSorbents India Private Limited, wholly-owned subsidiaries of CytoSorbents Medical, Inc. All significant intercompany transactions and balances have been eliminated in consolidation.Translation gains and losses resulting from the process of remeasuring into the United States of America dollar, the foreign currency financial statements of the European subsidiary, for which the United States of America dollar is the functional currency, are included in operations. The Euro is the functional currency of the European Subsidiary. Foreign currency transaction gain (loss) included in net loss amounted to approximately $(544,000) and $415,000 for the three months ended June 30, 2024 and 2023, respectively. Foreign currency transaction gain (loss) included in net loss amounted to approximately $(1,970,000) and $1,076,000 for the six months ended June 30, 2024 and 2023, respectively. The Company translates assets and liabilities of all of its foreign subsidiaries at the exchange rate in effect at the consolidated balance sheet date. The Company translates revenue and expenses at the daily average exchange rates. The Company includes accumulated net translation adjustments in accumulated other comprehensive income (loss) as a component of stockholdersâ€™ equity.9 Table of ContentsCash, Cash Equivalents and Restricted CashThe Company considers all highly liquid investments purchased with an original maturity of threeÂ months or less to be cash equivalents.The following table provides a reconciliation of cash and cash equivalents and restricted cash to amounts shown in the consolidated balance sheets:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Â Â Â Â JuneÂ 30,Â 2024Â Â Â Â DecemberÂ 31,Â 2023Cash and cash equivalentsâ€‹$8,458,708 â€‹$ 14,131,137Restricted cashâ€‹Â 6,483,958â€‹Â 1,483,958Total cash, cash equivalents and restricted cashâ€‹$ 14,942,666â€‹$ 15,615,095â€‹Restricted CashThe Companyâ€™s total restricted cash in the amount of $6,483,958 consists of cash of $5,000,000 which is restricted in accordance with the terms of the debt agreement with Avenue Capital Group (see Note 5), cash of $1,467,458 that the Company is obligated to maintain as collateral for the outstanding letter of credit with Bridge Bank that was provided to the landlord of the College Road facility as security and cash of $16,500 that the Company is obligated to maintain as collateral for the credit limit on the Companyâ€™s credit card accounts.Grants and Accounts ReceivableTrade accounts receivable consist of amounts due from direct customers, distributors and agencies of the U.S. government and are presented at net realizable value. At each balance sheet date, the Company estimates an expected allowance for credit losses inherent in the Companyâ€™s accounts receivable portfolio based on historical experience, specific allowances for known troubled accounts, and other available evidence. In addition, also at each reporting date, this estimate is updated to reflect any changes in credit risk since the receivable was initially recorded. This estimate is calculated on a pooled basis where similar risk characteristics exist. The Company has identified the following portfolio segments: direct customers, distributors/strategic partners and the U.S. government.A fixed reserve percentage for each pool is derived from a review of the Companyâ€™s historical losses in relation to the total pool. This estimate is adjusted quarterly for managementâ€™s assessment of current conditions, reasonable and supportable forecasts regarding future events, and any other factors deemed relevant by the Company. The Company believes historical loss information is a reasonable starting

point in which to calculate the expected allowance for credit losses as the Companyâ€™s portfolio segments have remained constant over the Companyâ€™s historical evaluation period.The Company writes off receivables when there is information that indicates the debtor is facing significant financial difficulty and there is no possibility of recovery. If any recoveries are made from any accounts previously written off, they are recognized as an offset to credit loss expense in the year of recovery. The total amount of write-offs was immaterial to the consolidated financial statements as a whole for the three and six months ended June 30, 2024.The allowance for credit losses reflects accounts receivable balances that are written off when management determines they are uncollectible.The allowance for credit losses is measured on a collective (pool) basis when similar risk characteristics exist, and measures the allowance for credit losses using the following methods:Direct Customersâ€”The Company measures expected credit losses on direct customer receivables using an aging methodology. The risk of loss for direct customer receivables is low based on the Companyâ€™s historical experience. The estimate of expected credit losses considers historical credit loss information that is adjusted for current conditions and supportable forecasts.Distributors/Strategic Partnersâ€”The Company measures expected credit losses on distributor receivables using an individual reserve methodology. The risk of loss in this portfolio is low based on the Companyâ€™s historical experience. The estimate of expected credit losses considers the past payment history of each distributor.10 Table of ContentsU.S. Governmentâ€” These receivables are related to the Companyâ€™s government grants. The Company measures expected credit losses on these receivables using an individual reserve methodology. The risk of loss in this portfolio is very low based on the Companyâ€™s historical experience, as these receivables are supported by approved grant award contracts.InventoriesInventories are valued at the lower of cost or net realizable value under the first in, first out (FIFO) method. At June 30, 2024 and December 31, 2023, the Companyâ€™s inventory was comprised of finished goods, which amounted to $2,459,604 and $2,155,457, respectively; work in process, which amounted to $1,048,360 and $838,871, respectively; and raw materials, which amounted to $808,788 and $685,801, respectively. Devices used in clinical trials or for research and development purposes are removed from inventory and charged to research and development expenses at the time of their use. Donated devices are removed from inventory and charged to selling, general and administrative expenses.Property and EquipmentProperty and equipment are recorded at cost less accumulated depreciation. Depreciation of property and equipment is provided for by the straight-line method over the estimated useful lives of the related assets. Leasehold improvements are amortized over the lesser of their economic useful lives or the term of the related leases. Gains and losses on depreciable assets retired or sold are recognized in the consolidated statements of operations and comprehensive loss in theÂ year of disposal. Repairs and maintenance expenditures are expensed as incurred.PatentsLegal costs incurred to establish and successfully defend patents are capitalized. When patents are issued, capitalized costs are amortized on the straight-line method over the related patent term. In the event a patent is abandoned, the net book value of the patent is written off.Impairment or Disposal of Long-Lived AssetsThe Company assesses the impairment of patents and other long-lived assets under accounting standards for the impairment or disposal of long-lived assets whenever events or changes in circumstances indicate that the carrying value may not be recoverable. For long-lived assets to be held and used, the Company recognizes an impairment loss only if its carrying amount is not recoverable through its undiscounted cash flows and measures the impairment loss based on the difference between the carrying amount and fair value. During the three months ended June 30, 2024 and 2023, the Company recorded impairment charges of approximately $185,000 and $21,000, respectively, and during the six months ended June 30, 2024 and 2023, the Company recorded impairment charges of approximately $250,000 and $293,000, respectively, related to the impairment of certain issued patents and pending patent applications in certain specific jurisdictions and the abandonment of certain pending patent application costs in the ordinary course of business. This charge is included in legal, financial and other consulting in the consolidated statements of operations and comprehensive loss.Revenue RecognitionRevenue is recognized when the Company ships its products to its direct customers and distributors/strategic partners. Revenue is recognized on its grant awards with agencies of U.S. government in accordance with the terms of the award contract. See Note 4 for a description of the types of government contracts. The amount of revenue recognized reflects the consideration the Company expects to be entitled to receive in exchange for the products shipped or the services provided under their grant contracts. To achieve this core principle, the Company applies the following five steps:1.Identify Contracts with Customers - The Companyâ€™s contracts with its direct customers are generally in the form of a purchase order. The Company has formal written contracts with each of its distributors/strategic partners that define their respective territories and minimum purchase commitments which must be met in order to maintain exclusivity in their territory. Distributors/strategic partner customers also submit purchase orders with each order that define the terms of shipment and transaction price. The Company has a contract for each grant award with various agencies of the U.S. government.11 Table of Contents2.Identify Performance Obligations - The performance obligations in contracts with direct customers and distributors/strategic partners are for the shipment of the CytoSorb device and related accessory parts. The performance obligations for government contracts are dependent on the contract type, however, these are generally based on the costs incurred related to each government contract.3.Determine Transaction Price - The price charged is based on the Companyâ€™s price list for the CytoSorb device and related accessory parts for both direct customers and distributor/strategic partners. The Company does not permit returns for product sales. The Company also provides for certain rebates and discounts to direct customers for sales of its product that are earned based upon sales volume. These amounts, which are earned based on calendar year sales volume, are recorded as a reduction of sales as earned. The transaction prices for government contracts are dependent on the type of contract and are outlined in each contract.4.Allocate Transaction Price to Performance Obligations - The transaction price for the performance obligation is based on the purchase orders received for both direct customers and on the type of contract and are outlined in each contract. The transaction prices for government contract performance obligations are dependent on the type of contract and are generally based on costs incurred.5.Recognize Revenue as Performance Obligations are Satisfied - The Company satisfies its performance obligation to direct customers and distributors/strategic partners generally upon shipment of the products. The Company satisfies its performance obligations on government contracts generally upon incurring costs on each contract. The Company records deferred revenue related to fixed price government contracts to the extent that billings exceed costs incurred.Research and Development and Clinical Trial ExpensesAll research and development costs, payments to laboratories and research consultants are expensed when incurred. Advertising ExpensesAdvertising expenses are included in selling, general, and administrative expenses on the consolidated statements of operations and comprehensive loss when incurred. Advertising expenses amounted to approximately $93,000 and $38,000 for the three months ended June 30, 2024 and 2023, respectively, and approximately $138,000 and $93,000 for the six months ended June 30, 2024 and 2023, respectively.Income TaxesIncome taxes are accounted for under the asset and liability method prescribed by accounting standards for accounting for income taxes. Deferred income taxes are recorded for temporary differences between financial statement carrying amounts and the tax basis of assets and liabilities. Deferred tax assets and liabilities reflect the tax rates expected to be in effect for the years in which the differences are expected to reverse. A valuation allowance is provided if it is more likely than not that some or all of the deferred tax asset will not be realized. Under Section 382 of the Internal Revenue Code, the net operating losses generated prior to the previously completed reverse merger may be limited due to the change in ownership. Additionally, net operating losses generated subsequent to the reverse merger may be limited in the event of changes in ownership. In 2017, the Tax Cuts and Jobs Act reduced the U.S. federal corporate tax rate from 35% to 21%.The Company follows accounting standards associated with uncertain tax positions. The Company had no unrecognized tax benefits at June 30, 2024. The Company is accounting for an uncertain tax position of approximately $2.1 million for the year ended December 31, 2023. The Company files tax returns in the U.S. federal and state jurisdictions.The Company utilizes the Technology Business Tax Certificate Transfer Program to sell a portion of its New Jersey Net Operating Loss carryforwards to an industrial company.CytoSorbents Europe GmbH, CytoSorbents Switzerland GmbH, CytoSorbents Poland Sp. z.o.o., CytoSorbents UK Limited, CytoSorbents Medical UK Limited, CytoSorbents India Private Limited and CytoSorbents France SAS file an annual corporate tax return, a VAT return and a trade tax return in Germany, Switzerland, Poland, France, the United Kingdom and India, respectively.12 Table of ContentsUse of EstimatesThe preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets, liabilities at the date of the balance sheet, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates. The valuation of options granted, allowance for credit losses and recoverability of patents are significant estimates in these consolidated financial statements.Concentration of Credit RiskThe Company maintains cash balances, at times, with financial institutions in excess of amounts insured by the Federal Deposit Insurance Corporation (â€œFDICâ€). Beginning in April of 2023, the Company joined the IntraFi network, and established an Insured Cash Sweep (â€œICSâ€) account whereby all cash that was previously held in the Companyâ€™s money market account at Bridge Bank is swept daily in increments of less than $250,000 and deposited in a number of IntraFiâ€™s 4,000 member banks. This arrangement provides FDIC insurance coverage for all of the cash balances previously held in the money market account, which represents all of the cash and cash equivalents held at Bridge Bank. This arrangement excludes the restricted cash balances. Management monitors the soundness of these institutions in an effort to minimize its collection risk of these balances. A significant portion of the Companyâ€™s revenues are from product sales in Germany. Substantially all of the Companyâ€™s grant and other income are from government agencies in the United States. (See Note 4 for further information relating to the Companyâ€™s revenue.)As of June 30, 2024, two distributors accounted for approximately 30% of outstanding grants and accounts receivable. As of December 31, 2023, one distributor accounted for approximately 19% of outstanding grants and accounts receivable. For the three and six months ended June 30, 2024, one distributor accounted for approximately 14% and 12% of the Companyâ€™s total revenue. For the three months and six months ended June 30, 2023, one distributor accounted for approximately 12% and 11%, respectively, of the Companyâ€™s total revenue. Financial InstrumentsThe carrying values of cash and cash equivalents, accounts receivable, accounts payable and accrued expenses and other current liabilities approximate their fair values due to their short-term nature.WarrantsThe Company accounts for warrants as either equity-classified or liability-classified instruments based on an assessment of the warrantâ€™s specific terms and applicable authoritative guidance in ASC 480 â€œDistinguishing Liabilities From Equityâ€ (â€œASC 480â€) and ASC 815 â€œDerivatives and Hedgingâ€ (â€œASC 815â€). The assessment considers whether the warrants are freestanding financial instruments pursuant to ASC 480, meet the definition of a liability pursuant to ASC 480, and whether the warrants meet all of the requirements for equity classification under ASC 815, including whether the warrants are indexed to the Companyâ€™s own ordinary shares and whether the warrant holders could potentially require â€œnet cash settlementâ€ in a circumstance outside of the Companyâ€™s control, among other conditions for equity classification. This assessment, which requires the use of professional judgment, is conducted at the time of warrant issuance and as of each subsequent quarterly period end date while the warrants are outstanding.For issued or modified warrants that meet all of the criteria for equity classification, the warrants are required to be recorded as a component of equity at the time of issuance, and will remain as a component of equity thereafter. For issued or modified warrants that do not meet all the criteria for equity classification, the warrants are required to be recorded as liabilities at their initial fair value on the date of issuance, and each balance sheet date thereafter. Changes in the estimated fair value of the warrants are recognized as a non-cash gain or loss on the statements of operations.The warrants issued upon the closing of the Companyâ€™s December 13, 2023 Offering and the closing of the Companyâ€™s June 2024 debt financing both met the criteria for equity classification under ASC 815. Accordingly, these warrants have been classified as equity as of June 30, 2024 and December 31, 2023.13 Table of ContentsNet Loss Per Common ShareBasic loss per share is computed by dividing loss available to common stockholders by the weighted average number of common shares outstanding during the period. Diluted loss per common share is computed using the treasury stock method utilizing the weighted-average number of shares of common stock plus the dilutive effect of potential common shares outstanding during the period. Dilutive potential common shares include outstanding stock options and restricted shares. The computation of diluted loss per share does not assume conversion, exercise or contingent exercise of securities that would have an anti-dilutive effect on earnings (see Note 8).Stock-Based CompensationThe Company accounts for its stock-based compensation under the recognition requirements of accounting standards for accounting for stock-based compensation, for employees and directors, whereby each option granted is valued at fair market value on the date of grant. Under these accounting standards, the fair value of each option is estimated on the date of grant using the Black-Scholes option pricing model.The Company also follows the guidance of accounting standards for accounting for equity instruments that are issued to other than employees for acquiring, or in conjunction with selling, goods or services for equity instruments issued to consultants.Shipping and Handling CostsThe cost of shipping product to customers and distributors is typically borne by the customer or distributor. The Company records other shipping and handling costs in cost of revenue. Total freight costs amounted to approximately $64,000 and $122,000, respectively, for the three months ended June 30, 2024 and 2023, and $178,000 and $200,000, respectively, for the six months ended June 30, 2024 and 2023.Effect of Recent Accounting PronouncementsIn August 2020, the FASB issued ASU 2020-06, â€œDebt â€“ Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging â€“ Contracts in Entityâ€™s Own Equity (Subtopic 815-40)â€ (â€œASU 2020-06â€). ASU2020-06 simplifies the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts on an entityâ€™s own equity. The ASU is part of the FASBâ€™s simplification initiative, which aims to reduce unnecessary complexity in U.S. GAAP. The ASUâ€™s amendments are effective for fiscal years beginning after December 15, 2024, and interim periods within those fiscal years. The Company adopted the provisions of ASU 2020-06 on January 1, 2024. This did not have a material impact on the Companyâ€™s financial statements.In December 2023, the FASB issued ASU No. 2023-09 entitled â€œIncome Taxes (Topic 740): Improvements to Income Tax Disclosuresâ€. This ASU provides guidance related to additional disclosures that will be required related to income taxes. The updated guidance is effective for public entities for fiscal years beginning after December 15, 2024. This ASU will result in additional disclosures in the Companyâ€™s consolidated financial statements related to income taxes in 2025.In November 2023, the FASB issued ASU No. 2023-07 (â€œASU 2023-07â€), Improvements to Reportable Segment Disclosures. The guidance primarily will require enhanced disclosures about significant segment expenses. All disclosure requirements under ASU 2023-07 and existing segment disclosures in ASC 280, Segment Reporting are also required for public entities with a single reportable segment. The amendments in ASU 2023-07 are effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted. A retrospective approach is required to be applied to all prior periods presented in the financial statements. The Company plans to adopt the provisions of ASU 2023-07 in the fourth quarter of fiscal 2024 and continues to evaluate the disclosure requirements related to the new standard.â€‹14 Table of Contents3.Â Â Â Â STOCKHOLDERSâ€™ EQUITYPreferred StockIn June 2019, the Company amended and restated its certificate of incorporation. The amended and restated certificate of incorporation authorizes the issuance of up to 5,000,000 shares of â€œblank checkâ€ preferred stock, with such designation rights and preferences as may be determined from time to time by the Board of Directors.Common StockIn June 2019, the Company amended and restated its certificate of incorporation. The amended and restated certificate of incorporation increased the number of shares of common stock authorized for issuance from 50,000,000 shares to 100,000,000 shares. Shelf RegistrationOn July 14, 2021, the Company filed a registration statement on Form S-3 with the SEC, which was amended on July 20, 2021 and declared effective by the SEC on July 27, 2021 (as amended, the â€œ2021 Shelfâ€). The 2021 Shelf enables the Company to offer and sell, in one or more offerings, any combination of common stock, preferred stock, senior or subordinated debt securities, warrants and units, up to a total dollar amount of $150 million and expires after three years. On July 26, 2024, the Company filed a registration statement on Form S-3 with the SEC (the â€œ2024 Shelfâ€), which enables the Company to offer and sell in one or more offerings, any combination of common stock, preferred stock, senior or subordinated debt securities, warrants and units, up to a total dollar amount of $150 million. The SEC has not yet declared the 2024 Shelf to be effective, however, the Company continues to be able to utilize the 2021 Shelf to offer securities. Because of the Companyâ€™s market capitalization is less than $75 million, it will be subject to baby shelf rules which limit the amount of securities sales the Company can make to one-third of its public market float over a 12-month period.Open Market Sale Agreement with Jefferies LLCOn December 30, 2021, the Company entered into an Open Market Sale Agreement (the â€œSale Agreementâ€) with Jefferies LLC (the â€œAgentâ€), pursuant to which the Company may sell, from time to time, at its option, shares of the Companyâ€™s common stock having an aggregate offering price of up to $25 million through the Agent, as the Companyâ€™s sales agent. All shares of the Companyâ€™s common stock offered and sold, or to be offered and sold under the Sale Agreement will be issued and sold pursuant to the Companyâ€™s 2021 Shelf by methods deemed to be an â€œat the market offeringâ€ as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended, in block transactions or if specified by the Company, in privately negotiated transactions.Subject to the terms of the Sales Agreement, the Agent is required to use its commercially reasonable efforts consistent with their normal sales and trading practices to sell the shares of the Companyâ€™s common stock from time to time, based upon the Companyâ€™s instructions (including any price, time or size limits or other customary parameters or conditions the Company may impose). The Company is required to pay the Agent a commission of up to 3.0% of the gross proceeds from the sale of the shares of the Companyâ€™s common stock sold thereunder, if any. There were no sales under the Sale Agreement during the year ended December 31, 2022. During the year ended

December 31, 2023, the Company sold 2,656,464 shares pursuant to the Sale Agreement, at an average selling price of $1.76 per share, generating net proceeds of approximately $4,532,000. In addition, during the year ended December 31, 2023, the Company paid approximately $61,000 in expenses related to the Sale Agreement. During the six months ended June 30, 2024, the Company sold 53,290 shares pursuant to the Sales Agreement at an average selling price of $1.03 per share, generating net proceeds of approximately $53,000.Stock-Based CompensationTotal share-based employee, director, and consultant compensation amounted to approximately $829,000 and $1,563,000 for the three and six months ended June 30, 2024, respectively, and approximately $570,000 and $1,401,000 for the three and six months ended June 30, 2023, respectively. These amounts are included in the consolidated statements of operations and comprehensive loss under selling, general, and administrative expenses.15 Table of ContentsThe summary of the stock option activity for the six months ended June 30, 2024 is as follows:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹ â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Weightedâ€‹Average â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Averageâ€‹Remainingâ€‹â€‹â€‹â€‹Exercise Priceâ€‹Contractual â€‹Â Â Â Â SharesÂ Â Â Â perÂ ShareÂ Â Â Â LifeÂ (Years)Outstanding, DecemberÂ 31,Â 2023Â 10,548,174â€‹$ 4.49 â€‹ 7.01GrantedÂ 3,378,366â€‹$ 0.95Â â€”ForfeitedÂ (906,166)â€‹$ 2.78Â â€”ExpiredÂ (545,536)â€‹$ 5.31Â â€”ExercisedÂ â€”â€‹$â€”Â â€”Outstanding, JuneÂ 30,Â 2024Â 12,474,838â€‹$ 3.62Â 7.40â€‹The fair value of each stock option was estimated using the Black Scholes pricing model, which takes into account as of the grant date the exercise price (ranging from $0.84 to $0.99 per share) and expected life of the stock option (6Â years), the current price of the underlying stock and its expected volatility (76.6%), expected dividends (0)% on the stock and the risk free interest rate (ranging from 3.86% to 4.65%) for the expected term of the stock option.The intrinsic value is calculated as the difference between the market value of the shares as of June 30, 2024 of $0.703 and the exercise price of the shares.â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Options Outstanding â€‹â€‹Numberâ€‹Weightedâ€‹Weightedâ€‹â€‹â€‹Range ofâ€‹Outstanding atâ€‹Averageâ€‹Averageâ€‹AggregateExerciseâ€‹JuneÂ 30,Â â€‹Exerciseâ€‹Remainingâ€‹IntrinsicPriceÂ Â Â Â 2024Â Â Â Â PriceÂ Â Â Â Life (Years)Â Â Â Â Value$0.84 - $13.20Â 12,474,838â€‹$3.62 â€‹7.4â€‹$ â€”â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Options ExercisableNumberâ€‹Weightedâ€‹Â Â Exercisable atâ€‹Averageâ€‹AggregateJuneÂ 30,Â â€‹Exerciseâ€‹Intrinsic2024Â Â Â Â PriceÂ Â Â Â Value5,385,858â€‹$ 5.91â€‹$ â€”â€‹The summary of the status of the Companyâ€™s non-vested options for the six months ended June 30, 2024 is as follows:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹ â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Weighted â€‹â€‹â€‹â€‹â€‹Average â€‹â€‹â€‹â€‹â€‹GrantÂ Dateâ€‹Â Â Â Â SharesÂ Â Â Â FairÂ Value â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Non-vested, DecemberÂ 31,Â 2023Â 5,205,736â€‹$ 1.89GrantedÂ 3,378,366â€‹$ 0.67ForfeitedÂ (906,166)â€‹$ 1.88VestedÂ (588,956)â€‹$ 2.73Non-vested, JuneÂ 30,Â 2024Â 7,088,980â€‹$ 0.99â€‹As of June 30, 2024, the Company had approximately $4,419,000 of total unrecognized compensation cost related to stock options which will be amortized over approximately 36 months.On March 29, 2024, the Board of Directors granted options to purchase 380,480 shares of common stock to certain executive officers and certain other non-executive officer employees related to the Companyâ€™s salary reduction for stock options program. These options will vest in full on January 31, 2025. The grant date fair value of these unvested options amounted to approximately $249,000.16 Table of ContentsOn April 2, 2024, the Board of Directors granted options to purchase 1,214,400 shares of common stock to the Companyâ€™s employees which will be awarded based upon each employeeâ€™s 2024 individual performance evaluation. Once awarded, these options will vest one half on the first anniversary of the grant date, one quarter on the second anniversary of the grant date, and one quarter on the third anniversary of the grant date. The grant date fair value of these unvested options amounted to approximately $830,000.On April 2, 2024, the Board of Directors granted options to purchase 922,147 shares of common stock to certain of the Companyâ€™s employees. These options will vest in full on the first anniversary of the grant date. The grant date fair value of these unvested options amounted to approximately $594,000.On April 2, 2024, the Board of Directors granted options to purchase 110,000 shares of common stock to members of the Companyâ€™s Board of Directors. These options will vest in full on the first anniversary of the grant date. The grant date fair value of these unvested options amounted to approximately $71,000.On April 2, 2024, the Board of Directors granted options to purchase 556,000 shares of common stock to certain senior managers of the Company. These options will vest one half on the first anniversary of the grant date, one quarter on second anniversary of the grant date, one quarter on third anniversary of the grant date. The grant date fair value of these unvested options amounted to approximately $380,000. On April 8, 2024, the Board of Directors granted options to purchase 131,339 shares of common stock employees related to the Companyâ€™s salary reduction for stock options program. The grant date fair value of these unvested options amounted to approximately $85,000. These options will vest in full on January 31, 2025. During the six months ended June 30, 2024, 64,000 options were awarded to newly hired employees and consultants in connection with their employment or consulting agreements.Change in Control-Based Awards of Restricted Stock Units:The Board of Directors has granted restricted stock units to members of the Board of Directors, to the Companyâ€™s executive officers, and to employees of the Company. These restricted stock units will only vest upon a Change in Control of the Company, as defined in the Amended and Restated CytoSorbents Corporation 2014 Long-Term Incentive Plan. The following table is a summary of these restricted stock units:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹

December 31, 2023, respectively, and deferred grant revenue related to the billing on fixed price contracts in excess of costs incurred, which amounted to $1,096,163 and $1,376,819 at June 30, 2024 and December 31, 2023, respectively.5.Â Â Â Â LONG-TERM DEBT, NETAvenue Capital Group:On June 28, 2024 (the â€œClosing Dateâ€), the Company entered into a Loan and Security Agreement (as amended, supplemented, restated or otherwise modified as of the date hereof and from time to time, the â€œLoan and Security Agreementâ€) with Avenue Venture Opportunities Fund, L.P., a Delaware limited partnership (â€œAvenueâ€), Avenue Venture Opportunities Fund II, L.P., a Delaware limited partnership (â€œAvenue 2â€ and, together with Avenue, the â€œLendersâ€), and Avenue Capital Management II, L.P., a Delaware limited partnership (the â€œAdministrative and Collateral Agentâ€).Under the Loan and Security Agreement, the Lenders have agreed to loan to the Company up to an aggregate of $20 million, to be disbursed in two tranches: (1) one tranche of $15 million (â€œGrowth Capital Loan Tranche 1â€) on the Closing Date, with $4.5 million funded by Avenue and $10.5 million funded by Avenue 2, of which $10 million is available to the Company on the Closing Date and $5 million constitutes restricted cash subject to release to the Company prior to March 31, 2025, provided (i) the FDA has accepted Companyâ€™s application for review with respect to DrugSorb-ATR De Novo 510(k) and (ii) the Company has received a minimum of $3 million in net proceeds from the sale of its equity securities after the Closing Date. The restriction will be released on a dollar for dollar 21 Table of Contentsbasis for equity raised between $3 million and $5 million and (2) a second tranche of up to $5 million, which may be disbursed at the Companyâ€™s request between July 1, 2025 and December 31, 2025, provided that the Company receives FDA marketing approval of its DrugSorb-ATR application (â€œGrowth Capital Loan Tranche 2â€ and together with Growth Capital Loan Tranche 1, the â€œGrowth Capital Loansâ€ or the â€œCommitmentâ€). The proceeds from the Commitment were used to pay off the existing outstanding debt with Bridge Bank, and will additionally be used for working capital purposes and to fund general business requirements in accordance with the terms of the Loan and Security Agreement. Each Growth Capital Loan shall bear interest at a variable rate per annum equal to the greater of (A) the Prime Rate (as defined in the Loan and Security Agreement) plus five percent (5.00%) or (B) thirteen and one-half percent (13.50%).Commencing on August 1, 2024, the Company shall make monthly payments during the term of each Growth Capital Loan of interest only during the initial 25-month period following the Closing Date (as may be extended to the 30 months anniversary of the Closing Date upon satisfaction of certain conditions) and thereafter to maturity in equal monthly installments of principal plus accrued and unpaid interest. All unpaid principal and accrued and unpaid interest shall be due and payable in full on July 1, 2027; provided, however that if the Company draws the full amount of Growth Capital Loan Tranche 2 by December 2025, all unpaid principal and accrued and unpaid interest shall be due and payable in full by January 1, 2028. In addition, the Loan and Security Agreement required the Company to pay a non-refundable commitment fee equal to 1.00% of the Commitment due and payable on the Closing Date. In addition to the non-refundable commitment fee, the Company also paid financial advisor fees and legal fees of approximately $640,000 related to the Commitment. These costs are being amortized over the loan period as a charge to interest expense. During the three and six months ended June 30, 2024, the Company recorded interest expense of approximately $2,000 related to these costs. In addition, the Loan and Security Agreement requires the Company to pay a non-refundable final payment equal to 4.5% of the original commitment amount. This final payment has been accrued and included as part of the debt discount. This discount will be charged to interest expense over the term of the loan. For the three and six months ended June 30, 2024, the Company recorded interest expense of approximately $2,500 related to the debt discount.The Capital Growth Loans are evidenced by secured promissory notes issued to the Lenders by the Company. If the Company elects to prepay the Growth Capital Loan(s) pursuant to the terms of the Loan and Security Agreement, it will owe a prepayment fee to the Lenders, as follows: (1) for a prepayment made on or after the funding date of a Growth Capital Loan through and including the first anniversary of such funding date, an amount equal to 3.00% of the principal amount of such Growth Capital Loan prepaid; (2) for a prepayment made after the first anniversary of the funding date of a Growth Capital Loan through and including the second anniversary of such funding date, an amount equal to 2.00% of the principal amount of such Growth Capital Loan prepaid; and (3) for a prepayment made any time after the second anniversary of the funding date of a Growth Capital Loan, an amount equal to 1.00% of the principal amount of such Growth Capital Loan prepaid. Events of default which may cause repayment of the Commitment to be accelerated include, among other customary events of default, (1) non-payment of any obligation when due, (2) the failure to perform any obligation required under the Loan and Security Agreement and to cure such default within a reasonable time frame, (3) the occurrence of any circumstance that has a Material Adverse Effect (as defined in the Loan and Security Agreement), (4) default beyond any applicable grace period or cure under any other agreement involving the borrowing of money in excess of the Threshold Amount (as defined in the Loan and Security Agreement), (5) any judgment(s) singly or in the aggregate in excess of the Threshold Amount entered against the Company that remain unsatisfied, unvacated or unstayed for 15 days or more after entry thereof (to the extent not otherwise covered by independent third-party insurance), and (6) if the Company becomes insolvent or starts an insolvency proceeding or if an insolvency proceeding is brought by a third party against the Company and such proceeding is not dismissed or stayed within 45 days. The Loan and Security Agreement includes customary loan conditions, company representations and warranties, company affirmative covenants and company negative covenants for secured transactions of this type. As of June 30, 2024, the Company was in compliance with these covenants. As additional consideration for the Commitment, on June 28, 2024, the Company also issued each Lender a warrant instrument (each, a â€œWarrantâ€) entitling the Lenders to purchase an aggregate of 1,645,569 shares of the Companyâ€™s common stock for cash at the exercise price of $0.79 and expire on June 28, 2029. The number of warrants is fixed, however, the exercise price may be adjusted down if the Company raises equity (excluding sales of equity utilizing the Companyâ€™s at-the-market equity facility) at a share price that is lower than $0.79. These warrants meet the criteria for equity classification under ASC 815. Accordingly, the Company has recorded a debt discount and additional paid in capital of approximately $690,000 related to these warrants as of June 30, 2024. This discount will be charged to interest expense over the term of the loan.22 Table of ContentsThe Lenders were also granted the right while the Commitment is outstanding to convert up to an aggregate amount of $2,000,000 of the principal amount of the outstanding Growth Capital Loans into the Companyâ€™s common stock at a fixed conversion price of 120% of the Closing Price (as defined in the warrant) or $0.95 per share (the â€œConversion Optionâ€).The Companyâ€™s and CytoSorbents Medicalâ€™s obligations under the Loan and Security Agreement are joint and several. The obligations under the Loan and Security Agreement are secured by a first priority security interest in favor of the Lenders with respect to the Companyâ€™s Shares (as defined in the Loan and Security Agreement) and the Companyâ€™s Collateral (as defined in the Loan and Security Agreement), which includes the Companyâ€™s intellectual property, pursuant to that certain Intellectual Property Security Agreement, dated as of June 28, 2024, by and between the Company and the Administrative and Collateral Agent.â€‹Long-term debt consists of the following as of June 30, 2024:â€‹â€‹â€‹â€‹â€‹Principal amountÂ Â Â Â $ 15,000,000Accrued final feeâ€‹Â 900,000Less unamortized debt discountâ€‹â€‹ (1,588,209)Less unamortized debt acquisition costsâ€‹â€‹ (638,596)Subtotalâ€‹Â 13,673,195Less Current maturitiesâ€‹Â â€”Long-term debt net of current maturitiesâ€‹ $ 13,673,195â€‹Principal payments of long-term debt are due as follows during the periods ending June 30:â€‹â€‹â€‹â€‹â€‹â€‹2025Â Â Â Â $ â€”2026Â Â Â Â â€‹ â€”2027â€‹Â 13,750,0002028â€‹â€‹ 1,250,000Totalâ€‹ $ 15,000,000â€‹Bridge Bank: â€‹On June 28, 2024, concurrent with the closing of the Avenue financing discussed above, the Company paid off its existing outstanding debt with Bridge Bank. The following items survive the termination of the Bridge Bank Amended and Restated Loan and Security Agreement and related amendments:â€‹2018 Success Fee Letter:Pursuant to the amended 2018 Letter, the Borrower shall pay to the Bank a success fee in the amount equal to 6.37% of the funded amount of the Term B Loan (as defined in the Restated Loan and Security Agreement) (the â€œSuccess Feeâ€) upon the first occurrence of any of the following events: (a) a sale or other disposition by the Borrower of all or substantially all of its assets; (b) a merger or consolidation of the Borrower into or with another person or entity, where the holders of the Borrowerâ€™s outstanding voting equity securities as of immediately prior to such merger or consolidation hold less than a majority of the issued and outstanding voting equity securities of the successor or surviving person or entity as of immediately following the consummation of such merger or consolidation; (c) a transaction or a series of related transactions in which any â€œpersonâ€ or â€œgroupâ€ (within the meaning of Section 13(d) and 14(d)(2) of the Securities Exchange Act of 1934, as amended (the â€œExchange Actâ€) becomes the â€œbeneficial ownerâ€ (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of a sufficient number of shares of all classes of stock then outstanding of the Borrower ordinarily entitled to vote in the election of directors, empowering such â€œpersonâ€ or â€œgroupâ€ to elect a majority of the Board of Directors of the Borrower, who did not have such power before such transaction; or (d) the closing price per share for the Companyâ€™s common stock on the Nasdaq Capital Market being the greater of (i) 70% or more over $7.05, the closing price of the Companyâ€™s common stock on March 29, 2018 (after giving effect to any stock splits or consolidations effected after the date thereof) for five successive business days, or (ii) at least 26.13% more than the average price of Companyâ€™s common stock for the 365-day period ending on the date of the funding of the Term B Loan. This obligation terminated on the fifth anniversary of the funding of the Term B Loan which was July 31, 2024.23 Table of Contents2022 Success Fee Letter:Pursuant to the 2022 Success Fee Letter, the Borrower will pay to the Bank a success fee equal to (i) 1% of $5 million if the Company draws down the first tranche of the Term C Loan and is payable only if the Companyâ€™s stock price equals or exceeds $8 for five consecutive trading days; (ii) 1.5% of $5 million if the Company draws down the second tranche of the Term C Loan and is payable only if the Companyâ€™s stock price equals or exceeds $10 for five consecutive trading days; and (iii) 2% of $5,000,000 if the Company draws down the third tranche of the Term C Loan and is payable only if the Companyâ€™s stock price equals or exceeds $12 for five consecutive trading days (together, the â€œSuccess Feeâ€). As of June 28, 2024, the Company had drawn down only the first tranche of the Term C Loan. Borrower may pay the Success Fee in cash or in shares of common stock, at Borrowerâ€™s sole discretion. The right of Bank to receive the Success Fees and the obligation of the Borrower to pay the Success Fees hereunder shall terminate on the date that is the fifth anniversary of the funding date of the last Term C Loans made but shall survive the termination of the Loan Agreement and any prepayment of the Term C Loans. The termination date of this Letter is December 27, 2027.â€‹â€‹6.Â Â Â Â COMMITMENTS AND CONTINGENCIESEmployment AgreementsOn JulyÂ 30, 2019, CytoSorbents Corporation entered into amended and restated executive employment agreements with its principal executives, Dr.Â Phillip P. Chan, Chief Executive Officer, Vincent Capponi, President and Chief Operating Officer, and Kathleen P. Bloch, the Companyâ€™s former Chief Financial Officer. Each of the agreements has an initial term of threeÂ years and was retroactively effective as of JanuaryÂ 1, 2019. On April 12, 2020, CytoSorbents Corporation entered into an executive employment agreement with Dr. Efthymios Deliargyris, who began employment as Chief Medical Officer on May 1, 2020, with an initial term that expired on December 31, 2021. After the expiration of the initial terms, the employment agreements will automatically renew for additional terms of oneÂ year unless either party provides written notice of non-renewal at least 60 days prior to a renewal. In January 2024, these employment agreements automatically renewed for an additional one year.The foregoing employment agreements each provide for base salary and other customary benefits which include participation in group insurance plans, paid time off and reimbursement of certain business-related expenses, including travel and continuing educational expenses, as well as bonus and/or equity awards at the discretion of the Board of Directors. In addition, the agreements provide for certain termination benefits in the event of termination without â€œCauseâ€ or voluntary termination of employment for â€œGood Reasonâ€, as defined in each agreement. The agreements also provide for certain benefits in the event of a â€œChange of Controlâ€ of the Company, as defined in each agreement.Effective March 31, 2023, Ms. Bloch retired from her role as Chief Financial Officer of the Company. Ms. Blochâ€™s employment agreement expired on March 31, 2023, upon her retirement from the Company. In connection with Ms. Blochâ€™s retirement, the Company and Ms. Bloch entered into a Consulting Agreement, dated as of March 31, 2023 (the â€œConsulting Agreementâ€), pursuant to which Ms. Bloch served as a consultant to the Company and as the Companyâ€™s Interim Chief Financial Officer. On September 18, 2023, the Company entered into a new Employment Agreement with Ms. Kathleen P. Bloch pursuant to which Ms. Bloch will continue to serve as the Companyâ€™s Chief Financial Officer. Ms. Blochâ€™s service under the Employment Agreement has replaced and terminated the Consulting Agreement disclosed above. The Employment Agreement provides for base salary and other customary benefits which include participation in group insurance plans, paid time off and reimbursement of certain business-related expenses, including travel and continuing educational expenses, as well as bonus and/or equity awards at the discretion of the Board of Directors. In addition, the agreement provides for certain termination benefits in the event of termination without â€œCauseâ€ or voluntary termination of employment for â€œGood Reasonâ€, as defined in each agreement. Unless terminated sooner by either the Company or Ms. Bloch, the Employment Agreement will remain in effect until December 31, 2025, and thereafter, as mutually agreed between the Company and Ms. Bloch.24 Table of ContentsLitigationThe Company is, from time to time, subject to claims and litigation arising in the ordinary course of business. The Company intends to defend vigorously against any future claims and litigation.On March 5, 2024, Danielle Greene, a former employee, filed a complaint against us in the Superior Court of New Jersey, Law Division, Mercer County, alleging breach of the New Jersey Conscientious Employee Protection Act (â€œCEPAâ€). The complaint specifically alleges that we violated the provisions of the CEPA by allegedly terminating Ms. Greene in retaliation for complaining about certain business practices. We dispute these allegations and intend to vigorously defend against them, but there can be no assurance as to the outcome of the litigation.Royalty AgreementsPursuant to an agreement dated August 11, 2003, an existing investor agreed to make a $4 million equity investment in the Company. These amounts were received by the Company in 2003. In connection with this agreement the Company granted the investor a perpetual royalty of 3% on all gross revenues received by the Company from the sale of its CytoSorb device which such rights were assigned to an existing investor in 2017. For the three months ended June 30, 2024 and 2023, the Company recorded royalty expenses of approximately $264,000 and $240,000, respectively. For the six months ended June 30, 2024 and 2023, the Company recorded royalty expenses of approximately $531,000 and $474,000, respectively. These expenses are included in selling, general and administrative expenses in the consolidated statements of operations and comprehensive loss.On August 1, 2022, the Company entered into the Marketing Agreement with Fresenius, which expands the Companyâ€™s strategic partnership with Fresenius by establishing a multi-stage global collaboration to combat life-threatening diseases in critical care. The Marketing Agreement has an initial term of three years, with an automatic renewal for an additional two years at the end of such initial term, subject to earlier termination by either of the parties (the â€œTermâ€). To help support the increased marketing and promotional efforts of the expanded collaboration, the Company has agreed to subsidize a portion of the marketing costs through royalty payments to Fresenius. Initially, the Marketing Agreement provides for royalty payments equal to 0.9% of the Companyâ€™s net sales of CytoSorb products made during the Term (excluding net sales in the United States). This initial royalty rate was determined based on certain assumptions regarding the percentage of the Companyâ€™s sale of CytoSorb products that are used with the Fresenius critical care platforms in the intensive care unit outside of the United States but is subject to adjustment if the Company determines that the underlying assumptions have changed significantly. For the three and six months ended June 30, 2024 and 2023, the Company did not record any expense related to this agreement. The launch of this program is expected to occur in 2024.License AgreementIn an agreement dated September 1, 2006, the Company entered into a license agreement which provides the Company the exclusive right to use its patented technology and proprietary know-how relating to adsorbent polymers for a period of 18 years. Under the terms of the agreement, the Company has agreed to pay license fees of 2.5% to 5% on the sale of certain of its products if and when those products are sold commercially for a term not greater than 18 years commencing with the first sale of such product. For the three months ended June 30, 2024 and 2023 per the terms of the license agreement, the Company recorded licensing expenses of approximately $352,000 and $320,000, respectively. For the six months ended June 30, 2024 and 2023 per the terms of the license agreement, the Company recorded licensing expenses of approximately $709,000 and $632,000, respectively. These expenses are included in selling, general and administrative expenses in the consolidated statements of operations and comprehensive loss.â€‹25 Table of Contents7.Â Â Â Â LEASESThe Company leases its operating facilities in both the United States and Germany under operating lease agreements. In March 2021, CytoSorbents Medical Inc. entered into a lease agreement for a new operating facility at 305 College Road East, Princeton, New Jersey, which contains office, laboratory, manufacturing and warehouse space. The lease commenced on June 1, 2021. The Early Term commenced on June 1, 2021 and lasted until September 30, 2021. The lease also contains two five-year renewal options; however, the Company has determined that it is not likely that they will exercise these options. Commencing on September 30, 2021, the remaining lease term will last for 15.5 years. The lease requires monthly rental payments of $25,208 for the Initial Early Term, $88,254 for the Early Term and initial monthly payments of approximately $111,171 in the first year of the remaining term. Following the first year of the remaining term, the annual base rent will increase by approximately 2.75% annually over the remaining term. The lease also contains six months of rent abatement (months 1, 2, 3, 25, 26 and 27 of the remaining lease term). In addition to the base rent, payments of operating expenses and real estate taxes will be required. These payments are to be based on actual amounts incurred during 2021 multiplied by the Companyâ€™s share of the total building space (92.3%). The landlord will also provide an allowance of approximately $1,455,000 related to certain building improvements as outlined in the lease. In April 2021, the Company provided the landlord with a letter of credit in the amount of approximately $1,467,000 as security. The Company has determined that this lease should be treated as an operating lease in accordance with the provisions of Accounting Standards Codification (â€œASCâ€) 842. On April 1, 2021, the Company recorded a Right-of-Use asset and related lease liability of approximately $11.6 million, which represents the estimated present

value of the lease payments at the commencement date discounted at the Companyâ€™s incremental borrowing rate of 9.8%. In addition, due to the six months of rent abatement and annual base rent escalations during the remaining lease term that commenced on September 30, 2021, the Company will recognize rent expense on this lease on a straight-line basis over the remaining term of the lease for the difference between the rent expense recognized and the required payments under the lease.In September 2021, the Company extended its two operating leases for its office facility in Germany. These leases require combined base rent payments amounting to approximately $12,100 perÂ month. The initial lease term of both leases ends AugustÂ 31, 2026. In addition, the Company is obligated toÂ monthly operating expenses of approximately $3,000 perÂ month. Both leases have a five-year option to renew that would extend the lease term to AugustÂ 31, 2031. There are no provisions in the leases to increase the base rent during the renewal period. There were no lease incentives and no initial direct costs were incurred related to these leases.In January 2021, CytoSorbents Europe GmbH entered into a lease for 1,068 square meters of additional warehouse space. The lease commenced on April 1, 2021 and requires monthly payments of base rent of $7,784 and other costs of approximately $239 and has a term of five years. The lease also has an option to extend the lease term for an additional five-year period through March 31, 2031. The Company has determined that this lease should be treated as an operating lease in accordance with the provisions of ASC 842. On April 1, 2020, the Company recorded a Right-of-Use asset and related lease liability at the estimated present value of the lease payments at the commencement date of approximately $594,000.Right-Of-Use Asset and Lease LiabilityThe Companyâ€™s consolidated balance sheets reflect the value of the right-of-use asset and related lease liability. This value was calculated based on the present value of the remaining base rent lease payments. The remaining lease payments include the renewal periods for both of the facilities in Germany and do not include the renewal periods for the United States facility. The discount rate used was the Companyâ€™s incremental borrowing rate, which is 9.8%, as the Company could not determine the rate implicit in the lease. As a result, the value of the right-of- use asset and related lease liability is as follows:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹ â€‹â€‹JuneÂ 30,Â â€‹DecemberÂ 31,Â â€‹Â Â Â Â Â 2024Â Â Â Â Â 2023Right-of-use assetâ€‹$ 11,789,539â€‹$ 12,058,896â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Total lease liabilityâ€‹$ 13,092,792â€‹$ 13,270,295Less current portionâ€‹Â (412,067)â€‹ â€‹ (373,636)Lease liability, net of current portionâ€‹$ 12,680,725â€‹$ 12,896,659â€‹26 Table of ContentsThe maturities of the lease liabilities are as follows for the periods ending June 30:â€‹â€‹â€‹â€‹2025Â Â Â Â $ 1,676,0442026â€‹Â 1,715,5752027â€‹Â 1,756,1932028â€‹Â 1,797,9272029â€‹Â 1,840,810Thereafterâ€‹Â 14,487,274Total lease paymentsâ€‹â€‹ 23,273,823Present value discountâ€‹â€‹ (10,181,031)Totalâ€‹$ 13,092,792â€‹For the threeÂ months ended June 30, 2024 and 2023, operating cash flows paid in connection with operating leases amounted to approximately $566,000 and $466,000, respectively, and $1,137,000 and $1,099,000 ,respectively, for the six months ended June 30, 2024 and 2023, respectively.As of June 30, 2024 and DecemberÂ 31, 2023, the weighted average remaining lease term was years 11.9 and 12.7 years, respectively.8.Â Â Â Â NET LOSS PER SHAREBasic loss per share and diluted loss per share for the threeÂ and six months ended June 30, 2024 and 2023 have been computed by dividing the net loss for each respective period by the weighted average number of shares outstanding during that period.All outstanding warrants, options and restricted stock awards representing approximately 20,266,000 and 11,904,000 incremental shares at June 30, 2024 and 2023, respectively, have been excluded from the computation of diluted loss per share as they are anti-dilutive.â€‹â€‹27 Table of ContentsItem 2. Managementâ€™s Discussion and Analysis of Financial Condition and Results of Operations.Cautionary Notes Regarding Forward Looking StatementsThis Quarterly report on Form 10-Q includes â€œforward-looking statementsâ€ within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, but are not limited to, statements about our plans, objectives, representations and contentions and our expectations of the effects of the COVID-19 pandemic and are not historical facts and typically are identified by use of terms such as â€œmay,â€ â€œshould,â€ â€œcould,â€ â€œexpect,â€ â€œplan,â€ â€œanticipate,â€ â€œbelieve,â€ â€œestimate,â€ â€œpredict,â€ â€œpotential,â€ â€œcontinueâ€ and similar words, although some forward-looking statements are expressed differently. You should be aware that the forward-looking statements included herein represent managementâ€™s current judgment and expectations, but our actual results, events and performance could differ materially from those in the forward-looking statements. Factors which could cause or contribute to such differences include, but are not limited to, the risks discussed in our Annual Report on Form 10-K, as updated by any risks reported in our Quarterly Reports on Form 10-Q and in the press releases and other communications to stockholders issued by us from time to time which attempt to advise interested parties of the risks and factors which may affect our business. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise, other than as required under the Federal securities laws.OverviewWe are a leader in the treatment of life-threatening conditions in the intensive care (â€œICUâ€) and cardiac surgery using blood purification via our proprietary polymer adsorption technology. We have a number of products commercialized and in development based on this technology platform. Our flagship product, CytoSorbÂ®, is already commercialized, and is being used to reduce deadly uncontrolled inflammation and dangerous substances in hospitalized patients around the world, with the goal of preventing or treating multiple organ failure, bleeding, and other potentially fatal complications. Organ failure is the cause of nearly half of all deaths in the ICU, with little to improve clinical outcome. CytoSorb is approved in the European Union (â€œEUâ€) as an effective extracorporeal cytokine absorber, designed to reduce the â€œcytokine stormâ€ or â€œcytokine release syndromeâ€ that could otherwise cause massive inflammation, organ failure and death in common critical illnesses such as sepsis, burn injury, trauma, lung injury, liver failure, cytokine release syndrome due to cancer immunotherapy, and pancreatitis. These are conditions where the mortality is extremely high, yet few to no effective treatments exist. In May 2018, we received a label expansion for CytoSorb covering use of the device for the removal of bilirubin and myoglobin in the treatment of liver disease and trauma, respectively. In January 2020, we received CE-Mark label expansion for CytoSorb covering the use of the device for the removal of the anti-platelet agent, ticagrelor, in patients undergoing surgery requiring cardiopulmonary bypass. In April 2020, the FDA granted Breakthrough Device Designation to CytoSorb for the removal of ticagrelor in a cardiopulmonary bypass circuit during emergent and urgent cardiothoracic surgery. In April 2020, we announced that the FDA has granted EUA of CytoSorb for use in critically ill patients with COVID-19 infection and respiratory failure. In May 2020, we received a CE-Mark label expansion for CytoSorb for the removal of rivaroxaban during cardiothoracic surgery requiring cardiopulmonary bypass. In August 2021, the Company announced that it was granted a second Breakthrough Device Designation for its DrugSorb-ATR Antithrombotic Removal System by the FDA to remove the direct oral anticoagulants, rivaroxaban and apixaban. The Company has completed its pivotal randomized, controlled clinical trial in the U.S. and Canada, called the STAR-T trial, evaluating the use of DrugSorb-ATR during cardiothoracic surgery to prevent or reduce perioperative bleeding complications in pursuit of FDA and Health Canada marketing approval. We believe that the safety and efficacy results of the STAR-T trial will support regulatory submissions expected in the third quarter of 2024 for marketing approval by the FDA and Health Canada. CytoSorb is used during and after cardiac surgery to remove inflammatory mediators, such as cytokines, activated complement, and free hemoglobin that can lead to post-operative complications such as acute kidney injury, lung injury, shock, and stroke. We believe CytoSorb has the potential to be used in many other inflammatory conditions, including the treatment of autoimmune disease flares, cytokine release syndrome in cancer immunotherapy, and other applications in cancer, such as cancer cachexia. CytoSorb has been used globally in more than 248,000 human treatments to date in critical illnesses and in cardiac surgery. CytoSorb has received CE-Mark label expansions for the removal of bilirubin (liver disease), myoglobin (trauma) and both ticagrelor and rivaroxaban during cardiothoracic surgery. CytoSorb has also received FDA Emergency Use Authorization in the United States for use in critically-ill COVID-19 patients with imminent or confirmed respiratory failure, in defined circumstances. The EUA will be effective until a declaration is made that the circumstances justifying the EUA have terminated or until revoked by the FDA. CytoSorb has been used globally in more than 7,650 human treatments to date in COVID-19 patients. CytoSorb has also been granted FDA Breakthrough Designation for the removal of ticagrelor in a cardiopulmonary bypass circuit during emergent and urgent cardiothoracic surgery. 28 Table of ContentsCytoSorb was also granted a second FDA Breakthrough Device designation for the removal of the Direct Oral Anticoagulants (DOACs) apixaban and rivaroxaban in a cardiopulmonary bypass circuit to reduce the likelihood of serious perioperative bleeding during urgent cardiothoracic surgery.We are focusing on three key objectives that we believe are the key to driving sustainable, long-term growth:â€¢Open the U.S. and Canadian markets by obtaining FDA and Health Canada marketing approval for DrugSorbâ„¢-ATR to reduce the perioperative bleeding risk caused by BrilintaÂ® and in the future, potentially other blood thinning drugs, in patients undergoing cardiothoracic surgery (see Clinical Studies Update)â€¢Grow core CytoSorb sales to profitability, driven by numerous internal initiatives (see Sales and Marketing Update)â€¢Reduce cash burn and maintain tight control over expenses.Our purification technologies are based on biocompatible, highly porous polymer beads that can actively remove toxic substances from blood and other bodily fluids by pore capture and surface adsorption. The technology is protected by 22 issued U.S. patents and multiple international patents, with applications pending both in the U.S. and internationally. We have numerous other product candidates under development based upon this unique blood purification technology, including CytoSorb XL, K+ontrol, HemoDefend-RBC, HemoDefend-BGA, ContrastSorb, DrugSorb, DrugSorb-ATR and others.Our proprietary polymer technologies form the basis of a broad technology portfolio. Some of our products and product candidates include:â€¢CytoSorb â€“ an extracorporeal hemoperfusion cartridge approved in the EU for cytokine, bilirubin, myoglobin, and antithrombotic drug removal, with the goal of reducing deadly inflammation and toxic substances that can cause serious complications such as bleeding, organ failure, and death.â€¢DrugSorb-ATR â€“ an investigational extracorporeal antithrombotic removal system based on the same polymer technology as CytoSorb that was evaluated in the U.S. and Canadian STAR-T pivotal randomized, controlled trial to reduce perioperative bleeding complications in patients undergoing cardiothoracic surgery while on the antithrombotic drug BrilintaÂ®.â€¢ECOS-300CY â€“ an adsorption cartridge approved in the E.U. for use with ex vivo organ perfusion systems to remove cytokines and other inflammatory mediators in the organ perfusate, with the goal of maintaining or improving solid organ function prior to transplant and improving postoperative outcomes. In 2021, commercialization of PerSorbâ„¢ (a private label version of ECOS-300CY) and Aferetica's PerLifeâ„¢ ex vivo organ perfusion system commenced in Italy.â€¢CytoSorb XL â€“ an intended next generation successor to CytoSorb currently in advanced pre-clinical testing designed to reduce a broad range of cytokines and inflammatory mediators, including lipopolysaccharide endotoxin, from blood.â€¢VetResQ â€“ a broad spectrum blood purification adsorber designed to help treat deadly inflammation and toxic injury in animals with critical illnesses such as septic shock, toxic shock syndrome, severe systemic inflammation, toxin-mediated diseases, pancreatitis, trauma, liver failure, and drug intoxication. VetResQ is being commercialized in the United States.â€¢HemoDefend-RBCâ€”a development-stage blood purification technology designed to remove non-infectious contaminants in blood transfusion products, with the goal of reducing transfusion reactions and improving the quality and safety of blood. â€¢HemoDefend-BGAâ€”a development-stage purification technology that can remove anti-A and anti-B antibodies from plasma and whole blood, to enable â€œuniversal plasmaâ€ and safer whole blood transfusions, respectively.â€¢K+ontrolâ€”a development-stage blood purification technology designed to reduce excessive levels of potassium in the blood that can be fatal in severe hyperkalemia.29 Table of Contentsâ€¢ContrastSorbâ€”a development-stage extracorporeal hemoperfusion cartridge designed to remove IV contrast from the blood of high-risk patients undergoing radiological imaging with contrast, or interventional radiology procedures such as cardiac catheterization and angioplasty. The goal of ContrastSorb is to prevent contrast-induced nephropathy.â€¢DrugSorbâ€”a development-stage extracorporeal hemoperfusion cartridge designed to remove toxic chemicals from the blood (e.g., drug overdose, high dose regional chemotherapy).â€¢BetaSorbâ€”a development-stage extracorporeal hemoperfusion cartridge designed to remove mid-molecular weight toxins, such as b2-microglobulin, that standard high-flux dialysis cannot remove effectively. The goal of BetaSorb is to improve the efficacy of dialysis or hemofiltration.Clinical Studies UpdateFor a complete discussion regarding our clinical study history, please refer to the section entitled Clinical Studies included in Item 1 of the Companyâ€™s Annual Report on Form 10-K for the year ended December 31, 2023 as filed with the SEC on March 14, 2024. The following includes certain updates regarding these clinical studies subsequent to the filing of the Companyâ€™s Annual Report on Form 10-K.In July 2021, we received full FDA approval of an Investigational Device Exemption (IDE) application to conduct a double-blind, randomized, controlled clinical study in 120 patients entitled, â€œSafe and Timely Antithrombotic Removal â€“ Ticagrelor (STAR-T),â€ in the United States to support FDA marketing approval. This was done under the previously announced FDA Breakthrough Device Designation granted for the removal of ticagrelor in a cardiopulmonary bypass circuit to reduce the likelihood of serious perioperative bleeding during urgent cardiac surgery. In October 2021, the first patient was enrolled, with the STAR-T study actively recruiting at multiple U.S. sites. In November 2022, the first milestone was completed with the first one-third of patients enrolled, triggering the first Data and Safety Monitoring Board (DSMB) meeting. The DSMB recommended to continue the study as planned without any modifications. In 2022, we also received FDA approval to expand the study to Canada and subsequently received Health Canada approval allowing inclusion of Canadian sites into the STAR-T trial in January 2023. In early 2023, the study exceeded 50% enrollment and reached the 2nd milestone of 67% enrollment in the spring of 2023, triggering another DSMB safety review, which found no safety concerns and recommended completion of the trial. The study completed enrollment in July of 2023 triggering the final DSMB safety review following database lock in December 2023, which also reported no safety concerns thereby meeting the primary safety endpoint of the study. Based on the initial analysis of the STAR-T data, the study did not meet the primary effectiveness endpoint in the overall patient population that underwent different types of cardiac surgeries. However, the study did demonstrate evidence of reduced bleeding complications, including serious bleeding events, in patients in the pre-specified isolated coronary artery bypass graft (â€œCABGâ€) surgery population. Patients undergoing CABG surgery represented more than 90% of the overall study population. The topline results of 140-patient, double-blinded, multicenter, pivotal STAR-T randomized, controlled trial were presented as a late breaking presentation at the 104th Annual Meeting of the American Association for Thoracic Surgery (AATS) held in Toronto, Canada on April 28, 2024. The Company believes the safety and effectiveness data from STAR-T will support the parallel regulatory submission of DrugSorb-ATR to the FDA and Health Canada estimated to be filed in the third quarter of 2024. In October 2021, we also received FDA approval of an Investigational Device Exemption (IDE) application to conduct a double-blind, randomized, controlled clinical study for up to 120 patients entitled, â€œSafe and Timely Antithrombotic Removal â€“ Direct Oral Anticoagulants (STAR-D),â€ in the United States to support FDA marketing approval. This was done under the previously announced 2nd FDA Breakthrough Device Designation granted for our DrugSorb-ATR Antithrombotic Removal System. This Breakthrough Device designation covers the removal of the Direct Oral Anticoagulants (DOACs) apixaban and rivaroxaban in a cardiopulmonary bypass circuit to reduce the likelihood of serious perioperative bleeding during urgent cardiac surgery. The STAR-D study was postponed to allow the Company to concentrate its clinical focus on STAR-T activities and associated regulatory filings.In January 2020, CytoSorb received European Union CE Mark label expansion to include the removal of ticagrelor during cardiopulmonary bypass in patients undergoing cardiothoracic surgery. In May 2020, CytoSorb also received European Union CE Mark label expansion to include rivaroxaban removal for the same indication. The international Safe and Timely Antithrombotic Removal (STAR) Registry is designed to capture real world clinical and health economic outcomes with intraoperative antithrombotic drug removal. The Registry is actively recruiting in the U.K., Germany, Austria, Belgium and Sweden and is planned to expand to additional countries in 2024. Data outputs from the STAR Registry have already been reported at the EuroPCR 2023 conference in Paris in May 2023 and at the European Association of Cardiothoracic Surgery conference in Vienna in October 2023. The Registry has been enrolling 30 Table of Contentswell and reported an updated analysis on ticagrelor removal during CABG at the 2024 EuroPCR conference. An additional updated analysis on DOAC removal has been accepted for presentation at the upcoming 2024 EACTS conference. Interim analyses from the Registry were also published in May 2024 in the internationally recognized peer-review Journal of Thrombosis and Thrombolysis. Additional results from the STAR Registry will also be submitted for publication in major cardiovascular journals on a rolling basis as enrollment progresses.In April 2020, we received FDA Emergency Use Authorization for the treatment of adult critically ill COVID-19 patients with confirmed or imminent respiratory failure. The U.S. CytoSorb Therapy in COVID-19 (CTC) Registry was launched to capture outcomes and device utilization patterns from multiple U.S. participating centers. Initial results on critically ill COVID-19 patients on extracorporeal membrane oxygenation (ECMO) treated with CytoSorb at participating U.S. centers showed high survival rates (73%) compared with the international benchmark Extracorporeal Life Support Organization (ELSO) Registry. The initial CTC results on the first 52 critically ill patients from five U.S. ECMO centers were presented at the International Symposium of Intensive Care Medicine conference in August 2021 in Brussels, Belgium, and published in the peer reviewed journal Frontiers in Medicine. The CTC registry completed enrollment with 100 patients from five centers, and the final results mirror the high survival (74%) seen in the previous analysis and have been published in the peer reviewed journal Critical Care. The data further demonstrate that earlier intervention with CytoSorb and ECMO was associated with shorter need for mechanical ventilation, ECMO, and ICU stay. These results lend support to our concept of â€œenhanced lung rest,â€ where ECMO helps the lungs rest by oxygenating blood extracorporeally and reducing the need for mechanical ventilation that can cause ventilator-induced lung injury, while CytoSorb reduces the circulating inflammatory mediators that cause continued capillary leak syndrome in the lungs. Together, the goal of this dual-therapy strategy is to give the lungs a chance to recover and heal, a pre-requisite for weaning off of mechanical ventilation and ECMO. The German PROCYSS multicenter, randomized controlled trial evaluating the ability of CytoSorb to restore hemodynamic stability in patients with refractory septic shock is now currently enrolling. The speed of enrollment has

been slower than anticipated, impacted by COVID-19 related institutional research staff shortages, decreased ICU bed capacity leading to fewer patients, and other factors.The international COSMOS Registry was designed to capture real world outcomes and device utilization patterns across multiple critical care indications including but not limited to sepsis, acute respiratory failure, postoperative vasoplegia, acute liver failure, and acute pancreatitis. The Registry is actively enrolling in Spain, Germany and Italy with plans to expand in more countries in 2024. The intent of the Registry is to report outcomes at international conferences and submit the results for publication on a rolling basis as enrollment progresses. The first analysis of the Registry on the results in the first 100 patients enrolled was presented at the ISICEM meeting in Brussels in March 2024 and will also be submitted to a peer reviewed journal for publication. Sales and Marketing UpdateThe following are the key initiatives that we have been executing upon to drive product sales growth in the future.Near-term growth driversâ€¢Driving Greater Usage from a Strong Customer Base: We had a 31% increase in active customers (defined as customers who purchased the device in the last 9 months) since the start of the pandemic through June 30, 2024. We continue to educate and train centers on how best to use our therapy, highlighting new clinical data and applications. We believe this is a core strategy that will help to drive near-term growth.â€¢New Therapy Divisions: We have established three distinct therapy divisions within our commercial operations including Critical Care, Cardiovascular, and Liver/Kidney/other to develop these markets internationally with the focus of leaders with area-specific medical and commercial expertise, who work closely with our sales teams to best serve the needs and interests of our customers. The increased therapy area focus has already yielded good international sales momentum in many different areas, such as the use of CytoSorb in endocarditis and antithrombotic drug removal in cardiac surgery, in the treatment of liver disease, and in other critical care applications such as sepsis. We believe this infrastructure will yield similar successes across a broad array of applications.â€¢Strategic Partnerships: We have entered into a global marketing agreement with Fresenius Medical Care, the largest dialysis company in the world, where CytoSorb has become the â€œfeatured solution for cytokine, bilirubin, and myoglobin removalâ€ on its critical care platform of machines worldwide, with the exception of the U.S. Together, we are working to 31 Table of Contentsâ€œExpand the Dimension of Blood PurificationÂ®â€ in hospitals and to promote and market our respective kidney and liver replacement therapies around the world.â€¢New Exclusive Private Hospital Chain Partnerships: We are now the preferred supplier of hemoadsorption technology to the three largest private hospital chains in Germany, including Asklepios Kliniken GmbH, and the former hospitals of RHÃ–N-KLINIKUM AG. Many of these hospitals are already current customers and our agreements facilitate access and sales of CytoSorb to these and all other relevant institutions within these hospital networks.â€¢Rise of Existing and New Applications: Among the many applications, we highlight:oShock: Many studies have highlighted the ability of CytoSorb to remove inflammatory mediators and help to stabilize shock, a potentially fatal drop in blood pressure, in a wide range of patients. A recent 2019 meta-analysis, found that approximately 10% of ICU patients have septic shock at admission and 8% of patients admitted to the ICU have septic shock at some point in their hospital stay, with a high mortality of 38%. CytoSorb is being used around the world as a treatment of shock and we are conducting the PROCYSS RCT to formally evaluate CytoSorb as a treatment of this common and major unmet medical need. oLiver disease: In the treatment of acute liver disease, CytoSorb outperforms the market leading MARSÂ® platform (Baxter) in the ex vivo removal of many liver toxins, but has the added benefit of removing cytokines and inflammatory mediators, while being much easier to use. In real-world practice, CytoSorb has replaced MARS at many accounts.oLung Injury: Our U.S. CTC registry publication in Critical Care highlights the high survival of critically ill COVID-19 patients with acute respiratory distress syndrome (ARDS) treated with CytoSorb and ECMO under FDA Emergency Use Authorization. We believe these data demonstrate a therapeutic strategy of â€œenhanced lung restâ€ using the combined therapies that can be extrapolated to the treatment of ARDS in non-COVID patients, a very large market.Longer-term growth driversâ€¢Stand-alone blood pump strategy: There are many applications where a simple, low-cost hemoperfusion pump is adequate to implement our CytoSorb blood purification technology, without the complexity of a large dialysis or continuous renal replacement therapy (CRRT) machine, without the need for a dialysis technician, and where patients do not need to have failed kidneys. This would greatly simplify treatment with CytoSorb in the ICU - potentially enabling its more ubiquitous and earlier use on more patients while opening the door for more new applications in the emergency room, surgery suites, and elsewhere, in what we call the â€œhospital-wideâ€ application. In June 2024, the Company announced the launch and immediate availability of its PuriFiâ„¢ hemoperfusion machine in the EU, following approval and certification under the EU Medical Device Regulation (MDR). The combination of CytoSorb with the PuriFi pump is expected to be an excellent combination treatment and a potentially game-changing new business model going forward.â€¢Expansion of direct sales territories: Although opening new countries with a direct sales force requires time, cost, and effort, it also allows us to directly lead the effort, drive results, and benefit from more profitable sales. With the announcement of expansion of direct sales into the U.K., Ireland and France, we now sell direct in three of the E.U.â€™s Big 5 Economies - Germany, France and the U.K. - and a total of 15 countries direct overall, while working with distributors or partners in 60 other countries, including the other two Big 5 Economies: Italy, and Spain.â€¢Investment in important clinical studies in shock, liver failure, cardiac surgery, ATR, etc.: We are committed to funding Company-sponsored studies in key areas that we believe will drive international adoption and usage, with the goal of becoming a standard of care for those applications.32 Table of Contentsâ€¢New Products: Over the past couple of years, there has been increasing momentum around two additional marketed products, ECOS-300CY for ex vivo organ perfusion (EVOP) in solid organ transplant under the EU CE mark, and VetResQ in the U.S. for the treatment of companion animals. In particular, prominent research in the field of heart, lung and liver organ transplant highlight the benefits of our technology in controlling inflammation and improving organ function during EVOP.COVID-19 Business UpdateCOVID-19 patients develop life-threatening complications such as acute respiratory distress syndrome (ARDS), shock (i.e. a potentially fatal drop in blood pressure), kidney failure, acute cardiac injury, thromboses and emboli, and secondary bacterial infections. The underlying cause for these complications is often a massive, systemic inflammatory response, leading to the damage of vital organs such as the lungs, heart, and kidneys, and ultimately multiple organ failure and death in many cases. Hypercoagulability, thought triggered by inflammation, and resulting thromboembolic events such as pulmonary emboli and thrombotic microangiopathy, play another critical role in the pathophysiology of COVID-19 infection and severity of illness.The use of CytoSorb in patients infected with COVID-19 in Italy, China, Germany and France began in March 2020. During the pandemic, CytoSorb has been used to treat dangerous inflammation and related life-threatening complications in more than 7,650 COVID-19 patients in more than 30 countries. Based upon initial data and reports from physicians treating these complications, CytoSorb use has generally been associated with a marked reduction in cytokine storm and inflammation, improved lung function, weaning from mechanical ventilation, decannulation from extracorporeal membrane oxygenation (ECMO), and a reversal of shock. The use of CytoSorb has not been approved in the U.S. by the FDA. However, under certain circumstances, investigational medical devices that have not yet been FDA-approved may be made available for emergency use in the U.S. under the FDAâ€™s Expanded Access Program (â€œEAPâ€). On April 13, 2020, we announced that the FDA, in a different program than the EAP, granted U.S. Emergency Use Authorization (EUA) of CytoSorb for use in adult critically ill COVID-19 patients. Under the EUA, CytoSorbents was able to make CytoSorb available, through commercial sales, to all hospitals in the U.S. for use in patients, 18 years of age or older, with COVID-19 infection who are admitted to the intensive care unit with confirmed or imminent respiratory failure as a way to help treat acute lung injury or ARDS, severe disease, or life-threatening illness resulting in respiratory failure, septic shock, and/or multiple organ dysfunction or failure. The CytoSorb device has been authorized by FDA under an EUA. It has neither been cleared nor approved for the indication to treat patients with COVID-19 infection. The EUA will be effective until a declaration is made that the circumstances justifying the EUA have terminated or until revoked by the FDA. With the advent of vaccines, anti-viral therapies, and natural immunity, the numbers of critically ill COVID patients and the severity of illness has dropped dramatically. We currently anticipate little to no COVID-19 related CytoSorb sales, though this could change depending on the circulating strains of coronavirus.The U.S. CTC (CytoSorb Therapy in COVID-19) Registry was launched to capture outcomes and device utilization patterns from multiple U.S. participating centers treating critically ill COVID-19 patients according to the treatment recommendations of the FDA Emergency Use Authorization (EUA). Preliminary results on observed ICU mortality of COVID-19 patients with acute respiratory distress syndrome (ARDS) requiring extracorporeal membrane oxygenation (ECMO) and treated with CytoSorb according to FDA EUA criteria were presented at the International Symposium of Intensive Care Medicine conference in September 2021 in Brussels, Belgium. In December 2021 and published in the peer-reviewed journal Frontiers in Medicine. The CTC Registry has completed enrollment and the final results confirming high survival (74%) were presented at the European Society of Intensive Care Medicine conference October 2022 and also have been published in the prestigious peer-reviewed journal Critical Care.Government Research Grants:We have historically been successful in obtaining technology development contracts from governmental agencies such as the National Institutes of Health and the U.S. Department of Defense, including the Defense Advanced Research Projects Agency (â€œDARPAâ€), the U.S. Army, U.S. Special Operations Command (â€œUSSOCOMâ€), the U.S. Air Force, Air Force Material Command (â€œUSAF/AFMCâ€) and others. Currently, we have ongoing projects funded, in part, by the U.S. Army Medical Research Acquisition Activity (â€œUSAMRAAâ€), the NHLBI, and the USAF/AFMC. For a complete discussion of the various research grants we have obtained, please refer to the section entitled Government Research Grants included in Item 1 of our Annual Report on Form 10-K for the year ended December 31, 2023, as filed with the SEC on March 14, 2024. 33 Table of ContentsResearch and Development UpdateOur research and development work levels have returned back to pre-pandemic levels. As of June 30, 2024, the revenue remaining to be earned on open grant contracts is $3.9 million. Overall, grant funded programs, HemoDefend-BGAâ„¢ (Universal Plasma), HemoDefend-RBCâ„¢ and K+ontrolâ„¢, continue to progress and we have been the beneficiary of approximately $15.8 million, $4.7 million and $7.7 million in total funding, respectively, awarded to date. Impact of Inflation and Other Issues:The current high inflationary environment has impacted us in various ways. Due to the current competitive labor market and high inflation, our labor costs have risen significantly in order to attract and retain qualified employees throughout our organization. In addition, we have experienced raw material price increases primarily related to the oil-based chemicals used in the polymer manufacturing process as well additional requests for higher fuel surcharges from most suppliers. Rising energy costs, including electricity and fossil fuels, have also made it more expensive to support our operations, manufacturing, and commercial activities. We have also experienced increases in our transportation costs; however, we have been able to substantially mitigate these cost increases by implementing bulk shipping methods. In addition, we have been able to mitigate most supply chain issues that existed during the COVID-19 pandemic by ordering larger quantities of inventory as they were available. Inflationary pressures may continue to impact our product gross margins in the future.Comparison for the three months ended June 30, 2024 and 2023:Revenues:Revenue from product sales was approximately $8,842,000 in the three months ended June 30, 2024, as compared to approximately $8,072,000 in the three months ended June 30, 2023, an increase of approximately $770,000, or 10%. Distributor sales increased approximately $965,000, or 28%. Direct sales decreased approximately $196,000, or 4%. In addition, as a result of the decrease in the average exchange rate of the Euro to the U.S. dollar, 2024 product sales were negatively impacted by approximately $104,000. For the three months ended June 30, 2024, the average exchange rate of the Euro to the U.S. dollar was $1.08 as compared to an average exchange rate of $1.09 for the three months ended June 30, 2023. Grant income was approximately $1,053,000 for the three months ended June 30, 2024 as compared to approximately $1,348,000 for the three months ended June 30, 2023, a decrease of approximately $295,000, or 22%. This decrease was due to the completion of several grants during 2023.Total revenues were approximately $9,895,000 for the three months ended June 30, 2024, as compared to total revenues of approximately $9,421,000 for the three months ended June 30, 2023, an increase of approximately $474,000, or 5%.Cost of Revenues:For the three months ended June 30, 2024 and 2023, cost of revenue was approximately $3,392,000 and $3,402,000, respectively, a decrease of approximately $10,000. Product cost of revenue was approximately $2,411,000 and $2,093,000, respectively, for the three months ended June 30, 2024 and 2023, an increase of approximately $318,000 due to increases in sales in 2024. Gross margins on devices and device accessories were approximately 75% for the three months ended June 30, 2024 as compared to approximately 74% for the three months ended June 30, 2023. This increase was due to the achievement of greater operating efficiencies in 2024, which was partially offset by an increase in the percentage of lower margin distributor sales to total sales during the three months ended June 30, 2024 as compared to the three months ended June 30, 2023.34 Table of ContentsResearch and Development Expenses:For the three months ended June 30, 2024, research and development expenses were approximately $1,520,000, as compared to research and development expenses of approximately $3,669,000 for the three months ended June 30, 2023, a decrease of approximately $2,149,000. This decrease was due to a decrease in our clinical trial activities of approximately $1,842,000 related to the completion of the STAR-T clinical trial in December 2023. The three months ended June 30, 2023 included $70,000 of non-recurring start-up costs associated with our new facility which were not incurred in the three months ended June 30, 2024. Cost savings measures resulted in decreased research and development salaries of approximately $170,000, and decreased consulting and other spending of approximately $67,000 in the second quarter of 2024.Legal, Financial and Other Consulting Expenses:Legal, financial, and other consulting expenses were approximately $821,000 for the three months ended June 30, 2024, as compared to approximately $1,185,000 for the three months ended June 30, 2023, a decrease of approximately $364,000. This decrease was due to a decrease in legal fees of approximately $314,000 due to the settlement of a legal matter in 2023, a decrease in employment agency fees of approximately $121,000 and a decrease in accounting fees of approximately $43,000. These decreases were offset by an increase in consulting fees of approximately $114,000. Selling, General and Administrative Expenses:Selling, general and administrative expenses were approximately $7,581,000 for the three months ended June 30, 2024, as compared to approximately $7,724,000 for the three months ending June 30, 2023, a decrease of approximately $143,000. This decrease was due to a decrease in salaries, commissions, and related costs of approximately $543,000, a decrease in selling and distribution costs of approximately $468,000, a decrease in fees, licenses and permits of approximately $50,000, a decrease in commercial insurance of approximately $32,000, and a decrease in travel and entertainment expenses of approximately $20,000. These decreases were offset by increased non-cash stock compensation expense of approximately $623,000, a reduction in grant spending reduced the overhead absorption benefit to selling, general and administrative expense by approximately $136,000, an increase in network maintenance costs of approximately $81,000, an increase in transfer agent fees of approximately $49,000, an increase in royalty expense of approximately $46,000, and an increase in other general and administrative expenses of approximately $65,000.Gain (Loss) on Foreign Currency Transactions:For the three months ended June 30, 2024, the loss on foreign currency transactions was approximately $544,000 as compared to a gain of approximately $415,000 for the three months ended June 30, 2023. The 2024 loss was directly related to the decrease in the spot exchange rate of the Euro to the U.S. dollar at June 30, 2024 as compared to March 31, 2024. The spot exchange rate of the Euro to the U.S. dollar was $1.07 per Euro at June 30, 2024, as compared to $1.08 per Euro at March 31, 2024. The 2023 gain was directly related to the increase in the spot exchange rate of the Euro to the U.S. dollar at June 30, 2023 as compared to March 31, 2023. The spot exchange rate of the Euro to the U.S. dollar was $1.09 per Euro at June 30, 2023, as compared to $1.08 per Euro at March 31, 2023.Comparison for the six months ended June 30, 2023 and 2022:Revenues:Revenue from product sales was approximately $17,831,000 for the six months ended June 30, 2024, as compared to approximately $15,982,000 for the six months ended June 30, 2023, an increase of approximately $1,849,000, or 12%. Distributor sales increased by approximately $1,579,000, or 24%. Overall direct sales increased by approximately $270,000, or 3%. The change in the exchange rate of the Euro to U.S. dollar did not have a significant impact on product sales during the six months ended June 30, 2024.Grant income was approximately $1,850,000 for the six months ended June 30, 2024 as compared to approximately $2,888,000 for the six months ended June 30, 2023, a decrease of approximately $1,038,000 or 36%. This decrease was due to the completion of several grants during 2023.Total revenues were approximately $19,681,000 for the six months ended June 30, 2024, as compared to total revenues of approximately $18,870,000 for the six months ended June 30, 2023, an increase of approximately $811,000, or 4%.35 Table of ContentsCost of Revenues:For the six months ended June 30, 2024 and 2023, cost of revenue was approximately $6,607,000 and $7,396,000, respectively, a decrease of approximately $789,000, primarily due to a reduction in the cost of revenue related to the Companyâ€™s grant related activities. Product cost of revenue was approximately $4,759,000 and $4,624,000, respectively, for the six months ended June 30, 2024 and 2023, an increase of approximately $135,000. Gross margins on devices and device accessories were approximately 74% for the six months ended June 30, 2024 compared to approximately 71% for the six months ended June 30, 2023. The increase in product gross margin is due primarily to greater efficiencies now being realized at our new manufacturing facility in Princeton, New Jersey.Research and Development Expenses:For the six months ended June 30, 2024, research and development expenses were approximately $3,768,000 as compared to research and development expenses of approximately $7,883,000 for the six months ended June 30, 2023, a decrease of approximately $4,115,000. This decrease was due to a decrease in costs associated with our clinical trial activities of approximately $2,753,000 related to the completion of the STAR-T clinical trial in December 2023. The six months ending June 30, 2023 included $919,000 of non-recurring start-up costs associated with our new facility which were not incurred in the six months ending June 30, 2024. Cost savings measures resulted in decreased research and development salaries of approximately $297,000, and decreased other spending of approximately $146,000 in 2024.Legal, Financial and Other Consulting Expenses:Legal, financial, and other consulting expenses were approximately $1,501,000 for the six months ended June 30, 2024, as compared to approximately $1,854,000 for the six months ended June 30, 2023. The decrease of approximately $353,000 was due to a decrease in legal

fees of approximately $285,000 and a decrease in employment agency fees of approximately $178,000. These decreases were offset by an increase in consulting fees of approximately $108,000 and an increase in accounting and auditing fees of approximately $2,000.Selling, General and Administrative Expenses:Selling, general and administrative expenses were approximately $16,148,000 for the six months ended June 30, 2024, as compared to $16,187,000 for the six months ended June 30, 2023, a decrease of approximately $39,000. This decrease was due to a decrease in salaries, commissions and related costs of approximately $721,000, a decrease in advertising costs of approximately $192,000, a decrease in non-recurring facility start-up costs of approximately $176,000, a decrease in occupancy costs of approximately $140,000 and a decrease in other general and administrative expenses of $17,000. These decreases were offset by an increase in non-cash stock compensation expense of approximately $467,000, a reduction in grant spending reduced the overhead absorption benefit to selling, general and administrative expense by approximately $350,000, an increase in royalty expense of approximately $134,000, an increase in travel and entertainment expenses of approximately $112,000, an increase in network maintenance costs of approximately $95,000 and an increase in transfer agent fees of approximately $49,000.Gain (Loss) on Foreign Currency Transactions:For the six months ended June 30, 2024, the loss on foreign currency transactions was approximately $1,970,000 as compared to a gain of approximately $1,076,000 for the six months ended June 30, 2023. The 2024 loss was directly related to the decrease in the spot exchange rate of the Euro to the U.S. dollar as of June 30, 2024 as compared to December 31, 2023. The spot exchange rate of the Euro to the U.S. dollar was $1.07 per Euro as of June 30, 2024, as compared to $1.11 per Euro at December 31, 2023. The 2023 gain was directly related to the increase in the spot exchange rate of the Euro to the U.S. dollar as of June 30, 2023 as compared to December 31, 2022. The spot exchange rate of the Euro to the U.S. dollar was $1.09 per Euro as of June 30, 2023, as compared to $1.07 per Euro at December 31, 2022.36 Table of ContentsHistory of Operating Losses:We have experienced substantial operating losses since inception. As of June 30, 2024, we had an accumulated deficit of approximately $293,006,000, which included losses of approximately $10,501,000 and $13,479,000 for the six-month periods ended June 30, 2024 and 2023, respectively. Historically, losses have resulted principally from costs incurred in the research and development of our polymer technology, clinical studies, and general and administrative expenses.Liquidity and Capital ResourcesSince inception, our operations have been primarily financed through the issuance of debt and equity securities. As of June 30, 2024, we had current assets of approximately $21,955,000 and current liabilities of approximately $10,336,000. As of June 30, 2024, $25 million of our total shelf amount was allocated to our ATM facility, of which approximately $20.3 million is still available. During the six months ended June 30, 2024, the Company sold 53,290 shares pursuant to the Sale Agreement, at an average selling price of $1.03 per share, generating net proceeds of approximately $53,200. In June of 2024, we closed on a $20 million term-loan facility with Avenue Capital Group which provided an initial tranche of $15 million at the closing of which $10 million was immediately available at closing and $5 million constitutes restricted cash subject to release to the Company prior to March 31, 2025, provided certain conditions are met. Another tranche of $5 million may be disbursed at the Companyâ€™s request between July 1, 2025 and December 31, 2025, provided that the Company receives FDA marketing approval of its DrugSorb-ATR application. Concurrently with the closing of the first tranche, the Company paid off our existing debt with Bridge Bank.In March of 2024, we received approximately $880,000 in cash from the approved sale of our net operating losses and research and development credits from the State of New Jersey.We are also managing our resources proactively, continuing to invest in key areas such as our planned regulatory submission of DrugSorb-ATR to U.S. FDA and Health Canada. We have also instituted and continue to maintain tight control over expenditures.As of June 30, 2024 we have approximately $14.9 million in cash, including approximately $8.4 million and $6.5 million in unrestricted and restricted cash, respectively. With our cost cutting efforts, we believe this is sufficient to fund the Companyâ€™s operations into the second quarter of 2025. The Company continues to pursue additional milestones related to its recently announced Avenue debt facility that would increase its unrestricted cash position by up to $10 million. If these milestones are not achieved, we will need to raise additional capital to support our ongoing operations in the future. Meanwhile the Company continues to evaluate other traditional and alternative sources of capital, including additional less or non-dilutive debt financing, royalty financing, strategic or direct investments, equity financing, and/or combinations thereof. There can be no assurance that management will be successful in these endeavors.COVID-19 Impact on Financial ResultsFor the first year and a half of the coronavirus pandemic, COVID-19 was generally a positive driver for CytoSorb sales and highlighted the use of CytoSorb to treat cytokine storm and hyperinflammation. Because of this, the pandemic was a catalyst for CytoSorb orders from existing customers and also from new hospitals in countries where CytoSorb was not previously sold. We believe this awareness of CytoSorb increased overall usage during the COVID-19 pandemic and may help to drive further CytoSorb sales in the future.However, starting in the third quarter of 2021, the protracted COVID-19 pandemic began to have a negative impact on our business, due to pandemic-driven adverse market conditions worldwide, especially in Germany which is our largest market. The excessive workload in hospitals due to COVID has led to an exodus of healthcare workers from acute care worldwide, leaving hospitals short-staffed, particularly nursing. This in turn has forced the reduction in ICU beds and allowable patient censuses, and reduced the scheduling of revenue generating surgical procedures, resulting in decreased revenue and economic weakness at hospitals. Meanwhile, in 2022 the rates of severe COVID-19 illness requiring ICU care, and COVID-related death have been disproportionately very low. This is mainly attributed to high rates of vaccinations, natural immunity, and the availability of anti-viral drugs that are associated with reduced severity of illness, reduced need for hospitalization, and risk of death. These factors, in turn, have decreased the numbers of patients treatable with CytoSorb.37 Table of ContentsAdditionally, COVID slowed our ability to generate clinical data to support our sales and marketing efforts. Currently, we are seeing an easing of the of the negative impacts of COVID-19. In 2024, we have generally good access to hospitals and physicians which should positively impact our product sales in the future. The lessened impact of COVID-19 has also had a positive impact on patient enrollment of our clinical studies.Contractual ObligationsIn March 2021, the Company entered into a lease agreement for a new operating facility at 305 College Road East, Princeton, New Jersey, which contains office, laboratory, manufacturing and warehouse space. The commencement date of the lease was April 1, 2021. The Initial Early Term began on the commencement date (April 1, 2021) and lasted two months. The Early Term commenced on June 1, 2021 and lasted until September 30, 2021. The lease also contains two five-year renewal options. Commencing on September 30, 2021, the remaining lease term will last for 15.5 years. The lease requires monthly rental payments of $25,208 for the Initial Early Term, $88,254 for the Early Term and initial monthly payments of approximately $111,171 in the first year of the remaining term. Following the first year of the remaining term, the annual base rent will increase by approximately 2.75% annually over the remaining term. The lease also contains six months of rent abatement. In addition to the base rent, payments of operating expenses and real estate taxes will be required. These payments are to be based on actual amounts incurred during 2021, multiplied by the Companyâ€™s share of the total building space (92.3%). The landlord also provided an allowance of approximately $1,455,000 related to certain building improvements as outlined in the lease. In April 2021, the Company provided the landlord with a letter of credit in the amount of approximately $1,334,000 as security.In January 2021, CytoSorbents Europe GmbH entered into a lease for 1,068 square meters of additional warehouse space. The lease commenced on April 1, 2021, requires monthly payments of base rent of $7,784 and other costs of approximately $239 and has a term of five years. The lease also has an option to extend the lease term for an additional five-year period through March 31, 2031. In September 2021, the Company extended its two operating leases for its office facility in Germany. These leases require combined base rent payments amounting to approximately $12,100 per month. The initial lease term of both leases ends August 31, 2026. In addition, the Company is obligated to monthly operating expenses of approximately $3,000 per month. Both leases have a five year option to renew that would extend the lease term to August 31, 2031.Off-balance Sheet ArrangementsWe have no off-balance sheet arrangements.Going ConcernAs of June 30, 2024, the Companyâ€™s cash, cash equivalents and restricted cash balances were approximately $14.9 million, including approximately $8.4 million in cash and cash equivalents and approximately $6.5 million in restricted cash, the unrestricted portion of which is not expected to fund the Companyâ€™s operations beyond the next twelve months from the issuance of these consolidated financial statements. This matter raises substantial doubt about the Companyâ€™s ability to continue as a going concern. As a result, the accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company continues to pursue additional milestones related to its recently announced Avenue debt facility that would increase its unrestricted cash position by up to $10 million. If these milestones are not achieved, we will need to raise additional capital to support our ongoing operations in the future. Meanwhile the Company continues to evaluate other traditional and alternative sources of capital, including additional less or non-dilutive debt financing, royalty financing, strategic or direct investments, equity financing, and/or combinations thereof. There can be no assurance that management will be successful in these endeavors.Critical Accounting Policies and EstimatesA discussion of our critical accounting policies and estimates is contained in our Annual Report on Form 10-K.â€‹â€‹Item 3. Quantitative and Qualitative Disclosures About Market Risk.Not applicable.38 Table of Contentsâ€‹Item 4. Controls and Procedures.We maintain disclosure controls and procedures designed to ensure information required to be disclosed in our reports filed under the Securities Exchange Act of 1934, as amended (the â€œExchange Actâ€), is recorded, processed, summarized, and reported within the time periods specified in the SECâ€™s rules and forms. Disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed in our reports filed under the Exchange Act is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this report. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures as of the end of the period covered by this report are functioning effectively to provide reasonable assurance that the information required to be disclosed by us in reports filed under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the SECâ€™s rules and forms and (ii) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding disclosures. A controls system, no matter how well designed and operated, cannot provide absolute assurance that the objectives of the controls system are met, and no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a company have been detected.No change in our internal control over financial reporting occurred during the three and six months ended June 30, 2024 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.â€‹39 Table of ContentsPART II. OTHER INFORMATIONItem 1. Legal Proceedings.From time to time, we may become involved in litigation or other legal proceedings arising in the ordinary course of business. We are not currently a party to any litigation or legal proceedings that, in the opinion of our management, are likely to have a material adverse effect on our business. Regardless of outcome, litigation can have an adverse impact because of defense and settlement costs, diversion of management resources and other factors.On March 5, 2024, Danielle Greene, a former employee, filed a complaint against us in the Superior Court of New Jersey, Law Division, Mercer County, alleging breach of the New Jersey Conscientious Employee Protection Act (â€œCEPAâ€). The complaint specifically alleges that we violated the provisions of the CEPA by allegedly terminating Ms. Greene in retaliation for complaining about certain business practices. We dispute these allegations and intend to vigorously defend against them, but there can be no assurance as to the outcome of the litigation.â€‹Item 1A. Risk Factors.For a discussion of risks that affect the Companyâ€™s business, please refer to Part I, Item IA, â€œRisk Factorsâ€ in the Companyâ€™s Annual Report on Form 10-K for the year ended December 31, 2023, as filed with the SEC on March 14, 2024.â€‹Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.None.â€‹Item 3. Defaults Upon Senior Securities.None.â€‹Item 4. Mine Safety Disclosures.Not applicable.â€‹Item 5. Other Information.None.â€‹40 Table of ContentsItem 6. Exhibits.â€‹NumberÂ Â Â Â Description31.1Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 302 of Sarbanes Oxley Act of 2002.31.2Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 302 of Sarbanes Oxley Act of 2002.32.1Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of Sarbanes Oxley Act of 2002.*32.2Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of Sarbanes Oxley Act of 2002.*101The following materials from CytoSorbents Corporationâ€™s Quarterly Report on Form 10-Q for the quarter ended June 30, 2024, formatted in Extensible Business Reporting Language (XBRL): (i) Consolidated Balance Sheets at June 30, 2024 and December 31, 2023, (ii) Consolidated Statements of Operations for the three and six months ended June 30, 2024 and 2023, (iii) Consolidated Statement of Changes in Stockholdersâ€™ Equity for the three and six months ended June 30, 2024 and 2023, (iv) Consolidated Statements of Cash Flows for the six months ended June 30, 2024 and 2023 and (v) Notes to Consolidated Financial Statements.104â€‹Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)*Â Â Â Â In accordance with SEC Release 33-8238, Exhibits 32.1 and 32.2 are being furnished and not filed.**Â Â Portions of this exhibit identified by [***] have been excluded pursuant to Item 601(b)(10)(iv) of Regulation S-K because it is both not material and is private or confidential.â€‹41 Table of ContentsSIGNATURESPursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.â€‹Â CYTOSORBENTS CORPORATIONÂ Â Dated: August 13, 2024By:/s/ Phillip P. ChanÂ Â Name: Phillip P. ChanÂ Â Title: Chief Executive OfficerÂ Â (Principal Executive Officer)â€‹â€‹â€‹Dated: August 13, 2024By:/s/ Kathleen P. BlochÂ Â Name: Kathleen P. Bloch, CPAÂ Â Title: Chief Financial OfficerÂ Â (Principal Financial and Accounting Officer)â€‹â€‹42 EX-31.1 2 ctso-20240630xex31d1.htm EX-31.1 Exhibit 31.1CERTIFICATIONOF PRINCIPAL EXECUTIVE OFFICERPURSUANT TO EXCHANGE ACT RULE 13a-14(a)/15d-14(a)AS ADOPTED PURSUANT TO SECTION 302 OFTHE SARBANES-OXLEY ACT OF 2002I, Phillip Chan, certify that:1.I have reviewed this Quarterly Report on Form 10-Q of CytoSorbents Corporation;2.Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;3.Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;4.The registrantâ€™s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13-a-15(f) and 15d-15(f)) for the registrant and have:(a)Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;(b)Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;(c)Evaluated the effectiveness of the registrantâ€™s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and(d)Disclosed in this report any change in the registrantâ€™s internal control over financing reporting that occurred during the registrantâ€™s most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrantâ€™s internal control over financial reporting; and5.The registrantâ€™s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrantâ€™s auditors and the audit committee of the registrantâ€™s board of directors (or persons performing the equivalent functions):(a)All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrantâ€™s ability to record, process, summarize and report financial information; and(b)Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrantâ€™s internal control over financial reporting.â€‹Date: August 13, 2024Â Â Â Â â€‹â€‹â€‹â€‹/s/ Phillip P. Chanâ€‹â€‹Phillip P. Chan Principal Executive Officerâ€‹â€‹â€‹ EX-31.2 3 ctso-20240630xex31d2.htm EX-31.2 Exhibit 31.2CERTIFICATIONOF PRINCIPAL FINANCIAL OFFICERPURSUANT TO EXCHANGE ACT RULE 13a-14(a)/15d-14(a)AS ADOPTED PURSUANT TO SECTION 302 OFTHE SARBANES-OXLEY ACT OF 2002I, Kathleen P. Bloch, certify that:1.I have reviewed this Quarterly Report on Form 10-Q of CytoSorbents Corporation;2.Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;3.Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;4.The registrantâ€™s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13-a-15(f) and 15d-15(f)) for the registrant and have:(a)Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant,

including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;(b)Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;(c)Evaluated the effectiveness of the registrantâ€™s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and(d)Disclosed in this report any change in the registrantâ€™s internal control over financing reporting that occurred during the registrantâ€™s most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrantâ€™s internal control over financial reporting; and5.The registrantâ€™s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrantâ€™s auditors and the audit committee of the registrantâ€™s board of directors (or persons performing the equivalent functions):(a)All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrantâ€™s ability to record, process, summarize and report financial information; and(b)Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrantâ€™s internal control over financial reporting.â€‹Date: August 13, 2024Â Â Â Â â€‹â€‹â€‹â€‹/s/ Kathleen P. Blochâ€‹â€‹Kathleen P. Bloch Principal Financial Officerâ€‹â€‹â€‹ EX-32.1 4 ctso-20240630xex32d1.htm EX-32.1 Exhibit 32.1CERTIFICATION OFPRINCIPAL EXECUTIVE OFFICERPURSUANT TO 18 U.S.C. SECTION 1350AS ADOPTED PURSUANT TO SECTION 906OF THE SARBANES-OXLEY ACT of 2002Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, I, Phillip Chan, Chief Executive Officer of CytoSorbents Corporation, hereby certify, that, to my knowledge:1.The Quarterly Report on Form 10-Q for the quarter ended June 30, 2024 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and2.The information contained in such Quarterly Report on Form 10-Q for the quarter ended June 30, 2024, fairly presents, in all material respects, the financial condition and results of operations of CytoSorbents Corporation.â€‹Date: Â August 13, 2024Â Â Â Â â€‹â€‹â€‹â€‹CYTOSORBENTS CORPORATIONâ€‹â€‹â€‹â€‹â€‹By:/s/ Phillip P. Chanâ€‹â€‹Phillip Chanâ€‹â€‹Chief Executive Officerâ€‹â€‹â€‹ EX-32.2 5 ctso-20240630xex32d2.htm EX-32.2 Exhibit 32.2CERTIFICATION OFPRINCIPAL FINANCIAL OFFICERPURSUANT TO 18 U.S.C. SECTION 1350AS ADOPTED PURSUANT TO SECTION 906OF THE SARBANES-OXLEY ACT of 2002Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, I, Kathleen P. Bloch, the Chief Financial Officer of CytoSorbents Corporation, hereby certify, that, to my knowledge:1.The Quarterly Report on Form 10-Q for the quarter ended June 30, 2024, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and2.The information contained in such Quarterly Report on Form 10-Q for the quarter ended June 30, 2024, fairly presents, in all material respects, the financial condition and results of operations of CytoSorbents Corporation.â€‹Date:Â August 13, 2024Â Â Â Â â€‹â€‹â€‹â€‹CYTOSORBENTS CORPORATIONâ€‹â€‹â€‹â€‹â€‹By:/s/ Kathleen P. Blochâ€‹â€‹Kathleen P. Blochâ€‹â€‹Chief Financial Officerâ€‹â€‹â€‹ EX-101.SCH 6 ctso-20240630.xsd EX-101.SCH 99900 - Disclosure - Standard And Custom Axis Domain Defaults link:presentationLink link:calculationLink link:definitionLink 995200100 - Statement - CONSOLIDATED BALANCE SHEETS link:presentationLink link:calculationLink link:definitionLink 995200200 - Statement - CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS link:presentationLink link:calculationLink link:definitionLink 00202 - Statement - CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS (Calc 2) link:presentationLink link:calculationLink link:definitionLink 995200400 - Statement - CONSOLIDATED STATEMENTS OF CASH FLOWS link:presentationLink link:calculationLink link:definitionLink 99940202 - Disclosure - PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - Cash and cash equivalents (Details) link:presentationLink link:calculationLink link:definitionLink 40502 - Disclosure - LONG-TERM DEBT (Details) Calc 2 link:presentationLink link:calculationLink link:definitionLink 99940502 - Disclosure - LONG-TERM DEBT, NET (Details) link:presentationLink link:calculationLink link:definitionLink 99940503 - Disclosure - LONG-TERM DEBT, NET - Principal payments (Details) link:presentationLink link:calculationLink link:definitionLink 40703 - Disclosure - LEASES - Maturities of the lease liabilities (Details) link:presentationLink link:calculationLink link:definitionLink 99940703 - Disclosure - LEASES - Maturities of the lease liabilities (Details) link:presentationLink link:calculationLink link:definitionLink 995200105 - Statement - CONSOLIDATED BALANCE SHEETS (Parenthetical) link:presentationLink link:calculationLink link:definitionLink 995200300 - Statement - CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY link:presentationLink link:calculationLink link:definitionLink 99940101 - Disclosure - BASIS OF PRESENTATION (Details) link:presentationLink link:calculationLink link:definitionLink 99940201 - Disclosure - PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Details) link:presentationLink link:calculationLink link:definitionLink 99940301 - Disclosure - STOCKHOLDERS' EQUITY - Stock option activity (Details) link:presentationLink link:calculationLink link:definitionLink 99940302 - Disclosure - STOCKHOLDERS' EQUITY - Intrinsic value (Details) link:presentationLink link:calculationLink link:definitionLink 99940303 - Disclosure - STOCKHOLDERS' EQUITY - Non-vested options (Details) link:presentationLink link:calculationLink link:definitionLink 99940304 - Disclosure - STOCKHOLDERS' EQUITY - Restricted stock unit (Details) link:presentationLink link:calculationLink link:definitionLink 99940305 - Disclosure - STOCKHOLDERS' EQUITY - Restricted stock unit activity (Details) link:presentationLink link:calculationLink link:definitionLink 99940306 - Disclosure - STOCKHOLDERS' EQUITY - Warrants (Details) link:presentationLink link:calculationLink link:definitionLink 99940307 - Disclosure - STOCKHOLDERS' EQUITY - Additional information (Details) link:presentationLink link:calculationLink link:definitionLink 99940401 - Disclosure - REVENUE - Revenue by customer type and geographic area (Details) link:presentationLink link:calculationLink link:definitionLink 99940402 - Disclosure - REVENUE - Receivables and contract liabilities (Details) link:presentationLink link:calculationLink link:definitionLink 99940403 - Disclosure - REVENUE - Additional information (Details) link:presentationLink link:calculationLink link:definitionLink 99940501 - Disclosure - LONG-TERM DEBT, NET - Avenue Capital Group (Details) link:presentationLink link:calculationLink link:definitionLink 99940504 - Disclosure - LONG-TERM DEBT, NET - Additional information (Details) link:presentationLink link:calculationLink link:definitionLink 99940601 - Disclosure - COMMITMENTS AND CONTINGENCIES (Details) link:presentationLink link:calculationLink link:definitionLink 99940701 - Disclosure - LEASES (Details) link:presentationLink link:calculationLink link:definitionLink 99940702 - Disclosure - LEASES - Right-of- use asset and related lease liability (Details) link:presentationLink link:calculationLink link:definitionLink 99940801 - Disclosure - NET LOSS PER SHARE (Details) link:presentationLink link:calculationLink link:definitionLink 995200090 - Document - Document and Entity Information link:presentationLink link:calculationLink link:definitionLink 995210101 - Disclosure - BASIS OF PRESENTATION link:presentationLink link:calculationLink link:definitionLink 995210201 - Disclosure - PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES link:presentationLink link:calculationLink link:definitionLink 995210301 - Disclosure - STOCKHOLDERS' EQUITY link:presentationLink link:calculationLink link:definitionLink 995210401 - Disclosure - REVENUE link:presentationLink link:calculationLink link:definitionLink 995210501 - Disclosure - LONG-TERM DEBT, NET link:presentationLink link:calculationLink link:definitionLink 995210601 - Disclosure - COMMITMENTS AND CONTINGENCIES link:presentationLink link:calculationLink link:definitionLink 995210701 - Disclosure - LEASES link:presentationLink link:calculationLink link:definitionLink 995210801 - Disclosure - NET LOSS PER SHARE link:presentationLink link:calculationLink link:definitionLink 99920202 - Disclosure - PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Policies) link:presentationLink link:calculationLink link:definitionLink 99930203 - Disclosure - PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Tables) link:presentationLink link:calculationLink link:definitionLink 99930303 - Disclosure - STOCKHOLDERS' EQUITY (Tables) link:presentationLink link:calculationLink link:definitionLink 99930403 - Disclosure - REVENUE (Tables) link:presentationLink link:calculationLink link:definitionLink 99930503 - Disclosure - LONG-TERM DEBT, NET (Tables) link:presentationLink link:calculationLink link:definitionLink 99930703 - Disclosure - LEASES (Tables) link:presentationLink link:calculationLink link:definitionLink EX-101.CAL 7 ctso-20240630_cal.xml EX-101.CAL EX-101.DEF 8 ctso-20240630_def.xml EX-101.DEF EX-101.LAB 9 ctso-20240630_lab.xml EX-101.LAB Document and Entity Information Document Type Document Quarterly Report Document Period End Date Document Transition Report Entity File Number Entity Registrant Name Entity Incorporation, State or Country Code Entity Tax Identification Number Entity Address, Address Line One Entity Address, City or Town Entity Address, State or Province Entity Address, Postal Zip Code City Area Code Local Phone Number Title of 12(b) Security Trading Symbol Security Exchange Name Entity Current Reporting Status Entity Interactive Data Current Entity Filer Category Entity Small Business Entity Emerging Growth Company Entity Shell Company Entity Common Stock, Shares Outstanding Entity Central Index Key Current Fiscal Year End Date Document Fiscal Year Focus Document Fiscal Period Focus Amendment Flag CONSOLIDATED BALANCE SHEETS Statement [Table] Statement [Table] Statement [Line Items] Statement LONG-TERM DEBT, NET Assets [Abstract] ASSETS Assets, Current [Abstract] Current Assets: Cash and Cash Equivalents, at Carrying Value Cash and cash equivalents Accounts Receivable, Net, Current Grants and accounts receivable, net of allowance of $88,017 as of June 30, 2024 and $49,663 at December 31, 2023 Inventory, Net Inventories Prepaid Expense and Other Assets, Current Prepaid expenses and other current assets Assets, Current Total current assets Property, Plant and Equipment, Net Property and equipment, net Restricted Cash, Noncurrent Restricted cash Operating Lease, Right-of-Use Asset Right-of-use asset Right of use asset Right-of-use assets Other Assets, Noncurrent Other assets Assets Total Assets Liabilities and Equity [Abstract] LIABILITIES AND STOCKHOLDERS' EQUITY Liabilities, Current [Abstract] Current Liabilities: Accounts Payable, Current Accounts payable Long-term Debt, Current Maturities Less Current maturities Current maturities of long-term debt Operating Lease, Liability, Current Less current portion Lease liability - current portion Amount of accrued expenses and other current liabilities. Accrued Expenses and Other Current Liabilities. Accrued expenses and other current liabilities Liabilities, Current Total current liabilities Operating Lease, Liability, Noncurrent Lease liability, net of current portion Long-term Debt, Excluding Current Maturities Long-term debt Long-term debt net of current maturities Liabilities Total Liabilities Commitments and Contingencies. Commitments and Contingencies (Note 6) Stockholders' Equity Attributable to Parent [Abstract] Stockholders' Equity: Preferred Stock, Value, Issued Preferred Stock, Par Value $0.001, 5,000,000 shares authorized; no shares issued and outstanding at June 30, 2024 and December 31, 2023 Common Stock, Value, Issued Common Stock, Par Value $0.001, 100,000,000 shares authorized; 54,306,415 and 54,240,265 shares issued and outstanding as of June 30, 2024 and December 31, 2023, respectively Additional Paid in Capital Additional paid-in capital Accumulated Other Comprehensive Income (Loss), Net of Tax Accumulated other comprehensive income Retained Earnings (Accumulated Deficit) Accumulated deficit Stockholders' Equity Attributable to Parent Balance Balance Total Stockholders' Equity Liabilities and Equity Total Liabilities and Stockholders' Equity Accounts Receivable, Allowance for Credit Loss, Current Grants and accounts receivable, net of allowance for doubtful accounts Preferred Stock, Par or Stated Value Per Share Preferred Stock, Par Value (in dollars per share) Preferred Stock, Shares Authorized Number of preferred stock authorized Preferred Stock, shares authorized Preferred Stock, Shares Issued Preferred Stock, shares issued Preferred Stock, Shares Outstanding Preferred Stock, shares outstanding Common Stock, Par or Stated Value Per Share Common Stock, Par Value (in dollars per share) Common Stock, Shares Authorized Common Stock, shares authorized Common Stock, Shares, Issued Common Stock, shares issued Common Stock, Shares, Outstanding Common Stock, shares outstanding CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS Product and Service [Axis] Product and Service [Domain] Total product sales [Member] Total product sales Product sales Represent the information relating to the cyto sorb sales CytoSorb sales [Member] CytoSorb sales Represent the information relating to the other sales Other sales [Member] Other product sales Grant income [Member] Grant income Government grants Revenues [Abstract] Revenue: Revenue from Contract with Customer, Including Assessed Tax Total revenue Cost of Goods and Services Sold Cost of revenue Gross Profit Gross profit Operating Expenses [Abstract] Other expenses: Research and Development Expense Research and development Professional Fees Legal, financial and other consulting Selling, General and Administrative Expense Selling, general and administrative Operating Expenses Total expenses Operating Income (Loss) Loss from operations Nonoperating Income (Expense) [Abstract] Other income (expense): Interest Income (Expense), Nonoperating, Net Interest income (expense), net Foreign Currency Transaction Gain (Loss), before Tax Gain (loss) on foreign currency transactions Amount of miscellaneous income (expense). Miscellaneous Income (Expense) Miscellaneous income (expense) Nonoperating Income (Expense) Total other income (expense), net Income (Loss) from Continuing Operations before Income Taxes, Noncontrolling Interest Loss before benefit from income taxes Net Income (Loss) Available to Common Stockholders, Basic Net loss attributable to common stockholders Earnings Per Share, Basic Basic net loss per common share Earnings Per Share, Diluted Diluted net loss per common share Weighted Average Number of Shares Outstanding, Basic Weighted average number of shares of common stock outstanding, basic Weighted Average Number of Shares Outstanding, Diluted Weighted average number of shares of common stock outstanding, diluted Comprehensive Income (Loss), Net of Tax, Attributable to Parent [Abstract] Comprehensive loss: Net loss Other Comprehensive Income (Loss), Net of Tax [Abstract] Other comprehensive income (loss): Other Comprehensive Income (Loss), Foreign Currency Transaction and Translation Adjustment, Net of Tax Foreign currency translation adjustment Other comprehensive income (loss): foreign translation adjustment Comprehensive Income (Loss), Net of Tax, Attributable to Parent Comprehensive loss CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY Equity Components [Axis] Equity Component [Domain] Common Stock [Member] Common Stock Additional Paid-in Capital [Member] Additional Paid-In Capital Accumulated Other Comprehensive Income (Loss) [Member] Accumulated Other Comprehensive Income (Loss) Accumulated Deficit [Member] Accumulated Deficit Shares, Outstanding Balance (in shares) Balance (in shares) Adjustments to Additional Paid in Capital, Share-based Compensation, Requisite Service Period Recognition Stock-based compensation - employees, consultants and directors Adjustments to Additional Paid in Capital, Warrant Issued Warrants issued in connection with long-term debt Stock Issued During Period, Value, New Issues Issuance of common stock offerings, net of fees Sale Of Common Stock Issuance of common stock offerings, net of fees (in shares) Issuance of common stock Adjustments to Additional Paid in Capital, Stock Issued, Issuance Costs Legal/audit fees related to ATM offering Value stock issued during the period as a result of the exercise of cash options. Stock Issued During Period Value Stock Cash Options Exercised Proceeds from exercise of stock options for cash Number of shares issued during the period as a result of the exercise of cash options. Stock Issued During Period Shares Stock Cash Options Exercised Proceeds from exercise of stock options for cash (in shares) Stock Issued During Period, Value, Restricted Stock Award, Net of Forfeitures Issuance of restricted stock units Stock Issued During Period, Shares, Restricted Stock Award, Net of Forfeitures Issuance of restricted stock units (in shares) CONSOLIDATED STATEMENTS OF CASH FLOWS Net Cash Provided by (Used in) Operating Activities [Abstract] Cash flows from operating activities: Adjustments to Reconcile Net Income (Loss) to Cash Provided by (Used in) Operating Activities [Abstract] Adjustments to reconcile net loss to net cash used in operating activities: Amount of accrued final fee made during the period. Accrued Final Fee Accrued final fee Amount of non-cash compensation. Non cash compensation Non-cash compensation Depreciation, Depletion and Amortization, Nonproduction Depreciation and amortization Amortization of Debt Discount (Premium) Amortization of right-of-use asset Impairment of Intangible Assets, Finite-lived Write off of patent cost Provision for Doubtful Accounts Bad debt expense (recovery) Share-based Compensation Stock-based compensation Foreign Currency Transaction Gain (Loss), Unrealized Foreign currency translation (gain) loss Increase (Decrease) in Operating Capital [Abstract] Changes in operating assets and liabilities: Increase (Decrease) in Accounts Receivable Grants and accounts receivable Increase (Decrease) in Inventories Inventories Increase (Decrease) in Prepaid Expense and Other Assets Prepaid expenses and other current assets Increase (Decrease) in Other Operating Assets Other assets Increase (Decrease) in Accounts Payable and Accrued Liabilities Accounts payable and accrued expenses Net Cash Provided by (Used in) Operating Activities Net cash used in operating activities Net Cash Provided by (Used in) Investing Activities [Abstract] Cash flows from investing activities: The net cash outflow or inflow from purchases, sales and disposals of property, plant and equipment. Payments For Proceeds From Property And Equipment Purchases of property and equipment Payments to Acquire Intangible Assets Payments for patent costs Net Cash Provided by (Used in) Investing Activities Net cash used in investing activities Net Cash Provided by (Used in) Financing Activities [Abstract] Cash flows from financing activities: Proceeds from Issuance of Long-term Debt Proceeds from long-term debt Repayments of Long-Term Debt Repayment of long-term debt The cash outflow for payment of final fees on debt. Payments of Final Fees Payment of final fee Payments of Loan Costs Payment of loan costs The cash outflow for equity contributions - net of fees incurred Payments for Equity contributions - Net of Fees Incurred Equity contributions - net of fees incurred Proceeds from Stock Options Exercised Proceeds from exercise of stock options Proceeds from Issuance of Common Stock Net proceeds from issuance of stock Issuance of common stock, net of fees incurred Net Cash Provided by (Used in) Financing Activities Net cash provided by (used in) financing activities Effect of Exchange Rate on Cash and Cash Equivalents Effect of exchange rates on cash Cash and Cash Equivalents, Period Increase (Decrease) Net change in cash, cash equivalents and restricted cash Cash, Cash Equivalents, Restricted Cash and Restricted Cash Equivalents Cash, cash equivalents and restricted cash - end of period Cash, cash equivalents and restricted cash - beginning of period Total cash, cash equivalents and restricted cash Supplemental Cash Flow Information [Abstract] Supplemental disclosure of cash flow information: Interest Paid, Excluding Capitalized Interest, Operating Activities Cash paid during the period for interest Cash Flow, Noncash Investing and Financing Activities Disclosure [Abstract]

Supplemental disclosure of non-cash financing activities: The amount of warrants issued in connection with debt. Warrants Issued in Connection with Debt Warrants issued in connection with long-term debt The fair value of issuance of restricted stock units in noncash financing activities. Issuance Of Restricted Stock Units Issuance of restricted stock units BASIS OF PRESENTATION Basis of Accounting [Text Block] BASIS OF PRESENTATION PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Organization, Consolidation and Presentation of Financial Statements Disclosure and Significant Accounting Policies [Text Block] PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES STOCKHOLDERS' EQUITY Stockholders' Equity Note Disclosure [Text Block] STOCKHOLDERS' EQUITY REVENUE Revenue from Contract with Customer [Text Block] REVENUE LONG-TERM DEBT, NET Long-term Debt [Text Block] LONG-TERM DEBT, NET COMMITMENTS AND CONTINGENCIES Commitments and Contingencies Disclosure [Text Block] COMMITMENTS AND CONTINGENCIES LEASES Lessee, Operating Leases [Text Block] LEASES NET LOSS PER SHARE Earnings Per Share [Text Block] NET LOSS PER SHARE Disclosure of accounting policy for Nature of Business Policy. Nature Of Business Policy [Policy Text Block] Nature of Business Disclosure of accounting policy for stock market listing. Stock Market Listing Policy [Text Block] Stock Market Listing Disclosure of accounting policy for basis of consolidation and foreign currency translation. Consolidation and Foreign Currency Translation Policy [Text Block] Basis of Consolidation and Foreign Currency Translation Cash and Cash Equivalents, Policy [Policy Text Block] Cash, Cash Equivalents and Restricted Cash Cash and Cash Equivalents, Restricted Cash and Cash Equivalents, Policy [Policy Text Block] Restricted Cash Trade and Other Accounts Receivable, Policy [Policy Text Block] Grants and Accounts Receivable Inventory, Policy [Policy Text Block] Inventories Property, Plant and Equipment, Policy [Policy Text Block] Property and Equipment Intangible Assets, Finite-Lived, Policy [Policy Text Block] Patents Impairment or Disposal of Long-Lived Assets, Policy [Policy Text Block] Impairment or Disposal of Long-Lived Assets Revenue from Contract with Customer [Policy Text Block] Revenue Recognition Research and Development Expense, Policy [Policy Text Block] Research and Development and Clinical Trial Expenses Advertising Costs, Policy [Policy Text Block] Advertising Expenses Income Tax, Policy [Policy Text Block] Income Taxes Use of Estimates, Policy [Policy Text Block] Use of Estimates Concentration Risk, Credit Risk, Policy [Policy Text Block] Concentration of Credit Risk Fair Value of Financial Instruments, Policy [Policy Text Block] Financial Instruments Disclosure of accounting policy for warrants. Warrants Policy [Policy Text Block] Warrants Earnings Per Share, Policy [Policy Text Block] Net Loss Per Common Share Share-based Compensation, Option and Incentive Plans Policy [Policy Text Block] Stock-Based Compensation Disclosure of accounting policy for the classification of shipping and handling costs, including whether the costs are included in cost of sales or included in other income statement accounts. If shipping and handling fees are significant and are not included in cost of sales, disclosure includes both the amounts of such costs and the line item on the income statement which includes such costs. Shipping And Handling Costs Policy [Policy Text Block] Shipping and Handling Costs New Accounting Pronouncements, Policy [Policy Text Block] Effect of Recent Accounting Pronouncements Tabular disclosure of the components of cash and cash equivalents and restricted cash and cash equivalents. Schedule Of Cash And Cash Equivalents And Restricted Cash And Cash Equivalents [Table Text Block] Schedule of reconciliation of cash and cash equivalents and restricted cash and cash equivalents Share-based Compensation, Stock Options, Activity [Table Text Block] Schedule of stock options activity Schedule of Share-based Compensation, Shares Authorized under Stock Option Plans, by Exercise Price Range [Table Text Block] Schedule of intrinsic value Schedule of Nonvested Share Activity [Table Text Block] Schedule of company's non-vested options Schedule of Share-based Compensation, Restricted Stock Units Award Activity [Table Text Block] Schedule of restricted stock unit Schedule of Share-based Compensation, Restricted Stock and Restricted Stock Units Activity [Table Text Block] Schedule of the restricted stock unit activity Disaggregation of Revenue [Table Text Block] Schedule of disaggregation of revenue Contract with Customer, Asset and Liability [Table Text Block] Schedule of receivables and contract liabilities from contracts with customers Schedule of Long-term Debt Instruments [Table Text Block] Schedule of Long-term debt Schedule of Maturities of Long-term Debt [Table Text Block] Schedule of Principal payments of long-term debt Tabular disclosure of Lessee's right-of-use-assets and lease liability under operating lease. Lessee, Operating Lease, Balance Sheet Disclosure [Table Text Block] Schedule of right-of- use asset and related lease liability Lessee, Operating Lease, Liability, Maturity [Table Text Block] Schedule of maturities of the lease liabilities Schedule of Collaborative Arrangements and Non-collaborative Arrangement Transactions [Table] Range [Axis] Range [Domain] Maximum [Member] Maximum Schedule of Capitalization [Line Items] BASIS OF PRESENTATION The amount of approximate value of cash and cash equivalents. Cash and Cash Equivalents Gross Value Cash and cash equivalents gross value Restricted Cash and Cash Equivalents, Current Restricted cash The amount of increase in unrestricted cash position related to debt facility. Increase in Unrestricted Cash Related to Debt Facility Increase in unrestricted cash related to debt facility Disclosure of information about principal business activity and summary of significant accounting policies. Principal Business Activity and Summary of Significant Accounting Policies [Table] Concentration Risk Benchmark [Axis] Concentration Risk Benchmark [Domain] Accounts Receivable [Member] Accounts receivable Sales Revenue, Net [Member] Revenue Concentration Risk Type [Axis] Concentration Risk Type [Domain] Customer Concentration Risk [Member] Customer concentration risk Customer [Axis] Customer [Domain] This member stands for distributors/strategic partners. Distributors/Strategic Partners [Member] Distributors/Strategic Partners Cargo and Freight [Member] Cargo and Freight Credit Facility [Axis] Credit Facility [Domain] Letter of credit [Member] Letter of credit Credit Card [Member] Credit Card Income Tax Authority [Axis] Income Tax Authority [Domain] Federal [Member] Federal Debt Instrument [Axis] Debt Instrument, Name [Domain] Represents information pertaining to loan and securities agreement. Loan and security agreement Debt agreement Line items represents the Principal Business Activity and Summary of Significant Accounting Policies. Principal Business Activity and Summary of Significant Accounting Policies [Line Items] PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Number of countries where the entity's flagship product is marketed and distributed. Number of Countries Where Flagship Product is Marketed and Distributed Number of countries where the entity's flagship product is marketed and distributed Represents the company entered in to supplier agreement term. Supplier Agreement Term Preferred supplier agreement term Represents the number of healthcare facilities. Number of Healthcare Facilities Number of healthcare facilities Number of states across the healthcare facilities. Number of States Across the Healthcare Facilities Number of states healthcare facilities across throughout Germany Number of patents issued to the entity in the United States. Number of Patents, United States Number of patents Amount before tax of foreign currency transaction realized and unrealized gain (loss) recognized in the income statement. Foreign Currency Transaction Gain (Loss), Excluding Tax Foreign currency transaction gain (loss) Debt Instrument, Collateral Amount Cash collateral Inventory, Finished Goods, Gross Inventory - finished goods Inventory, Work in Process, Gross Inventory - work in process Inventory, Raw Materials, Gross Inventory - raw materials Asset Impairment Charges Impairment charges Advertising Expense Advertising expenses Effective Income Tax Rate Reconciliation, at Federal Statutory Income Tax Rate, Percent Federal statutory rate Unrecognized Tax Benefits Unrecognized tax benefits Number of member banks. Number of Member Bank Number of member bank Number of distributors of the company. Number Of Distributors Number of distributors Concentration Risk, Percentage Concentration risk percentage Restricted Cash and Cash Equivalents Restricted cash Schedule that describes stockholders' equity. Stockholders Equity [Table] Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. Stockholders Equity [Line Items] STOCKHOLDERS' EQUITY Share-based Compensation Arrangement by Share-based Payment Award, Options, Outstanding [Roll Forward] Shares Share-based Compensation Arrangement by Share-based Payment Award, Options, Outstanding, Number Outstanding, end of the year Outstanding, beginning of the year Outstanding Share-based Compensation Arrangement by Share-based Payment Award, Options, Grants in Period, Gross Granted Share-based Compensation Arrangement by Share-based Payment Award, Options, Forfeitures in Period Forfeited Share-based Compensation Arrangement by Share-based Payment Award, Options, Expirations in Period Expired Share-based Compensation Arrangement by Share-based Payment Award, Options, Outstanding, Weighted Average Exercise Price [Abstract] Weighted Average Exercise Price per Share Share-based Compensation Arrangement by Share-based Payment Award, Options, Outstanding, Weighted Average Exercise Price Outstanding, end of the year Outstanding, beginning of the year Share-based Compensation Arrangements by Share-based Payment Award, Options, Grants in Period, Weighted Average Exercise Price Granted Share-based Compensation Arrangements by Share-based Payment Award, Options, Forfeitures in Period, Weighted Average Exercise Price Forfeited Share-based Compensation Arrangements by Share-based Payment Award, Options, Expirations in Period, Weighted Average Exercise Price Expired Share-based Compensation Arrangement by Share-based Payment Award, Options, Additional Disclosures [Abstract] Weighted Average Remaining Contractual Life (Years) Options Exercisable Share-based Compensation Arrangement by Share-based Payment Award, Options, Outstanding, Weighted Average Remaining Contractual Term Outstanding, beginning of the year Share based Compensation Arrangement by Share based Payment Award Options Outstanding Granted In Period Weighted Average Remaining Contractual Term Share Based Compensation Arrangement By Share Based Payment Award Options Outstanding Granted In Period Weighted Average Remaining Contractual Term Granted Weighted average remaining contractual term for option awards cancelled during the period, in PnYnMnDTnHnMnS format, for example, P1Y5M13D represents the reported fact of one year, five months, and thirteen days. Share Based Compensation Arrangement by Share Based Payment Award Options Cancelled in Period Weighted Average Remaining Contractual Term Forfeited Share based Compensation Arrangement by Share based Payment Award Options Outstanding Expired In Period Weighted Average Remaining Contractual Term. Share Based Compensation Arrangement By Share Based Payment Award Options Expired In Period Weighted Average Remaining Contractual Term Expired Weighted average remaining contractual term for option awards exercised during the period, in PnYnMnDTnHnMnS format, for example, P1Y5M13D represents the reported fact of one year, five months, and thirteen days. Share Based Compensation Arrangement by Share Based Payment Award Options Exercised in Period Weighted Average Remaining Contractual Term Exercised Share-based Compensation Arrangement by Share-based Payment Award, Options, Exercisable, Weighted Average Remaining Contractual Term Outstanding, end of the year Schedule of Share-based Compensation, Shares Authorized under Stock Option Plans, by Exercise Price Range [Table] Exercise Price Range [Axis] Share-based Compensation, Shares Authorized under Stock Option Plans, Exercise Price Range [Domain] Represents exercise price range one. Exercise Price Range One [Member] Exercise Price Range One Share-based Compensation, Shares Authorized under Stock Option Plans, Exercise Price Range [Line Items] STOCKHOLDERS' EQUITY Share-based Compensation, Shares Authorized under Stock Option Plans, Exercise Price Range, End of Period [Abstract] Options Outstanding Share-based Compensation, Shares Authorized under Stock Option Plans, Exercise Price Range, Lower Range Limit Range of Exercise Price, Lower Range Limit Share-based Compensation, Shares Authorized under Stock Option Plans, Exercise Price Range, Upper Range Limit Range of Exercise Price, Upper Range Limit Share-based Compensation, Shares Authorized under Stock Option Plans, Exercise Price Range, Number of Outstanding Options Number Outstanding at June 30, 2024 Share-based Compensation, Shares Authorized under Stock Option Plans, Exercise Price Range, Outstanding Options, Weighted Average Exercise Price Weighted Average Exercise Price Share-based Compensation, Shares Authorized under Stock Option Plans, Exercise Price Range, Outstanding Options, Weighted Average Remaining Contractual Term Weighted Average Remaining Life (Years) Share-based Compensation, Shares Authorized under Stock Option Plans, Exercise Price Range, Number of Exercisable Options Number Exercisable at June 30, 2024 Share-based Compensation, Shares Authorized under Stock Option Plans, Exercise Price Range, Exercisable Options, Weighted Average Exercise Price Weighted Average Exercise Price Schedule of Stock by Class [Table] Class of Stock [Line Items] STOCKHOLDERS' EQUITY Share-based Compensation Arrangement by Share-based Payment Award, Options, Nonvested, Number of Shares [Roll Forward] Shares Share-based Compensation Arrangement by Share-based Payment Award, Options, Nonvested, Number of Shares Non-vested, June 30, 2024 Non-vested, December 31, 2023 Share-based Compensation Arrangement by Share-based Payment Award, Options, Nonvested Options Forfeited, Number of Shares Forfeited Share-based Compensation Arrangement by Share-based Payment Award, Options, Vested, Number of Shares Vested Vested Share-based Compensation Arrangement by Share-based Payment Award, Options, Nonvested, Weighted Average Grant Date Fair Value [Abstract] Weighted Average Grant Date Fair Value Share-based Compensation Arrangement by Share-based Payment Award, Option, Nonvested, Weighted Average Exercise Price Non-vested, June 30, 2024 Non-vested, December 31, 2023 Share-based Compensation Arrangement by Share-based Payment Award, Options, Grants in Period, Weighted Average Grant Date Fair Value Granted Share-based Compensation Arrangement by Share-based Payment Award, Options, Nonvested Options Forfeited, Weighted Average Grant Date Fair Value Forfeited Share-based Compensation Arrangement by Share-based Payment Award, Options, Vested, Weighted Average Grant Date Fair Value Vested Restricted Stock Units (RSUs) [Member] Restricted stock Title of Individual [Axis] Relationship to Entity [Domain] Board of Directors Chairman [Member] Board of Directors Management [Member] Executive Management Officer [Member] Other Employees Share-based Compensation Arrangement by Share-based Payment Award, Non-Option Equity Instruments, Outstanding, Number Restricted Stock Units, Ending Balance Restricted Stock Units, Beginning Balance Share-based Compensation Arrangement by Share-based Payment Award, Equity Instruments Other than Options, Aggregate Intrinsic Value, Outstanding Restricted Stock Units, Intrinsic Value Ending Balance Restricted Stock Units, Intrinsic Value Beginning Balance Share-based Compensation Arrangement by Share-based Payment Award, Non-Option Equity Instruments, Granted Granted Share-based Compensation Arrangement by Share-based Payment Award, Non-Option Equity Instruments, Forfeitures Forfeited Restricted Stock or Unit Expense Restricted Stock Units, Expense Share-based Compensation Arrangement by Share-based Payment Award, Equity Instruments Other than Options, Nonvested, Number of Shares [Roll Forward] Shares Share-based Compensation Arrangement by Share-based Payment Award, Equity Instruments Other than Options, Nonvested, Number Non-vested, June 30, 2024 Non-vested, December 31, 2023 Non-Vested shares Share-based Compensation Arrangement by Share-based Payment Award, Equity Instruments Other than Options, Grants in Period Options to grant (in shares) Granted Share-based Compensation Arrangement by Share-based Payment Award, Equity Instruments Other than Options, Vested in Period Vested Vested (in shares) Share-based Compensation Arrangement by Share-based Payment Award, Equity Instruments Other than Options, Forfeited in Period Forfeited RSU Forfeited (in shares) Share-based Compensation Arrangement by Share-based Payment Award, Equity Instruments Other than Options, Nonvested, Weighted Average Grant Date Fair Value [Abstract] Weighted Average Grant Date Fair Value Share-based Compensation Arrangement by Share-based Payment Award, Equity Instruments Other than Options, Nonvested, Weighted Average Grant Date Fair Value Non-vested, June 30, 2024 Non-vested, December 31, 2023 Share-based Compensation Arrangement by Share-based Payment Award, Equity Instruments Other than Options, Grants in Period, Weighted Average Grant Date Fair Value Granted Share-based Compensation Arrangement by Share-based Payment Award, Equity Instruments Other than Options, Vested in Period, Weighted Average Grant Date Fair Value Vested Share-based Compensation Arrangement by Share-based Payment Award, Equity Instruments Other than Options, Forfeitures, Weighted Average Grant Date Fair Value Forfeited Class of Warrant or Right [Table] Class of Warrant or Right [Line Items] STOCKHOLDERS' EQUITY Class of Warrant or Right, Outstanding Number of shares to be purchased Class of Warrant or Right, Exercise Price of Warrants or Rights Warrant Exercise Price per Share Warrant exercise price per share Number of warrants or rights issued. Class of Warrant or Right, Issued Class of warrant issued Price of the entity's common stock which would be required to be attained for revision of exercise price of warrants or rights. Class of Warrant or Right, Revision Of Exercise Price of Warrants or Rights, Stock Price Trigger Stock price trigger for revision of exercise price of warrants Subsequent Event Type [Axis] Subsequent Event Type [Domain] Subsequent event [Member] Subsequent event Class of Stock [Axis] Class of Stock [Domain] Represents the information pertaining to Exercise Price Ranging From 0.84 to 0.99. Exercise Price Ranging From 0.84 to 0.99 [Member] Exercise Price Ranging From 0.84 to 0.99 Legal Entity [Axis] Entity [Domain] Represents information pertaining to Jefferies LLC and B. Riley FBR, Inc. Jefferies LLC and B. Riley FBR, Inc Jefferies LLC and B. Riley FBR, Inc Director [Member] Director This member stands for Employee One. Employee One [Member] Employee one Employee Stock [Member] Employee Stock This member stands for Employee Two. Employee Two [Member] Employee two Chief Executive Officer [Member] Chief Executive Officer This member stands for senior managers. Senior managers [Member] Senior managers Represents information pertaining to certain named executive officers and senior managers. Certain Named Executive Officers and Senior Managers [Member] Executive officers and senior managers Represents information pertaining to certain named executive officers and senior managers. Certain Named Executive Officers and Senior Managers, Two [Member] Executive officers and senior managers Represents information pertaining to named executive officers. Named Executive Officer [Member] Executive officer Represents information pertaining to certain employees. Certain Employees [Member] Certain employees Vesting [Axis] Vesting [Domain] Share-based Payment Arrangement, Tranche One [Member] Vesting, tranche one Share-based Payment Arrangement, Tranche Two [Member] Vesting, tranche two Share-based Payment Arrangement, Tranche Three [Member] Vesting, tranche three Minimum [Member] Minimum Scenario [Axis] Scenario, Unspecified [Domain] Represents information pertaining to vesting of share-based awards upon the earlier of a Change in Control or one-third after the second anniversary of the award, one-third on the third anniversary of the award, and one-third on the fourth anniversary of the award. Vesting Upon Earlier Of Change in Control Or One-Third After Second Anniversary, One-Third On Third Anniversary, And One-Third on Fourth Anniversary [Member] Anniversary of the award Represents information pertaining to vesting of share-based awards upon the earlier of a Change in Control or three years from the date of the award. Vesting Upon Earlier Of Change in Control or Three Years from Date of Award [Member] Vesting upon earlier of change in control or three years from date of award Class of Warrant or Right, Number of Securities Called by

Warrants or Rights Warrants to purchase shares Common Stock Value Authorized For Shares Authorized. Common Stock Value Authorized Aggregate offering price Aggregate maximum amount of securities that can be offered and sold, in one or more offerings, in any combination of common stock, preferred stock, senior or subordinated debt securities, warrants and units, pursuant to shelf registration. Aggregate Registered Amount for Offerings Aggregate registered amount for offerings Share-Based Compensation Arrangement by Share-Based Payment Award, Options, unvested in Period, Fair Value Share-Based Compensation Arrangement by Share-Based Payment Award, Options, Non-Vested in Period, Fair Value Unvested options in fair value The commission rate as a percentage of the aggregate gross proceeds. Commission Rate As Percentage Of Aggregate Gross Proceeds Commission rate (as a percent) Share-based Compensation Arrangement by Share-based Payment Award, Shares Issued in Period Number of options granted Allocated Share-based Compensation Expense Restricted stock unit Share-based Compensation Arrangement by Share-based Payment Award, Fair Value Assumptions, Exercise Price Grant date exercise price range Share-based Compensation Arrangement by Share-based Payment Award, Fair Value Assumptions, Expected Term Expected life of the stock option Share-based Compensation Arrangement by Share-based Payment Award, Fair Value Assumptions, Expected Volatility Rate Current price of the underlying stock and its expected volatility range Share-based Compensation Arrangement by Share-based Payment Award, Fair Value Assumptions, Expected Dividend Rate Expected dividends Share-based Compensation Arrangement by Share-based Payment Award, Fair Value Assumptions, Risk Free Interest Rate, Minimum Risk free interest rate, minimum Share-based Compensation Arrangement by Share-based Payment Award, Fair Value Assumptions, Risk Free Interest Rate, Maximum Risk free interest rate range Employee Service Share-based Compensation, Nonvested Awards, Compensation Not yet Recognized, Stock Options Total unrecognized compensation cost related to stock options Employee Service Share-based Compensation, Nonvested Awards, Compensation Cost Not yet Recognized, Period for Recognition Amortized period Stock Issued During Period, Shares, Restricted Stock Award, Gross Stock issued during period, shares, restricted stock award, gross Stock Issued During Period, Value, Restricted Stock Award, Gross Stock issued during period, value, restricted stock sward, gross Share-based Compensation Arrangement by Share-based Payment Award, Award Vesting Rights, Percentage Vesting percentage Share-based Compensation Arrangement by Share-based Payment Award, Award Vesting Period Vesting period Proceeds from Issuance or Sale of Equity Equity investment by an existing investor Net proceeds from issuance of stock Sale of Stock, Price Per Share Average selling price Stock Issued During Period, Value, Restricted Stock Award, Forfeitures RSU Forfeited Share-Based Compensation Arrangement by Share-Based Payment Award, Equity Instruments Other than Options, Vested in Period, Fair Value Vested Disaggregation of Revenue [Table] This member stands for Direct. Direct [Member] Direct This member stands for united states government agencies. United States Government Agencies [Member] United States Government Agencies Geographical [Axis] Geographical [Domain] United States [Member] United States Germany [Member] Germany This member stands for All other countries. All other countries [Member] All other countries Disaggregation of Revenue [Line Items] REVENUE Sale Revenues Goods Net Sale Revenues Goods Net [Abstract] Product sales: Contract with Customer, Asset, Net, Current Receivables, which are included in grants and accounts receivable Deferred Revenue Contract liabilities, which are included in accrued expenses and other current liabilities Number of primary revenue streams. Number of Primary Revenue Streams Number of primary revenue streams Represents the term of customer contracts. Term Of Customer Contracts Term of customer contracts Value of free of charge goods and credit rebates as on the balance sheet date, classified as current. Contract With Customer Liability, Value of Free Of Charge Goods And Credit Rebates, Current Value of free of charge goods and credit rebates Amount of contract with customer liability net of free of charge goods and credit rebates as on the balance sheet date, classified as current. Contract With Customer Liability, Net Of Free Of Charge Goods And Credit Rebates, Current Contract liabilities net of value of free of charge goods and credit rebates Schedule of Long-Term Debt Instruments [Table] Represents information pertaining to loan and securities agreement, tranche one. Loan and security agreement, tranche one Growth Capital Loan Tranche 1 Represents information pertaining to loan and securities agreement, tranche two. Loan and security agreement, tranche two Growth Capital Loan Tranche 2 Lender Name [Axis] Line of Credit Facility, Lender [Domain] Represents information pertaining to Avenue Venture Opportunities Fund, L.P. Avenue Venture Opportunities Fund, L.P Avenue Venture Opportunities Fund, L.P Represents information pertaining to Avenue Venture Opportunities Fund II, L.P. Avenue Venture Opportunities Fund II, L.P Avenue Venture Opportunities Fund II, L.P Represents prepayment made on or after funding date. Prepayment made on or after funding date Prepayment made on or after funding date Represents prepayment made after first anniversary. Prepayment made after first anniversary Prepayment made after first anniversary Represents prepayment made after second anniversary. Prepayment made after second anniversary Prepayment made after second anniversary Debt Instrument [Line Items] LONG-TERM DEBT The maximum borrowing capacity under the debt instrument. Debt Instrument, Maximum Borrowing Capacity Maximum borrowing capacity Debt Instrument, Face Amount Debt instrument face amount Security amount Debt Instrument, Unused Borrowing Capacity, Amount Debt instrument unused capacity Represents minimum net proceeds to be received from the sale of company's equity securities after the closing date, considered for release of restricted cash to the borrower. Debt Instrument, Threshold Net Proceeds from Sale of Equity Securities, Considered For Release Of Restricted Cash Minimum net proceeds from sale of equity securities, considered for release of restricted cash Amount of restricted cash that will be released on a dollar for dollar basis upon raise of equity. Release Of Restricted Cash Upon Equity Raise Release of restricted cash upon equity raise Debt Instrument, Basis Spread on Variable Rate Interest rate Debt Instrument, Variable Interest Rate, Type [Extensible Enumeration] Debt Instrument, Interest Rate, Effective Percentage Effective rate Period during which interest only payments shall be made under the debt instrument. Debt Instrument, Periodic Interest Only Payment, Period Period for monthly interest only payments Extended period during which interest only payments shall be made under the debt instrument. Debt Instrument, Periodic Interest Only Payment, Extension Period Extension term of loan Percentage of non refundable commitment fee to be paid by the borrower. Non Refundable Commitment Fee, Percentage Percentage of commitment fee Amount of financial advisor fees and legal fees Paid by the company. Payment Of Financial Advisor And Legal Fees Payment of financial advisor and legal fees Interest expense related to financial advisor fees and legal fees on debt instrument, recorded by the company. Interest Expense Related To Financial Advisor And Legal Fees Interest expense Percentage of non refundable final payment on original commitment amount to be paid by the borrower. Percentage of Non Refundable Payment on Original Commitment Amount Percentage of final payment Interest expense related to final payment on debt instrument, recorded by the company. Interest expense related to final payment Interest expense Percentage of principal amount of debt prepaid, payable as prepayment fee on the debt instrument. Debt Instrument, Prepayment Fee As A Percentage of Principal Amount Prepaid Prepayment percentage Debt Instrument, Accelerated Repayment, Minimum Period After Entry Over Which Any Judgment(S) Singly Or In The Aggregate In Excess Of The Threshold Amount Remain Unsatisfied, Unvacated Or Unstayed, Considered For Events Of Default. Debt Instrument, Accelerated Repayment, Minimum Period After Entry Over Singly In Aggregate In Excess Of Threshold Amount Remain Unsatisfied, Unvacated Or Unstayed, Considered For Events Of Default Minimum period after entry, over which any judgment(s) singly or in the aggregate in excess of the Threshold Amount remain unsatisfied, unvacated or unstayed, considered for events of default to trigger accelerated repayment Period within which any insolvency proceeding brought by a third party is not dismissed or stayed, considered for events of default to cause accelerated repayment of the debt instrument. Debt Instrument, Accelerated Repayment, Period Within Which Any Insolvency Proceeding Brought By A Third Party Is Not Dismissed Or Stayed, Considered For Events Of Default Period within which any insolvency proceeding brought by a third party is not dismissed or stayed, considered for events of default to trigger accelerated repayment Principal amount of outstanding debt instrument that can be converted into equity instruments. Debt Instrument, Convertible, Principal Amount Outstanding Conversion of debt into common stock Percentage of conversion price as a percentage of closing price of common stock. Debt Instrument, Convertible, Conversion Price Percentage Fixed conversion price of closing stock Per share conversion price of closing price of common stock. Debt Instrument, Convertible, Conversion Price, Per Share Fixed conversion price of closing stock, Per share Long-term Debt, Gross Principal amount Amount of long term debt accrued final fee. Long Term Debt Accrued Final Fee Accrued final fee Debt Instrument, Unamortized Discount Less unamortized debt discount Debt Issuance Cost, Gross, Noncurrent Less unamortized debt acquisition costs Long-term Debt. Subtotal Long-term Debt, Maturities, Repayments of Principal in Year Three 2027 Long-term Debt, Maturities, Repayments of Principal in Year Four 2028 Amount, after unamortized (discount) premium and debt issuance costs, of long-term debt and final fee. Long term Debt And Final Fee Total This member stands for western alliance bank. Western Alliance Bank [Member] Western Alliance Bank Represents the information pertaining to 2018 success fee letter. 2018 Success Fee Letter [Member] 2018 Success Fee Letter This member stands for 2022 Success Fee Letter. 2022 Success Fee Letter [Member] 2022 Success Fee Letter This member stands for first tranche Member. First Tranche [Member] First Tranche This member stands for second tranche Member. Second Tranche [Member] Second Tranche This member stands for third tranche Member. Third Tranche [Member] Third Tranche Line of Credit Facility, Maximum Borrowing Capacity Maximum borrowing capacity The average effective success fee rate during the reporting period. Percentage Of Success Fee Percentage of success fee The percentage of closing price on common stock. Percentage of Closing Price on Common Stock Percentage of closing price on common stock Share Price Average selling price Number of days for stock price threshold set in success fee letter. Number of Days for Stock Price Threshold Number of days for stock price threshold set in success fee letter Commitments and Contingencies Disclosure [Table] Commitments and Contingencies Disclosure [Table] Commitments and Contingencies Disclosure [Table] Finite-Lived Intangible Assets by Major Class [Axis] Finite-Lived Intangible Assets, Major Class Name [Domain] Royalty Agreements [Member] Royalty Agreement License Agreement [Member] License Agreement [Member] License Agreement Commitments and Contingencies Disclosure [Line Items] Commitments and Contingencies Disclosure [Line Items] COMMITMENTS AND CONTINGENCIES Represents the initial term of executive employment agreements. Executive Employment Agreements , Initial Term Initial term (in years) Automatic renewal period for employment agreements. Employment Agreements, Automatic Renewal Period Automatic renewal period for employment agreements Automatic renewed period for employment agreements, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents the reported fact of one year, five months, and thirteen days. Employment Agreements, Automatic Renewed Period Additional automatic renewed period for employment agreements The rate of royalty payment. Royalty Payment Rate Future royalty payment percentage on gross revenue Royalty Expense Royalty cost Percentage for royalty payments equal. Royalty Payments For Interest Percentage of royalty The duration of license period. License Period Term of license agreement The rate of royalty rate lower limit. Royalty Rate Lower Limit Royalty rate, lower limit The rate of royalty rate upper limit Royalty Rate Upper Limit Royalty rate, upper limit Lessee, Lease, Description [Table] This member stands for initial early term of operating lease. Initial early term [Member] Initial early term This member stands for early term of operating lease. Early term [Member] Early term This member stands for first year of remaining operating lease term. First year of remaining lease term [Member] Early term Consolidated Entities [Axis] Consolidated Entities [Domain] This member stands for CytoSorbents Medical, Inc. CytoSorbents Medical, Inc [Member] CytoSorbents Medical, Inc This member stands for CytoSorbents Europe GmbH. CytoSorbents Europe GmbH [Member] CytoSorbents Europe GmbH Lessee, Lease, Description [Line Items] LEASES: The number of times lease renewal options available. Number of Times Lease Renewal Available Number of times lease renewal options available Lessee, Operating Lease, Renewal Term Renewal term Lessee, Operating Lease, Remaining Lease Term Remaining lease term Operating Lease, Expense Monthly payments of base rent and other costs The percentage of annual increment in operating lease rent expense. Operating Leases, Annual Rent Expense Increment Rate Annual rent expense increment rate Rent abatement term of lessee's operating lease, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days. Operating Leases, Rent Abatement Term Rent abatement term The percentage of total building space occupied. Percentage Of Total Building Space Occupied Percentage of total building space occupied The amount of allowance for building improvement receivable from landlord. Operating Leases, Building Improvement Allowance Receivable Allowance for building improvement Operating Lease, Liability Total lease liability Operating lease lability Lessee, Operating Lease, Discount Rate Incremental borrowing rate Additional rental expense for the reporting period incurred under operating leases, including minimum and any contingent rent expense, net of related sublease income. Additional Operating Leases Rent Expense Net Additional operating leases rent expense Area of Land. Area of Land Operating Lease, Cost Other costs Lessee, Operating Lease, Term of Contract Lease term Lessee, Operating Lease, Existence of Option to Extend [true false] Existence of option to extend The additional lessee operating lease term of contract option to extend. Additional Lessee Operating Lease Term Of Contract Option To Extend Additional lessee operating lease term of contract option to extend Operating Lease, Payments Operating lease paid Operating Lease, Weighted Average Remaining Lease Term Weighted average remaining lease term Lessee, Operating Lease, Liability, to be Paid, Year One 2025 Lessee, Operating Lease, Liability, to be Paid, Year Two 2026 Lessee, Operating Lease, Liability, to be Paid, Year Three 2027 Lessee, Operating Lease, Liability, to be Paid, Year Four 2028 Lessee, Operating Lease, Liability, to be Paid, Year Five 2029 Lessee, Operating Lease, Liability, to be Paid, after Year Five Thereafter Lessee, Operating Lease, Liability, Payments, Due Total lease payments Lessee, Operating Lease, Liability, Undiscounted Excess Amount Present value discount Schedule of Earnings Per Share, Basic, by Common Class, Including Two Class Method [Table] Antidilutive Securities [Axis] Antidilutive Securities, Name [Domain] Represents the information pertaining to stock options and warrants. Stock Options and Warrants [Member] Stock options and warrants Earnings Per Share, Basic, by Common Class, Including Two Class Method [Line Items] NET LOSS PER SHARE Antidilutive Securities Excluded from Computation of Earnings Per Share, Amount Antidilutive securities excluded from computation of earnings per share EX-101.PRE 10 ctso-20240630_pre.xml EX-101.PRE XML 12 R1.htm IDEA: XBRL DOCUMENT v3.24.2.u1 Document and Entity Information - shares 6 Months Ended Jun. 30, 2024 Aug. 12, 2024 Document and Entity Information Â Â Document Type 10-Q Â Document Quarterly Report true Â Document Period End Date Jun. 30, 2024 Â Document Transition Report false Â Entity File Number 001-36792 Â Entity Registrant Name CYTOSORBENTS CORPORATION Â Entity Incorporation, State or Country Code DE Â Entity Tax Identification Number 98-0373793 Â Entity Address, Address Line One 305 College Road East Â Entity Address, City or Town Princeton, Â Entity Address, State or Province NJ Â Entity Address, Postal Zip Code 08540 Â City Area Code 732 Â Local Phone Number 329-8885 Â Title of 12(b) Security Common Stock, $0.001 par value per share Â Trading Symbol CTSO Â Security Exchange Name NASDAQ Â Entity Current Reporting Status Yes Â Entity Interactive Data Current Yes Â Entity Filer Category Non-accelerated Filer Â Entity Small Business true Â Entity Emerging Growth Company false Â Entity Shell Company false Â Entity Common Stock, Shares Outstanding Â 54,429,617 Entity Central Index Key 0001175151 Â Current Fiscal Year End Date --12-31 Â Document Fiscal Year Focus 2024 Â Document Fiscal Period Focus Q2 Â Amendment Flag false Â X - DefinitionBoolean flag that is true when the XBRL content amends previously-filed or accepted submission. + ReferencesNo definition available. + Details Name: dei_AmendmentFlag Namespace Prefix: dei_ Data Type: xbrli:booleanItemType Balance Type: na Period Type: duration X - DefinitionArea code of city + ReferencesNo definition available. + Details Name: dei_CityAreaCode Namespace Prefix: dei_ Data Type: xbrli:normalizedStringItemType Balance Type: na Period Type: duration X - DefinitionCover page. + ReferencesNo definition available. + Details Name: dei_CoverAbstract Namespace Prefix: dei_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionEnd date of current fiscal year in the format --MM-DD. + ReferencesNo definition available. + Details Name: dei_CurrentFiscalYearEndDate Namespace Prefix: dei_ Data Type: xbrli:gMonthDayItemType Balance Type: na Period Type: duration X - DefinitionFiscal period values are FY, Q1, Q2, and Q3. 1st, 2nd and 3rd quarter 10-Q or 10-QT statements have value Q1, Q2, and Q3 respectively, with 10-K, 10-KT or other fiscal year statements having FY. + ReferencesNo definition available. + Details Name: dei_DocumentFiscalPeriodFocus Namespace Prefix: dei_ Data Type: dei:fiscalPeriodItemType Balance Type: na Period Type: duration X - DefinitionThis is focus fiscal year of the document report in YYYY format. For a 2006 annual report, which may also provide financial information from prior periods, fiscal 2006 should be given as the fiscal year focus. Example: 2006. + ReferencesNo definition available. + Details Name: dei_DocumentFiscalYearFocus Namespace Prefix: dei_ Data Type: xbrli:gYearItemType Balance Type: na Period Type: duration X - DefinitionFor the EDGAR submission types of Form 8-K: the date of the report, the date of the earliest event reported; for the EDGAR submission types of Form N-1A: the filing date; for all other submission types: the end of the reporting or transition period. The format of the date is YYYY-MM-DD. + ReferencesNo definition available. + Details Name: dei_DocumentPeriodEndDate Namespace Prefix: dei_ Data Type: xbrli:dateItemType Balance Type: na Period Type: duration X - DefinitionBoolean flag that is true only for a form used as an quarterly report. + ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Form 10-Q -Number 240 -Section 308 -Subsection a + Details Name: dei_DocumentQuarterlyReport Namespace Prefix: dei_ Data Type: xbrli:booleanItemType Balance Type: na Period Type: duration X - DefinitionBoolean flag that is true only for a form used as a transition report. + ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Forms 10-K, 10-Q, 20-F -Number 240 -Section 13 -Subsection a-1 + Details Name: dei_DocumentTransitionReport Namespace Prefix: dei_ Data Type: xbrli:booleanItemType Balance Type: na Period Type: duration X - DefinitionThe type of document being provided (such as 10-K, 10-Q, 485BPOS, etc). The document type is limited to the same value as the supporting SEC submission type, or the word 'Other'. + ReferencesNo definition available. + Details Name: dei_DocumentType Namespace Prefix: dei_ Data Type: dei:submissionTypeItemType Balance Type: na Period Type: duration X - DefinitionAddress Line 1 such as Attn, Building Name, Street Name + ReferencesNo definition available. + Details Name: dei_EntityAddressAddressLine1 Namespace Prefix: dei_ Data Type: xbrli:normalizedStringItemType Balance Type: na Period

Type: duration X - DefinitionName of the City or Town + ReferencesNo definition available. + Details Name: dei_EntityAddressCityOrTown Namespace Prefix: dei_ Data Type: xbrli:normalizedStringItemType Balance Type: na Period Type: duration X - DefinitionCode for the postal or zip code + ReferencesNo definition available. + Details Name: dei_EntityAddressPostalZipCode Namespace Prefix: dei_ Data Type: xbrli:normalizedStringItemType Balance Type: na Period Type: duration X - DefinitionName of the state or province. + ReferencesNo definition available. + Details Name: dei_EntityAddressStateOrProvince Namespace Prefix: dei_ Data Type: dei:stateOrProvinceItemType Balance Type: na Period Type: duration X - DefinitionA unique 10-digit SEC-issued value to identify entities that have filed disclosures with the SEC. It is commonly abbreviated as CIK. + ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2 + Details Name: dei_EntityCentralIndexKey Namespace Prefix: dei_ Data Type: dei:centralIndexKeyItemType Balance Type: na Period Type: duration X - DefinitionIndicate number of shares or other units outstanding of each of registrant's classes of capital or common stock or other ownership interests, if and as stated on cover of related periodic report. Where multiple classes or units exist define each class/interest by adding class of stock items such as Common Class A [Member], Common Class B [Member] or Partnership Interest [Member] onto the Instrument [Domain] of the Entity Listings, Instrument. + ReferencesNo definition available. + Details Name: dei_EntityCommonStockSharesOutstanding Namespace Prefix: dei_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionIndicate 'Yes' or 'No' whether registrants (1) have filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that registrants were required to file such reports), and (2) have been subject to such filing requirements for the past 90 days. This information should be based on the registrant's current or most recent filing containing the related disclosure. + ReferencesNo definition available. + Details Name: dei_EntityCurrentReportingStatus Namespace Prefix: dei_ Data Type: dei:yesNoItemType Balance Type: na Period Type: duration X - DefinitionIndicate if registrant meets the emerging growth company criteria. + ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2 + Details Name: dei_EntityEmergingGrowthCompany Namespace Prefix: dei_ Data Type: xbrli:booleanItemType Balance Type: na Period Type: duration X - DefinitionCommission file number. The field allows up to 17 characters. The prefix may contain 1-3 digits, the sequence number may contain 1-8 digits, the optional suffix may contain 1-4 characters, and the fields are separated with a hyphen. + ReferencesNo definition available. + Details Name: dei_EntityFileNumber Namespace Prefix: dei_ Data Type: dei:fileNumberItemType Balance Type: na Period Type: duration X - DefinitionIndicate whether the registrant is one of the following: Large Accelerated Filer, Accelerated Filer, Non-accelerated Filer. Definitions of these categories are stated in Rule 12b-2 of the Exchange Act. This information should be based on the registrant's current or most recent filing containing the related disclosure. + ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2 + Details Name: dei_EntityFilerCategory Namespace Prefix: dei_ Data Type: dei:filerCategoryItemType Balance Type: na Period Type: duration X - DefinitionTwo-character EDGAR code representing the state or country of incorporation. + ReferencesNo definition available. + Details Name: dei_EntityIncorporationStateCountryCode Namespace Prefix: dei_ Data Type: dei:edgarStateCountryItemType Balance Type: na Period Type: duration X - DefinitionBoolean flag that is true when the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). + ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Regulation S-T -Number 232 -Section 405 + Details Name: dei_EntityInteractiveDataCurrent Namespace Prefix: dei_ Data Type: dei:yesNoItemType Balance Type: na Period Type: duration X - DefinitionThe exact name of the entity filing the report as specified in its charter, which is required by forms filed with the SEC. + ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2 + Details Name: dei_EntityRegistrantName Namespace Prefix: dei_ Data Type: xbrli:normalizedStringItemType Balance Type: na Period Type: duration X - DefinitionBoolean flag that is true when the registrant is a shell company as defined in Rule 12b-2 of the Exchange Act. + ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2 + Details Name: dei_EntityShellCompany Namespace Prefix: dei_ Data Type: xbrli:booleanItemType Balance Type: na Period Type: duration X - DefinitionIndicates that the company is a Smaller Reporting Company (SRC). + ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2 + Details Name: dei_EntitySmallBusiness Namespace Prefix: dei_ Data Type: xbrli:booleanItemType Balance Type: na Period Type: duration X - DefinitionThe Tax Identification Number (TIN), also known as an Employer Identification Number (EIN), is a unique 9-digit value assigned by the IRS. + ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b-2 + Details Name: dei_EntityTaxIdentificationNumber Namespace Prefix: dei_ Data Type: dei:employerIdItemType Balance Type: na Period Type: duration X - DefinitionLocal phone number for entity. + ReferencesNo definition available. + Details Name: dei_LocalPhoneNumber Namespace Prefix: dei_ Data Type: xbrli:normalizedStringItemType Balance Type: na Period Type: duration X - DefinitionTitle of a 12(b) registered security. + ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection b + Details Name: dei_Security12bTitle Namespace Prefix: dei_ Data Type: dei:securityTitleItemType Balance Type: na Period Type: duration X - DefinitionName of the Exchange on which a security is registered. + ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Exchange Act -Number 240 -Section 12 -Subsection d1-1 + Details Name: dei_SecurityExchangeName Namespace Prefix: dei_ Data Type: dei:edgarExchangeCodeItemType Balance Type: na Period Type: duration X - DefinitionTrading symbol of an instrument as listed on an exchange. + ReferencesNo definition available. + Details Name: dei_TradingSymbol Namespace Prefix: dei_ Data Type: dei:tradingSymbolItemType Balance Type: na Period Type: duration XML 13 R2.htm IDEA: XBRL DOCUMENT v3.24.2.u1 CONSOLIDATED BALANCE SHEETS - USD ($) Jun. 30, 2024 Dec. 31, 2023 Current Assets: Â Â Cash and cash equivalents $ 8,458,708 $ 14,131,137 Grants and accounts receivable, net of allowance of $88,017 as of June 30, 2024 and $49,663 at December 31, 2023 7,822,823 6,057,072 Inventories 4,316,752 3,680,129 Prepaid expenses and other current assets 1,357,017 1,834,485 Total current assets 21,955,300 25,702,823 Property and equipment, net 9,423,649 10,056,354 Restricted cash 6,483,958 1,483,958 Right-of-use assets 11,789,539 12,058,896 Other assets 3,774,345 3,958,603 Total Assets 53,426,791 53,260,634 Current Liabilities: Â Â Accounts payable 3,047,038 3,802,170 Current maturities of long-term debt Â 2,500,000 Lease liability - current portion 412,067 373,636 Accrued expenses and other current liabilities 6,877,163 7,870,149 Total current liabilities 10,336,268 14,545,955 Lease liability, net of current portion 12,680,725 12,896,659 Long-term debt 13,673,195 2,542,857 Total Liabilities 36,690,188 29,985,471 Commitments and Contingencies (Note 6) Stockholders' Equity: Â Â Preferred Stock, Par Value $0.001, 5,000,000 shares authorized; no shares issued and outstanding at June 30, 2024 and December 31, 2023 Common Stock, Par Value $0.001, 100,000,000 shares authorized; 54,306,415 and 54,240,265 shares issued and outstanding as of June 30, 2024 and December 31, 2023, respectively 54,306 54,240 Additional paid-in capital 307,514,758 305,196,874 Accumulated other comprehensive income 2,173,818 529,321 Accumulated deficit (293,006,279) (282,505,272) Total Stockholders' Equity 16,736,603 23,275,163 Total Liabilities and Stockholders' Equity $ 53,426,791 $ 53,260,634 X - DefinitionAmount of accrued expenses and other current liabilities. + ReferencesNo definition available. + Details Name: ctso_AccruedExpensesAndOtherCurrentLiabilities Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionCarrying value as of the balance sheet date of liabilities incurred (and for which invoices have typically been received) and payable to vendors for goods and services received that are used in an entity's business. Used to reflect the current portion of the liabilities (due within one year or within the normal operating cycle if longer). + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(19)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10 + Details Name: us-gaap_AccountsPayableCurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount, after allowance for credit loss, of right to consideration from customer for product sold and service rendered in normal course of business, classified as current. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 310 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481990/310-10-45-2 + Details Name: us-gaap_AccountsReceivableNetCurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount, after tax, of accumulated increase (decrease) in equity from transaction and other event and circumstance from nonowner source. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 220 -SubTopic 10 -Section 45 -Paragraph 14A -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-14AReference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 11 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-11Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(2)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480016/944-40-65-2Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (h)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480016/944-40-65-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(30)(a)(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(23)(a)(3)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 7: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 220 -SubTopic 10 -Section 45 -Paragraph 14 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-14 + Details Name: us-gaap_AccumulatedOtherComprehensiveIncomeLossNetOfTax Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of excess of issue price over par or stated value of stock and from other transaction involving stock or stockholder. Includes, but is not limited to, additional paid-in capital (APIC) for common and preferred stock. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(18)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(30)(a)(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_AdditionalPaidInCapital Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of asset recognized for present right to economic benefit. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 49 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-49Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 5: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (bb) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481203/810-10-50-3Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 25 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481231/810-10-45-25Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 12: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 13: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-12Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(12)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(8)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(18)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 18: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 19: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 21: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 22: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 23: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 24: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 25: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 26: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 27: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 28: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7Reference 29: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 30: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 210

-Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(11)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1 + Details Name: us-gaap_Assets Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of asset recognized for present right to economic benefit, classified as current. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (bb) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481203/810-10-50-3Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 25 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481231/810-10-45-25Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting 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-Publisher FASB -URI https://asc.fasb.org/1943274/2147483467/210-10-45-1Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 10: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 11: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 20: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7 + Details Name: us-gaap_AssetsCurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - ReferencesNo definition available. + Details Name: us-gaap_AssetsCurrentAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount of currency on hand as well as demand deposits with banks or financial institutions. Includes other kinds of accounts that have the general characteristics of demand deposits. Also includes short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Excludes cash and cash equivalents within disposal group and discontinued operation. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483467/210-10-45-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-4 + Details Name: us-gaap_CashAndCashEquivalentsAtCarryingValue Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionRepresents the caption on the face of the balance sheet to indicate that the entity has entered into (1) purchase or supply arrangements that will require expending a portion of its resources to meet the terms thereof, and (2) is exposed to potential losses or, less frequently, gains, arising from (a) possible claims against a company's resources due to future performance under contract terms, and (b) possible losses or likely gains from uncertainties that will ultimately be resolved when one or more future events that are deemed likely to occur do occur or fail to occur. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(17)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(25)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(19)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(15)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1 + Details Name: us-gaap_CommitmentsAndContingencies Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAggregate par or stated value of issued nonredeemable common stock (or common stock redeemable solely at the option of the issuer). This item includes treasury stock repurchased by the entity. Note: elements for number of nonredeemable common shares, par value and other disclosure concepts are in another section within stockholders' equity. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(22)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1 + Details Name: us-gaap_CommonStockValue Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount after valuation and LIFO reserves of inventory expected to be sold, or consumed within one year or operating cycle, if longer. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483467/210-10-45-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_InventoryNet Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of liability recognized for present obligation requiring transfer or otherwise providing economic benefit to others. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(22)) -SubTopic 10 -Topic 210 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(24)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://fasb.org/us-gaap/role/ref/legacyRef 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http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 15: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-12Reference 16: http://www.xbrl.org/2003/role/disclosureRef 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-Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7Reference 28: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7Reference 29: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30 + Details Name: us-gaap_Liabilities Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of liabilities and equity items, including the portion of equity attributable to noncontrolling interests, if any. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(25)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 5: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 6: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(23)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1Reference 7: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(32)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_LiabilitiesAndStockholdersEquity Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionTotal obligations incurred as part of normal operations that are expected to be paid during the following twelve months or within one business cycle, if longer. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(21)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -

Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481203/810-10-50-3Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 25 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481231/810-10-45-25Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 810 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (bb) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481203/810-10-50-3Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 8: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 5 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483467/210-10-45-5Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 11: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 20: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7Reference 21: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481404/852-10-50-7 + Details Name: us-gaap_LiabilitiesCurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - ReferencesNo definition available. + Details Name: us-gaap_LiabilitiesCurrentAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount, after deduction of unamortized premium (discount) and debt issuance cost, of long-term debt classified as current. Excludes lease obligation. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_LongTermDebtCurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount, after deduction of unamortized premium (discount) and debt issuance cost, of long-term debt classified as noncurrent. Excludes lease obligation. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(22)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_LongTermDebtNoncurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionPresent value of lessee's discounted obligation for lease payments from operating lease, classified as current. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1 + Details Name: us-gaap_OperatingLeaseLiabilityCurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionPresent value of lessee's discounted obligation for lease payments from operating lease, classified as noncurrent. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1 + Details Name: us-gaap_OperatingLeaseLiabilityNoncurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of lessee's right to use underlying asset under operating lease. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1 + Details Name: us-gaap_OperatingLeaseRightOfUseAsset Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of noncurrent assets classified as other. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(17)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_OtherAssetsNoncurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAggregate par or stated value of issued nonredeemable preferred stock (or preferred stock redeemable solely at the option of the issuer). This item includes treasury stock repurchased by the entity. Note: elements for number of nonredeemable preferred shares, par value and other disclosure concepts are in another section within stockholders' equity. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(21)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1 + Details Name: us-gaap_PreferredStockValue Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of asset related to consideration paid in advance for costs that provide economic benefits in future periods, and amount of other assets that are expected to be realized or consumed within one year or the normal operating cycle, if longer. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_PrepaidExpenseAndOtherAssetsCurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount after accumulated depreciation, depletion and amortization of physical assets used in the normal conduct of business to produce goods and services and not intended for resale. Examples include, but are not limited to, land, buildings, machinery and equipment, office equipment, and furniture and fixtures. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -SubTopic 10 -Topic 360 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482099/360-10-50-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 7A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-7AReference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(8)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 360 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478451/942-360-50-1 + Details Name: us-gaap_PropertyPlantAndEquipmentNet Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of cash restricted as to withdrawal or usage, classified as noncurrent. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(17)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 45 -Paragraph 5 -SubTopic 210 -Topic 954 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477220/954-210-45-5Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-8 + Details Name: us-gaap_RestrictedCashNoncurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of accumulated undistributed earnings (deficit). + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(30)(a)(3)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(2)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480016/944-40-65-2Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (h)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480016/944-40-65-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480990/946-20-50-11Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(23)(a)(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(17)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 8: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1 + Details Name: us-gaap_RetainedEarningsAccumulatedDeficit Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of equity (deficit) attributable to parent. Excludes temporary equity and equity attributable to noncontrolling interest. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(30)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(31)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 5: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-12Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(19)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.6-05(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-2Reference 8: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(4)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(7)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 11: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 12: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 13: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 14: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 310 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SAB Topic 4.E) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480418/310-10-S99-2 + Details Name: us-gaap_StockholdersEquity Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - ReferencesNo definition available. + Details Name: us-gaap_StockholdersEquityAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration XML 14 R3.htm IDEA: XBRL DOCUMENT v3.24.2.u1 CONSOLIDATED BALANCE SHEETS (Parenthetical) - USD ($) Jun. 30, 2024 Dec. 31, 2023 CONSOLIDATED BALANCE SHEETS Â Â Grants and accounts receivable, net of allowance for doubtful accounts $ 88,017 $ 49,663 Preferred Stock, Par Value (in dollars per share) $ 0.001 $ 0.001 Preferred Stock, shares authorized 5,000,000 5,000,000 Preferred Stock, shares issued 0 0 Preferred Stock, shares outstanding 0 0 Common Stock, Par Value (in dollars per share) $ 0.001 $ 0.001 Common Stock, shares authorized 100,000,000 100,000,000 Common Stock, shares issued 54,306,415 54,240,265 Common Stock, shares outstanding 54,306,415 54,240,265 X - DefinitionAmount of allowance for credit loss on accounts receivable, classified as current. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 326 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479344/326-20-45-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 310 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481962/310-10-50-4 + Details Name: us-gaap_AllowanceForDoubtfulAccountsReceivableCurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionFace amount or stated value per share of common stock. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_CommonStockParOrStatedValuePerShare

Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: instant X - DefinitionThe maximum number of common shares permitted to be issued by an entity's charter and bylaws. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(16)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1 + Details Name: us-gaap_CommonStockSharesAuthorized Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionTotal number of common shares of an entity that have been sold or granted to shareholders (includes common shares that were issued, repurchased and remain in the treasury). These shares represent capital invested by the firm's shareholders and owners, and may be all or only a portion of the number of shares authorized. Shares issued include shares outstanding and shares held in the treasury. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_CommonStockSharesIssued Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionNumber of shares of common stock outstanding. Common stock represent the ownership interest in a corporation. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.6-05(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-2Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(4)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(16)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 6: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(7)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3 + Details Name: us-gaap_CommonStockSharesOutstanding Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionFace amount or stated value per share of preferred stock nonredeemable or redeemable solely at the option of the issuer. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 13 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-13 + Details Name: us-gaap_PreferredStockParOrStatedValuePerShare Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: instant X - DefinitionThe maximum number of nonredeemable preferred shares (or preferred stock redeemable solely at the option of the issuer) permitted to be issued by an entity's charter and bylaws. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(16)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1 + Details Name: us-gaap_PreferredStockSharesAuthorized Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionNumber of shares issued for nonredeemable preferred shares and preferred shares redeemable solely at option of issuer. Includes, but is not limited to, preferred shares issued, repurchased, and held as treasury shares. Excludes preferred shares classified as debt. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 13 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-13 + Details Name: us-gaap_PreferredStockSharesIssued Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionAggregate share number for all nonredeemable preferred stock (or preferred stock redeemable solely at the option of the issuer) held by stockholders. Does not include preferred shares that have been repurchased. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.6-05(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-2Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(4)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(16)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 5: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(7)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3 + Details Name: us-gaap_PreferredStockSharesOutstanding Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - ReferencesNo definition available. + Details Name: us-gaap_StatementOfFinancialPositionAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration XML 15 R4.htm IDEA: XBRL DOCUMENT v3.24.2.u1 CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS - USD ($) 3 Months Ended 6 Months Ended Jun. 30, 2024 Jun. 30, 2023 Jun. 30, 2024 Jun. 30, 2023 Revenue: Â Â Â Â Total revenue $ 9,894,636 $ 9,420,821 $ 19,680,928 $ 18,870,317 Cost of revenue 3,391,907 3,402,271 6,607,621 7,396,440 Gross profit 6,502,729 6,018,550 13,073,307 11,473,877 Other expenses: Â Â Â Â Research and development 1,519,618 3,668,804 3,767,811 7,883,219 Legal, financial and other consulting 820,732 1,185,031 1,501,437 1,854,264 Selling, general and administrative 7,581,201 7,723,952 16,148,400 16,187,226 Total expenses 9,921,551 12,577,787 21,417,648 25,924,709 Loss from operations (3,418,822) (6,559,237) (8,344,341) (14,450,832) Other income (expense): Â Â Â Â Interest income (expense), net (180,098) (8,821) (186,750) (71,992) Gain (loss) on foreign currency transactions (544,226) 414,974 (1,969,916) 1,075,656 Miscellaneous income (expense) Â Â Â (31,799) Total other income (expense), net (724,324) 406,153 (2,156,666) 971,865 Loss before benefit from income taxes (4,143,146) (6,153,084) (10,501,007) (13,478,967) Net loss attributable to common stockholders $ (4,143,146) $ (6,153,084) $ (10,501,007) $ (13,478,967) Basic net loss per common share $ (0.08) $ (0.14) $ (0.19) $ (0.31) Diluted net loss per common share $ (0.08) $ (0.14) $ (0.19) $ (0.31) Weighted average number of shares of common stock outstanding, basic 54,306,041 44,015,380 54,284,416 43,758,888 Weighted average number of shares of common stock outstanding, diluted 54,306,041 44,015,380 54,284,416 43,758,888 Comprehensive loss: Â Â Â Â Net loss $ (4,143,146) $ (6,153,084) $ (10,501,007) $ (13,478,967) Other comprehensive income (loss): Â Â Â Â Foreign currency translation adjustment 421,322 (392,674) 1,644,497 (1,000,882) Comprehensive loss (3,721,824) (6,545,758) (8,856,510) (14,479,849) Total product sales Â Â Â Â Revenue: Â Â Â Â Total revenue 8,841,789 8,072,412 17,831,309 15,982,451 CytoSorb sales Â Â Â Â Revenue: Â Â Â Â Total revenue 8,830,391 8,065,829 17,795,181 15,972,098 Other product sales Â Â Â Â Revenue: Â Â Â Â Total revenue 11,398 6,583 36,128 10,353 Grant income Â Â Â Â Revenue: Â Â Â Â Total revenue $ 1,052,847 $ 1,348,409 $ 1,849,619 $ 2,887,866 X - DefinitionAmount of miscellaneous income (expense). + ReferencesNo definition available. + Details Name: ctso_MiscellaneousIncomeExpense Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount after tax of increase (decrease) in equity from transactions and other events and circumstances from net income and other comprehensive income, attributable to parent entity. Excludes changes in equity resulting from investments by owners and distributions to owners. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(24)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(26)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(22)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1A -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1AReference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1B -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1BReference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 7: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 220 -SubTopic 10 -Section 45 -Paragraph 5 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-5 + Details Name: us-gaap_ComprehensiveIncomeNetOfTax Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_ComprehensiveIncomeNetOfTaxAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionThe aggregate costs related to goods produced and sold and services rendered by an entity during the reporting period. This excludes costs incurred during the reporting period related to financial services rendered and other revenue generating activities. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(2)(d)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(2)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 924 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 11.L) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479941/924-10-S99-1 + Details Name: us-gaap_CostOfGoodsAndServicesSold Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionThe amount of net income (loss) for the period per each share of common stock or unit outstanding during the reporting period. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-6Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 52 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482635/260-10-55-52Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147476176/805-60-65-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 323 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478666/740-323-65-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-3Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 15 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482635/260-10-55-15Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (e)(4) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-7Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-2Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-60BReference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-4Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-10Reference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(25)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(27)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1Reference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(23)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-7 + Details Name: us-gaap_EarningsPerShareBasic Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: duration X - DefinitionThe amount of net income (loss) for the period available to each share of common stock or common unit outstanding during the reporting period and to each share or unit that would have been outstanding assuming the issuance of common shares or units for all dilutive potential common shares or units outstanding during the reporting period. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-6Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 52 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482635/260-10-55-52Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147476176/805-60-65-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 323 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478666/740-323-65-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-3Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 15 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482635/260-10-55-15Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (e)(4) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (a) -Publisher FASB -URI

https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-7Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-2Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-60BReference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-4Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(25)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(27)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1Reference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(23)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-7 + Details Name: us-gaap_EarningsPerShareDiluted Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: duration X - DefinitionAmount, before tax, of realized and unrealized gain (loss) from foreign currency transaction. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-07(7)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 830 -SubTopic 20 -Name Accounting Standards Codification -Section 35 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482014/830-20-35-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 830 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481956/830-20-45-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 830 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481926/830-20-50-1Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 830 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 17 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481839/830-10-45-17 + Details Name: us-gaap_ForeignCurrencyTransactionGainLossBeforeTax Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAggregate revenue less cost of goods and services sold or operating expenses directly attributable to the revenue generation activity. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards 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-Paragraph 2 -Subparagraph (SX 210.5-03(2)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 9: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 14: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 21: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 22: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 23: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 31 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-31 + Details Name: us-gaap_GrossProfit Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount of income (loss) from continuing operations, including income (loss) from equity method investments, before deduction of income tax expense (benefit), and income (loss) attributable to noncontrolling interest. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 5: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 6: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 7: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (c) -Publisher FASB -URI 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https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 12: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(15)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1 + Details Name: us-gaap_IncomeLossFromContinuingOperationsBeforeIncomeTaxesExtraordinaryItemsNoncontrollingInterest Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount of interest income (expense) classified as nonoperating. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48 + Details Name: us-gaap_InterestIncomeExpenseNonoperatingNet Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe portion of profit or loss for the period, net of income taxes, which is attributable to the parent. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-6Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 9 -Publisher FASB -URI 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http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-1Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-8Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-4Reference 17: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-10Reference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section 45 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479105/946-220-45-7Reference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(18)) 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-Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 24: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 25: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 26: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 27: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 28: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards

Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 29: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 30: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 31: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 32: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-60BReference 33: http://www.xbrl.org/2003/role/disclosureRef -Topic 205 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483499/205-20-50-7Reference 34: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 35: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1AReference 36: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1BReference 37: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(22)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1 + Details Name: us-gaap_NetIncomeLoss Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount, after deduction of tax, noncontrolling interests, dividends on preferred stock and participating securities; of income (loss) available to common shareholders. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147476176/805-60-65-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-3Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-4Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 5 -Subparagraph (SAB Topic 6.B) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-5Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-10Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 11 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-11Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-60B + Details Name: us-gaap_NetIncomeLossAvailableToCommonStockholdersBasic Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe aggregate amount of income or expense from ancillary business-related activities (that is to say, excluding major activities considered part of the normal operations of the business). + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(7)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2 + Details Name: us-gaap_NonoperatingIncomeExpense Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_NonoperatingIncomeExpenseAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionGenerally recurring costs associated with normal operations except for the portion of these expenses which can be clearly related to production and included in cost of sales or services. Includes selling, general and administrative expense. + ReferencesNo definition available. + Details Name: us-gaap_OperatingExpenses Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_OperatingExpensesAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionThe net result for the period of deducting operating expenses from operating revenues. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 5: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 6: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 7: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 31 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-31 + Details Name: us-gaap_OperatingIncomeLoss Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount after tax and reclassification adjustments of gain (loss) on foreign currency translation adjustments, foreign currency transactions designated and effective as economic hedges of a net investment in a foreign entity and intra-entity foreign currency transactions that are of a long-term-investment nature. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 10A -Subparagraph (a) -SubTopic 10 -Topic 220 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-10AReference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(19)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1 + Details Name: us-gaap_OtherComprehensiveIncomeLossForeignCurrencyTransactionAndTranslationAdjustmentNetOfTax Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_OtherComprehensiveIncomeLossNetOfTaxPeriodIncreaseDecreaseAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionA fee charged for services from professionals such as doctors, lawyers and accountants. The term is often expanded to include other professions, for example, pharmacists charging to maintain a medicinal profile of a client or customer. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-10Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section 45 -Paragraph 3 -Subparagraph (k) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479105/946-220-45-3Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-07(2)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-1 + Details Name: us-gaap_ProfessionalFees Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of expense for research and development. Includes, but is not limited to, cost for computer software product to be sold, leased, or otherwise marketed and writeoff of research and development assets acquired in transaction other than business combination or joint venture formation or both. Excludes write-down of intangible asset acquired in business combination or from joint venture formation or both, used in research and development activity. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 48 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482785/280-10-55-48Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 985 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481283/985-20-50-2Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 730 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482916/730-10-50-1Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 912 -SubTopic 730 -Name Accounting Standards Codification -Section 25 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479532/912-730-25-1 + Details Name: us-gaap_ResearchAndDevelopmentExpense Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount, including tax collected from customer, of revenue from satisfaction of performance obligation by transferring promised good or service to customer. Tax collected from customer is tax assessed by governmental authority that is both imposed on and concurrent with specific revenue-producing transaction, including, but not limited to, sales, use, value-added and excise. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 41 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-41Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 4: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 5: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 924 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 11.L) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479941/924-10-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-5Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 42 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-42Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 40 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-40Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-4 + Details Name: us-gaap_RevenueFromContractWithCustomerIncludingAssessedTax Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_RevenuesAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionThe aggregate total costs related to selling a firm's product and services, as well as all other general and administrative expenses. Direct selling expenses (for example, credit, warranty, and advertising) are expenses that can be directly linked to the sale of specific products. Indirect selling expenses are expenses that cannot be directly linked to the sale of specific products, for example telephone expenses, Internet, and postal charges. General and administrative expenses include salaries of non-sales personnel, rent, utilities, communication, etc. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2 + Details Name: us-gaap_SellingGeneralAndAdministrativeExpense Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionThe average number of shares or units issued and outstanding that are used in calculating diluted EPS or earnings per unit (EPU), determined based on the timing of issuance of shares or units in the period. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 16 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-16 + Details Name: us-gaap_WeightedAverageNumberOfDilutedSharesOutstanding Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionNumber of [basic] shares or units, after adjustment for contingently issuable shares or units and other shares or units not deemed outstanding, determined by relating the portion of time within a reporting period that common shares or units have been outstanding to the total time in that period. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-10 + Details Name: us-gaap_WeightedAverageNumberOfSharesOutstandingBasic Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - Details Name: srt_ProductOrServiceAxis=us-gaap_ProductMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_ProductOrServiceAxis=ctso_CytoSorbSalesMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_ProductOrServiceAxis=ctso_OtherSalesMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_ProductOrServiceAxis=us-gaap_GrantMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 16 R5.htm IDEA: XBRL DOCUMENT v3.24.2.u1 CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY - USD ($) Common Stock Additional Paid-In Capital Accumulated Other Comprehensive Income (Loss) Accumulated Deficit Total Balance at Dec. 31, 2022 $ 43,635 $ 287,000,021 $ 2,329,195 $ (253,997,878) $ 35,374,973 Balance (in shares) at Dec. 31, 2022 43,635,715 Â Â Â Â Stock-based compensation - employees, consultants and directors Â 1,400,516 Â Â 1,400,516 Issuance of common stock offerings, net of fees $ 428 1,474,296 Â Â 1,474,724 Issuance of common stock offerings, net of fees (in shares) 428,270 Â Â Â Â Legal/audit fees related to ATM offering Â (56,702) Â Â (56,702) Proceeds from exercise of stock options for cash $ 75 197,304 Â Â 197,379 Proceeds from exercise of stock options for cash (in shares) 74,393 Â Â Â Â Issuance of restricted stock units $ 55 183,600 Â Â 183,655 Issuance of restricted stock units (in shares) 55,318 Â Â Â Â Other comprehensive income (loss): foreign translation adjustment Â Â (1,000,882) Â (1,000,882) Net loss Â Â Â (13,478,967) (13,478,967) Balance at Jun. 30, 2023 $ 44,193 290,199,035 1,328,313 (267,476,845) 24,094,696 Balance (in shares) at Jun. 30, 2023 44,193,696 Â Â Â Â Balance at Dec. 31, 2022 $ 43,635 287,000,021 2,329,195 (253,997,878) 35,374,973 Balance (in shares) at Dec. 31, 2022 43,635,715 Â Â Â Â Balance at Dec. 31, 2023 $ 54,240 305,196,874 529,321 (282,505,272) 23,275,163 Balance (in shares) at Dec. 31, 2023 54,240,265 Â Â Â Â Balance at Mar. 31, 2023 $ 43,851 288,514,368 1,720,987 (261,323,761) 28,955,445 Balance (in shares) at Mar. 31, 2023 43,851,380 Â Â Â Â Stock-based

compensation - employees, consultants and directors Â 570,235 Â Â 570,235 Issuance of common stock offerings, net of fees $ 231 776,060 Â Â 776,291 Issuance of common stock offerings, net of fees (in shares) 230,605 Â Â Â Â Proceeds from exercise of stock options for cash $ 56 154,772 Â Â 154,828 Proceeds from exercise of stock options for cash (in shares) 56,393 Â Â Â Â Issuance of restricted stock units $ 55 183,600 Â Â 183,655 Issuance of restricted stock units (in shares) 55,318 Â Â Â Â Other comprehensive income (loss): foreign translation adjustment Â Â (392,674) Â (392,674) Net loss Â Â Â (6,153,084) (6,153,084) Balance at Jun. 30, 2023 $ 44,193 290,199,035 1,328,313 (267,476,845) 24,094,696 Balance (in shares) at Jun. 30, 2023 44,193,696 Â Â Â Â Balance at Dec. 31, 2023 $ 54,240 305,196,874 529,321 (282,505,272) 23,275,163 Balance (in shares) at Dec. 31, 2023 54,240,265 Â Â Â Â Stock-based compensation - employees, consultants and directors Â 1,562,788 Â Â 1,562,788 Warrants issued in connection with long-term debt Â 690,709 Â Â 690,709 Issuance of common stock offerings, net of fees $ 54 53,186 Â Â 53,240 Issuance of common stock offerings, net of fees (in shares) 53,290 Â Â Â Â Issuance of restricted stock units $ 12 11,201 Â Â 11,213 Issuance of restricted stock units (in shares) 12,860 Â Â Â Â Other comprehensive income (loss): foreign translation adjustment Â Â 1,644,497 Â 1,644,497 Net loss Â Â Â (10,501,007) (10,501,007) Balance at Jun. 30, 2024 $ 54,306 307,514,758 2,173,818 (293,006,279) 16,736,603 Balance (in shares) at Jun. 30, 2024 54,306,415 Â Â Â Â Balance at Mar. 31, 2024 $ 54,294 305,984,268 1,752,496 (288,863,133) 18,927,925 Balance (in shares) at Mar. 31, 2024 54,293,555 Â Â Â Â Stock-based compensation - employees, consultants and directors Â 828,580 Â Â 828,580 Warrants issued in connection with long-term debt Â 690,709 Â Â 690,709 Issuance of restricted stock units $ 12 11,201 Â Â 11,213 Issuance of restricted stock units (in shares) 12,860 Â Â Â Â Other comprehensive income (loss): foreign translation adjustment Â Â 421,322 Â 421,322 Net loss Â Â Â (4,143,146) (4,143,146) Balance at Jun. 30, 2024 $ 54,306 $ 307,514,758 $ 2,173,818 $ (293,006,279) $ 16,736,603 Balance (in shares) at Jun. 30, 2024 54,306,415 Â Â Â Â X - DefinitionNumber of shares issued during the period as a result of the exercise of cash options. + ReferencesNo definition available. + Details Name: ctso_StockIssuedDuringPeriodSharesStockCashOptionsExercised Namespace Prefix: ctso_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionValue stock issued during the period as a result of the exercise of cash options. + ReferencesNo definition available. + Details Name: ctso_StockIssuedDuringPeriodValueStockCashOptionsExercised Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount of increase to additional paid-in capital (APIC) for recognition of cost for award under share-based payment arrangement. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef - Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 35 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480483/718-10-35-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 20 -Section 55 -Paragraph 13 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481089/718-20-55-13Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 20 -Section 55 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481089/718-20-55-12 + Details Name: us-gaap_AdjustmentsToAdditionalPaidInCapitalSharebasedCompensationRequisiteServicePeriodRecognitionValue Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount of decrease in additional paid in capital (APIC) resulting from direct costs associated with issuing stock. Includes, but is not limited to, legal and accounting fees and direct costs associated with stock issues under a shelf registration. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1 + Details Name: us-gaap_AdjustmentsToAdditionalPaidInCapitalStockIssuedIssuanceCosts Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of increase in additional paid in capital (APIC) resulting from the issuance of warrants. Includes allocation of proceeds of debt securities issued with detachable stock purchase warrants. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 470 -SubTopic 20 -Section 25 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481284/470-20-25-2 + Details Name: us-gaap_AdjustmentsToAdditionalPaidInCapitalWarrantIssued Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe portion of profit or loss for the period, net of income taxes, which is attributable to the parent. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-6Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 9 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-9Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147476176/805-60-65-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 323 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478666/740-323-65-2Reference 5: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482765/220-10-50-6Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-3Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-1Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-8Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-4Reference 17: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-10Reference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section 45 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479105/946-220-45-7Reference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(18)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-07(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-1Reference 21: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(1)(d)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 22: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 23: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 24: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 25: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 26: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 27: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 28: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 29: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 30: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 31: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 32: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-60BReference 33: http://www.xbrl.org/2003/role/disclosureRef -Topic 205 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483499/205-20-50-7Reference 34: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 35: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1AReference 36: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1BReference 37: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(22)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1 + Details Name: us-gaap_NetIncomeLoss Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount after tax and reclassification adjustments of gain (loss) on foreign currency translation adjustments, foreign currency transactions designated and effective as economic hedges of a net investment in a foreign entity and intra-entity foreign currency transactions that are of a long-term-investment nature. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 10A -Subparagraph (a) -SubTopic 10 -Topic 220 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-10AReference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(19)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1 + Details Name: us-gaap_OtherComprehensiveIncomeLossForeignCurrencyTransactionAndTranslationAdjustmentNetOfTax Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionNumber of shares issued which are neither cancelled nor held in the treasury. + ReferencesNo definition available. + Details Name: us-gaap_SharesOutstanding Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionNumber of new stock issued during the period. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 505 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478448/946-505-50-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(4)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-03(i)(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479886/946-10-S99-3Reference 7: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1 + Details Name: us-gaap_StockIssuedDuringPeriodSharesNewIssues Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionNumber of shares issued during the period related to Restricted Stock Awards, net of any shares forfeited. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1 + Details Name: us-gaap_StockIssuedDuringPeriodSharesRestrictedStockAwardNetOfForfeitures Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionEquity impact of the value of new stock issued during the period. Includes shares issued in an initial public offering or a secondary public offering. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 11 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-11Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 205 -Name Accounting Standards Codification -Section 45 -Paragraph 4 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478009/946-205-45-4Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic

505 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478448/946-505-50-2Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(4)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 8: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1 + Details Name: us-gaap_StockIssuedDuringPeriodValueNewIssues Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionValue of stock related to Restricted Stock Awards issued during the period, net of the stock value of such awards forfeited. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1 + Details Name: us-gaap_StockIssuedDuringPeriodValueRestrictedStockAwardNetOfForfeitures Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount of equity (deficit) attributable to parent. Excludes temporary equity and equity attributable to noncontrolling interest. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(30)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(31)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 852 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481372/852-10-55-10Reference 5: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-12Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(19)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.6-05(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-2Reference 8: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(4)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(6)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(7)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 11: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 12: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 13: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 14: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 310 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SAB Topic 4.E) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480418/310-10-S99-2 + Details Name: us-gaap_StockholdersEquity Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant XML 17 R6.htm IDEA: XBRL DOCUMENT v3.24.2.u1 CONSOLIDATED STATEMENTS OF CASH FLOWS - USD ($) 6 Months Ended Jun. 30, 2024 Jun. 30, 2023 Cash flows from operating activities: Â Â Net loss $ (10,501,007) $ (13,478,967) Adjustments to reconcile net loss to net cash used in operating activities: Â Â Accrued final fee 111,422 21,429 Non-cash compensation 199,096 (105,488) Depreciation and amortization 797,873 660,589 Amortization of right-of-use asset 91,854 110,881 Write off of patent cost 249,642 292,806 Bad debt expense (recovery) 29,120 13,384 Stock-based compensation 1,562,792 1,400,516 Foreign currency translation (gain) loss 1,969,916 (1,075,656) Changes in operating assets and liabilities: Â Â Grants and accounts receivable (1,952,413) (1,271,716) Inventories (725,998) 1,449,881 Prepaid expenses and other current assets 574,181 1,649,776 Other assets 1,124 Â Accounts payable and accrued expenses (2,032,014) 291,068 Net cash used in operating activities (9,624,412) (10,041,497) Cash flows from investing activities: Â Â Purchases of property and equipment (63,421) (300,221) Payments for patent costs (183,462) (242,378) Net cash used in investing activities (246,883) (542,599) Cash flows from financing activities: Â Â Proceeds from long-term debt 15,000,000 Â Repayment of long-term debt (5,000,000) Â Payment of final fee (150,000) Â Payment of loan costs (640,375) Â Equity contributions - net of fees incurred 53,250 1,418,022 Proceeds from exercise of stock options Â 197,379 Net cash provided by (used in) financing activities 9,262,875 1,615,401 Effect of exchange rates on cash (64,009) (24,348) Net change in cash, cash equivalents and restricted cash (672,429) (8,993,043) Cash, cash equivalents and restricted cash - beginning of period 15,615,095 23,832,026 Cash, cash equivalents and restricted cash - end of period 14,942,666 14,838,983 Supplemental disclosure of cash flow information: Â Â Cash paid during the period for interest 537,672 173,334 Supplemental disclosure of non-cash financing activities: Â Â Warrants issued in connection with long-term debt 690,709 Â Issuance of restricted stock units $ 11,213 $ 183,655 X - DefinitionAmount of accrued final fee made during the period. + ReferencesNo definition available. + Details Name: ctso_AccruedFinalFee Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionThe fair value of issuance of restricted stock units in noncash financing activities. + ReferencesNo definition available. + Details Name: ctso_IssuanceOfRestrictedStockUnits Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount of non-cash compensation. + ReferencesNo definition available. + Details Name: ctso_NonCashCompensation Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe cash outflow for equity contributions - net of fees incurred + ReferencesNo definition available. + Details Name: ctso_PaymentsForEquityContributionsNetOfFeesIncurred Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe net cash outflow or inflow from purchases, sales and disposals of property, plant and equipment. + ReferencesNo definition available. + Details Name: ctso_PaymentsForProceedsFromPropertyAndEquipment Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe cash outflow for payment of final fees on debt. + ReferencesNo definition available. + Details Name: ctso_PaymentsOfFinalFees Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe amount of warrants issued in connection with debt. + ReferencesNo definition available. + Details Name: ctso_WarrantsIssuedInConnectionWithDebt Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_AdjustmentsToReconcileNetIncomeLossToCashProvidedByUsedInOperatingActivitiesAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount of noncash expense included in interest expense to amortize debt discount and premium associated with the related debt instruments. Excludes amortization of financing costs. Alternate captions include noncash interest expense. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (b) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(8)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1F -Subparagraph (b)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1FReference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 45 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482925/835-30-45-3 + Details Name: us-gaap_AmortizationOfDebtDiscountPremium Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of cash and cash equivalents, and cash and cash equivalents restricted to withdrawal or usage. Excludes amount for disposal group and discontinued operations. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-8Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-24Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-4 + Details Name: us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalents Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of increase (decrease) in cash, cash equivalents, and cash and cash equivalents restricted to withdrawal or usage; including effect from exchange rate change. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-24Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 1 -SubTopic 230 -Topic 830 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477401/830-230-45-1 + Details Name: us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_CashFlowNoncashInvestingAndFinancingActivitiesDisclosureAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionThe current period expense charged against earnings on long-lived, physical assets not used in production, and which are not intended for resale, to allocate or recognize the cost of such assets over their useful lives; or to record the reduction in book value of an intangible asset over the benefit period of such asset; or to reflect consumption during the period of an asset that is not used in production. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (b) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 360 -SubTopic 10 -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482099/360-10-50-1 + Details Name: us-gaap_DepreciationAndAmortization Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of increase (decrease) from effect of exchange rate changes on cash and cash equivalents, and cash and cash equivalents restricted to withdrawal or usage; held in foreign currencies; including, but not limited to, disposal group and discontinued operations. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 830 -SubTopic 230 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477401/830-230-45-1 + Details Name: us-gaap_EffectOfExchangeRateOnCashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsIncludingDisposalGroupAndDiscontinuedOperations Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount, before tax, of unrealized gain (loss) from foreign currency transaction. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-10Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section 45 -Paragraph 6 -Subparagraph (b)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479105/946-220-45-6Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-07(7)(c)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-1Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 830 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481956/830-20-45-1Reference 5: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 830 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481926/830-20-50-1Reference 6: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap_ForeignCurrencyTransactionGainLossUnrealized Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe amount of impairment loss recognized in the period resulting from the write-down of the carrying amount of a finite-lived intangible asset to fair value. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 350 -SubTopic 30 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482686/350-30-45-2Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 350 -SubTopic 30 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482665/350-30-50-3Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap_ImpairmentOfIntangibleAssetsFinitelived Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionThe increase (decrease) during the reporting period in the amounts payable to vendors for goods and services received and the amount of obligations and expenses incurred but not paid. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap_IncreaseDecreaseInAccountsPayableAndAccruedLiabilities Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionThe increase (decrease) during the reporting period in amount due within one year (or one business cycle) from customers for the credit sale of goods and services. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap_IncreaseDecreaseInAccountsReceivable Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe increase (decrease) during the reporting period in the aggregate value of all inventory held by the reporting entity, associated with underlying transactions that are classified as operating activities. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap_IncreaseDecreaseInInventories Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_IncreaseDecreaseInOperatingCapitalAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount of increase (decrease) in operating assets classified as other. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI

https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap_IncreaseDecreaseInOtherOperatingAssets Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount of increase (decrease) in prepaid expenses, and assets classified as other. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap_IncreaseDecreaseInPrepaidDeferredExpenseAndOtherAssets Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount of cash paid for interest, excluding capitalized interest, classified as operating activity. Includes, but is not limited to, payment to settle zero-coupon bond for accreted interest of debt discount and debt instrument with insignificant coupon interest rate in relation to effective interest rate of borrowing attributable to accreted interest of debt discount. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 17 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-17Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 25 -Subparagraph (e) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-25Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-2 + Details Name: us-gaap_InterestPaidNet Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount of cash inflow (outflow) from financing activities, including discontinued operations. Financing activity cash flows include obtaining resources from owners and providing them with a return on, and a return of, their investment; borrowing money and repaying amounts borrowed, or settling the obligation; and obtaining and paying for other resources obtained from creditors on long-term credit. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-24 + Details Name: us-gaap_NetCashProvidedByUsedInFinancingActivities Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_NetCashProvidedByUsedInFinancingActivitiesAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount of cash inflow (outflow) from investing activities, including discontinued operations. Investing activity cash flows include making and collecting loans and acquiring and disposing of debt or equity instruments and property, plant, and equipment and other productive assets. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-24 + Details Name: us-gaap_NetCashProvidedByUsedInInvestingActivities Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_NetCashProvidedByUsedInInvestingActivitiesAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount of cash inflow (outflow) from operating activities, including discontinued operations. Operating activity cash flows include transactions, adjustments, and changes in value not defined as investing or financing activities. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-24Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 25 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-25 + Details Name: us-gaap_NetCashProvidedByUsedInOperatingActivities Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: na Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_NetCashProvidedByUsedInOperatingActivitiesAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionThe portion of profit or loss for the period, net of income taxes, which is attributable to the parent. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-6Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 9 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-9Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 805 -SubTopic 60 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147476176/805-60-65-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 323 -Name Accounting Standards Codification -Section 65 -Paragraph 2 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478666/740-323-65-2Reference 5: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(g)(1)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 323 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481687/323-10-50-3Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 825 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 28 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-28Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482765/220-10-50-6Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-3Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-1Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 815 -SubTopic 40 -Name Accounting Standards Codification -Section 65 -Paragraph 1 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480175/815-40-65-1Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-8Reference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-11Reference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 250 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483443/250-10-50-4Reference 17: http://www.xbrl.org/2003/role/exampleRef -Topic 946 -SubTopic 830 -Name Accounting Standards Codification -Section 55 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479168/946-830-55-10Reference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section 45 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479105/946-220-45-7Reference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-04(18)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477250/944-220-S99-1Reference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-07(9)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-1Reference 21: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(1)(d)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 22: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 23: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(ii)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 24: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 25: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 26: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 27: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 28: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 29: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 30: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 31: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 32: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-60BReference 33: http://www.xbrl.org/2003/role/disclosureRef -Topic 205 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483499/205-20-50-7Reference 34: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 35: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1AReference 36: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1BReference 37: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(22)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1 + Details Name: us-gaap_NetIncomeLoss Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe cash outflow for loan origination associated cost which is usually collected through escrow. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 15 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-15 + Details Name: us-gaap_PaymentsOfLoanCosts Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe cash outflow to acquire asset without physical form usually arising from contractual or other legal rights, excluding goodwill. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 13 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-13 + Details Name: us-gaap_PaymentsToAcquireIntangibleAssets Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe cash inflow from a debt initially having maturity due after one year or beyond the operating cycle, if longer. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-03(i)(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479886/946-10-S99-3Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 14 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-14 + Details Name: us-gaap_ProceedsFromIssuanceOfLongTermDebt Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of cash inflow from exercise of option under share-based payment arrangement. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 14 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-14Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2A -Subparagraph (a) -SubTopic 10 -Topic 718 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2A + Details Name: us-gaap_ProceedsFromStockOptionsExercised Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of expense (reversal of expense) for expected credit loss on accounts receivable. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 326 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 13 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479319/326-20-50-13Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2 + Details Name: us-gaap_ProvisionForDoubtfulAccounts Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionThe cash outflow for debt initially having maturity due after one year or beyond the normal operating cycle, if longer. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 15 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-15Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-03(i)(2)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479886/946-10-S99-3 + Details Name: us-gaap_RepaymentsOfLongTermDebt Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount of noncash expense for share-based payment arrangement. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap_ShareBasedCompensation Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_SupplementalCashFlowInformationAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration XML 18 R7.htm IDEA: XBRL DOCUMENT v3.24.2.u1 BASIS OF PRESENTATION 6 Months Ended Jun. 30, 2024 BASIS OF PRESENTATION Â BASIS OF PRESENTATION 1.Â Â Â Â BASIS OF PRESENTATIONThe interim consolidated financial statements of CytoSorbents Corporation (the â€œCompanyâ€) have been prepared in conformity with accounting principles generally accepted in the United States of America (â€œU.S. GAAPâ€). In the opinion of management, the Company has made all necessary adjustments, which include normal recurring adjustments, for a fair presentation of the Companyâ€™s consolidated financial position and results of operations for the interim periods presented. Certain information and disclosures normally included in the annual consolidated financial statements prepared in accordance with U.S. GAAP have been condensed or omitted. These interim consolidated financial statements should be read in conjunction with the audited consolidated financial statements and accompanying notes for the year ended December 31, 2023, included in the Companyâ€™s Annual Report on Form 10-K, as filed with the Securities and Exchange Commission (the â€œSECâ€) on March 14, 2024. The results for the three and six months ended June 30, 2024 and 2023, are not necessarily indicative of the results to be expected for a full year, any other interim periods or any future year or period.As of June 30, 2024, the Companyâ€™s cash, cash equivalents and restricted cash balances were approximately $14.9 million, including approximately $8.4 million in cash and cash equivalents and approximately $6.5 million in restricted cash, the unrestricted portion of which is not expected to fund the Companyâ€™s operations beyond the next twelve months from the issuance of these consolidated financial statements. This matter raises substantial doubt about the Companyâ€™s ability to continue as a going concern. As a result, the accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and

satisfaction of liabilities in the normal course of business. The Company continues to pursue additional milestones related to its recently announced Avenue debt facility that would increase its unrestricted cash position by up to $10 million. If these milestones are not achieved, we will need to raise additional capital to support our ongoing operations in the future. Meanwhile the Company continues to evaluate other traditional and alternative sources of capital, including additional less or non-dilutive debt financing, royalty financing, strategic or direct investments, equity financing, and/or combinations thereof. There can be no assurance that management will be successful in these endeavors. X - DefinitionThe entire disclosure for the basis of accounting, or basis of presentation, used to prepare the financial statements (for example, US Generally Accepted Accounting Principles, Other Comprehensive Basis of Accounting, IFRS). + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 235 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/235/tableOfContent + Details Name: us-gaap_BasisOfAccounting Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_OrganizationConsolidationAndPresentationOfFinancialStatementsAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration XML 19 R8.htm IDEA: XBRL DOCUMENT v3.24.2.u1 PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES 6 Months Ended Jun. 30, 2024 PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Â PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES 2.Â Â Â Â PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIESNature of BusinessThe Company is a leader in the treatment of life-threatening conditions in intensive care and cardiac surgery using blood purification. The Company, through its subsidiary CytoSorbents Medical, Inc. (formerly known as CytoSorbents, Inc.), is engaged in the research, development and commercialization of medical devices with its blood purification technology platform which incorporates a proprietary adsorbent, porous polymer technology. The Company, through its wholly-owned European subsidiary, CytoSorbents Europe GmbH, conducts sales and marketing related operations for the CytoSorb device. In March 2016, the Company formed CytoSorbents Switzerland GmbH, a wholly-owned subsidiary of CytoSorbents Europe GmbH. This subsidiary, which began operations during the second quarter of 2016, provides marketing and direct sales services in Switzerland. In November 2018, the Company formed CytoSorbents Poland Sp. z.o.o., a wholly-owned subsidiary of CytoSorbents Europe GmbH. This subsidiary, which began operations during the first quarter of 2019, provides marketing and direct sales services in Poland. In the third quarter of 2019, the Company formed CytoSorbents UK Limited, a wholly-owned subsidiary of CytoSorbents Medical, Inc., which is responsible for the management of the Companyâ€™s clinical trial activities in the United Kingdom. In March 2022, the Company formed CytoSorbents Medical UK Limited to provide marketing and direct sales services in the United Kingdom and the Republic of Ireland, a wholly-owned subsidiary of CytoSorbents Europe, GmbH. In October 2022, the Company formed CytoSorbents France SAS, a wholly-owned subsidiary of CytoSorbents Europe, GmbH, to provide marketing and direct sales services in France. In May 2023, the Company formed CytoSorbents India Private Limited to provide marketing and direct sales services in India. CytoSorb, the Companyâ€™s flagship product, was approved in the European Union (â€œEUâ€) in March 2011 and is currently being marketed and distributed in more than 75 countries around the world, as an effective extracorporeal cytokine absorber, designed to reduce the â€œcytokine stormâ€ or â€œcytokine release syndromeâ€ seen in critical illnesses that may result in massive inflammation, organ failure, and patient death. In May 2018, the Company received a label extension for CytoSorb covering use of the device for the removal of bilirubin and myoglobin which allows for the use of the device in the treatment of liver failure and trauma, respectively. CytoSorb is also being used during and after cardiac surgery to remove inflammatory mediators that can lead to post-operative complications, including multiple organ failure. In January 2020, CytoSorb received EU CE Mark label expansion to include the removal of ticagrelor during cardiopulmonary bypass in patients undergoing cardiothoracic surgery. In May 2020, CytoSorb also received EU CE Mark label expansion to include rivaroxaban removal for the same indication.In April 2020, CytoSorb received United States Food and Drug Administration (â€œFDAâ€) Emergency Use Authorization (â€œEUAâ€) of CytoSorb for use in adult critically ill COVID-19 patients with imminent or confirmed respiratory failure. The CytoSorb device has neither been cleared nor approved for the indication to treat patients with COVID-19 infection. The EUA will be effective until a declaration is made that the circumstances justifying the EUA have terminated or until revoked by the FDA.In April 2020, the Company also announced that the FDA had granted Breakthrough Designation for its DrugSorb-ATR Antithrombotic Removal System for the removal of ticagrelor in a cardiopulmonary bypass circuit during emergent and urgent cardiothoracic surgery. The Breakthrough Devices Program provides for more effective treatment of life-threatening or irreversibly debilitating disease or conditions, in this case the need to reverse the effects of ticagrelor in emergent or urgent cardiac surgery that can otherwise cause a high risk of serious or life-threatening bleeding. Through Breakthrough Designation, the FDA intends to work with CytoSorbents to expedite the development, assessment, and regulatory review of CytoSorbentsâ€™ technology for the removal of ticagrelor, while maintaining statutory standards of regulatory approval (e.g., 510(k), de novo 510(k) or premarket approval) consistent with the FDAâ€™s mission to protect and promote public health. In July 2021, the Company received full approval of its Investigative Device Exemption (â€œIDEâ€) to conduct the pivotal STAR-T (Safe and Timely Antithrombotic Removal â€“ Ticagrelor) double-blind randomized control trial (â€œRCTâ€) for up to 120 patients in the United States to support FDA marketing approval. In July 2023, the Company announced that enrollment in the STAR-T trial has completed, and in August 2023, the Company announced completion of the STAR-T trial, following the last scheduled patient follow-up. In December 2023, the Company announced that the independent Data Safety Monitoring Board (the â€œDSMBâ€) performed a final review of the full unblinded data on all 140 patients in the STAR-T trial and concluded there were no issues with device safety, meeting the primary safety endpoint of the study. The Company has also performed the initial data analysis on the primary effectiveness endpoint of STAR-T trial. Based on this analysis, the study did not meet the primary effectiveness endpoint in the overall patient population that underwent different types of cardiac surgeries. However, the study did demonstrate evidence of reduced bleeding complications, including serious bleeding events, in patients in the pre-specified isolated coronary artery bypass graft (â€œCABGâ€) surgery population, representing more than 90% of the overall study population. The topline results of 140-patient, double-blinded, multicenter, pivotal STAR-T randomized, controlled trial were featured as a late breaking presentation at the 104th Annual Meeting of the American Association for Thoracic Surgery (AATS) held in Toronto, Canada on April 28, 2024. The Company believes the safety and effectiveness data from STAR-T will support the parallel regulatory submission of DrugSorb-ATR to the FDA and Health Canada in the third quarter of 2024.In August 2021, the Company announced that it was granted a second Breakthrough Device designation for its DrugSorb-ATR Antithrombotic Removal System by the FDA. This Breakthrough Device designation covers the removal of the Direct Oral Anticoagulants (DOACs) apixaban and rivaroxaban in a cardiopulmonary bypass circuit to reduce the likelihood of serious perioperative bleeding during urgent cardiothoracic surgery. In October 2021, the Company also received full FDA approval of an IDE application to conduct a double-blind, randomized, controlled clinical study for up to 120 patients entitled, â€œSafe and Timely Antithrombotic Removal â€“ Direct Oral Anticoagulants (STAR-D),â€ in the United States to support FDA marketing approval. The study has been postponed while the Company concentrates its clinical focus on STAR-T.If FDA marketing approval is obtained for either the removal of ticagrelor or direct oral anticoagulants indications, the device will be marketed as DrugSorb-ATR in the United States. The DrugSorb-ATR Antithrombotic Removal System is based on the same polymer technology as CytoSorb. In May 2022, the Company announced that the Company entered into a three-year preferred supplier agreement with Asklepios, making CytoSorb available without restrictions to all of the approximately 170 healthcare facilities across 14 states throughout Germany at which Asklepios operates. This includes Asklepios Klinik St. Georg in Hamburg, Germany, which pioneered the use of CytoSorb to remove antithrombotic drugs during cardiothoracic surgery and is well-known for their seminal publications on CytoSorb use for this application during emergency cardiac surgery in patients at high risk of bleeding.In June 2024, the Company announced the launch and immediate availability of its PuriFiâ„¢ hemoperfusion machine in the EU, following approval and certification under the EU Medical Device Regulation (MDR). Prior to this, beginning in June 2022 the company had a non-exclusive agreement with Nikkiso Europe GmbH (â€œNikkisoâ€) to distribute Nikkisoâ€™s PureADJUST stand-alone hemoperfusion pump and accessories in a total of 14 countries. In September 2023, the distribution agreement with Nikkiso expired, and the Company indicated that it would not seek renewal of the agreement.In August 2022, the Company entered into a Marketing Agreement (the â€œMarketing Agreementâ€) with Fresenius Medical Care Deutschland GmbH (â€œFreseniusâ€), which expands the Companyâ€™s strategic partnership with Fresenius by establishing a multi-stage global collaboration to combat life-threatening diseases in critical care. The Marketing Agreement provides for the combined marketing and promotion of CytoSorb with Freseniusâ€™ critical care products by Freseniusâ€™ marketing organization worldwide, excluding the United States. The Marketing Agreement has an initial term of three years, with an automatic renewal for an additional two years at the end of such initial term, subject to earlier termination by either of the parties (the â€œTermâ€). Compared to the prior co-marketing agreement between the parties, the Marketing Agreement intends to increase the commitments from both parties and to ensure an ongoing and consistent level of marketing and promotional activity specifically focused around CytoSorb, where Fresenius will actively market and promote CytoSorb as the featured blood purification therapy for removal of cytokines, bilirubin, and myoglobin on its critical care platforms. Specifically, the Marketing Agreement provides that various Fresenius-led in-person, virtual, social media, and web-based marketing programs and events will feature the CytoSorb therapy and highlight the cooperation between the two companies in the field of critical care during the Term. To help support the increased marketing and promotional efforts of the expanded collaboration, CytoSorbents has agreed to subsidize a portion of the marketing costs through a royalty payment to Fresenius Medical Care based on CytoSorb sales in the intensive care unit on Fresenius Medical Care platforms, excluding the United States. In addition to strengthening and expanding the global marketing of CytoSorb, the Company and Fresenius also plan to work together to bring new innovative solutions to the market. The Marketing Agreement also includes the certification of compatibility of CytoSorb for usage on Freseniusâ€™ current critical care platforms. The launch of this program is expected to occur in 2024.The technology is based upon biocompatible, highly porous polymer sorbent beads that can actively remove toxic substances from blood and other bodily fluids by pore capture and surface adsorption. The Company has numerous products under development based upon this unique blood purification technology which, as of June 30, 2024, is protected by 22 issued U.S. patents and multiple international patents, with applications pending both in the U.S. and internationally. These patents and patent applications are directed to various compositions and methods of use related to the Companyâ€™s blood purification technologies and are expected to expire between 2024 and 2038, absent any patent term extensions. Management believes that any near-term expiring patents will not have a significant impact on the Companyâ€™s ongoing business.Stock Market ListingOn DecemberÂ 17, 2014, the Companyâ€™s common stock, par value $0.001 per share, was approved for listing on the Nasdaq Capital Market (â€œNasdaqâ€), and it began trading on Nasdaq on DecemberÂ 23, 2014 under the symbol â€œCTSO.â€ Previously, the Companyâ€™s common stock traded in the over-the-counter-market on the OTC Bulletin Board.Basis of Consolidation and Foreign Currency TranslationThe consolidated financial statements include the accounts of CytoSorbents Corporation and its wholly-owned subsidiaries, CytoSorbents Medical, Inc. and CytoSorbents Europe GmbH. In addition, the consolidated financial statements include CytoSorbents Switzerland GmbH, CytoSorbents Poland Sp. z.o.o., CytoSorbents Medical UK Limited and CytoSorbents France SAS, wholly-owned subsidiaries of CytoSorbents Europe GmbH, and CytoSorbents UK Limited and CytoSorbents India Private Limited, wholly-owned subsidiaries of CytoSorbents Medical, Inc. All significant intercompany transactions and balances have been eliminated in consolidation.Translation gains and losses resulting from the process of remeasuring into the United States of America dollar, the foreign currency financial statements of the European subsidiary, for which the United States of America dollar is the functional currency, are included in operations. The Euro is the functional currency of the European Subsidiary. Foreign currency transaction gain (loss) included in net loss amounted to approximately $(544,000) and $415,000 for the three months ended June 30, 2024 and 2023, respectively. Foreign currency transaction gain (loss) included in net loss amounted to approximately $(1,970,000) and $1,076,000 for the six months ended June 30, 2024 and 2023, respectively. The Company translates assets and liabilities of all of its foreign subsidiaries at the exchange rate in effect at the consolidated balance sheet date. The Company translates revenue and expenses at the daily average exchange rates. The Company includes accumulated net translation adjustments in accumulated other comprehensive income (loss) as a component of stockholdersâ€™ equity.Cash, Cash Equivalents and Restricted CashThe Company considers all highly liquid investments purchased with an original maturity of threeÂ months or less to be cash equivalents.The following table provides a reconciliation of cash and cash equivalents and restricted cash to amounts shown in the consolidated balance sheets:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Â Â Â Â JuneÂ 30,Â 2024Â Â Â Â DecemberÂ 31,Â 2023Cash and cash equivalentsâ€‹$8,458,708 â€‹$ 14,131,137Restricted cashâ€‹Â 6,483,958â€‹Â 1,483,958Total cash, cash equivalents and restricted cashâ€‹$ 14,942,666â€‹$ 15,615,095â€‹Restricted CashThe Companyâ€™s total restricted cash in the amount of $6,483,958 consists of cash of $5,000,000 which is restricted in accordance with the terms of the debt agreement with Avenue Capital Group (see Note 5), cash of $1,467,458 that the Company is obligated to maintain as collateral for the outstanding letter of credit with Bridge Bank that was provided to the landlord of the College Road facility as security and cash of $16,500 that the Company is obligated to maintain as collateral for the credit limit on the Companyâ€™s credit card accounts.Grants and Accounts ReceivableTrade accounts receivable consist of amounts due from direct customers, distributors and agencies of the U.S. government and are presented at net realizable value. At each balance sheet date, the Company estimates an expected allowance for credit losses inherent in the Companyâ€™s accounts receivable portfolio based on historical experience, specific allowances for known troubled accounts, and other available evidence. In addition, also at each reporting date, this estimate is updated to reflect any changes in credit risk since the receivable was initially recorded. This estimate is calculated on a pooled basis where similar risk characteristics exist. The Company has identified the following portfolio segments: direct customers, distributors/strategic partners and the U.S. government.A fixed reserve percentage for each pool is derived from a review of the Companyâ€™s historical losses in relation to the total pool. This estimate is adjusted quarterly for managementâ€™s assessment of current conditions, reasonable and supportable forecasts regarding future events, and any other factors deemed relevant by the Company. The Company believes historical loss information is a reasonable starting point in which to calculate the expected allowance for credit losses as the Companyâ€™s portfolio segments have remained constant over the Companyâ€™s historical evaluation period.The Company writes off receivables when there is information that indicates the debtor is facing significant financial difficulty and there is no possibility of recovery. If any recoveries are made from any accounts previously written off, they are recognized as an offset to credit loss expense in the year of recovery. The total amount of write-offs was immaterial to the consolidated financial statements as a whole for the three and six months ended June 30, 2024.The allowance for credit losses reflects accounts receivable balances that are written off when management determines they are uncollectible.The allowance for credit losses is measured on a collective (pool) basis when similar risk characteristics exist, and measures the allowance for credit losses using the following methods:Direct Customersâ€”The Company measures expected credit losses on direct customer receivables using an aging methodology. The risk of loss for direct customer receivables is low based on the Companyâ€™s historical experience. The estimate of expected credit losses considers historical credit loss information that is adjusted for current conditions and supportable forecasts.Distributors/Strategic Partnersâ€”The Company measures expected credit losses on distributor receivables using an individual reserve methodology. The risk of loss in this portfolio is low based on the Companyâ€™s historical experience. The estimate of expected credit losses considers the past payment history of each distributor.U.S. Governmentâ€” These receivables are related to the Companyâ€™s government grants. The Company measures expected credit losses on these receivables using an individual reserve methodology. The risk of loss in this portfolio is very low based on the Companyâ€™s historical experience, as these receivables are supported by approved grant award contracts.InventoriesInventories are valued at the lower of cost or net realizable value under the first in, first out (FIFO) method. At June 30, 2024 and December 31, 2023, the Companyâ€™s inventory was comprised of finished goods, which amounted to $2,459,604 and $2,155,457, respectively; work in process, which amounted to $1,048,360 and $838,871, respectively; and raw materials, which amounted to $808,788 and $685,801, respectively. Devices used in clinical trials or for research and development purposes are removed from inventory and charged to research and development expenses at the time of their use. Donated devices are removed from inventory and charged to selling, general and administrative expenses.Property and EquipmentProperty and equipment are recorded at cost less accumulated depreciation. Depreciation of property and equipment is provided for by the straight-line method over the estimated useful lives of the related assets. Leasehold improvements are amortized over the lesser of their economic useful lives or the term of the related leases. Gains and losses on depreciable assets retired or sold are recognized in the consolidated statements of operations and comprehensive loss in theÂ year of disposal. Repairs and maintenance expenditures are expensed as incurred.PatentsLegal costs incurred to establish and successfully defend patents are capitalized. When patents are issued, capitalized costs are amortized on the straight-line method over the related patent term. In the event a patent is abandoned, the net book value of the patent is written off.Impairment or Disposal of Long-Lived AssetsThe Company assesses the impairment of patents and other long-lived assets under accounting standards for the impairment or disposal of long-lived assets whenever events or changes in circumstances indicate that the carrying value may not be recoverable. For long-lived assets to be held and used, the Company recognizes an impairment loss only if its carrying amount is not recoverable through its undiscounted cash flows and measures the impairment loss based on the difference between

the carrying amount and fair value. During the three months ended June 30, 2024 and 2023, the Company recorded impairment charges of approximately $185,000 and $21,000, respectively, and during the six months ended June 30, 2024 and 2023, the Company recorded impairment charges of approximately $250,000 and $293,000, respectively, related to the impairment of certain issued patents and pending patent applications in certain specific jurisdictions and the abandonment of certain pending patent application costs in the ordinary course of business. This charge is included in legal, financial and other consulting in the consolidated statements of operations and comprehensive loss.Revenue RecognitionRevenue is recognized when the Company ships its products to its direct customers and distributors/strategic partners. Revenue is recognized on its grant awards with agencies of U.S. government in accordance with the terms of the award contract. See Note 4 for a description of the types of government contracts. The amount of revenue recognized reflects the consideration the Company expects to be entitled to receive in exchange for the products shipped or the services provided under their grant contracts. To achieve this core principle, the Company applies the following five steps:1.Identify Contracts with Customers - The Companyâ€™s contracts with its direct customers are generally in the form of a purchase order. The Company has formal written contracts with each of its distributors/strategic partners that define their respective territories and minimum purchase commitments which must be met in order to maintain exclusivity in their territory. Distributors/strategic partner customers also submit purchase orders with each order that define the terms of shipment and transaction price. The Company has a contract for each grant award with various agencies of the U.S. government.2.Identify Performance Obligations - The performance obligations in contracts with direct customers and distributors/strategic partners are for the shipment of the CytoSorb device and related accessory parts. The performance obligations for government contracts are dependent on the contract type, however, these are generally based on the costs incurred related to each government contract.3.Determine Transaction Price - The price charged is based on the Companyâ€™s price list for the CytoSorb device and related accessory parts for both direct customers and distributor/strategic partners. The Company does not permit returns for product sales. The Company also provides for certain rebates and discounts to direct customers for sales of its product that are earned based upon sales volume. These amounts, which are earned based on calendar year sales volume, are recorded as a reduction of sales as earned. The transaction prices for government contracts are dependent on the type of contract and are outlined in each contract.4.Allocate Transaction Price to Performance Obligations - The transaction price for the performance obligation is based on the purchase orders received for both direct customers and on the type of contract and are outlined in each contract. The transaction prices for government contract performance obligations are dependent on the type of contract and are generally based on costs incurred.5.Recognize Revenue as Performance Obligations are Satisfied - The Company satisfies its performance obligation to direct customers and distributors/strategic partners generally upon shipment of the products. The Company satisfies its performance obligations on government contracts generally upon incurring costs on each contract. The Company records deferred revenue related to fixed price government contracts to the extent that billings exceed costs incurred.Research and Development and Clinical Trial ExpensesAll research and development costs, payments to laboratories and research consultants are expensed when incurred. Advertising ExpensesAdvertising expenses are included in selling, general, and administrative expenses on the consolidated statements of operations and comprehensive loss when incurred. Advertising expenses amounted to approximately $93,000 and $38,000 for the three months ended June 30, 2024 and 2023, respectively, and approximately $138,000 and $93,000 for the six months ended June 30, 2024 and 2023, respectively.Income TaxesIncome taxes are accounted for under the asset and liability method prescribed by accounting standards for accounting for income taxes. Deferred income taxes are recorded for temporary differences between financial statement carrying amounts and the tax basis of assets and liabilities. Deferred tax assets and liabilities reflect the tax rates expected to be in effect for the years in which the differences are expected to reverse. A valuation allowance is provided if it is more likely than not that some or all of the deferred tax asset will not be realized. Under Section 382 of the Internal Revenue Code, the net operating losses generated prior to the previously completed reverse merger may be limited due to the change in ownership. Additionally, net operating losses generated subsequent to the reverse merger may be limited in the event of changes in ownership. In 2017, the Tax Cuts and Jobs Act reduced the U.S. federal corporate tax rate from 35% to 21%.The Company follows accounting standards associated with uncertain tax positions. The Company had no unrecognized tax benefits at June 30, 2024. The Company is accounting for an uncertain tax position of approximately $2.1 million for the year ended December 31, 2023. The Company files tax returns in the U.S. federal and state jurisdictions.The Company utilizes the Technology Business Tax Certificate Transfer Program to sell a portion of its New Jersey Net Operating Loss carryforwards to an industrial company.CytoSorbents Europe GmbH, CytoSorbents Switzerland GmbH, CytoSorbents Poland Sp. z.o.o., CytoSorbents UK Limited, CytoSorbents Medical UK Limited, CytoSorbents India Private Limited and CytoSorbents France SAS file an annual corporate tax return, a VAT return and a trade tax return in Germany, Switzerland, Poland, France, the United Kingdom and India, respectively.Use of EstimatesThe preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets, liabilities at the date of the balance sheet, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates. The valuation of options granted, allowance for credit losses and recoverability of patents are significant estimates in these consolidated financial statements.Concentration of Credit RiskThe Company maintains cash balances, at times, with financial institutions in excess of amounts insured by the Federal Deposit Insurance Corporation (â€œFDICâ€). Beginning in April of 2023, the Company joined the IntraFi network, and established an Insured Cash Sweep (â€œICSâ€) account whereby all cash that was previously held in the Companyâ€™s money market account at Bridge Bank is swept daily in increments of less than $250,000 and deposited in a number of IntraFiâ€™s 4,000 member banks. This arrangement provides FDIC insurance coverage for all of the cash balances previously held in the money market account, which represents all of the cash and cash equivalents held at Bridge Bank. This arrangement excludes the restricted cash balances. Management monitors the soundness of these institutions in an effort to minimize its collection risk of these balances. A significant portion of the Companyâ€™s revenues are from product sales in Germany. Substantially all of the Companyâ€™s grant and other income are from government agencies in the United States. (See Note 4 for further information relating to the Companyâ€™s revenue.)As of June 30, 2024, two distributors accounted for approximately 30% of outstanding grants and accounts receivable. As of December 31, 2023, one distributor accounted for approximately 19% of outstanding grants and accounts receivable. For the three and six months ended June 30, 2024, one distributor accounted for approximately 14% and 12% of the Companyâ€™s total revenue. For the three months and six months ended June 30, 2023, one distributor accounted for approximately 12% and 11%, respectively, of the Companyâ€™s total revenue. Financial InstrumentsThe carrying values of cash and cash equivalents, accounts receivable, accounts payable and accrued expenses and other current liabilities approximate their fair values due to their short-term nature.WarrantsThe Company accounts for warrants as either equity-classified or liability-classified instruments based on an assessment of the warrantâ€™s specific terms and applicable authoritative guidance in ASC 480 â€œDistinguishing Liabilities From Equityâ€ (â€œASC 480â€) and ASC 815 â€œDerivatives and Hedgingâ€ (â€œASC 815â€). The assessment considers whether the warrants are freestanding financial instruments pursuant to ASC 480, meet the definition of a liability pursuant to ASC 480, and whether the warrants meet all of the requirements for equity classification under ASC 815, including whether the warrants are indexed to the Companyâ€™s own ordinary shares and whether the warrant holders could potentially require â€œnet cash settlementâ€ in a circumstance outside of the Companyâ€™s control, among other conditions for equity classification. This assessment, which requires the use of professional judgment, is conducted at the time of warrant issuance and as of each subsequent quarterly period end date while the warrants are outstanding.For issued or modified warrants that meet all of the criteria for equity classification, the warrants are required to be recorded as a component of equity at the time of issuance, and will remain as a component of equity thereafter. For issued or modified warrants that do not meet all the criteria for equity classification, the warrants are required to be recorded as liabilities at their initial fair value on the date of issuance, and each balance sheet date thereafter. Changes in the estimated fair value of the warrants are recognized as a non-cash gain or loss on the statements of operations.The warrants issued upon the closing of the Companyâ€™s December 13, 2023 Offering and the closing of the Companyâ€™s June 2024 debt financing both met the criteria for equity classification under ASC 815. Accordingly, these warrants have been classified as equity as of June 30, 2024 and December 31, 2023.Net Loss Per Common ShareBasic loss per share is computed by dividing loss available to common stockholders by the weighted average number of common shares outstanding during the period. Diluted loss per common share is computed using the treasury stock method utilizing the weighted-average number of shares of common stock plus the dilutive effect of potential common shares outstanding during the period. Dilutive potential common shares include outstanding stock options and restricted shares. The computation of diluted loss per share does not assume conversion, exercise or contingent exercise of securities that would have an anti-dilutive effect on earnings (see Note 8).Stock-Based CompensationThe Company accounts for its stock-based compensation under the recognition requirements of accounting standards for accounting for stock-based compensation, for employees and directors, whereby each option granted is valued at fair market value on the date of grant. Under these accounting standards, the fair value of each option is estimated on the date of grant using the Black-Scholes option pricing model.The Company also follows the guidance of accounting standards for accounting for equity instruments that are issued to other than employees for acquiring, or in conjunction with selling, goods or services for equity instruments issued to consultants.Shipping and Handling CostsThe cost of shipping product to customers and distributors is typically borne by the customer or distributor. The Company records other shipping and handling costs in cost of revenue. Total freight costs amounted to approximately $64,000 and $122,000, respectively, for the three months ended June 30, 2024 and 2023, and $178,000 and $200,000, respectively, for the six months ended June 30, 2024 and 2023.Effect of Recent Accounting PronouncementsIn August 2020, the FASB issued ASU 2020-06, â€œDebt â€“ Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging â€“ Contracts in Entityâ€™s Own Equity (Subtopic 815-40)â€ (â€œASU 2020-06â€). ASU2020-06 simplifies the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts on an entityâ€™s own equity. The ASU is part of the FASBâ€™s simplification initiative, which aims to reduce unnecessary complexity in U.S. GAAP. The ASUâ€™s amendments are effective for fiscal years beginning after December 15, 2024, and interim periods within those fiscal years. The Company adopted the provisions of ASU 2020-06 on January 1, 2024. This did not have a material impact on the Companyâ€™s financial statements.In December 2023, the FASB issued ASU No. 2023-09 entitled â€œIncome Taxes (Topic 740): Improvements to Income Tax Disclosuresâ€. This ASU provides guidance related to additional disclosures that will be required related to income taxes. The updated guidance is effective for public entities for fiscal years beginning after December 15, 2024. This ASU will result in additional disclosures in the Companyâ€™s consolidated financial statements related to income taxes in 2025.In November 2023, the FASB issued ASU No. 2023-07 (â€œASU 2023-07â€), Improvements to Reportable Segment Disclosures. The guidance primarily will require enhanced disclosures about significant segment expenses. All disclosure requirements under ASU 2023-07 and existing segment disclosures in ASC 280, Segment Reporting are also required for public entities with a single reportable segment. The amendments in ASU 2023-07 are effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted. A retrospective approach is required to be applied to all prior periods presented in the financial statements. The Company plans to adopt the provisions of ASU 2023-07 in the fourth quarter of fiscal 2024 and continues to evaluate the disclosure requirements related to the new standard. X - ReferencesNo definition available. + Details Name: us-gaap_AccountingPoliciesAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionThe entire disclosure for the organization, consolidation and basis of presentation of financial statements disclosure, and significant accounting policies of the reporting entity. May be provided in more than one note to the financial statements, as long as users are provided with an understanding of (1) the significant judgments and assumptions made by an enterprise in determining whether it must consolidate a VIE and/or disclose information about its involvement with a VIE, (2) the nature of restrictions on a consolidated VIE's assets reported by an enterprise in its statement of financial position, including the carrying amounts of such assets, (3) the nature of, and changes in, the risks associated with an enterprise's involvement with the VIE, and (4) how an enterprise's involvement with the VIE affects the enterprise's financial position, financial performance, and cash flows. Describes procedure if disclosures are provided in more than one note to the financial statements. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 235 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/235/tableOfContentReference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 275 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/275/tableOfContentReference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 810 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/810/tableOfContentReference 4: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 205 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/205/tableOfContent + Details Name: us-gaap_OrganizationConsolidationAndPresentationOfFinancialStatementsDisclosureAndSignificantAccountingPoliciesTextBlock Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration XML 20 R9.htm IDEA: XBRL DOCUMENT v3.24.2.u1 STOCKHOLDERS' EQUITY 6 Months Ended Jun. 30, 2024 STOCKHOLDERS' EQUITY Â STOCKHOLDERS' EQUITY 3.Â Â Â Â Â STOCKHOLDERSâ€™ EQUITYPreferred StockIn June 2019, the Company amended and restated its certificate of incorporation. The amended and restated certificate of incorporation authorizes the issuance of up to 5,000,000 shares of â€œblank checkâ€ preferred stock, with such designation rights and preferences as may be determined from time to time by the Board of Directors.Common StockIn June 2019, the Company amended and restated its certificate of incorporation. The amended and restated certificate of incorporation increased the number of shares of common stock authorized for issuance from 50,000,000 shares to 100,000,000 shares. Shelf RegistrationOn July 14, 2021, the Company filed a registration statement on Form S-3 with the SEC, which was amended on July 20, 2021 and declared effective by the SEC on July 27, 2021 (as amended, the â€œ2021 Shelfâ€). The 2021 Shelf enables the Company to offer and sell, in one or more offerings, any combination of common stock, preferred stock, senior or subordinated debt securities, warrants and units, up to a total dollar amount of $150 million and expires after three years. On July 26, 2024, the Company filed a registration statement on Form S-3 with the SEC (the â€œ2024 Shelfâ€), which enables the Company to offer and sell in one or more offerings, any combination of common stock, preferred stock, senior or subordinated debt securities, warrants and units, up to a total dollar amount of $150 million. The SEC has not yet declared the 2024 Shelf to be effective, however, the Company continues to be able to utilize the 2021 Shelf to offer securities. Because of the Companyâ€™s market capitalization is less than $75 million, it will be subject to baby shelf rules which limit the amount of securities sales the Company can make to one-third of its public market float over a 12-month period.Open Market Sale Agreement with Jefferies LLCOn December 30, 2021, the Company entered into an Open Market Sale Agreement (the â€œSale Agreementâ€) with Jefferies LLC (the â€œAgentâ€), pursuant to which the Company may sell, from time to time, at its option, shares of the Companyâ€™s common stock having an aggregate offering price of up to $25 million through the Agent, as the Companyâ€™s sales agent. All shares of the Companyâ€™s common stock offered and sold, or to be offered and sold under the Sale Agreement will be issued and sold pursuant to the Companyâ€™s 2021 Shelf by methods deemed to be an â€œat the market offeringâ€ as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended, in block transactions or if specified by the Company, in privately negotiated transactions.Subject to the terms of the Sales Agreement, the Agent is required to use its commercially reasonable efforts consistent with their normal sales and trading practices to sell the shares of the Companyâ€™s common stock from time to time, based upon the Companyâ€™s instructions (including any price, time or size limits or other customary parameters or conditions the Company may impose). The Company is required to pay the Agent a commission of up to 3.0% of the gross proceeds from the sale of the shares of the Companyâ€™s common stock sold thereunder, if any. There were no sales under the Sale Agreement during the year ended December 31, 2022. During the year ended December 31, 2023, the Company sold 2,656,464 shares pursuant to the Sale Agreement, at an average selling price of $1.76 per share, generating net proceeds of approximately $4,532,000. In addition, during the year ended December 31, 2023, the Company paid approximately $61,000 in expenses related to the Sale Agreement. During the six months ended June 30, 2024, the Company sold 53,290 shares pursuant to the Sales Agreement at an average selling price of $1.03 per share, generating net proceeds of approximately $53,000.Stock-Based CompensationTotal share-based employee, director, and consultant compensation amounted to approximately $829,000 and $1,563,000 for the three and six months ended June 30, 2024, respectively, and approximately $570,000 and $1,401,000 for the three and six months ended June 30, 2023, respectively. These amounts are included in the consolidated statements of operations and comprehensive loss under selling, general, and administrative expenses.The summary of the stock option activity for the six months ended June 30, 2024 is as follows:â€‹â€‹â€‹

and the risk free interest rate (ranging from 3.86% to 4.65%) for the expected term of the stock option.The intrinsic value is calculated as the difference between the market value of the shares as of June 30, 2024 of $0.703 and the exercise price of the shares.â€‹Options Outstanding â€‹â€‹Numberâ€‹Weightedâ€‹Weightedâ€‹â€‹â€‹Range ofâ€‹Outstanding atâ€‹Averageâ€‹Averageâ€‹AggregateExerciseâ€‹JuneÂ 30,Â â€‹Exerciseâ€‹Remainingâ€‹IntrinsicPriceÂ Â Â Â 2024Â Â Â Â PriceÂ Â Â Â Life (Years)Â Â Â Â Value$0.84 - $13.20Â 12,474,838â€‹$3.62 â€‹7.4â€‹$ â€”â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹

this contract. If billings on fixed price contracts exceed the costs incurred, revenue will be deferred to the extent of the excess billings.2.Cost reimbursement â€“ the Company submits monthly invoices during the term of the contract for the amount of direct costs incurred during that month plus an agreed upon percentage that relates to allowable overhead and general and administrative expenses. Cumulative amounts invoiced may not exceed the maximum amount of funding stipulated in the contract.3.Cost plus â€“ this type of contract is similar to a cost reimbursement contract but this type also allows for the Company to additionally invoice for a fee amount that is included in the contract.4.Performance based â€“ the Company submits invoices only upon the achievement of the milestones listed in the contract. The amount to be invoiced for each milestone is documented in the contract.These government contracts have terms ranging from three months to four years. The Company may apply for an extension of the term of the contract in order to complete its research and development activities but would not receive additional funding during the extension period in excess of the original contract. See Note 2 regarding the accounting policies related to these contracts.In summary, the contracts the Company has with customers are the distributor/strategic partner contracts related to CytoSorb product sales, agreements with direct customers related to free-of-charge product and credit rebates based upon achieving minimum purchase levels, and contracts with various government agencies related to the Companyâ€™s grants. The Company does not currently incur any outside/third party incremental costs to obtain any of these contracts. The Company does incur internal costs, primarily salary related costs, to obtain the contracts related to the grants. Company employees spend time reviewing the program requirements and developing the budget and related proposal to submit to the grantor agency. There may additionally be travel expenditures involved with meeting with government agency officials during the negotiation of the contract. These internal costs are expensed as incurred.The following table provides information about receivables and contract liabilities from contracts with customers:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Â Â Â Â JuneÂ 30,Â 2024Â Â Â Â DecemberÂ 31,Â 2023Receivables, which are included in grants and accounts receivableâ€‹$ 5,906,808â€‹$ 3,846,271Contract liabilities, which are included in accrued expenses and other current liabilitiesâ€‹$ 1,298,050â€‹$ 1,573,141â€‹Contract receivables represent balances due from product sales to distributors amounting to $5,424,751 and $3,270,724 at June 30, 2024 and December 31, 2023, respectively, and billed and unbilled amounts due on government contracts amounting to $482,057 and $575,547 at June 30, 2024 and December 31, 2023, respectively.Contract liabilities represent the value of free of charge goods and credit rebates earned in accordance with the terms of certain direct customer agreements, which amounted to $201,887 and $196,322 as of June 30, 2024 and December 31, 2023, respectively, and deferred grant revenue related to the billing on fixed price contracts in excess of costs incurred, which amounted to $1,096,163 and $1,376,819 at June 30, 2024 and December 31, 2023, respectively. X - ReferencesNo definition available. + Details Name: us-gaap_RevenueFromContractWithCustomerAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionThe entire disclosure of revenue from contract with customer to transfer good or service and to transfer nonfinancial asset. Includes, but is not limited to, disaggregation of revenue, credit loss recognized from contract with customer, judgment and change in judgment related to contract with customer, and asset recognized from cost incurred to obtain or fulfill contract with customer. Excludes insurance and lease contracts. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 9 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-9Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 10 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-10Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 15 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-15Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 12 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-12Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 12 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-12Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 12 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-12Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 12 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-12Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 12 -Subparagraph (e) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-12Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 13 -Subparagraph (b)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-13Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Topic 606 -Publisher FASB -URI https://asc.fasb.org/606/tableOfContent + Details Name: us-gaap_RevenueFromContractWithCustomerTextBlock Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration XML 22 R11.htm IDEA: XBRL DOCUMENT v3.24.2.u1 LONG-TERM DEBT, NET 6 Months Ended Jun. 30, 2024 LONG-TERM DEBT, NET Â LONG-TERM DEBT, NET 5.Â Â Â Â LONG-TERM DEBT, NETAvenue Capital Group:On June 28, 2024 (the â€œClosing Dateâ€), the Company entered into a Loan and Security Agreement (as amended, supplemented, restated or otherwise modified as of the date hereof and from time to time, the â€œLoan and Security Agreementâ€) with Avenue Venture Opportunities Fund, L.P., a Delaware limited partnership (â€œAvenueâ€), Avenue Venture Opportunities Fund II, L.P., a Delaware limited partnership (â€œAvenue 2â€ and, together with Avenue, the â€œLendersâ€), and Avenue Capital Management II, L.P., a Delaware limited partnership (the â€œAdministrative and Collateral Agentâ€).Under the Loan and Security Agreement, the Lenders have agreed to loan to the Company up to an aggregate of $20 million, to be disbursed in two tranches: (1) one tranche of $15 million (â€œGrowth Capital Loan Tranche 1â€) on the Closing Date, with $4.5 million funded by Avenue and $10.5 million funded by Avenue 2, of which $10 million is available to the Company on the Closing Date and $5 million constitutes restricted cash subject to release to the Company prior to March 31, 2025, provided (i) the FDA has accepted Companyâ€™s application for review with respect to DrugSorb-ATR De Novo 510(k) and (ii) the Company has received a minimum of $3 million in net proceeds from the sale of its equity securities after the Closing Date. The restriction will be released on a dollar for dollar basis for equity raised between $3 million and $5 million and (2) a second tranche of up to $5 million, which may be disbursed at the Companyâ€™s request between July 1, 2025 and December 31, 2025, provided that the Company receives FDA marketing approval of its DrugSorb-ATR application (â€œGrowth Capital Loan Tranche 2â€ and together with Growth Capital Loan Tranche 1, the â€œGrowth Capital Loansâ€ or the â€œCommitmentâ€). The proceeds from the Commitment were used to pay off the existing outstanding debt with Bridge Bank, and will additionally be used for working capital purposes and to fund general business requirements in accordance with the terms of the Loan and Security Agreement. Each Growth Capital Loan shall bear interest at a variable rate per annum equal to the greater of (A) the Prime Rate (as defined in the Loan and Security Agreement) plus five percent (5.00%) or (B) thirteen and one-half percent (13.50%).Commencing on August 1, 2024, the Company shall make monthly payments during the term of each Growth Capital Loan of interest only during the initial 25-month period following the Closing Date (as may be extended to the 30 months anniversary of the Closing Date upon satisfaction of certain conditions) and thereafter to maturity in equal monthly installments of principal plus accrued and unpaid interest. All unpaid principal and accrued and unpaid interest shall be due and payable in full on July 1, 2027; provided, however that if the Company draws the full amount of Growth Capital Loan Tranche 2 by December 2025, all unpaid principal and accrued and unpaid interest shall be due and payable in full by January 1, 2028. In addition, the Loan and Security Agreement required the Company to pay a non-refundable commitment fee equal to 1.00% of the Commitment due and payable on the Closing Date. In addition to the non-refundable commitment fee, the Company also paid financial advisor fees and legal fees of approximately $640,000 related to the Commitment. These costs are being amortized over the loan period as a charge to interest expense. During the three and six months ended June 30, 2024, the Company recorded interest expense of approximately $2,000 related to these costs. In addition, the Loan and Security Agreement requires the Company to pay a non-refundable final payment equal to 4.5% of the original commitment amount. This final payment has been accrued and included as part of the debt discount. This discount will be charged to interest expense over the term of the loan. For the three and six months ended June 30, 2024, the Company recorded interest expense of approximately $2,500 related to the debt discount.The Capital Growth Loans are evidenced by secured promissory notes issued to the Lenders by the Company. If the Company elects to prepay the Growth Capital Loan(s) pursuant to the terms of the Loan and Security Agreement, it will owe a prepayment fee to the Lenders, as follows: (1) for a prepayment made on or after the funding date of a Growth Capital Loan through and including the first anniversary of such funding date, an amount equal to 3.00% of the principal amount of such Growth Capital Loan prepaid; (2) for a prepayment made after the first anniversary of the funding date of a Growth Capital Loan through and including the second anniversary of such funding date, an amount equal to 2.00% of the principal amount of such Growth Capital Loan prepaid; and (3) for a prepayment made any time after the second anniversary of the funding date of a Growth Capital Loan, an amount equal to 1.00% of the principal amount of such Growth Capital Loan prepaid. Events of default which may cause repayment of the Commitment to be accelerated include, among other customary events of default, (1) non-payment of any obligation when due, (2) the failure to perform any obligation required under the Loan and Security Agreement and to cure such default within a reasonable time frame, (3) the occurrence of any circumstance that has a Material Adverse Effect (as defined in the Loan and Security Agreement), (4) default beyond any applicable grace period or cure under any other agreement involving the borrowing of money in excess of the Threshold Amount (as defined in the Loan and Security Agreement), (5) any judgment(s) singly or in the aggregate in excess of the Threshold Amount entered against the Company that remain unsatisfied, unvacated or unstayed for 15 days or more after entry thereof (to the extent not otherwise covered by independent third-party insurance), and (6) if the Company becomes insolvent or starts an insolvency proceeding or if an insolvency proceeding is brought by a third party against the Company and such proceeding is not dismissed or stayed within 45 days. The Loan and Security Agreement includes customary loan conditions, company representations and warranties, company affirmative covenants and company negative covenants for secured transactions of this type. As of June 30, 2024, the Company was in compliance with these covenants. As additional consideration for the Commitment, on June 28, 2024, the Company also issued each Lender a warrant instrument (each, a â€œWarrantâ€) entitling the Lenders to purchase an aggregate of 1,645,569 shares of the Companyâ€™s common stock for cash at the exercise price of $0.79 and expire on June 28, 2029. The number of warrants is fixed, however, the exercise price may be adjusted down if the Company raises equity (excluding sales of equity utilizing the Companyâ€™s at-the-market equity facility) at a share price that is lower than $0.79. These warrants meet the criteria for equity classification under ASC 815. Accordingly, the Company has recorded a debt discount and additional paid in capital of approximately $690,000 related to these warrants as of June 30, 2024. This discount will be charged to interest expense over the term of the loan.The Lenders were also granted the right while the Commitment is outstanding to convert up to an aggregate amount of $2,000,000 of the principal amount of the outstanding Growth Capital Loans into the Companyâ€™s common stock at a fixed conversion price of 120% of the Closing Price (as defined in the warrant) or $0.95 per share (the â€œConversion Optionâ€).The Companyâ€™s and CytoSorbents Medicalâ€™s obligations under the Loan and Security Agreement are joint and several. The obligations under the Loan and Security Agreement are secured by a first priority security interest in favor of the Lenders with respect to the Companyâ€™s Shares (as defined in the Loan and Security Agreement) and the Companyâ€™s Collateral (as defined in the Loan and Security Agreement), which includes the Companyâ€™s intellectual property, pursuant to that certain Intellectual Property Security Agreement, dated as of June 28, 2024, by and between the Company and the Administrative and Collateral Agent.â€‹Long-term debt consists of the following as of June 30, 2024:â€‹â€‹â€‹â€‹â€‹â€‹Principal amountÂ Â Â Â $ 15,000,000Accrued final feeâ€‹Â 900,000Less unamortized debt discountâ€‹â€‹ (1,588,209)Less unamortized debt acquisition costsâ€‹â€‹ (638,596)Subtotalâ€‹Â 13,673,195Less Current maturitiesâ€‹Â â€”Long-term debt net of current maturitiesâ€‹$ 13,673,195â€‹Principal payments of long-term debt are due as follows during the periods ending June 30:â€‹â€‹â€‹â€‹â€‹â€‹2025Â Â Â Â $ â€”2026Â Â Â Â â€‹ â€”2027â€‹Â 13,750,0002028â€‹â€‹ 1,250,000Totalâ€‹$ 15,000,000â€‹â€‹Bridge Bank: â€‹On June 28, 2024, concurrent with the closing of the Avenue financing discussed above, the Company paid off its existing outstanding debt with Bridge Bank. The following items survive the termination of the Bridge Bank Amended and Restated Loan and Security Agreement and related amendments:â€‹2018 Success Fee Letter:Pursuant to the amended 2018 Letter, the Borrower shall pay to the Bank a success fee in the amount equal to 6.37% of the funded amount of the Term B Loan (as defined in the Restated Loan and Security Agreement) (the â€œSuccess Feeâ€) upon the first occurrence of any of the following events: (a) a sale or other disposition by the Borrower of all or substantially all of its assets; (b) a merger or consolidation of the Borrower into or with another person or entity, where the holders of the Borrowerâ€™s outstanding voting equity securities as of immediately prior to such merger or consolidation hold less than a majority of the issued and outstanding voting equity securities of the successor or surviving person or entity as of immediately following the consummation of such merger or consolidation; (c) a transaction or a series of related transactions in which any â€œpersonâ€ or â€œgroupâ€ (within the meaning of Section 13(d) and 14(d)(2) of the Securities Exchange Act of 1934, as amended (the â€œExchange Actâ€) becomes the â€œbeneficial ownerâ€ (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of a sufficient number of shares of all classes of stock then outstanding of the Borrower ordinarily entitled to vote in the election of directors, empowering such â€œpersonâ€ or â€œgroupâ€ to elect a majority of the Board of Directors of the Borrower, who did not have such power before such transaction; or (d) the closing price per share for the Companyâ€™s common stock on the Nasdaq Capital Market being the greater of (i) 70% or more over $7.05, the closing price of the Companyâ€™s common stock on March 29, 2018 (after giving effect to any stock splits or consolidations effected after the date thereof) for five successive business days, or (ii) at least 26.13% more than the average price of Companyâ€™s common stock for the 365-day period ending on the date of the funding of the Term B Loan. This obligation terminated on the fifth anniversary of the funding of the Term B Loan which was July 31, 2024.2022 Success Fee Letter:Pursuant to the 2022 Success Fee Letter, the Borrower will pay to the Bank a success fee equal to (i) 1% of $5 million if the Company draws down the first tranche of the Term C Loan and is payable only if the Companyâ€™s stock price equals or exceeds $8 for five consecutive trading days; (ii) 1.5% of $5 million if the Company draws down the second tranche of the Term C Loan and is payable only if the Companyâ€™s stock price equals or exceeds $10 for five consecutive trading days; and (iii) 2% of $5,000,000 if the Company draws down the third tranche of the Term C Loan and is payable only if the Companyâ€™s stock price equals or exceeds $12 for five consecutive trading days (together, the â€œSuccess Feeâ€). As of June 28, 2024, the Company had drawn down only the first tranche of the Term C Loan. Borrower may pay the Success Fee in cash or in shares of common stock, at Borrowerâ€™s sole discretion. The right of Bank to receive the Success Fees and the obligation of the Borrower to pay the Success Fees hereunder shall terminate on the date that is the fifth anniversary of the funding date of the last Term C Loans made but shall survive the termination of the Loan Agreement and any prepayment of the Term C Loans. The termination date of this Letter is December 27, 2027. X - ReferencesNo definition available. + Details Name: us-gaap_DebtDisclosureAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionThe entire disclosure for long-term debt. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 470 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/470/tableOfContent + Details Name: us-gaap_LongTermDebtTextBlock Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration XML 23 R12.htm IDEA: XBRL DOCUMENT v3.24.2.u1 COMMITMENTS AND CONTINGENCIES 6 Months Ended Jun. 30, 2024 COMMITMENTS AND CONTINGENCIES Â COMMITMENTS AND CONTINGENCIES 6.Â Â Â Â COMMITMENTS AND CONTINGENCIESEmployment AgreementsOn JulyÂ 30, 2019, CytoSorbents Corporation entered into amended and restated executive employment agreements with its principal executives, Dr.Â Phillip P. Chan, Chief Executive Officer, Vincent Capponi, President and Chief Operating Officer, and Kathleen P. Bloch, the Companyâ€™s former Chief Financial Officer. Each of the agreements has an initial term of threeÂ years and was retroactively effective as of JanuaryÂ 1, 2019. On April 12, 2020, CytoSorbents Corporation entered into an executive employment agreement with Dr. Efthymios Deliargyris, who began employment as Chief Medical Officer on May 1, 2020, with an initial term that expired on December 31, 2021. After the expiration of the initial terms, the employment agreements will automatically renew for additional terms of oneÂ year unless either party provides written notice of non-renewal at least 60 days prior to a renewal. In January 2024, these employment agreements automatically renewed for an additional one year.The foregoing employment agreements each provide for base salary and other customary benefits which include participation in group insurance plans, paid time off and reimbursement of certain business-related expenses, including travel and continuing educational expenses, as well as bonus and/or equity awards at the discretion of the Board of Directors. In addition, the agreements provide for certain termination benefits in the event of termination without â€œCauseâ€ or voluntary termination of employment for â€œGood Reasonâ€, as defined in each agreement. The agreements also provide for certain benefits in the event of a â€œChange of Controlâ€ of the Company, as defined in each agreement.Effective March 31, 2023, Ms. Bloch retired from her role as Chief Financial Officer of the Company. Ms. Blochâ€™s employment agreement expired on March 31, 2023, upon her retirement from the Company. In connection with Ms. Blochâ€™s retirement, the Company and Ms. Bloch entered into a Consulting Agreement, dated as of March 31, 2023 (the â€œConsulting Agreementâ€), pursuant to which Ms. Bloch

served as a consultant to the Company and as the Companyâ€™s Interim Chief Financial Officer. On September 18, 2023, the Company entered into a new Employment Agreement with Ms. Kathleen P. Bloch pursuant to which Ms. Bloch will continue to serve as the Companyâ€™s Chief Financial Officer. Ms. Blochâ€™s service under the Employment Agreement has replaced and terminated the Consulting Agreement disclosed above. The Employment Agreement provides for base salary and other customary benefits which include participation in group insurance plans, paid time off and reimbursement of certain business-related expenses, including travel and continuing educational expenses, as well as bonus and/or equity awards at the discretion of the Board of Directors. In addition, the agreement provides for certain termination benefits in the event of termination without â€œCauseâ€ or voluntary termination of employment for â€œGood Reasonâ€, as defined in each agreement. Unless terminated sooner by either the Company or Ms. Bloch, the Employment Agreement will remain in effect until December 31, 2025, and thereafter, as mutually agreed between the Company and Ms. Bloch.LitigationThe Company is, from time to time, subject to claims and litigation arising in the ordinary course of business. The Company intends to defend vigorously against any future claims and litigation.On March 5, 2024, Danielle Greene, a former employee, filed a complaint against us in the Superior Court of New Jersey, Law Division, Mercer County, alleging breach of the New Jersey Conscientious Employee Protection Act (â€œCEPAâ€). The complaint specifically alleges that we violated the provisions of the CEPA by allegedly terminating Ms. Greene in retaliation for complaining about certain business practices. We dispute these allegations and intend to vigorously defend against them, but there can be no assurance as to the outcome of the litigation.Royalty AgreementsPursuant to an agreement dated August 11, 2003, an existing investor agreed to make a $4 million equity investment in the Company. These amounts were received by the Company in 2003. In connection with this agreement the Company granted the investor a perpetual royalty of 3% on all gross revenues received by the Company from the sale of its CytoSorb device which such rights were assigned to an existing investor in 2017. For the three months ended June 30, 2024 and 2023, the Company recorded royalty expenses of approximately $264,000 and $240,000, respectively. For the six months ended June 30, 2024 and 2023, the Company recorded royalty expenses of approximately $531,000 and $474,000, respectively. These expenses are included in selling, general and administrative expenses in the consolidated statements of operations and comprehensive loss.On August 1, 2022, the Company entered into the Marketing Agreement with Fresenius, which expands the Companyâ€™s strategic partnership with Fresenius by establishing a multi-stage global collaboration to combat life-threatening diseases in critical care. The Marketing Agreement has an initial term of three years, with an automatic renewal for an additional two years at the end of such initial term, subject to earlier termination by either of the parties (the â€œTermâ€). To help support the increased marketing and promotional efforts of the expanded collaboration, the Company has agreed to subsidize a portion of the marketing costs through royalty payments to Fresenius. Initially, the Marketing Agreement provides for royalty payments equal to 0.9% of the Companyâ€™s net sales of CytoSorb products made during the Term (excluding net sales in the United States). This initial royalty rate was determined based on certain assumptions regarding the percentage of the Companyâ€™s sale of CytoSorb products that are used with the Fresenius critical care platforms in the intensive care unit outside of the United States but is subject to adjustment if the Company determines that the underlying assumptions have changed significantly. For the three and six months ended June 30, 2024 and 2023, the Company did not record any expense related to this agreement. The launch of this program is expected to occur in 2024.License AgreementIn an agreement dated September 1, 2006, the Company entered into a license agreement which provides the Company the exclusive right to use its patented technology and proprietary know-how relating to adsorbent polymers for a period of 18 years. Under the terms of the agreement, the Company has agreed to pay license fees of 2.5% to 5% on the sale of certain of its products if and when those products are sold commercially for a term not greater than 18 years commencing with the first sale of such product. For the three months ended June 30, 2024 and 2023 per the terms of the license agreement, the Company recorded licensing expenses of approximately $352,000 and $320,000, respectively. For the six months ended June 30, 2024 and 2023 per the terms of the license agreement, the Company recorded licensing expenses of approximately $709,000 and $632,000, respectively. These expenses are included in selling, general and administrative expenses in the consolidated statements of operations and comprehensive loss. X - ReferencesNo definition available. + Details Name: us-gaap_CommitmentsAndContingenciesDisclosureAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionThe entire disclosure for commitments and contingencies. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 405 -SubTopic 30 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/405-30/tableOfContentReference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 440 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482648/440-10-50-4Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 450 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/450/tableOfContentReference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 954 -SubTopic 440 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478522/954-440-50-1Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 440 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482648/440-10-50-4Reference 6: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 440 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/440/tableOfContent + Details Name: us-gaap_CommitmentsAndContingenciesDisclosureTextBlock Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration XML 24 R13.htm IDEA: XBRL DOCUMENT v3.24.2.u1 LEASES 6 Months Ended Jun. 30, 2024 LEASES Â LEASES 7.Â Â Â Â LEASESThe Company leases its operating facilities in both the United States and Germany under operating lease agreements. In March 2021, CytoSorbents Medical Inc. entered into a lease agreement for a new operating facility at 305 College Road East, Princeton, New Jersey, which contains office, laboratory, manufacturing and warehouse space. The lease commenced on June 1, 2021. The Early Term commenced on June 1, 2021 and lasted until September 30, 2021. The lease also contains two five-year renewal options; however, the Company has determined that it is not likely that they will exercise these options. Commencing on September 30, 2021, the remaining lease term will last for 15.5 years. The lease requires monthly rental payments of $25,208 for the Initial Early Term, $88,254 for the Early Term and initial monthly payments of approximately $111,171 in the first year of the remaining term. Following the first year of the remaining term, the annual base rent will increase by approximately 2.75% annually over the remaining term. The lease also contains six months of rent abatement (months 1, 2, 3, 25, 26 and 27 of the remaining lease term). In addition to the base rent, payments of operating expenses and real estate taxes will be required. These payments are to be based on actual amounts incurred during 2021 multiplied by the Companyâ€™s share of the total building space (92.3%). The landlord will also provide an allowance of approximately $1,455,000 related to certain building improvements as outlined in the lease. In April 2021, the Company provided the landlord with a letter of credit in the amount of approximately $1,467,000 as security. The Company has determined that this lease should be treated as an operating lease in accordance with the provisions of Accounting Standards Codification (â€œASCâ€) 842. On April 1, 2021, the Company recorded a Right-of-Use asset and related lease liability of approximately $11.6 million, which represents the estimated present value of the lease payments at the commencement date discounted at the Companyâ€™s incremental borrowing rate of 9.8%. In addition, due to the six months of rent abatement and annual base rent escalations during the remaining lease term that commenced on September 30, 2021, the Company will recognize rent expense on this lease on a straight-line basis over the remaining term of the lease for the difference between the rent expense recognized and the required payments under the lease.In September 2021, the Company extended its two operating leases for its office facility in Germany. These leases require combined base rent payments amounting to approximately $12,100 perÂ month. The initial lease term of both leases ends AugustÂ 31, 2026. In addition, the Company is obligated toÂ monthly operating expenses of approximately $3,000 perÂ month. Both leases have a five-year option to renew that would extend the lease term to AugustÂ 31, 2031. There are no provisions in the leases to increase the base rent during the renewal period. There were no lease incentives and no initial direct costs were incurred related to these leases.In January 2021, CytoSorbents Europe GmbH entered into a lease for 1,068 square meters of additional warehouse space. The lease commenced on April 1, 2021 and requires monthly payments of base rent of $7,784 and other costs of approximately $239 and has a term of five years. The lease also has an option to extend the lease term for an additional five-year period through March 31, 2031. The Company has determined that this lease should be treated as an operating lease in accordance with the provisions of ASC 842. On April 1, 2020, the Company recorded a Right-of-Use asset and related lease liability at the estimated present value of the lease payments at the commencement date of approximately $594,000.Right-Of-Use Asset and Lease LiabilityThe Companyâ€™s consolidated balance sheets reflect the value of the right-of-use asset and related lease liability. This value was calculated based on the present value of the remaining base rent lease payments. The remaining lease payments include the renewal periods for both of the facilities in Germany and do not include the renewal periods for the United States facility. The discount rate used was the Companyâ€™s incremental borrowing rate, which is 9.8%, as the Company could not determine the rate implicit in the lease. As a result, the value of the right-of- use asset and related lease liability is as follows:â€‹â€‹â€‹

http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 26: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1A -Subparagraph (SX 210.13-01(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1AReference 27: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(i)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 28: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(A)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 29: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iii)(B)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 30: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(4)(iv)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 31: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1B -Subparagraph (SX 210.13-02(a)(5)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480097/470-10-S99-1BReference 32: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-60BReference 33: http://www.xbrl.org/2003/role/disclosureRef -Topic 205 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 7 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483499/205-20-50-7Reference 34: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 35: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1AReference 36: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482790/220-10-45-1BReference 37: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-04(22)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478524/942-220-S99-1 + Details Name: us-gaap_NetIncomeLoss Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration XML 27 R16.htm IDEA: XBRL DOCUMENT v3.24.2.u1 Insider Trading Arrangements 3 Months Ended Jun. 30, 2024 Trading Arrangements, by Individual Â Rule 10b5-1 Arrangement Adopted false Non-Rule 10b5-1 Arrangement Adopted false Rule 10b5-1 Arrangement Terminated false Non-Rule 10b5-1 Arrangement Terminated false X - ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Regulation S-K -Number 229 -Section 408 -Subsection a -Paragraph 1 + Details Name: ecd_NonRule10b51ArrAdoptedFlag Namespace Prefix: ecd_ Data Type: xbrli:booleanItemType Balance Type: na Period Type: duration X - ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Regulation S-K -Number 229 -Section 408 -Subsection a -Paragraph 1 + Details Name: ecd_NonRule10b51ArrTrmntdFlag Namespace Prefix: ecd_ Data Type: xbrli:booleanItemType Balance Type: na Period Type: duration X - ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Regulation S-K -Number 229 -Section 408 -Subsection a -Paragraph 1 + Details Name: ecd_Rule10b51ArrAdoptedFlag Namespace Prefix: ecd_ Data Type: xbrli:booleanItemType Balance Type: na Period Type: duration X - ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Regulation S-K -Number 229 -Section 408 -Subsection a -Paragraph 1 + Details Name: ecd_Rule10b51ArrTrmntdFlag Namespace Prefix: ecd_ Data Type: xbrli:booleanItemType Balance Type: na Period Type: duration X - ReferencesReference 1: http://www.xbrl.org/2003/role/presentationRef -Publisher SEC -Name Regulation S-K -Number 229 -Section 408 -Subsection a -Paragraph 2 -Subparagraph A + Details Name: ecd_TradingArrByIndTable Namespace Prefix: ecd_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration XML 28 R17.htm IDEA: XBRL DOCUMENT v3.24.2.u1 PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Policies) 6 Months Ended Jun. 30, 2024 PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Â Nature of Business Nature of BusinessThe Company is a leader in the treatment of life-threatening conditions in intensive care and cardiac surgery using blood purification. The Company, through its subsidiary CytoSorbents Medical, Inc. (formerly known as CytoSorbents, Inc.), is engaged in the research, development and commercialization of medical devices with its blood purification technology platform which incorporates a proprietary adsorbent, porous polymer technology. The Company, through its wholly-owned European subsidiary, CytoSorbents Europe GmbH, conducts sales and marketing related operations for the CytoSorb device. In March 2016, the Company formed CytoSorbents Switzerland GmbH, a wholly-owned subsidiary of CytoSorbents Europe GmbH. This subsidiary, which began operations during the second quarter of 2016, provides marketing and direct sales services in Switzerland. In November 2018, the Company formed CytoSorbents Poland Sp. z.o.o., a wholly-owned subsidiary of CytoSorbents Europe GmbH. This subsidiary, which began operations during the first quarter of 2019, provides marketing and direct sales services in Poland. In the third quarter of 2019, the Company formed CytoSorbents UK Limited, a wholly-owned subsidiary of CytoSorbents Medical, Inc., which is responsible for the management of the Companyâ€™s clinical trial activities in the United Kingdom. In March 2022, the Company formed CytoSorbents Medical UK Limited to provide marketing and direct sales services in the United Kingdom and the Republic of Ireland, a wholly-owned subsidiary of CytoSorbents Europe, GmbH. In October 2022, the Company formed CytoSorbents France SAS, a wholly-owned subsidiary of CytoSorbents Europe, GmbH, to provide marketing and direct sales services in France. In May 2023, the Company formed CytoSorbents India Private Limited to provide marketing and direct sales services in India. CytoSorb, the Companyâ€™s flagship product, was approved in the European Union (â€œEUâ€) in March 2011 and is currently being marketed and distributed in more than 75 countries around the world, as an effective extracorporeal cytokine absorber, designed to reduce the â€œcytokine stormâ€ or â€œcytokine release syndromeâ€ seen in critical illnesses that may result in massive inflammation, organ failure, and patient death. In May 2018, the Company received a label extension for CytoSorb covering use of the device for the removal of bilirubin and myoglobin which allows for the use of the device in the treatment of liver failure and trauma, respectively. CytoSorb is also being used during and after cardiac surgery to remove inflammatory mediators that can lead to post-operative complications, including multiple organ failure. In January 2020, CytoSorb received EU CE Mark label expansion to include the removal of ticagrelor during cardiopulmonary bypass in patients undergoing cardiothoracic surgery. In May 2020, CytoSorb also received EU CE Mark label expansion to include rivaroxaban removal for the same indication.In April 2020, CytoSorb received United States Food and Drug Administration (â€œFDAâ€) Emergency Use Authorization (â€œEUAâ€) of CytoSorb for use in adult critically ill COVID-19 patients with imminent or confirmed respiratory failure. The CytoSorb device has neither been cleared nor approved for the indication to treat patients with COVID-19 infection. The EUA will be effective until a declaration is made that the circumstances justifying the EUA have terminated or until revoked by the FDA.In April 2020, the Company also announced that the FDA had granted Breakthrough Designation for its DrugSorb-ATR Antithrombotic Removal System for the removal of ticagrelor in a cardiopulmonary bypass circuit during emergent and urgent cardiothoracic surgery. The Breakthrough Devices Program provides for more effective treatment of life-threatening or irreversibly debilitating disease or conditions, in this case the need to reverse the effects of ticagrelor in emergent or urgent cardiac surgery that can otherwise cause a high risk of serious or life-threatening bleeding. Through Breakthrough Designation, the FDA intends to work with CytoSorbents to expedite the development, assessment, and regulatory review of CytoSorbentsâ€™ technology for the removal of ticagrelor, while maintaining statutory standards of regulatory approval (e.g., 510(k), de novo 510(k) or premarket approval) consistent with the FDAâ€™s mission to protect and promote public health. In July 2021, the Company received full approval of its Investigative Device Exemption (â€œIDEâ€) to conduct the pivotal STAR-T (Safe and Timely Antithrombotic Removal â€“ Ticagrelor) double-blind randomized control trial (â€œRCTâ€) for up to 120 patients in the United States to support FDA marketing approval. In July 2023, the Company announced that enrollment in the STAR-T trial has completed, and in August 2023, the Company announced completion of the STAR-T trial, following the last scheduled patient follow-up. In December 2023, the Company announced that the independent Data Safety Monitoring Board (the â€œDSMBâ€) performed a final review of the full unblinded data on all 140 patients in the STAR-T trial and concluded there were no issues with device safety, meeting the primary safety endpoint of the study. The Company has also performed the initial data analysis on the primary effectiveness endpoint of STAR-T trial. Based on this analysis, the study did not meet the primary effectiveness endpoint in the overall patient population that underwent different types of cardiac surgeries. However, the study did demonstrate evidence of reduced bleeding complications, including serious bleeding events, in patients in the pre-specified isolated coronary artery bypass graft (â€œCABGâ€) surgery population, representing more than 90% of the overall study population. The topline results of 140-patient, double-blinded, multicenter, pivotal STAR-T randomized, controlled trial were featured as a late breaking presentation at the 104th Annual Meeting of the American Association for Thoracic Surgery (AATS) held in Toronto, Canada on April 28, 2024. The Company believes the safety and effectiveness data from STAR-T will support the parallel regulatory submission of DrugSorb-ATR to the FDA and Health Canada in the third quarter of 2024.In August 2021, the Company announced that it was granted a second Breakthrough Device designation for its DrugSorb-ATR Antithrombotic Removal System by the FDA. This Breakthrough Device designation covers the removal of the Direct Oral Anticoagulants (DOACs) apixaban and rivaroxaban in a cardiopulmonary bypass circuit to reduce the likelihood of serious perioperative bleeding during urgent cardiothoracic surgery. In October 2021, the Company also received full FDA approval of an IDE application to conduct a double-blind, randomized, controlled clinical study for up to 120 patients entitled, â€œSafe and Timely Antithrombotic Removal â€“ Direct Oral Anticoagulants (STAR-D),â€ in the United States to support FDA marketing approval. The study has been postponed while the Company concentrates its clinical focus on STAR-T.If FDA marketing approval is obtained for either the removal of ticagrelor or direct oral anticoagulants indications, the device will be marketed as DrugSorb-ATR in the United States. The DrugSorb-ATR Antithrombotic Removal System is based on the same polymer technology as CytoSorb. In May 2022, the Company announced that the Company entered into a three-year preferred supplier agreement with Asklepios, making CytoSorb available without restrictions to all of the approximately 170 healthcare facilities across 14 states throughout Germany at which Asklepios operates. This includes Asklepios Klinik St. Georg in Hamburg, Germany, which pioneered the use of CytoSorb to remove antithrombotic drugs during cardiothoracic surgery and is well-known for their seminal publications on CytoSorb use for this application during emergency cardiac surgery in patients at high risk of bleeding.In June 2024, the Company announced the launch and immediate availability of its PuriFiâ„¢ hemoperfusion machine in the EU, following approval and certification under the EU Medical Device Regulation (MDR). Prior to this, beginning in June 2022 the company had a non-exclusive agreement with Nikkiso Europe GmbH (â€œNikkisoâ€) to distribute Nikkisoâ€™s PureADJUST stand-alone hemoperfusion pump and accessories in a total of 14 countries. In September 2023, the distribution agreement with Nikkiso expired, and the Company indicated that it would not seek renewal of the agreement.In August 2022, the Company entered into a Marketing Agreement (the â€œMarketing Agreementâ€) with Fresenius Medical Care Deutschland GmbH (â€œFreseniusâ€), which expands the Companyâ€™s strategic partnership with Fresenius by establishing a multi-stage global collaboration to combat life-threatening diseases in critical care. The Marketing Agreement provides for the combined marketing and promotion of CytoSorb with Freseniusâ€™ critical care products by Freseniusâ€™ marketing organization worldwide, excluding the United States. The Marketing Agreement has an initial term of three years, with an automatic renewal for an additional two years at the end of such initial term, subject to earlier termination by either of the parties (the â€œTermâ€). Compared to the prior co-marketing agreement between the parties, the Marketing Agreement intends to increase the commitments from both parties and to ensure an ongoing and consistent level of marketing and promotional activity specifically focused around CytoSorb, where Fresenius will actively market and promote CytoSorb as the featured blood purification therapy for removal of cytokines, bilirubin, and myoglobin on its critical care platforms. Specifically, the Marketing Agreement provides that various Fresenius-led in-person, virtual, social media, and web-based marketing programs and events will feature the CytoSorb therapy and highlight the cooperation between the two companies in the field of critical care during the Term. To help support the increased marketing and promotional efforts of the expanded collaboration, CytoSorbents has agreed to subsidize a portion of the marketing costs through a royalty payment to Fresenius Medical Care based on CytoSorb sales in the intensive care unit on Fresenius Medical Care platforms, excluding the United States. In addition to strengthening and expanding the global marketing of CytoSorb, the Company and Fresenius also plan to work together to bring new innovative solutions to the market. The Marketing Agreement also includes the certification of compatibility of CytoSorb for usage on Freseniusâ€™ current critical care platforms. The launch of this program is expected to occur in 2024.The technology is based upon biocompatible, highly porous polymer sorbent beads that can actively remove toxic substances from blood and other bodily fluids by pore capture and surface adsorption. The Company has numerous products under development based upon this unique blood purification technology which, as of June 30, 2024, is protected by 22 issued U.S. patents and multiple international patents, with applications pending both in the U.S. and internationally. These patents and patent applications are directed to various compositions and methods of use related to the Companyâ€™s blood purification technologies and are expected to expire between 2024 and 2038, absent any patent term extensions. Management believes that any near-term expiring patents will not have a significant impact on the Companyâ€™s ongoing business. Stock Market Listing Stock Market ListingOn DecemberÂ 17, 2014, the Companyâ€™s common stock, par value $0.001 per share, was approved for listing on the Nasdaq Capital Market (â€œNasdaqâ€), and it began trading on Nasdaq on DecemberÂ 23, 2014 under the symbol â€œCTSO.â€ Previously, the Companyâ€™s common stock traded in the over-the-counter-market on the OTC Bulletin Board. Basis of Consolidation and Foreign Currency Translation Basis of Consolidation and Foreign Currency TranslationThe consolidated financial statements include the accounts of CytoSorbents Corporation and its wholly-owned subsidiaries, CytoSorbents Medical, Inc. and CytoSorbents Europe GmbH. In addition, the consolidated financial statements include CytoSorbents Switzerland GmbH, CytoSorbents Poland Sp. z.o.o., CytoSorbents Medical UK Limited and CytoSorbents France SAS, wholly-owned subsidiaries of CytoSorbents Europe GmbH, and CytoSorbents UK Limited and CytoSorbents India Private Limited, wholly-owned subsidiaries of CytoSorbents Medical, Inc. All significant intercompany transactions and balances have been eliminated in consolidation.Translation gains and losses resulting from the process of remeasuring into the United States of America dollar, the foreign currency financial statements of the European subsidiary, for which the United States of America dollar is the functional currency, are included in operations. The Euro is the functional currency of the European Subsidiary. Foreign currency transaction gain (loss) included in net loss amounted to approximately $(544,000) and $415,000 for the three months ended June 30, 2024 and 2023, respectively. Foreign currency transaction gain (loss) included in net loss amounted to approximately $(1,970,000) and $1,076,000 for the six months ended June 30, 2024 and 2023, respectively. The Company translates assets and liabilities of all of its foreign subsidiaries at the exchange rate in effect at the consolidated balance sheet date. The Company translates revenue and expenses at the daily average exchange rates. The Company includes accumulated net translation adjustments in accumulated other comprehensive income (loss) as a component of stockholdersâ€™ equity. Cash, Cash Equivalents and Restricted Cash Cash, Cash Equivalents and Restricted CashThe Company considers all highly liquid investments purchased with an original maturity of threeÂ months or less to be cash equivalents.The following table provides a reconciliation of cash and cash equivalents and restricted cash to amounts shown in the consolidated balance sheets:â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Â Â Â Â JuneÂ 30,Â 2024Â Â Â Â DecemberÂ 31,Â 2023Cash and cash equivalentsâ€‹$8,458,708 â€‹$ 14,131,137Restricted cashâ€‹Â 6,483,958â€‹Â 1,483,958Total cash, cash equivalents and restricted cashâ€‹$ 14,942,666â€‹$ 15,615,095â€‹ Restricted Cash Restricted CashThe Companyâ€™s total restricted cash in the amount of $6,483,958 consists of cash of $5,000,000 which is restricted in accordance with the terms of the debt agreement with Avenue Capital Group (see Note 5), cash of $1,467,458 that the Company is obligated to maintain as collateral for the outstanding letter of credit with Bridge Bank that was provided to the landlord of the College Road facility as security and cash of $16,500 that the Company is obligated to maintain as collateral for the credit limit on the Companyâ€™s credit card accounts. Grants and Accounts Receivable Grants and Accounts ReceivableTrade accounts receivable consist of amounts due from direct customers, distributors and agencies of the U.S. government and are presented at net realizable value. At each balance sheet date, the Company estimates an expected allowance for credit losses inherent in the Companyâ€™s accounts receivable portfolio based on historical experience, specific allowances for known troubled accounts, and other available evidence. In addition, also at each reporting date, this estimate is updated to reflect any changes in credit risk since the receivable was initially recorded. This estimate is calculated on a pooled basis where similar risk characteristics exist. The Company has identified the following portfolio segments: direct customers, distributors/strategic partners and the U.S. government.A fixed reserve percentage for each pool is derived from a review of the Companyâ€™s historical losses in relation to the total pool. This estimate is adjusted quarterly for managementâ€™s assessment of current conditions, reasonable and supportable forecasts regarding future events, and any other factors deemed relevant by the Company. The Company believes historical loss information is a reasonable starting point in which to calculate the expected allowance for credit losses as the Companyâ€™s portfolio segments have remained constant

over the Companyâ€™s historical evaluation period.The Company writes off receivables when there is information that indicates the debtor is facing significant financial difficulty and there is no possibility of recovery. If any recoveries are made from any accounts previously written off, they are recognized as an offset to credit loss expense in the year of recovery. The total amount of write-offs was immaterial to the consolidated financial statements as a whole for the three and six months ended June 30, 2024.The allowance for credit losses reflects accounts receivable balances that are written off when management determines they are uncollectible.The allowance for credit losses is measured on a collective (pool) basis when similar risk characteristics exist, and measures the allowance for credit losses using the following methods:Direct Customersâ€”The Company measures expected credit losses on direct customer receivables using an aging methodology. The risk of loss for direct customer receivables is low based on the Companyâ€™s historical experience. The estimate of expected credit losses considers historical credit loss information that is adjusted for current conditions and supportable forecasts.Distributors/Strategic Partnersâ€”The Company measures expected credit losses on distributor receivables using an individual reserve methodology. The risk of loss in this portfolio is low based on the Companyâ€™s historical experience. The estimate of expected credit losses considers the past payment history of each distributor.U.S. Governmentâ€” These receivables are related to the Companyâ€™s government grants. The Company measures expected credit losses on these receivables using an individual reserve methodology. The risk of loss in this portfolio is very low based on the Companyâ€™s historical experience, as these receivables are supported by approved grant award contracts. Inventories InventoriesInventories are valued at the lower of cost or net realizable value under the first in, first out (FIFO) method. At June 30, 2024 and December 31, 2023, the Companyâ€™s inventory was comprised of finished goods, which amounted to $2,459,604 and $2,155,457, respectively; work in process, which amounted to $1,048,360 and $838,871, respectively; and raw materials, which amounted to $808,788 and $685,801, respectively. Devices used in clinical trials or for research and development purposes are removed from inventory and charged to research and development expenses at the time of their use. Donated devices are removed from inventory and charged to selling, general and administrative expenses. Property and Equipment Property and EquipmentProperty and equipment are recorded at cost less accumulated depreciation. Depreciation of property and equipment is provided for by the straight-line method over the estimated useful lives of the related assets. Leasehold improvements are amortized over the lesser of their economic useful lives or the term of the related leases. Gains and losses on depreciable assets retired or sold are recognized in the consolidated statements of operations and comprehensive loss in theÂ year of disposal. Repairs and maintenance expenditures are expensed as incurred. Patents PatentsLegal costs incurred to establish and successfully defend patents are capitalized. When patents are issued, capitalized costs are amortized on the straight-line method over the related patent term. In the event a patent is abandoned, the net book value of the patent is written off. Impairment or Disposal of Long-Lived Assets Impairment or Disposal of Long-Lived AssetsThe Company assesses the impairment of patents and other long-lived assets under accounting standards for the impairment or disposal of long-lived assets whenever events or changes in circumstances indicate that the carrying value may not be recoverable. For long-lived assets to be held and used, the Company recognizes an impairment loss only if its carrying amount is not recoverable through its undiscounted cash flows and measures the impairment loss based on the difference between the carrying amount and fair value. During the three months ended June 30, 2024 and 2023, the Company recorded impairment charges of approximately $185,000 and $21,000, respectively, and during the six months ended June 30, 2024 and 2023, the Company recorded impairment charges of approximately $250,000 and $293,000, respectively, related to the impairment of certain issued patents and pending patent applications in certain specific jurisdictions and the abandonment of certain pending patent application costs in the ordinary course of business. This charge is included in legal, financial and other consulting in the consolidated statements of operations and comprehensive loss. Revenue Recognition Revenue RecognitionRevenue is recognized when the Company ships its products to its direct customers and distributors/strategic partners. Revenue is recognized on its grant awards with agencies of U.S. government in accordance with the terms of the award contract. See Note 4 for a description of the types of government contracts. The amount of revenue recognized reflects the consideration the Company expects to be entitled to receive in exchange for the products shipped or the services provided under their grant contracts. To achieve this core principle, the Company applies the following five steps:1.Identify Contracts with Customers - The Companyâ€™s contracts with its direct customers are generally in the form of a purchase order. The Company has formal written contracts with each of its distributors/strategic partners that define their respective territories and minimum purchase commitments which must be met in order to maintain exclusivity in their territory. Distributors/strategic partner customers also submit purchase orders with each order that define the terms of shipment and transaction price. The Company has a contract for each grant award with various agencies of the U.S. government.2.Identify Performance Obligations - The performance obligations in contracts with direct customers and distributors/strategic partners are for the shipment of the CytoSorb device and related accessory parts. The performance obligations for government contracts are dependent on the contract type, however, these are generally based on the costs incurred related to each government contract.3.Determine Transaction Price - The price charged is based on the Companyâ€™s price list for the CytoSorb device and related accessory parts for both direct customers and distributor/strategic partners. The Company does not permit returns for product sales. The Company also provides for certain rebates and discounts to direct customers for sales of its product that are earned based upon sales volume. These amounts, which are earned based on calendar year sales volume, are recorded as a reduction of sales as earned. The transaction prices for government contracts are dependent on the type of contract and are outlined in each contract.4.Allocate Transaction Price to Performance Obligations - The transaction price for the performance obligation is based on the purchase orders received for both direct customers and on the type of contract and are outlined in each contract. The transaction prices for government contract performance obligations are dependent on the type of contract and are generally based on costs incurred.5.Recognize Revenue as Performance Obligations are Satisfied - The Company satisfies its performance obligation to direct customers and distributors/strategic partners generally upon shipment of the products. The Company satisfies its performance obligations on government contracts generally upon incurring costs on each contract. The Company records deferred revenue related to fixed price government contracts to the extent that billings exceed costs incurred. Research and Development and Clinical Trial Expenses Research and Development and Clinical Trial ExpensesAll research and development costs, payments to laboratories and research consultants are expensed when incurred. Advertising Expenses Advertising ExpensesAdvertising expenses are included in selling, general, and administrative expenses on the consolidated statements of operations and comprehensive loss when incurred. Advertising expenses amounted to approximately $93,000 and $38,000 for the three months ended June 30, 2024 and 2023, respectively, and approximately $138,000 and $93,000 for the six months ended June 30, 2024 and 2023, respectively. Income Taxes Income TaxesIncome taxes are accounted for under the asset and liability method prescribed by accounting standards for accounting for income taxes. Deferred income taxes are recorded for temporary differences between financial statement carrying amounts and the tax basis of assets and liabilities. Deferred tax assets and liabilities reflect the tax rates expected to be in effect for the years in which the differences are expected to reverse. A valuation allowance is provided if it is more likely than not that some or all of the deferred tax asset will not be realized. Under Section 382 of the Internal Revenue Code, the net operating losses generated prior to the previously completed reverse merger may be limited due to the change in ownership. Additionally, net operating losses generated subsequent to the reverse merger may be limited in the event of changes in ownership. In 2017, the Tax Cuts and Jobs Act reduced the U.S. federal corporate tax rate from 35% to 21%.The Company follows accounting standards associated with uncertain tax positions. The Company had no unrecognized tax benefits at June 30, 2024. The Company is accounting for an uncertain tax position of approximately $2.1 million for the year ended December 31, 2023. The Company files tax returns in the U.S. federal and state jurisdictions.The Company utilizes the Technology Business Tax Certificate Transfer Program to sell a portion of its New Jersey Net Operating Loss carryforwards to an industrial company.CytoSorbents Europe GmbH, CytoSorbents Switzerland GmbH, CytoSorbents Poland Sp. z.o.o., CytoSorbents UK Limited, CytoSorbents Medical UK Limited, CytoSorbents India Private Limited and CytoSorbents France SAS file an annual corporate tax return, a VAT return and a trade tax return in Germany, Switzerland, Poland, France, the United Kingdom and India, respectively. Use of Estimates Use of EstimatesThe preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets, liabilities at the date of the balance sheet, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates. The valuation of options granted, allowance for credit losses and recoverability of patents are significant estimates in these consolidated financial statements. Concentration of Credit Risk Concentration of Credit RiskThe Company maintains cash balances, at times, with financial institutions in excess of amounts insured by the Federal Deposit Insurance Corporation (â€œFDICâ€). Beginning in April of 2023, the Company joined the IntraFi network, and established an Insured Cash Sweep (â€œICSâ€) account whereby all cash that was previously held in the Companyâ€™s money market account at Bridge Bank is swept daily in increments of less than $250,000 and deposited in a number of IntraFiâ€™s 4,000 member banks. This arrangement provides FDIC insurance coverage for all of the cash balances previously held in the money market account, which represents all of the cash and cash equivalents held at Bridge Bank. This arrangement excludes the restricted cash balances. Management monitors the soundness of these institutions in an effort to minimize its collection risk of these balances. A significant portion of the Companyâ€™s revenues are from product sales in Germany. Substantially all of the Companyâ€™s grant and other income are from government agencies in the United States. (See Note 4 for further information relating to the Companyâ€™s revenue.)As of June 30, 2024, two distributors accounted for approximately 30% of outstanding grants and accounts receivable. As of December 31, 2023, one distributor accounted for approximately 19% of outstanding grants and accounts receivable. For the three and six months ended June 30, 2024, one distributor accounted for approximately 14% and 12% of the Companyâ€™s total revenue. For the three months and six months ended June 30, 2023, one distributor accounted for approximately 12% and 11%, respectively, of the Companyâ€™s total revenue. Financial Instruments Financial InstrumentsThe carrying values of cash and cash equivalents, accounts receivable, accounts payable and accrued expenses and other current liabilities approximate their fair values due to their short-term nature. Warrants WarrantsThe Company accounts for warrants as either equity-classified or liability-classified instruments based on an assessment of the warrantâ€™s specific terms and applicable authoritative guidance in ASC 480 â€œDistinguishing Liabilities From Equityâ€ (â€œASC 480â€) and ASC 815 â€œDerivatives and Hedgingâ€ (â€œASC 815â€). The assessment considers whether the warrants are freestanding financial instruments pursuant to ASC 480, meet the definition of a liability pursuant to ASC 480, and whether the warrants meet all of the requirements for equity classification under ASC 815, including whether the warrants are indexed to the Companyâ€™s own ordinary shares and whether the warrant holders could potentially require â€œnet cash settlementâ€ in a circumstance outside of the Companyâ€™s control, among other conditions for equity classification. This assessment, which requires the use of professional judgment, is conducted at the time of warrant issuance and as of each subsequent quarterly period end date while the warrants are outstanding.For issued or modified warrants that meet all of the criteria for equity classification, the warrants are required to be recorded as a component of equity at the time of issuance, and will remain as a component of equity thereafter. For issued or modified warrants that do not meet all the criteria for equity classification, the warrants are required to be recorded as liabilities at their initial fair value on the date of issuance, and each balance sheet date thereafter. Changes in the estimated fair value of the warrants are recognized as a non-cash gain or loss on the statements of operations.The warrants issued upon the closing of the Companyâ€™s December 13, 2023 Offering and the closing of the Companyâ€™s June 2024 debt financing both met the criteria for equity classification under ASC 815. Accordingly, these warrants have been classified as equity as of June 30, 2024 and December 31, 2023. Net Loss Per Common Share Net Loss Per Common ShareBasic loss per share is computed by dividing loss available to common stockholders by the weighted average number of common shares outstanding during the period. Diluted loss per common share is computed using the treasury stock method utilizing the weighted-average number of shares of common stock plus the dilutive effect of potential common shares outstanding during the period. Dilutive potential common shares include outstanding stock options and restricted shares. The computation of diluted loss per share does not assume conversion, exercise or contingent exercise of securities that would have an anti-dilutive effect on earnings (see Note 8). Stock-Based Compensation Stock-Based CompensationThe Company accounts for its stock-based compensation under the recognition requirements of accounting standards for accounting for stock-based compensation, for employees and directors, whereby each option granted is valued at fair market value on the date of grant. Under these accounting standards, the fair value of each option is estimated on the date of grant using the Black-Scholes option pricing model.The Company also follows the guidance of accounting standards for accounting for equity instruments that are issued to other than employees for acquiring, or in conjunction with selling, goods or services for equity instruments issued to consultants. Shipping and Handling Costs Shipping and Handling CostsThe cost of shipping product to customers and distributors is typically borne by the customer or distributor. The Company records other shipping and handling costs in cost of revenue. Total freight costs amounted to approximately $64,000 and $122,000, respectively, for the three months ended June 30, 2024 and 2023, and $178,000 and $200,000, respectively, for the six months ended June 30, 2024 and 2023. Effect of Recent Accounting Pronouncements Effect of Recent Accounting PronouncementsIn August 2020, the FASB issued ASU 2020-06, â€œDebt â€“ Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging â€“ Contracts in Entityâ€™s Own Equity (Subtopic 815-40)â€ (â€œASU 2020-06â€). ASU2020-06 simplifies the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts on an entityâ€™s own equity. The ASU is part of the FASBâ€™s simplification initiative, which aims to reduce unnecessary complexity in U.S. GAAP. The ASUâ€™s amendments are effective for fiscal years beginning after December 15, 2024, and interim periods within those fiscal years. The Company adopted the provisions of ASU 2020-06 on January 1, 2024. This did not have a material impact on the Companyâ€™s financial statements.In December 2023, the FASB issued ASU No. 2023-09 entitled â€œIncome Taxes (Topic 740): Improvements to Income Tax Disclosuresâ€. This ASU provides guidance related to additional disclosures that will be required related to income taxes. The updated guidance is effective for public entities for fiscal years beginning after December 15, 2024. This ASU will result in additional disclosures in the Companyâ€™s consolidated financial statements related to income taxes in 2025.In November 2023, the FASB issued ASU No. 2023-07 (â€œASU 2023-07â€), Improvements to Reportable Segment Disclosures. The guidance primarily will require enhanced disclosures about significant segment expenses. All disclosure requirements under ASU 2023-07 and existing segment disclosures in ASC 280, Segment Reporting are also required for public entities with a single reportable segment. The amendments in ASU 2023-07 are effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted. A retrospective approach is required to be applied to all prior periods presented in the financial statements. The Company plans to adopt the provisions of ASU 2023-07 in the fourth quarter of fiscal 2024 and continues to evaluate the disclosure requirements related to the new standard. X - DefinitionDisclosure of accounting policy for basis of consolidation and foreign currency translation. + ReferencesNo definition available. + Details Name: ctso_ConsolidationAndForeignCurrencyTranslationPolicyTextBlock Namespace Prefix: ctso_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for Nature of Business Policy. + ReferencesNo definition available. + Details Name: ctso_NatureOfBusinessPolicyPolicyTextBlock Namespace Prefix: ctso_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for the classification of shipping and handling costs, including whether the costs are included in cost of sales or included in other income statement accounts. If shipping and handling fees are significant and are not included in cost of sales, disclosure includes both the amounts of such costs and the line item on the income statement which includes such costs. + ReferencesNo definition available. + Details Name: ctso_ShippingAndHandlingCostsPolicyPolicyTextBlock Namespace Prefix: ctso_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for stock market listing. + ReferencesNo definition available. + Details Name: ctso_StockMarketListingPolicyTextBlock Namespace Prefix: ctso_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for warrants. + ReferencesNo definition available. + Details Name: ctso_WarrantsPolicyPolicyTextBlock Namespace Prefix: ctso_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_AccountingPoliciesAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for advertising cost. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -SubTopic 35 -Topic 720 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483406/720-35-50-1 + Details Name: us-gaap_AdvertisingCostsPolicyTextBlock Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for cash and cash equivalents, including the policy for determining which items are treated as cash equivalents. Other information that may be disclosed includes (1) the nature of any restrictions on the entity's use of its cash and cash equivalents, (2) whether the entity's cash and cash equivalents are insured or expose the entity to credit risk, (3) the classification of any negative balance accounts (overdrafts), and (4) the carrying basis of cash equivalents (for example, at cost) and whether the carrying amount of cash equivalents approximates fair value. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-1

+ Details Name: us-gaap_CashAndCashEquivalentsPolicyTextBlock Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionEntity's cash and cash equivalents accounting policy with respect to restricted balances. Restrictions may include legally restricted deposits held as compensating balances against short-term borrowing arrangements, contracts entered into with others, or company statements of intention with regard to particular deposits; however, time deposits and short-term certificates of deposit are not generally included in legally restricted deposits. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(1)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-1 + Details Name: us-gaap_CashAndCashEquivalentsRestrictedCashAndCashEquivalentsPolicy Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for credit risk. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 942 -SubTopic 825 -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478898/942-825-50-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (d) -SubTopic 10 -Topic 275 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-1 + Details Name: us-gaap_ConcentrationRiskCreditRisk Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for computing basic and diluted earnings or loss per share for each class of common stock and participating security. Addresses all significant policy factors, including any antidilutive items that have been excluded from the computation and takes into account stock dividends, splits and reverse splits that occur after the balance sheet date of the latest reporting period but before the issuance of the financial statements. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 260 -SubTopic 10 -Section 50 -Paragraph 1 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 260 -SubTopic 10 -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-2 + Details Name: us-gaap_EarningsPerSharePolicyTextBlock Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for determining the fair value of financial instruments. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -SubTopic 10 -Topic 825 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-1 + Details Name: us-gaap_FairValueOfFinancialInstrumentsPolicy Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for recognizing and measuring the impairment of long-lived assets. An entity also may disclose its accounting policy for long-lived assets to be sold. This policy excludes goodwill and intangible assets. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 360 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SAB Topic 5.CC) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480091/360-10-S99-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 05 -Paragraph 4 -SubTopic 10 -Topic 360 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482338/360-10-05-4 + Details Name: us-gaap_ImpairmentOrDisposalOfLongLivedAssetsPolicyTextBlock Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for income taxes, which may include its accounting policies for recognizing and measuring deferred tax assets and liabilities and related valuation allowances, recognizing investment tax credits, operating loss carryforwards, tax credit carryforwards, and other carryforwards, methodologies for determining its effective income tax rate and the characterization of interest and penalties in the financial statements. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 20 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482685/740-10-50-20Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 19 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482685/740-10-50-19Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 25 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482525/740-10-45-25Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-03(h)(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479886/946-10-S99-3Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 17 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482685/740-10-50-17Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 9 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482685/740-10-50-9Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482525/740-10-45-28Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482765/220-10-50-1 + Details Name: us-gaap_IncomeTaxPolicyTextBlock Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for finite-lived intangible assets. This accounting policy also might address: (1) the amortization method used; (2) the useful lives of such assets; and (3) how the entity assesses and measures impairment of such assets. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483426/235-10-50-4Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 350 -SubTopic 30 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/350-30/tableOfContentReference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 926 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483154/926-20-50-5Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 920 -SubTopic 350 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478609/920-350-50-1Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 920 -SubTopic 350 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478609/920-350-50-1Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 920 -SubTopic 350 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478609/920-350-50-4 + Details Name: us-gaap_IntangibleAssetsFiniteLivedPolicy Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of inventory accounting policy for inventory classes, including, but not limited to, basis for determining inventory amounts, methods by which amounts are added and removed from inventory classes, loss recognition on impairment of inventories, and situations in which inventories are stated above cost. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(6)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 330 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483080/330-10-50-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483489/210-10-50-1Reference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483426/235-10-50-4Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 912 -SubTopic 330 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478411/912-330-50-1Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 330 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/330/tableOfContentReference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 330 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483080/330-10-50-4Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 45 -Paragraph 6 -Subparagraph (a) -SubTopic 10 -Topic 270 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482989/270-10-45-6 + Details Name: us-gaap_InventoryPolicyTextBlock Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy pertaining to new accounting pronouncements that may impact the entity's financial reporting. Includes, but is not limited to, quantification of the expected or actual impact. + ReferencesNo definition available. + Details Name: us-gaap_NewAccountingPronouncementsPolicyPolicyTextBlock Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for long-lived, physical asset used in normal conduct of business and not intended for resale. Includes, but is not limited to, work of art, historical treasure, and similar asset classified as collections. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -SubTopic 10 -Topic 360 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482099/360-10-50-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(8)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 6 -SubTopic 360 -Topic 958 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477798/958-360-50-6Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (d) -SubTopic 360 -Topic 958 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477798/958-360-50-1 + Details Name: us-gaap_PropertyPlantAndEquipmentPolicyTextBlock Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for costs it has incurred (1) in a planned search or critical investigation aimed at discovery of new knowledge with the hope that such knowledge will be useful in developing a new product or service, a new process or technique, or in bringing about a significant improvement to an existing product or process; or (2) to translate research findings or other knowledge into a plan or design for a new product or process or for a significant improvement to an existing product or process. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 730 -SubTopic 10 -Name Accounting Standards Codification -Section 05 -Paragraph 1 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483044/730-10-05-1 + Details Name: us-gaap_ResearchAndDevelopmentExpensePolicy Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for revenue from contract with customer. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 17 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-17Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 19 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-19Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 18 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-18Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 18 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-18Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 20 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-20Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 20 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-20Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 20 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-20Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 20 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-20Reference 9: http://www.xbrl.org/2003/role/exampleRef -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (e) -SubTopic 10 -Topic 235 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483426/235-10-50-4Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Topic 606 -Publisher FASB -URI https://asc.fasb.org/606/tableOfContent + Details Name: us-gaap_RevenueFromContractWithCustomerPolicyTextBlock Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for award under share-based payment arrangement. Includes, but is not limited to, methodology and assumption used in measuring cost. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(v) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 14.C.Q3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479830/718-10-S99-1Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 14.D.1.Q5) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479830/718-10-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 14.D.3.Q2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479830/718-10-S99-1Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 14.D.2.Q6) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479830/718-10-S99-1Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -Name Accounting Standards Codification -Publisher FASB -URI https://asc.fasb.org/718/tableOfContentReference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationOptionAndIncentivePlansPolicy Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for accounts receivable. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 310 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481962/310-10-50-6Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 310 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481962/310-10-50-2Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 310 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481962/310-10-50-2Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 310 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481569/310-20-50-1Reference 5: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 310 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 15 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481962/310-10-50-15Reference 6: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 310 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 11B -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481962/310-10-50-11B + Details Name: us-gaap_TradeAndOtherAccountsReceivablePolicy Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - DefinitionDisclosure of accounting policy for the use of estimates in the preparation of financial statements in conformity with generally accepted accounting principles. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 275 -SubTopic 10 -Section

50 -Paragraph 9 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-9Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 275 -SubTopic 10 -Section 50 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-4Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b) -SubTopic 10 -Topic 275 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (c) -SubTopic 10 -Topic 275 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-1Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 11 -SubTopic 10 -Topic 275 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-11Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 50 -Paragraph 12 -SubTopic 10 -Topic 275 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-12Reference 7: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 275 -SubTopic 10 -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-8 + Details Name: us-gaap_UseOfEstimates Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration XML 29 R18.htm IDEA: XBRL DOCUMENT v3.24.2.u1 PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Tables) 6 Months Ended Jun. 30, 2024 PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Â Schedule of reconciliation of cash and cash equivalents and restricted cash and cash equivalents â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Â Â Â Â JuneÂ 30,Â 2024Â Â Â Â DecemberÂ 31,Â 2023Cash and cash equivalentsâ€‹$8,458,708 â€‹$ 14,131,137Restricted cashâ€‹Â 6,483,958â€‹Â 1,483,958Total cash, cash equivalents and restricted cashâ€‹$ 14,942,666â€‹$ 15,615,095 X - DefinitionTabular disclosure of the components of cash and cash equivalents and restricted cash and cash equivalents. + ReferencesNo definition available. + Details Name: ctso_ScheduleOfCashAndCashEquivalentsAndRestrictedCashAndCashEquivalentsTableTextBlock Namespace Prefix: ctso_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_AccountingPoliciesAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration XML 30 R19.htm IDEA: XBRL DOCUMENT v3.24.2.u1 STOCKHOLDERS' EQUITY (Tables) 6 Months Ended Jun. 30, 2024 STOCKHOLDERS' EQUITY Â Schedule of stock options activity â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹ â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Weighted â€‹â€‹â€‹â€‹â€‹Weightedâ€‹Average â€‹â€‹â€‹â€‹â€‹Averageâ€‹Remainingâ€‹â€‹â€‹â€‹â€‹Exercise Priceâ€‹Contractual â€‹Â Â Â Â SharesÂ Â Â Â perÂ ShareÂ Â Â Â LifeÂ (Years)Outstanding, DecemberÂ 31,Â 2023Â 10,548,174â€‹$ 4.49 â€‹ 7.01GrantedÂ 3,378,366â€‹$ 0.95Â â€”ForfeitedÂ (906,166)â€‹$ 2.78Â â€”ExpiredÂ (545,536)â€‹$ 5.31Â â€”ExercisedÂ â€”â€‹$â€”Â â€”Outstanding, JuneÂ 30,Â 2024Â 12,474,838â€‹$ 3.62Â 7.40 Schedule of intrinsic value The intrinsic value is calculated as the difference between the market value of the shares as of June 30, 2024 of $0.703 and the exercise price of the shares.â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Options Outstanding â€‹â€‹Numberâ€‹Weightedâ€‹Weightedâ€‹â€‹Range ofâ€‹Outstanding atâ€‹Averageâ€‹Averageâ€‹AggregateExerciseâ€‹JuneÂ 30,Â â€‹Exerciseâ€‹Remainingâ€‹IntrinsicPriceÂ Â Â Â 2024Â Â Â Â PriceÂ Â Â Â Life (Years)Â Â Â Â Value$0.84 - $13.20Â 12,474,838â€‹$3.62 â€‹7.4â€‹$ â€”â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹Options ExercisableNumberâ€‹Weightedâ€‹Â Â Exercisable atâ€‹Averageâ€‹AggregateJuneÂ 30,Â â€‹Exerciseâ€‹Intrinsic2024Â Â Â Â PriceÂ Â Â Â Value5,385,858â€‹$ 5.91â€‹$ â€” Schedule of company's non-vested options â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹â€‹

Namespace Prefix: us-gaap_ Data Type: dtr-types:textBlockItemType Balance Type: na Period Type: duration XML 34 R23.htm IDEA: XBRL DOCUMENT v3.24.2.u1 BASIS OF PRESENTATION (Details) - USD ($) 6 Months Ended Jun. 30, 2024 Dec. 31, 2023 BASIS OF PRESENTATION Â Â Cash and cash equivalents gross value $ 14,900,000 Â Cash and cash equivalents 8,458,708 $ 14,131,137 Restricted cash 6,500,000 Â Maximum Â Â BASIS OF PRESENTATION Â Â Increase in unrestricted cash related to debt facility $ 10,000,000 Â X - DefinitionThe amount of approximate value of cash and cash equivalents. + ReferencesNo definition available. + Details Name: ctso_CashAndCashEquivalentsGrossValue Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionThe amount of increase in unrestricted cash position related to debt facility. + ReferencesNo definition available. + Details Name: ctso_IncreaseInUnrestrictedCashRelatedToDebtFacility Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of currency on hand as well as demand deposits with banks or financial institutions. Includes other kinds of accounts that have the general characteristics of demand deposits. Also includes short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Excludes cash and cash equivalents within disposal group and discontinued operation. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483467/210-10-45-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-4 + Details Name: us-gaap_CashAndCashEquivalentsAtCarryingValue Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of cash and cash equivalents restricted as to withdrawal or usage, classified as current. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-8Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-4 + Details Name: us-gaap_RestrictedCashAndCashEquivalentsAtCarryingValue Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionLine items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesNo definition available. + Details Name: us-gaap_ScheduleOfCapitalizationLineItems Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - Details Name: srt_RangeAxis=srt_MaximumMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 35 R24.htm IDEA: XBRL DOCUMENT v3.24.2.u1 PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Details) 1 Months Ended 3 Months Ended 6 Months Ended 12 Months Ended May 31, 2022 Institution state Jun. 30, 2024 USD ($) patent Distributor $ / shares Jun. 30, 2023 USD ($) Distributor Jun. 30, 2024 USD ($) Distributor item patent country $ / shares Jun. 30, 2023 USD ($) Distributor Dec. 31, 2023 USD ($) Distributor $ / shares Dec. 31, 2018 Dec. 31, 2017 Dec. 17, 2014 $ / shares PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Â Â Â Â Â Â Â Â Â Number of countries where the entity's flagship product is marketed and distributed | country Â Â Â 75 Â Â Â Â Â Â Preferred supplier agreement term 3 years Â Â Â Â Â Â Â Â Â Number of healthcare facilities | Institution 170 Â Â Â Â Â Â Â Â Â Number of states healthcare facilities across throughout Germany | state 14 Â Â Â Â Â Â Â Â Â Number of patents | patent Â 22 Â 22 Â Â Â Â Â Â Common Stock, Par Value (in dollars per share) | $ / shares Â $ 0.001 Â $ 0.001 Â $ 0.001 Â Â $ 0.001 Foreign currency transaction gain (loss) Â $ (544,000) $ 415,000 $ (1,970,000) $ 1,076,000 Â Â Â Â Restricted cash Â 6,483,958 Â 6,483,958 Â $ 1,483,958 Â Â Â Inventory - finished goods Â 2,459,604 Â 2,459,604 Â 2,155,457 Â Â Â Inventory - work in process Â 1,048,360 Â 1,048,360 Â 838,871 Â Â Â Inventory - raw materials Â 808,788 Â 808,788 Â 685,801 Â Â Â Impairment charges Â 185,000 21,000 250,000 293,000 Â Â Â Â Advertising expenses Â 93,000 38,000 138,000 93,000 Â Â Â Â Unrecognized tax benefits Â 0 Â $ 0 Â $ 2,100,000 Â Â Â Number of member bank | item Â Â Â 4,000 Â Â Â Â Â Cost of revenue Â 3,391,907 3,402,271 $ 6,607,621 7,396,440 Â Â Â Â Debt agreement Â Â Â Â Â Â Â Â Â PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Â Â Â Â Â Â Â Â Â Restricted cash Â 5,000,000 Â 5,000,000 Â Â Â Â Â Federal Â Â Â Â Â Â Â Â Â PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Â Â Â Â Â Â Â Â Federal statutory rate Â Â Â Â Â Â 21.00% 35.00% Â Letter of credit Â Â Â Â Â Â Â Â Â PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Â Â Â Â Â Â Â Â Cash collateral Â 1,467,458 Â 1,467,458 Â Â Â Â Â Credit Card Â Â Â Â Â Â Â Â Â PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Â Â Â Â Â Â Â Cash collateral Â 16,500 Â 16,500 Â Â Â Â Â Cargo and Freight Â Â Â Â Â Â Â Â Â PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Â Â Â Â Â Â Â Â Cost of revenue Â $ 64,000 $ 122,000 $ 178,000 $ 200,000 Â Â Â Â Accounts receivable | Customer concentration risk | Distributors/Strategic Partners Â Â Â Â Â Â Â Â Â PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Â Â Â Â Â Â Â Number of distributors | Distributor Â Â Â 2 Â 1 Â Â Â Concentration risk percentage Â Â Â 30.00% Â 19.00% Â Â Â Revenue | Customer concentration risk | Distributors/Strategic Partners Â Â Â Â Â Â Â Â PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Â Â Â Â Â Â Â Â Number of distributors | Distributor Â 1 1 1 1 Â Â Â Â Concentration risk percentage Â 14.00% 12.00% 12.00% 11.00% Â Â Â Â Â X - DefinitionAmount before tax of foreign currency transaction realized and unrealized gain (loss) recognized in the income statement. + ReferencesNo definition available. + Details Name: ctso_ForeignCurrencyTransactionGainLossExcludingTax Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionNumber of countries where the entity's flagship product is marketed and distributed. + ReferencesNo definition available. + Details Name: ctso_NumberOfCountriesWhereFlagshipProductIsMarketedAndDistributed Namespace Prefix: ctso_ Data Type: xbrli:integerItemType Balance Type: na Period Type: duration X - DefinitionNumber of distributors of the company. + ReferencesNo definition available. + Details Name: ctso_NumberOfDistributors Namespace Prefix: ctso_ Data Type: xbrli:integerItemType Balance Type: na Period Type: duration X - DefinitionRepresents the number of healthcare facilities. + ReferencesNo definition available. + Details Name: ctso_NumberOfHealthcareFacilities Namespace Prefix: ctso_ Data Type: xbrli:integerItemType Balance Type: na Period Type: duration X - DefinitionNumber of member banks. + ReferencesNo definition available. + Details Name: ctso_NumberOfMemberBank Namespace Prefix: ctso_ Data Type: xbrli:integerItemType Balance Type: na Period Type: duration X - DefinitionNumber of patents issued to the entity in the United States. + ReferencesNo definition available. + Details Name: ctso_NumberOfPatentsUnitedStates Namespace Prefix: ctso_ Data Type: xbrli:integerItemType Balance Type: na Period Type: instant X - DefinitionNumber of states across the healthcare facilities. + ReferencesNo definition available. + Details Name: ctso_NumberOfStatesAcrossHealthcareFacilities Namespace Prefix: ctso_ Data Type: xbrli:integerItemType Balance Type: na Period Type: duration X - DefinitionLine items represents the Principal Business Activity and Summary of Significant Accounting Policies. + ReferencesNo definition available. + Details Name: ctso_PrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesLineItems Namespace Prefix: ctso_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionRepresents the company entered in to supplier agreement term. + ReferencesNo definition available. + Details Name: ctso_SupplierAgreementTerm Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionAmount charged to advertising expense for the period, which are expenses incurred with the objective of increasing revenue for a specified brand, product or product line. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 720 -SubTopic 35 -Name Accounting Standards Codification -Section 55 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147483385/720-35-55-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 720 -SubTopic 35 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483406/720-35-50-1 + Details Name: us-gaap_AdvertisingExpense Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of write-down of assets recognized in the income statement. Includes, but is not limited to, losses from tangible assets, intangible assets and goodwill. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (b) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 360 -SubTopic 10 -Section 45 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482130/360-10-45-4 + Details Name: us-gaap_AssetImpairmentCharges Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionFace amount or stated value per share of common stock. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_CommonStockParOrStatedValuePerShare Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: instant X - DefinitionFor an entity that discloses a concentration risk in relation to quantitative amount, which serves as the "benchmark" (or denominator) in the equation, this concept represents the concentration percentage derived from the division. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 42 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-42Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 825 -SubTopic 10 -Section 50 -Paragraph 21 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-21Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 825 -SubTopic 10 -Section 50 -Paragraph 20 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482907/825-10-50-20Reference 4: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 275 -SubTopic 10 -Section 50 -Paragraph 18 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-18Reference 5: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 275 -SubTopic 10 -Section 50 -Paragraph 20 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482861/275-10-50-20 + Details Name: us-gaap_ConcentrationRiskPercentage1 Namespace Prefix: us-gaap_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionThe aggregate costs related to goods produced and sold and services rendered by an entity during the reporting period. This excludes costs incurred during the reporting period related to financial services rendered and other revenue generating activities. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(2)(d)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(2)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 924 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 11.L) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479941/924-10-S99-1 + Details Name: us-gaap_CostOfGoodsAndServicesSold Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of assets pledged to secure a debt instrument. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 942 -SubTopic 470 -Section 50 -Paragraph 3 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477734/942-470-50-3 + Details Name: us-gaap_DebtInstrumentCollateralAmount Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionPercentage of domestic federal statutory tax rate applicable to pretax income (loss). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 12 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482685/740-10-50-12Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 231 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482663/740-10-55-231Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 6.I.1.Q1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479360/740-10-S99-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(h)(2)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1 + Details Name: us-gaap_EffectiveIncomeTaxRateReconciliationAtFederalStatutoryIncomeTaxRate Namespace Prefix: us-gaap_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionAmount before valuation and LIFO reserves of completed merchandise or goods expected to be sold within one year or operating cycle, if longer. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(6)(a)(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_InventoryFinishedGoods Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount before valuation and LIFO reserves of raw materials expected to be sold, or consumed within one year or operating cycle, if longer. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(6)(a)(4)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_InventoryRawMaterials Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount before valuation and LIFO reserves of merchandise or goods in the production process expected to be completed within one year or operating cycle, if longer. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(6)(a)(3)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_InventoryWorkInProcess Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of cash restricted as to withdrawal or usage, classified as noncurrent. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(17)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 45 -Paragraph 5 -SubTopic 210 -Topic 954 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477220/954-210-45-5Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-8 + Details Name: us-gaap_RestrictedCashNoncurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of unrecognized tax benefits. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 217 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482663/740-10-55-217Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 15A -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482685/740-10-50-15AReference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 740 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 10B -Publisher FASB -URI https://asc.fasb.org/1943274/2147482525/740-10-45-10B + Details Name: us-gaap_UnrecognizedTaxBenefits Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - Details Name: us-gaap_DebtInstrumentAxis=ctso_LoanAndSecurityAgreementMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_IncomeTaxAuthorityAxis=us-gaap_DomesticCountryMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_CreditFacilityAxis=us-gaap_LetterOfCreditMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_CreditFacilityAxis=us-gaap_CreditCardMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_ProductOrServiceAxis=us-gaap_CargoAndFreightMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-

gaap_ConcentrationRiskByBenchmarkAxis=us-gaap_AccountsReceivableMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_ConcentrationRiskByTypeAxis=us-gaap_CustomerConcentrationRiskMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_MajorCustomersAxis=ctso_DistributorsAndStrategicPartnersMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_ConcentrationRiskByBenchmarkAxis=us-gaap_RevenueFromContractWithCustomerMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 36 R25.htm IDEA: XBRL DOCUMENT v3.24.2.u1 PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - Cash and cash equivalents (Details) - USD ($) Jun. 30, 2024 Dec. 31, 2023 Jun. 30, 2023 Dec. 31, 2022 PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Â Â Â Â Cash and cash equivalents $ 8,458,708 $ 14,131,137 Â Â Restricted cash 6,483,958 1,483,958 Â Â Total cash, cash equivalents and restricted cash $ 14,942,666 $ 15,615,095 $ 14,838,983 $ 23,832,026 X - ReferencesNo definition available. + Details Name: us-gaap_AccountingPoliciesAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount of currency on hand as well as demand deposits with banks or financial institutions. Includes other kinds of accounts that have the general characteristics of demand deposits. Also includes short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Excludes cash and cash equivalents within disposal group and discontinued operation. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483467/210-10-45-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-4 + Details Name: us-gaap_CashAndCashEquivalentsAtCarryingValue Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of cash and cash equivalents, and cash and cash equivalents restricted to withdrawal or usage. Excludes amount for disposal group and discontinued operations. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-8Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 24 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-24Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-4 + Details Name: us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalents Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of cash and cash equivalents restricted as to withdrawal or usage. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(2)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-8Reference 4: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(1)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1Reference 5: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 230 -SubTopic 10 -Section 45 -Paragraph 4 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-4 + Details Name: us-gaap_RestrictedCashAndCashEquivalents Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant XML 37 R26.htm IDEA: XBRL DOCUMENT v3.24.2.u1 STOCKHOLDERS' EQUITY - Stock option activity (Details) - $ / shares 6 Months Ended 12 Months Ended Jun. 30, 2024 Dec. 31, 2023 Shares Â Â Outstanding, beginning of the year 10,548,174 Â Granted 3,378,366 Â Forfeited (906,166) Â Expired (545,536) Â Outstanding, end of the year 12,474,838 10,548,174 Weighted Average Exercise Price per Share Â Â Outstanding, beginning of the year $ 4.49 Â Granted 0.95 Â Forfeited 2.78 Â Expired 5.31 Â Outstanding, end of the year $ 3.62 $ 4.49 Weighted Average Remaining Contractual Life (Years) Â Â Outstanding, beginning of the year Â 7 years 3 days Granted 0 years Â Forfeited 0 years Â Expired 0 years Â Exercised 0 years Â Outstanding, end of the year 7 years 4 months 24 days Â X - DefinitionWeighted average remaining contractual term for option awards cancelled during the period, in PnYnMnDTnHnMnS format, for example, P1Y5M13D represents the reported fact of one year, five months, and thirteen days. + ReferencesNo definition available. + Details Name: ctso_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsCancelledInPeriodWeightedAverageRemainingContractualTerm Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionWeighted average remaining contractual term for option awards exercised during the period, in PnYnMnDTnHnMnS format, for example, P1Y5M13D represents the reported fact of one year, five months, and thirteen days. + ReferencesNo definition available. + Details Name: ctso_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsExercisedInPeriodWeightedAverageRemainingContractualTerm Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionShare based Compensation Arrangement by Share based Payment Award Options Outstanding Expired In Period Weighted Average Remaining Contractual Term. + ReferencesNo definition available. + Details Name: ctso_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsExpiredInPeriodWeightedAverageRemainingContractualTerm Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionShare based Compensation Arrangement by Share based Payment Award Options Outstanding Granted In Period Weighted Average Remaining Contractual Term + ReferencesNo definition available. + Details Name: ctso_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingGrantedInPeriodWeightedAverageRemainingContractualTerm Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsAdditionalDisclosuresAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionNumber of options or other stock instruments for which the right to exercise has lapsed under the terms of the plan agreements. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsExpirationsInPeriod Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionThe number of shares under options that were cancelled during the reporting period as a result of occurrence of a terminating event specified in contractual agreements pertaining to the stock option plan. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(03) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsForfeituresInPeriod Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionGross number of share options (or share units) granted during the period. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(01) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsGrantsInPeriodGross Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionNumber of options outstanding, including both vested and non-vested options. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingNumber Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionA roll forward is a reconciliation of a concept from the beginning of a period to the end of a period. + ReferencesNo definition available. + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingRollForward Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionWeighted average price at which grantees can acquire the shares reserved for issuance under the stock option plan. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingWeightedAverageExercisePrice Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: instant X - ReferencesNo definition available. + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingWeightedAverageExercisePriceRollforward Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionWeighted average price at which grantees could have acquired the underlying shares with respect to stock options of the plan that expired. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementsByShareBasedPaymentAwardOptionsExpirationsInPeriodWeightedAverageExercisePrice Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: duration X - DefinitionWeighted average price at which grantees could have acquired the underlying shares with respect to stock options that were terminated. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(03) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementsByShareBasedPaymentAwardOptionsForfeituresInPeriodWeightedAverageExercisePrice Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: duration X - DefinitionWeighted average per share amount at which grantees can acquire shares of common stock by exercise of options. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(01) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementsByShareBasedPaymentAwardOptionsGrantsInPeriodWeightedAverageExercisePrice Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: duration X - DefinitionWeighted average remaining contractual term for vested portions of options outstanding and currently exercisable or convertible, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents the reported fact of one year, five months, and thirteen days. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsExercisableWeightedAverageRemainingContractualTerm1 Namespace Prefix: us-gaap_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionWeighted average remaining contractual term for option awards outstanding, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents the reported fact of one year, five months, and thirteen days. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 718 -SubTopic 10 -Subparagraph (e)(1) -Name Accounting Standards Codification -Paragraph 2 -Section 50 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsOutstandingWeightedAverageRemainingContractualTerm2 Namespace Prefix: us-gaap_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration XML 38 R27.htm IDEA: XBRL DOCUMENT v3.24.2.u1 STOCKHOLDERS' EQUITY - Intrinsic value (Details) 6 Months Ended Jun. 30, 2024 $ / shares shares Options Exercisable Â Number Exercisable at June 30, 2024 | shares 5,385,858 Weighted Average Exercise Price $ 5.91 Exercise Price Range One Â Options Outstanding Â Range of Exercise Price, Lower Range Limit 0.84 Range of Exercise Price, Upper Range Limit $ 13.20 Number Outstanding at June 30, 2024 | shares 12,474,838 Weighted Average Exercise Price $ 3.62 Weighted Average Remaining Life (Years) 7 years 4 months 24 days X - ReferencesNo definition available. + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsAdditionalDisclosuresAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - ReferencesNo definition available. + Details Name: us-gaap_ShareBasedCompensationSharesAuthorizedUnderStockOptionPlansExercisePriceRangeEndOfPeriodAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionThe floor of a customized range of exercise prices for purposes of disclosing shares potentially issuable under outstanding stock option awards on all stock option plans and other required information pertaining to awards in the customized range. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 2 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationSharesAuthorizedUnderStockOptionPlansExercisePriceRangeLowerRangeLimit Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: duration X - DefinitionThe number of shares reserved for issuance pertaining to the outstanding exercisable stock options as of the balance sheet date in the customized range of exercise prices for which the market and performance vesting condition has been satisfied. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 2 -Subparagraph (c)(iii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationSharesAuthorizedUnderStockOptionPlansExercisePriceRangeNumberOfExercisableOptions Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionThe number of shares reserved for issuance pertaining to the outstanding stock options as of the balance sheet date for all option plans in the customized range of exercise prices. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationSharesAuthorizedUnderStockOptionPlansExercisePriceRangeNumberOfOutstandingOptions Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionThe ceiling of a customized range of exercise prices for purposes of disclosing shares potentially issuable under outstanding stock option awards on all stock option plans and other required information pertaining to awards in the customized range. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 2 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationSharesAuthorizedUnderStockOptionPlansExercisePriceRangeUpperRangeLimit Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType

Balance Type: na Period Type: duration X - DefinitionWeighted average exercise price as of the balance sheet date for those equity-based payment arrangements exercisable and outstanding. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_SharebasedCompensationSharesAuthorizedUnderStockOptionPlansExercisePriceRangeExercisableOptionsWeightedAverageExercisePrice1 Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: instant X - DefinitionThe weighted average price as of the balance sheet date at which grantees could acquire the underlying shares with respect to all outstanding stock options which are in the customized range of exercise prices. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_SharebasedCompensationSharesAuthorizedUnderStockOptionPlansExercisePriceRangeOutstandingOptionsWeightedAverageExercisePriceBeginningBalance1 Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: instant X - DefinitionWeighted average remaining contractual term of outstanding stock options, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents the reported fact of one year, five months, and thirteen days. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 718 -SubTopic 10 -Subparagraph (e)(1) -Name Accounting Standards Codification -Paragraph 2 -Section 50 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_SharebasedCompensationSharesAuthorizedUnderStockOptionPlansExercisePriceRangeOutstandingOptionsWeightedAverageRemainingContractualTerm2 Namespace Prefix: us-gaap_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - Details Name: us-gaap_ShareBasedCompensationSharesAuthorizedUnderStockOptionPlansByExercisePriceRangeAxis=ctso_ExercisePriceRangeOneMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 39 R28.htm IDEA: XBRL DOCUMENT v3.24.2.u1 STOCKHOLDERS' EQUITY - Non-vested options (Details) 6 Months Ended Jun. 30, 2024 $ / shares shares Shares Â Non-vested, December 31, 2023 | shares 5,205,736 Granted | shares 3,378,366 Forfeited | shares (906,166) Vested | shares (588,956) Non-vested, June 30, 2024 | shares 7,088,980 Weighted Average Grant Date Fair Value Â Non-vested, December 31, 2023 | $ / shares $ 1.89 Granted | $ / shares 0.67 Forfeited | $ / shares 1.88 Vested | $ / shares 2.73 Non-vested, June 30, 2024 | $ / shares $ 0.99 X - DefinitionGross number of share options (or share units) granted during the period. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(01) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsGrantsInPeriodGross Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionThe weighted average grant-date fair value of options granted during the reporting period as calculated by applying the disclosed option pricing methodology. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (d)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsGrantsInPeriodWeightedAverageGrantDateFairValue Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: duration X - DefinitionNumber of non-vested options outstanding. + ReferencesNo definition available. + Details Name: us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsNonvestedNumberOfShares Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionA roll forward is a reconciliation of a concept from the beginning of a period to the end of a period. + ReferencesNo definition available. + Details Name: us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsNonvestedNumberOfSharesRollForward Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionNumber of non-vested options forfeited. + ReferencesNo definition available. + Details Name: us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsNonvestedOptionsForfeitedNumberOfShares Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionWeighted average grant-date fair value of non-vested options forfeited. + ReferencesNo definition available. + Details Name: us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsNonvestedOptionsForfeitedWeightedAverageGrantDateFairValue Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: duration X - DefinitionWeighted average grant-date fair value of non-vested options outstanding. + ReferencesNo definition available. + Details Name: us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsNonvestedWeightedAverageGrantDateFairValue Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: instant X - ReferencesNo definition available. + Details Name: us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsNonvestedWeightedAverageGrantDateFairValueAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionNumber of options vested. + ReferencesNo definition available. + Details Name: us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsVestedNumberOfShares Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionWeighted average grant-date fair value of options vested. + ReferencesNo definition available. + Details Name: us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsVestedWeightedAverageGrantDateFairValue Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: duration XML 40 R29.htm IDEA: XBRL DOCUMENT v3.24.2.u1 STOCKHOLDERS' EQUITY - Restricted stock unit (Details) - Restricted stock - USD ($) 3 Months Ended 6 Months Ended Jun. 30, 2024 Jun. 30, 2023 Jun. 30, 2024 Jun. 30, 2023 STOCKHOLDERS' EQUITY Â Â Â Â Restricted Stock Units, Beginning Balance Â Â 2,823,500 Â Restricted Stock Units, Intrinsic Value Beginning Balance Â Â $ 3,134,085 Â Granted Â Â 156,250 Â Forfeited Â Â (283,750) Â Restricted Stock Units, Ending Balance 2,696,000 Â 2,696,000 Â Restricted Stock Units, Intrinsic Value Ending Balance $ 1,926,044 Â $ 1,926,044 Â Restricted Stock Units, Expense $ 0 $ 0 $ 0 $ 0 Board of Directors Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Restricted Stock Units, Beginning Balance Â Â 346,500 Â Granted Â Â 0 Â Forfeited Â Â 0 Â Restricted Stock Units, Ending Balance 346,500 Â 346,500 Â Executive Management Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Restricted Stock Units, Beginning Balance Â Â 779,500 Â Granted Â Â 0 Â Forfeited Â Â 0 Â Restricted Stock Units, Ending Balance 779,500 Â 779,500 Â Other Employees Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Restricted Stock Units, Beginning Balance Â Â 1,697,500 Â Granted Â Â 156,250 Â Forfeited Â Â (283,750) Â Restricted Stock Units, Ending Balance 1,570,000 Â 1,570,000 Â X - DefinitionLine items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesNo definition available. + Details Name: ctso_StockholdersEquityLineItems Namespace Prefix: ctso_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount of noncash expense for award of restricted stock or unit under share-based payment arrangement. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 28 -Subparagraph (b) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-28 + Details Name: us-gaap_RestrictedStockExpense Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionNumber of shares under non-option equity instrument agreements that were cancelled as a result of occurrence of a terminating event. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(03) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardNonOptionEquityInstrumentsForfeitures Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionNet number of non-option equity instruments granted to participants. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(iv)(01) -SubTopic 10 -Topic 718 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardNonOptionEquityInstrumentsGranted Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionNumber of equity instruments other than options outstanding, including both vested and non-vested instruments. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardNonOptionEquityInstrumentsOutstandingNumber Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionIntrinsic value of outstanding award under share-based payment arrangement. Excludes share and unit options. + ReferencesNo definition available. + Details Name: us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardEquityInstrumentsOtherThanOptionsAggregateIntrinsicValueOutstanding Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - Details Name: us-gaap_AwardTypeAxis=us-gaap_RestrictedStockUnitsRSUMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_TitleOfIndividualAxis=srt_BoardOfDirectorsChairmanMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_TitleOfIndividualAxis=srt_ManagementMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_TitleOfIndividualAxis=srt_OfficerMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 41 R30.htm IDEA: XBRL DOCUMENT v3.24.2.u1 STOCKHOLDERS' EQUITY - Restricted stock unit activity (Details) - Restricted stock 6 Months Ended Jun. 30, 2024 $ / shares shares Shares Â Non-vested, December 31, 2023 | shares 430,505 Granted | shares 373,000 Vested | shares (20,000) Forfeited | shares (40,000) Non-vested, June 30, 2024 | shares 743,505 Weighted Average Grant Date Fair Value Â Non-vested, December 31, 2023 | $ / shares $ 3.31 Granted | $ / shares 0.96 Vested | $ / shares 6.59 Forfeited | $ / shares 3.73 Non-vested, June 30, 2024 | $ / shares $ 2.02 X - DefinitionThe number of equity-based payment instruments, excluding stock (or unit) options, that were forfeited during the reporting period. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii)(03) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsForfeitedInPeriod Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionWeighted average fair value as of the grant date of equity-based award plans other than stock (unit) option plans that were not exercised or put into effect as a result of the occurrence of a terminating event. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii)(03) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsForfeituresWeightedAverageGrantDateFairValue Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: duration X - DefinitionThe number of grants made during the period on other than stock (or unit) option plans (for example, phantom stock or unit plan, stock or unit appreciation rights plan, performance target plan). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii)(01) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsGrantsInPeriod Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionThe weighted average fair value at grant date for nonvested equity-based awards issued during the period on other than stock (or unit) option plans (for example, phantom stock or unit plan, stock or unit appreciation rights plan, performance target plan). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii)(01) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsGrantsInPeriodWeightedAverageGrantDateFairValue Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: duration X - DefinitionThe number of non-vested equity-based payment instruments, excluding stock (or unit) options, that validly exist and are outstanding as of the balance sheet date. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsNonvestedNumber Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionA roll forward is a reconciliation of a concept from the beginning of a period to the end of a period. + ReferencesNo definition available. + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsNonvestedRollForward Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionPer share or unit weighted-average fair value of nonvested award under share-based payment arrangement. Excludes share and unit options. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsNonvestedWeightedAverageGrantDateFairValue Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: instant X - ReferencesNo definition available. + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsNonvestedWeightedAverageGrantDateFairValueRollForward Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionThe number of equity-based payment instruments, excluding stock (or unit) options, that vested during the reporting period. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii)(02) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsVestedInPeriod Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionThe weighted average fair value as of grant date pertaining to an equity-based award plan other than a stock (or unit) option plan for which the grantee gained the right during the reporting period, by satisfying service and performance requirements, to receive or retain shares or units, other instruments, or cash in accordance with the terms of the arrangement. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii)(02) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsVestedInPeriodWeightedAverageGrantDateFairValue Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: duration X - Details Name: us-gaap_AwardTypeAxis=us-gaap_RestrictedStockUnitsRSUMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 42 R31.htm IDEA: XBRL DOCUMENT v3.24.2.u1 STOCKHOLDERS' EQUITY - Warrants (Details) - $ / shares 6 Months Ended Jun. 28, 2024 Jun. 30, 2024 Dec. 31, 2023 STOCKHOLDERS' EQUITY Â Â Â Number of shares to be purchased Â 4,352,130 2,706,561 Warrant exercise price per share Â Â $ 2.00 Stock price trigger for revision of exercise price of warrants $ 0.79 Â Â Loan and security agreement Â Â Â STOCKHOLDERS' EQUITY Â Â Â Warrant exercise price per share $ 0.79 $ 0.79 Â Class of warrant issued 1,645,569 Â Â Stock price trigger for revision of exercise price of warrants Â $ 0.79 Â X - DefinitionNumber of warrants or rights issued. + ReferencesNo definition available. + Details

Name: ctso_ClassOfWarrantOrRightIssued Namespace Prefix: ctso_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionPrice of the entity's common stock which would be required to be attained for revision of exercise price of warrants or rights. + ReferencesNo definition available. + Details Name: ctso_ClassOfWarrantOrRightRevisionOfExercisePriceOfWarrantsOrRightsStockPriceTrigger Namespace Prefix: ctso_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: duration X - DefinitionExercise price per share or per unit of warrants or rights outstanding. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-3 + Details Name: us-gaap_ClassOfWarrantOrRightExercisePriceOfWarrantsOrRights1 Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: instant X - DefinitionLine items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesNo definition available. + Details Name: us-gaap_ClassOfWarrantOrRightLineItems Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionNumber of warrants or rights outstanding. + ReferencesNo definition available. + Details Name: us-gaap_ClassOfWarrantOrRightOutstanding Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - Details Name: us-gaap_DebtInstrumentAxis=ctso_LoanAndSecurityAgreementMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 43 R32.htm IDEA: XBRL DOCUMENT v3.24.2.u1 STOCKHOLDERS' EQUITY - Additional information (Details) 3 Months Ended 6 Months Ended 12 Months Ended Apr. 08, 2024 USD ($) shares Apr. 02, 2024 USD ($) shares Mar. 29, 2024 USD ($) shares Sep. 18, 2023 USD ($) shares Jul. 07, 2023 USD ($) shares Aug. 10, 2022 USD ($) shares Dec. 30, 2021 USD ($) Jun. 30, 2024 USD ($) $ / shares shares Jun. 30, 2023 USD ($) shares Jun. 30, 2024 USD ($) $ / shares shares Jun. 30, 2024 USN ($) shares Jun. 30, 2023 USD ($) shares Dec. 31, 2023 USD ($) $ / shares shares Dec. 31, 2022 shares Jul. 26, 2024 USD ($) Jul. 14, 2021 USD ($) Jun. 30, 2019 shares STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Number of preferred stock authorized Â Â Â Â Â Â Â 5,000,000 Â 5,000,000 Â Â Â 5,000,000 Â Â Â 5,000,000 Common Stock, shares authorized Â Â Â Â Â Â Â 100,000,000 Â 100,000,000 Â Â 100,000,000 Â Â Â Â Issuance of common stock Â Â Â Â Â Â Â Â Â Â Â Â 0 Â Â Â Aggregate registered amount for offerings | $ Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â $ 150,000,000 Â Restricted stock unit | $ Â Â Â Â Â Â Â $ 829,000 $ 570,000 $ 1,563,000 Â $ 1,401,000 Â Â Â Â Â Grant date exercise price range | $ / shares Â Â Â Â Â Â Â $ 0.703 Â $ 0.703 Â Â Â Â Â Â Â Total unrecognized compensation cost related to stock options | $ Â Â Â Â Â Â Â Â Â $ 4,419,000 Â $ 4,419,000 Â Â Â Â Â Â Â Amortized period Â Â Â Â Â Â Â Â Â Â Â 36 months 36 months Â Â Â Â Â Â Vested Â Â Â Â Â Â Â Â Â 588,956 588,956 Â Â Â Â Â Â Outstanding Â Â Â Â Â Â 12,474,838 Â 12,474,838 Â Â 10,548,174 Â Â Â Â Issuance of restricted stock units | $ Â Â Â Â Â Â Â $ 11,213 $ 183,655 $ 11,213 Â $ 183,655 Â Â Â Â Â Maximum Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Common Stock, shares authorized Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â 100,000,000 Minimum Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Common Stock, shares authorized Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â 50,000,000 Common Stock Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Issuance of common stock Â Â Â Â Â Â Â Â 230,605 53,290 53,290 428,270 Â Â Â Â Â Â Issuance of restricted stock units | $ Â Â Â Â Â Â Â Â $ 12 $ 55 $ 12 Â $ 55 Â Â Â Â Â Restricted stock Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Options to grant (in shares) Â Â Â Â Â Â Â Â Â 373,000 373,000 Â Â Â Â Â Â RSU Forfeited (in shares) Â Â Â Â Â Â Â Â Â 40,000 40,000 Â Â Â Â Â Â Vested (in shares) Â Â Â Â Â Â Â Â 20,000 20,000 Â Â Â Â Â Non-Vested shares Â Â Â Â Â Â 743,505 Â 743,505 Â Â 430,505 Â Â Â Â Director | Common Stock Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Unvested options in fair value | $ Â $ 71,000 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Number of options granted Â 110,000 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Employee one | Common Stock Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Unvested options in fair value | $ $ 85,000 $ 830,000 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Number of options granted 131,339 1,214,400 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Employee one | Common Stock | Vesting, tranche one Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Vesting percentage Â 0.50% Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Employee one | Common Stock | Vesting, tranche two Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Vesting percentage Â 0.25% Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Employee one | Common Stock | Vesting, tranche three Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Vesting percentage Â 0.25% Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Employee Stock Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Outstanding Â Â Â Â Â Â Â 64,000 Â 64,000 Â Â Â Â Â Â Â Employee two | Common Stock Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Unvested options in fair value | $ Â $ 594,000 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Number of options granted Â 922,147 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Chief Executive Officer | Vesting, tranche one Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Unvested options in fair value | $ Â $ 249,000 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Chief Executive Officer | Common Stock Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Number of options granted Â 380,480 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Senior managers | Common Stock Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Unvested options in fair value | $ Â $ 380,000 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Number of options granted Â 556,000 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Senior managers | Common Stock | Vesting, tranche one Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Vesting percentage Â 0.50% Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Senior managers | Common Stock | Vesting, tranche two Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Vesting percentage Â 0.25% Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Senior managers | Common Stock | Vesting, tranche three Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Vesting percentage Â 0.25% Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Senior managers | Restricted stock Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Restricted stock unit | $ Â Â Â Â Â Â Â $ 40,000 Â $ 40,000 Â Â Â Â Â Â Â Stock issued during period, value, restricted stock sward, gross | $ Â $ 328,000 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Options to grant (in shares) Â 343,000 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Executive officers and senior managers | Restricted stock Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Restricted stock unit Â Â Â Â Â Â Â 47,000 47,000 Â $ 94,000 94,000 Â Â Â Â Â Stock issued during period, shares, restricted stock award, gross Â Â Â Â Â 288,500 Â Â Â Â Â Â Â Â Â Â Stock issued during period, value, restricted stock sward, gross | $ Â Â Â Â Â $ 563,000 Â Â Â Â Â Â Â Â Â Â Executive officers and senior managers | Restricted stock Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Restricted stock unit | $ Â Â Â Â Â Â Â 110,000 Â 221,000 Â Â Â Â Â Â Â Stock issued during period, shares, restricted stock award, gross Â Â Â Â 250,000 Â Â Â Â Â Â Â Â Â Â Stock issued during period, value, restricted stock sward, gross | $ Â Â Â Â $ 883,000 Â Â Â Â Â Â Â Â Â Executive officer | Restricted stock Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Restricted stock unit | $ Â Â Â Â Â Â Â 5,000 Â 10,000 Â Â Â Â Â Â Â Vested Â Â Â 25,000 Â Â Â Â Â Â Â Â Â Â Stock issued during period, shares, restricted stock award, gross Â Â Â 45,000 Â Â Â Â Â Â Â Â Â Â Stock issued during period, value, restricted stock sward, gross | $ Â Â Â $ 89,000 Â Â Â Â Â Â Â Â Â Executive officer | Restricted stock | Vesting, tranche one Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Vested Â Â Â 10,000 Â Â Â Â Â Â Â Â Â Â Executive officer | Restricted stock | Vesting, tranche two Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Vested Â Â Â 10,000 Â Â Â Â Â Â Â Â Â Â Certain employees | Vesting, tranche one | Anniversary of the award Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Vesting percentage Â 0.33% Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Certain employees | Vesting, tranche two | Anniversary of the award Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Vesting percentage Â 0.33% Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Certain employees | Vesting, tranche three | Anniversary of the award Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Vesting percentage Â 0.33% Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Certain employees | Restricted stock Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Restricted stock unit | $ Â Â Â Â Â Â Â $ (191,000) $ 19,000 $ (163,000) Â $ 46,000 Â Â Â Â Â Options to grant (in shares) Â 103,000 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Issuance of restricted stock units | $ Â $ 410,000 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â RSU Forfeited (in shares) Â Â Â Â Â Â Â Â Â 40,000 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â RSU Forfeited | $ Â Â Â Â Â Â Â Â Â $ 149,000 Â Â Â Â Â Â Â Â Â Â Vested (in shares) Â Â Â Â Â Â Â 20,000 Â Â Â Â Â Â Â Â Â Vested | $ Â Â Â Â Â Â Â $ 132,000 Â Â Â Â Â Â Â Â Â Certain employees | Restricted stock | Anniversary of the award Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Non-Vested shares Â 13,000 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Certain employees | Restricted stock | Vesting upon earlier of change in control or three years from date of award Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Vesting period Â 3 years Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Non-Vested shares Â 30,000 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Jefferies LLC and B. Riley FBR, Inc Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Issuance of common stock Â Â Â Â Â Â Â 53,290 53,290 Â 2,656,464 Â Â Â Â Aggregate offering price | $ Â Â Â Â Â Â Â $ 25,000,000 Â Â Â Â Â Â Â Â Â Net proceeds from issuance of stock | $ Â Â Â Â Â Â Â Â Â $ 53,000 Â $ 4,532,000 Â Â Â Â Commission rate (as a percent) Â Â Â Â Â Â Â 3.00% Â 3.00% Â Â Â Â Â Â Â Net proceeds from issuance of stock | $ Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â $ 61,000 Â Â Â Â Average selling price | $ / shares Â Â Â Â Â Â Â $ 1.03 Â $ 1.03 Â Â $ 1.76 Â Â Â Â Exercise Price Ranging From 0.84 to 0.99 Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Expected life of the stock option Â Â Â Â Â Â Â Â Â 6 years 6 years Â Â Â Â Â Â Current price of the underlying stock and its expected volatility range Â Â Â Â Â Â Â Â Â 76.60% 76.60% Â Â Â Â Â Â Expected dividends Â Â Â Â Â Â Â Â Â 0.00% 0.00% Â Â Â Â Â Â Risk free interest rate, minimum Â Â Â Â Â Â Â Â Â 3.86% 3.86% Â Â Â Â Â Â Risk free interest rate range Â Â Â Â Â Â Â Â Â 4.65% 4.65% Â Â Â Â Â Â Exercise Price Ranging From 0.84 to 0.99 | Maximum Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Grant date exercise price range | $ / shares Â Â Â Â Â Â Â 0.99 Â $ 0.99 Â Â Â Â Â Â Â Exercise Price Ranging From 0.84 to 0.99 | Minimum Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Grant date exercise price range | $ / shares Â Â Â Â Â Â Â $ 0.84 Â $ 0.84 Â Â Â Â Â Â Â Subsequent event Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â STOCKHOLDERS' EQUITY Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Aggregate registered amount for offerings | $ Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â $ 150,000,000 Â Â X - DefinitionAggregate maximum amount of securities that can be offered and sold, in one or more offerings, in any combination of common stock, preferred stock, senior or subordinated debt securities, warrants and units, pursuant to shelf registration. + ReferencesNo definition available. + Details Name: ctso_AggregateRegisteredAmountForOfferings Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionThe commission rate as a percentage of the aggregate gross proceeds. + ReferencesNo definition available. + Details Name: ctso_CommissionRateAsPercentageOfAggregateGrossProceeds Namespace Prefix: ctso_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: instant X - DefinitionCommon Stock Value Authorized For Shares Authorized. + ReferencesNo definition available. + Details Name: ctso_CommonStockValueAuthorized Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionShare-Based Compensation Arrangement by Share-Based Payment Award, Options, unvested in Period, Fair Value + ReferencesNo definition available. + Details Name: ctso_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsNonVestedInPeriodFairValue Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionLine items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesNo definition available. + Details Name: ctso_StockholdersEquityLineItems Namespace Prefix: ctso_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount of expense for award under share-based payment arrangement. Excludes amount capitalized. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 14.F) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479830/718-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (h)(1)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_AllocatedShareBasedCompensationExpense Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionThe maximum number of common shares permitted to be issued by an entity's charter and bylaws. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(16)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1 + Details Name: us-gaap_CommonStockSharesAuthorized Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionWeighted-average period over which cost not yet recognized is expected to be recognized for award under share-based payment arrangement, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_EmployeeServiceShareBasedCompensationNonvestedAwardsTotalCompensationCostNotYetRecognizedPeriodForRecognition1 Namespace Prefix: us-gaap_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionAmount of cost to be recognized for option under share-based payment arrangement. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_EmployeeServiceShareBasedCompensationNonvestedAwardsTotalCompensationCostNotYetRecognizedStockOptions Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionThe maximum number of nonredeemable preferred shares (or preferred stock redeemable solely at the option of the issuer) permitted to be issued by an entity's charter and bylaws. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.6-04(16)(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479170/946-210-S99-1 + Details Name: us-gaap_PreferredStockSharesAuthorized Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionThe cash inflow from the additional capital contribution to the entity. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 14 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-14 + Details Name: us-gaap_ProceedsFromIssuanceOfCommonStock Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionThe cash inflow from the issuance of common stock, preferred stock, treasury stock, stock options, and other types of equity. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 14 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-14Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-03(i)(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479886/946-10-S99-3 + Details Name: us-gaap_ProceedsFromIssuanceOrSaleOfEquity Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionPer share amount received by subsidiary or equity investee for each share of common stock issued or sold in the stock transaction. + ReferencesNo definition available. + Details Name: us-gaap_SaleOfStockPricePerShare Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: instant X - DefinitionPeriod over which grantee's right to exercise award under share-based payment arrangement is no longer contingent on satisfaction of service or performance condition, in

'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days. Includes, but is not limited to, combination of market, performance or service condition. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardAwardVestingPeriod1 Namespace Prefix: us-gaap_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionThe number of equity-based payment instruments, excluding stock (or unit) options, that were forfeited during the reporting period. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii)(03) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsForfeitedInPeriod Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionThe number of grants made during the period on other than stock (or unit) option plans (for example, phantom stock or unit plan, stock or unit appreciation rights plan, performance target plan). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii)(01) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsGrantsInPeriod Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionThe number of non-vested equity-based payment instruments, excluding stock (or unit) options, that validly exist and are outstanding as of the balance sheet date. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsNonvestedNumber Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionThe number of equity-based payment instruments, excluding stock (or unit) options, that vested during the reporting period. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(2)(iii)(02) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsVestedInPeriod Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionFair value of share-based awards for which the grantee gained the right by satisfying service and performance requirements, to receive or retain shares or units, other instruments, or cash. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (d)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsVestedInPeriodTotalFairValue Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAgreed-upon price for the exchange of the underlying asset relating to the share-based payment award. + ReferencesNo definition available. + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsExercisePrice Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: instant X - DefinitionThe estimated dividend rate (a percentage of the share price) to be paid (expected dividends) to holders of the underlying shares over the option's term. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(iii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsExpectedDividendRate Namespace Prefix: us-gaap_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionThe estimated measure of the percentage by which a share price is expected to fluctuate during a period. Volatility also may be defined as a probability-weighted measure of the dispersion of returns about the mean. The volatility of a share price is the standard deviation of the continuously compounded rates of return on the share over a specified period. That is the same as the standard deviation of the differences in the natural logarithms of the stock prices plus dividends, if any, over the period. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsExpectedVolatilityRate Namespace Prefix: us-gaap_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionThe maximum risk-free interest rate assumption that is used in valuing an option on its own shares. + ReferencesNo definition available. + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsRiskFreeInterestRateMaximum Namespace Prefix: us-gaap_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionThe minimum risk-free interest rate assumption that is used in valuing an option on its own shares. + ReferencesNo definition available. + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsRiskFreeInterestRateMinimum Namespace Prefix: us-gaap_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionNumber of options outstanding, including both vested and non-vested options. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (c)(1)(ii) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsOutstandingNumber Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionNumber of shares issued under share-based payment arrangement. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 718 -SubTopic 10 -Section 50 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardSharesIssuedInPeriod Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionPercentage of vesting of award under share-based payment arrangement. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardAwardVestingRightsPercentage Namespace Prefix: us-gaap_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionExpected term of award under share-based payment arrangement, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 718 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (f)(2)(i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480429/718-10-50-2 + Details Name: us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardFairValueAssumptionsExpectedTerm1 Namespace Prefix: us-gaap_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionNumber of options vested. + ReferencesNo definition available. + Details Name: us-gaap_SharebasedCompensationArrangementBySharebasedPaymentAwardOptionsVestedNumberOfShares Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionNumber of new stock issued during the period. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 505 -Name Accounting Standards Codification -Section 50 -Paragraph 2 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478448/946-505-50-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 220 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-09(4)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479134/946-220-S99-3Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-03(i)(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479886/946-10-S99-3Reference 7: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1 + Details Name: us-gaap_StockIssuedDuringPeriodSharesNewIssues Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionTotal number of shares issued during the period, including shares forfeited, as a result of Restricted Stock Awards. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1 + Details Name: us-gaap_StockIssuedDuringPeriodSharesRestrictedStockAwardGross Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionValue of stock related to Restricted Stock Awards forfeited during the period. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1 + Details Name: us-gaap_StockIssuedDuringPeriodValueRestrictedStockAwardForfeitures Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAggregate value of stock related to Restricted Stock Awards issued during the period. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(28)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(29)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 4: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1 + Details Name: us-gaap_StockIssuedDuringPeriodValueRestrictedStockAwardGross Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionValue of stock related to Restricted Stock Awards issued during the period, net of the stock value of such awards forfeited. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1 + Details Name: us-gaap_StockIssuedDuringPeriodValueRestrictedStockAwardNetOfForfeitures Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - Details Name: srt_RangeAxis=srt_MaximumMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_RangeAxis=srt_MinimumMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_StatementEquityComponentsAxis=us-gaap_CommonStockMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_AwardTypeAxis=us-gaap_RestrictedStockUnitsRSUMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_TitleOfIndividualAxis=srt_DirectorMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_TitleOfIndividualAxis=ctso_EmployeeOneMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_VestingAxis=us-gaap_ShareBasedCompensationAwardTrancheOneMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_VestingAxis=us-gaap_ShareBasedCompensationAwardTrancheTwoMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_VestingAxis=us-gaap_ShareBasedCompensationAwardTrancheThreeMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_TitleOfIndividualAxis=us-gaap_EmployeeStockMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_TitleOfIndividualAxis=ctso_EmployeeTwoMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_TitleOfIndividualAxis=srt_ChiefExecutiveOfficerMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_TitleOfIndividualAxis=ctso_SeniorManagersMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_TitleOfIndividualAxis=ctso_CertainNamedExecutiveOfficersAndSeniorManagersMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_TitleOfIndividualAxis=ctso_CertainNamedExecutiveOfficersAndSeniorManagersTwoMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_TitleOfIndividualAxis=ctso_NamedExecutiveOfficerMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_TitleOfIndividualAxis=ctso_CertainEmployeesMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_StatementScenarioAxis=ctso_VestingUponEarlierOfChangeInControlOrOneThirdAfterSecondAnniversaryOneThirdOnThirdAnniversaryAndOneThirdOnFourthAnniversaryMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_StatementScenarioAxis=ctso_VestingUponEarlierOfChangeInControlOrThreeYearsFromDateOfAwardMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: dei_LegalEntityAxis=ctso_JefferiesLlcAndB.RileyFbrInc Member Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_StatementClassOfStockAxis=ctso_ExercisePriceRangingFrom0.84To0.99Member Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_SubsequentEventTypeAxis=us-gaap_SubsequentEventMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 44 R33.htm IDEA: XBRL DOCUMENT v3.24.2.u1 REVENUE - Revenue by customer type and geographic area (Details) - USD ($) 3 Months Ended 6 Months Ended Jun. 30, 2024 Jun. 30, 2023 Jun. 30, 2024 Jun. 30, 2023 Product sales: Â Â Â Â Total revenue $ 9,894,636 $ 9,420,821 $ 19,680,928 $ 18,870,317 Total product sales Â Â Â Â Product sales: Â Â Â Â Total revenue 8,841,789 8,072,412 17,831,309 15,982,451 Grant income Â Â Â Â Product sales: Â Â Â Â Total revenue 1,052,847 1,348,409 1,849,619 2,887,866 United States | Total product sales Â Â Â Â Product sales: Â Â Â Â Total revenue 38,398 6,583 78,014 10,353 United States | Grant income Â Â Â Â Product sales: Â Â Â Â Total revenue 1,052,847 1,348,409 1,849,619 2,887,866 Germany | Total product sales Â Â Â Â Product sales: Â Â Â Â Total revenue 2,778,594 3,168,448 6,316,321 6,506,352 All other countries | Total product sales Â Â Â Â Product sales: Â Â Â Â Total revenue 6,024,797 4,897,381 11,436,974 9,465,746 Direct Â Â Â Â Product sales: Â Â Â Â Total revenue 4,472,804 4,668,756 9,782,688 9,513,029 Direct | Total product sales Â Â Â Â Product sales: Â Â Â Â Total revenue 4,472,804 4,668,756 9,782,688 9,513,029 Direct | United States | Total product sales Â Â Â Â Product sales: Â Â Â Â Total revenue 20,398 6,583 42,014 10,353 Direct | Germany | Total product sales Â Â Â Â Product sales: Â Â Â Â Total revenue 2,778,594 3,168,448 6,316,321 6,506,352 Direct | All other countries | Total product sales Â Â Â Â Product sales: Â Â Â

Â Total revenue 1,673,812 1,493,725 3,424,353 2,996,324 Distributors/Strategic Partners Â Â Â Â Product sales: Â Â Â Â Total revenue 4,368,985 3,403,656 8,048,621 6,469,422 Distributors/Strategic Partners | Total product sales Â Â Â Â Product sales: Â Â Â Â Total revenue 4,368,985 3,403,656 8,048,621 6,469,422 Distributors/Strategic Partners | United States | Total product sales Â Â Â Â Product sales: Â Â Â Â Total revenue 18,000 Â 36,000 Â Distributors/Strategic Partners | All other countries | Total product sales Â Â Â Â Product sales: Â Â Â Â Total revenue 4,350,985 3,403,656 8,012,621 6,469,422 United States Government Agencies Â Â Â Â Product sales: Â Â Â Â Total revenue 1,052,847 1,348,409 1,849,619 2,887,866 United States Government Agencies | United States | Grant income Â Â Â Â Product sales: Â Â Â Â Total revenue $ 1,052,847 $ 1,348,409 $ 1,849,619 $ 2,887,866 X - DefinitionSale Revenues Goods Net + ReferencesNo definition available. + Details Name: ctso_SaleRevenuesGoodsNetAbstract Namespace Prefix: ctso_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount, including tax collected from customer, of revenue from satisfaction of performance obligation by transferring promised good or service to customer. Tax collected from customer is tax assessed by governmental authority that is both imposed on and concurrent with specific revenue-producing transaction, including, but not limited to, sales, use, value-added and excise. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 41 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-41Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 270 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (i) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482964/270-10-50-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (ee) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 4: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 5: http://fasb.org/us-gaap/role/ref/otherTransitionRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 32 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-32Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 924 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SAB Topic 11.L) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479941/924-10-S99-1Reference 7: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-5Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 30 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-30Reference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 42 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-42Reference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 11: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 40 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-40Reference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 280 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 22 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482810/280-10-50-22Reference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-4 + Details Name: us-gaap_RevenueFromContractWithCustomerIncludingAssessedTax Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - Details Name: srt_ProductOrServiceAxis=us-gaap_ProductMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_ProductOrServiceAxis=us-gaap_GrantMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_StatementGeographicalAxis=country_US Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_StatementGeographicalAxis=country_DE Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_StatementGeographicalAxis=ctso_AllOtherCountriesMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_MajorCustomersAxis=ctso_DirectMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_MajorCustomersAxis=ctso_DistributorsAndStrategicPartnersMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_MajorCustomersAxis=ctso_UnitedStatesGovernmentAgenciesMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 45 R34.htm IDEA: XBRL DOCUMENT v3.24.2.u1 REVENUE - Receivables and contract liabilities (Details) - USD ($) Jun. 30, 2024 Dec. 31, 2023 REVENUE Â Â Receivables, which are included in grants and accounts receivable $ 5,906,808 $ 3,846,271 Contract liabilities, which are included in accrued expenses and other current liabilities $ 1,298,050 $ 1,573,141 X - DefinitionAmount, after allowance for credit loss, of right to consideration in exchange for good or service transferred to customer when right is conditioned on something other than passage of time, classified as current. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479837/606-10-45-3Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479837/606-10-45-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-8 + Details Name: us-gaap_ContractWithCustomerAssetNetCurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of deferred income and obligation to transfer product and service to customer for which consideration has been received or is receivable. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(26)(c)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_DeferredRevenue Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - ReferencesNo definition available. + Details Name: us-gaap_RevenueFromContractWithCustomerAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration XML 46 R35.htm IDEA: XBRL DOCUMENT v3.24.2.u1 REVENUE - Additional information (Details) 6 Months Ended Jun. 30, 2024 USD ($) segment Dec. 31, 2023 USD ($) REVENUE Â Â Number of primary revenue streams | segment 2 Â Term of customer contracts 3 years Â Value of free of charge goods and credit rebates $ 201,887 $ 196,322 Contract liabilities net of value of free of charge goods and credit rebates 1,096,163 1,376,819 Receivables, which are included in grants and accounts receivable 5,906,808 3,846,271 Product sales Â Â REVENUE Â Â Receivables, which are included in grants and accounts receivable 5,424,751 3,270,724 Government grants Â Â REVENUE Â Â Receivables, which are included in grants and accounts receivable $ 482,057 $ 575,547 Maximum Â Â REVENUE Â Â Term of customer contracts 5 years Â Minimum Â Â REVENUE Â Â Term of customer contracts 1 year Â X - DefinitionAmount of contract with customer liability net of free of charge goods and credit rebates as on the balance sheet date, classified as current. + ReferencesNo definition available. + Details Name: ctso_ContractWithCustomerLiabilityNetOfFreeOfChargeGoodsAndCreditRebatesCurrent Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionValue of free of charge goods and credit rebates as on the balance sheet date, classified as current. + ReferencesNo definition available. + Details Name: ctso_ContractWithCustomerLiabilityValueOfFreeOfChargeGoodsAndCreditRebatesCurrent Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionNumber of primary revenue streams. + ReferencesNo definition available. + Details Name: ctso_NumberOfPrimaryRevenueStreams Namespace Prefix: ctso_ Data Type: xbrli:integerItemType Balance Type: na Period Type: duration X - DefinitionRepresents the term of customer contracts. + ReferencesNo definition available. + Details Name: ctso_TermOfCustomerContracts Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionAmount, after allowance for credit loss, of right to consideration in exchange for good or service transferred to customer when right is conditioned on something other than passage of time, classified as current. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479837/606-10-45-3Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479837/606-10-45-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-8 + Details Name: us-gaap_ContractWithCustomerAssetNetCurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionLine items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 5 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479806/606-10-50-5Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 5: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 6: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (e) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 7: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91Reference 8: http://www.xbrl.org/2003/role/exampleRef -Topic 606 -SubTopic 10 -Name Accounting Standards Codification -Section 55 -Paragraph 91 -Subparagraph (g) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479777/606-10-55-91 + Details Name: us-gaap_DisaggregationOfRevenueLineItems Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - Details Name: srt_ProductOrServiceAxis=us-gaap_ProductMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_ProductOrServiceAxis=us-gaap_GrantMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_RangeAxis=srt_MaximumMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_RangeAxis=srt_MinimumMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 47 R36.htm IDEA: XBRL DOCUMENT v3.24.2.u1 LONG-TERM DEBT, NET - Avenue Capital Group (Details) - USD ($) 3 Months Ended 6 Months Ended Jun. 28, 2024 Jun. 30, 2024 Jun. 30, 2024 Dec. 31, 2023 LONG-TERM DEBT Â Â Â Â Restricted cash Â $ 6,483,958 $ 6,483,958 $ 1,483,958 Warrant Exercise Price per Share Â Â Â $ 2.00 Stock price trigger for revision of exercise price of warrants $ 0.79 Â Â Â Warrants issued in connection with long-term debt Â 690,709 690,709 Â Debt agreement Â Â Â Â LONG-TERM DEBT Â Â Â Â Maximum borrowing capacity Â 20,000,000 20,000,000 Â Debt instrument unused capacity Â 10,000,000 10,000,000 Â Restricted cash Â 5,000,000 5,000,000 Â Minimum net proceeds from sale of equity securities, considered for release of restricted cash Â 3,000,000 $ 3,000,000 Â Interest rate Â Â 5.00% Â Debt Instrument, Variable Interest Rate, Type [Extensible Enumeration] Â Â us-gaap:PrimeRateMember Â Period for monthly interest only payments Â Â 25 months Â Extension term of loan Â Â 30 months Â Percentage of commitment fee Â Â 1.00% Â Payment of financial advisor and legal fees Â Â $ 640,000 Â Interest expense Â Â $ 2,000 Â Percentage of final payment Â Â 4.50% Â Interest expense Â $ 2,500 $ 2,500 Â Minimum period after entry, over which any judgment(s) singly or in the aggregate in excess of the Threshold Amount remain unsatisfied, unvacated or unstayed, considered for events of default to trigger accelerated repayment Â Â 15 days Â Period within which any insolvency proceeding brought by a third party is not dismissed or stayed, considered for events of default to trigger accelerated repayment Â Â 45 days Â Warrants to purchase shares Â 1,645,569 1,645,569 Â Warrant Exercise Price per Share $ 0.79 $ 0.79 $ 0.79 Â Stock price trigger for revision of exercise price of warrants Â Â $ 0.79 Â Conversion of debt into common stock Â $ 2,000,000 $ 2,000,000 Â Fixed conversion price of closing stock Â Â 120.00% Â Fixed conversion price of closing stock, Per share Â Â 0.95% Â Debt agreement | Prepayment made on or after funding date Â Â Â Â LONG-TERM DEBT Â Â Â Â Prepayment percentage Â Â 3.00% Â Debt agreement | Prepayment made after first anniversary Â Â Â Â LONG-TERM DEBT Â Â Â Â Prepayment percentage Â Â 2.00% Â Debt agreement | Prepayment made after second anniversary Â Â Â Â LONG-TERM DEBT Â Â Â Â Prepayment percentage Â Â 1.00% Â Debt agreement | Maximum Â Â Â Â LONG-TERM DEBT Â Â Â Â Release of restricted cash upon equity raise Â 5,000,000 $ 5,000,000 Â Debt agreement | Minimum Â Â Â Â LONG-TERM DEBT Â Â Â Â Release of restricted cash upon equity raise Â $ 3,000,000 $ 3,000,000 Â Effective rate Â 13.50% 13.50% Â Growth Capital Loan Tranche 1 Â Â Â Â LONG-TERM DEBT Â Â Â Â Debt instrument face amount Â $ 15,000,000 $ 15,000,000 Â Growth Capital Loan Tranche 1 | Avenue Venture Opportunities Fund, L.P Â Â Â Â LONG-TERM DEBT Â Â Â Â Debt instrument face amount Â 4,500,000 4,500,000 Â Growth Capital Loan Tranche 1 | Avenue Venture Opportunities Fund II, L.P Â Â Â Â LONG-TERM DEBT Â Â Â Â Debt instrument face amount Â 10,500,000 10,500,000 Â Growth Capital Loan Tranche 2 Â Â Â Â LONG-TERM DEBT Â Â Â Â Maximum borrowing capacity Â $ 5,000,000 $ 5,000,000 Â X - DefinitionPrice of the entity's common stock which would be required to be attained for revision of exercise price of warrants or rights. + ReferencesNo definition available. + Details Name: ctso_ClassOfWarrantOrRightRevisionOfExercisePriceOfWarrantsOrRightsStockPriceTrigger Namespace Prefix: ctso_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: duration X - DefinitionDebt Instrument, Accelerated Repayment, Minimum Period After Entry Over Which Any Judgment(S) Singly Or In The Aggregate In Excess Of The Threshold Amount Remain Unsatisfied, Unvacated Or Unstayed, Considered For Events Of Default. + ReferencesNo definition available. + Details Name: ctso_DebtInstrumentAcceleratedRepaymentMinimumPeriodAfterEntryOverSinglyInAggregateInExcessOfThresholdAmountRemainUnsatisfiedUnvacatedOrUnstayedConsideredForEventsOfDefaul Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionPeriod within which any insolvency proceeding brought by a third party is not dismissed or stayed, considered for events of default to cause accelerated repayment of the debt instrument. + ReferencesNo definition available. + Details Name: ctso_DebtInstrumentAcceleratedRepaymentPeriodWithinWhichAnyInsolvencyProceedingBroughtByThirdPartyIsNotDismissedOrStayedConsideredForEventsOfDefault Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionPer share conversion price of closing price of common stock. + ReferencesNo definition available. + Details Name: ctso_DebtInstrumentConvertibleConversionPricePerShare Namespace Prefix: ctso_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionPercentage of conversion price as a percentage of closing price of common stock. + ReferencesNo definition available. + Details Name: ctso_DebtInstrumentConvertibleConversionPricePercentage Namespace Prefix: ctso_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionPrincipal amount of outstanding debt instrument that can be converted into equity instruments. + ReferencesNo definition available. + Details Name: ctso_DebtInstrumentConvertiblePrincipalAmountOutstanding Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionThe maximum borrowing capacity under the debt instrument. + ReferencesNo definition available. + Details Name: ctso_DebtInstrumentMaximumBorrowingCapacity Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionExtended period during which interest only payments shall be made under the debt instrument. + ReferencesNo definition available. + Details Name: ctso_DebtInstrumentPeriodicInterestOnlyPaymentExtensionPeriod Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionPeriod during which interest only payments shall be made under the debt instrument. + ReferencesNo definition available. + Details Name: ctso_DebtInstrumentPeriodicInterestOnlyPaymentPeriod Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionPercentage of principal amount of debt prepaid, payable as prepayment fee on the debt instrument. + ReferencesNo definition available. + Details Name: ctso_DebtInstrumentPrepaymentFeeAsPercentageOfPrincipalAmountPrepaid Namespace Prefix: ctso_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionRepresents minimum net proceeds to be received from the sale of company's equity securities after the closing date, considered for release of restricted cash to the borrower. + ReferencesNo definition available. + Details Name: ctso_DebtInstrumentThresholdNetProceedsFromSaleOfEquitySecuritiesConsideredForReleaseOfRestrictedCash Namespace Prefix: ctso_

Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionInterest expense related to final payment on debt instrument, recorded by the company. + ReferencesNo definition available. + Details Name: ctso_InterestExpenseRelatedToFinalPayment Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionInterest expense related to financial advisor fees and legal fees on debt instrument, recorded by the company. + ReferencesNo definition available. + Details Name: ctso_InterestExpenseRelatedToFinancialAdvisorAndLegalFees Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionPercentage of non refundable commitment fee to be paid by the borrower. + ReferencesNo definition available. + Details Name: ctso_NonRefundableCommitmentFeePercentage Namespace Prefix: ctso_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionAmount of financial advisor fees and legal fees Paid by the company. + ReferencesNo definition available. + Details Name: ctso_PaymentOfFinancialAdvisorAndLegalFees Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionPercentage of non refundable final payment on original commitment amount to be paid by the borrower. + ReferencesNo definition available. + Details Name: ctso_PercentageOfNonRefundablePaymentOnOriginalCommitmentAmount Namespace Prefix: ctso_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionAmount of restricted cash that will be released on a dollar for dollar basis upon raise of equity. + ReferencesNo definition available. + Details Name: ctso_ReleaseOfRestrictedCashUponEquityRaise Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount of increase in additional paid in capital (APIC) resulting from the issuance of warrants. Includes allocation of proceeds of debt securities issued with detachable stock purchase warrants. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 2 -SubTopic 10 -Topic 505 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-2Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.3-04) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480008/505-10-S99-1Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Topic 470 -SubTopic 20 -Section 25 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481284/470-20-25-2 + Details Name: us-gaap_AdjustmentsToAdditionalPaidInCapitalWarrantIssued Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionExercise price per share or per unit of warrants or rights outstanding. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-3 + Details Name: us-gaap_ClassOfWarrantOrRightExercisePriceOfWarrantsOrRights1 Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: instant X - DefinitionNumber of securities into which the class of warrant or right may be converted. For example, but not limited to, 500,000 warrants may be converted into 1,000,000 shares. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 505 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481112/505-10-50-3 + Details Name: us-gaap_ClassOfWarrantOrRightNumberOfSecuritiesCalledByWarrantsOrRights Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: instant X - DefinitionPercentage points added to the reference rate to compute the variable rate on the debt instrument. + ReferencesNo definition available. + Details Name: us-gaap_DebtInstrumentBasisSpreadOnVariableRate1 Namespace Prefix: us-gaap_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionFace (par) amount of debt instrument at time of issuance. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 55 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482949/835-30-55-8Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1BReference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 69B -Publisher FASB -URI https://asc.fasb.org/1943274/2147481568/470-20-55-69BReference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 69C -Publisher FASB -URI https://asc.fasb.org/1943274/2147481568/470-20-55-69CReference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482900/835-30-50-1Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482925/835-30-45-2 + Details Name: us-gaap_DebtInstrumentFaceAmount Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionEffective interest rate for the funds borrowed under the debt agreement considering interest compounding and original issue discount or premium. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 55 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482949/835-30-55-8Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(22)(a)(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482900/835-30-50-1Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482925/835-30-45-2Reference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-6 + Details Name: us-gaap_DebtInstrumentInterestRateEffectivePercentage Namespace Prefix: us-gaap_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: instant X - DefinitionLine items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 55 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482949/835-30-55-8Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(f)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.12-04(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-3Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1BReference 5: http://www.xbrl.org/2003/role/exampleRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 69B -Publisher FASB -URI https://asc.fasb.org/1943274/2147481568/470-20-55-69BReference 6: http://www.xbrl.org/2003/role/exampleRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 69C -Publisher FASB -URI https://asc.fasb.org/1943274/2147481568/470-20-55-69CReference 7: http://www.xbrl.org/2003/role/exampleRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 69E -Publisher FASB -URI https://asc.fasb.org/1943274/2147481568/470-20-55-69EReference 8: http://www.xbrl.org/2003/role/exampleRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 69F -Publisher FASB -URI https://asc.fasb.org/1943274/2147481568/470-20-55-69FReference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1B -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1BReference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1B -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1BReference 11: http://www.xbrl.org/2003/role/exampleRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1B -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1BReference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1B -Subparagraph (e) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1BReference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1B -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1BReference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1B -Subparagraph (h) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1BReference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1D -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1DReference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1D -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1DReference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1D -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1DReference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1E -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1EReference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1E -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1EReference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1E -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1EReference 21: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1F -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1FReference 22: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1F -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1FReference 23: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1F -Subparagraph (b)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1FReference 24: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1F -Subparagraph (b)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1FReference 25: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1I -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1IReference 26: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482925/835-30-45-2Reference 27: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482900/835-30-50-1 + Details Name: us-gaap_DebtInstrumentLineItems Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount of unused borrowing capacity under the long-term financing arrangement that is available to the entity as of the balance sheet date. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481544/470-10-50-6Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(22)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_DebtInstrumentUnusedBorrowingCapacityAmount Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionIndicates type of variable interest rate on debt instrument. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 942 -SubTopic 470 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147477734/942-470-50-3 + Details Name: us-gaap_DebtInstrumentVariableInterestRateTypeExtensibleEnumeration Namespace Prefix: us-gaap_ Data Type: enum2:enumerationSetItemType Balance Type: na Period Type: duration X - DefinitionAmount of cash restricted as to withdrawal or usage, classified as noncurrent. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(17)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Name Accounting Standards Codification -Section 45 -Paragraph 5 -SubTopic 210 -Topic 954 -Publisher FASB -URI https://asc.fasb.org/1943274/2147477220/954-210-45-5Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 230 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482913/230-10-50-8 + Details Name: us-gaap_RestrictedCashNoncurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - Details Name: us-gaap_DebtInstrumentAxis=ctso_LoanAndSecurityAgreementMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_StatementScenarioAxis=ctso_PrepaymentMadeOnOrAfterFundingDateMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_StatementScenarioAxis=ctso_PrepaymentMadeFromFirstAnniversaryToSecondAnniversaryMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_StatementScenarioAxis=ctso_PrepaymentMadeAfterSecondAnniversaryMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_RangeAxis=srt_MaximumMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_RangeAxis=srt_MinimumMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_DebtInstrumentAxis=ctso_LoanAndSecurityAgreementTrancheOneMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_LineOfCreditFacilityAxis=ctso_AvenueVentureOpportunitiesFundL.pMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_LineOfCreditFacilityAxis=ctso_AvenueVentureOpportunitiesFundIiL.pMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_DebtInstrumentAxis=ctso_LoanAndSecurityAgreementTrancheTwoMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 48 R37.htm IDEA: XBRL DOCUMENT v3.24.2.u1 LONG-TERM DEBT, NET (Details) - USD ($) Jun. 30, 2024 Dec. 31, 2023 LONG-TERM DEBT, NET Â Â Principal amount $ 15,000,000 Â Accrued final fee 900,000 Â Less unamortized debt discount (1,588,209) Â Less unamortized debt acquisition costs (638,596) Â Subtotal 13,673,195 Â Less Current maturities Â $ (2,500,000) Long-term debt net of current maturities $ 13,673,195 $ 2,542,857 X - DefinitionAmount of long term debt accrued final fee. + ReferencesNo definition available. + Details Name: ctso_LongTermDebtAccruedFinalFee Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - ReferencesNo definition available. + Details Name: us-gaap_DebtDisclosureAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount, before unamortized (discount) premium and debt issuance costs, of long-term debt. Includes, but is not limited to, notes payable, bonds payable, commercial loans, mortgage loans, convertible debt, subordinated debt and other types of debt. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(22)) -SubTopic 10 -Topic 210 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(16)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (b)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-4 + Details Name: us-gaap_DebtInstrumentCarryingAmount Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount, after accumulated amortization, of debt discount. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 45 -Paragraph 1A -Publisher FASB -URI https://asc.fasb.org/1943274/2147482925/835-30-45-1AReference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482925/835-30-45-2Reference 3: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482900/835-30-50-1Reference 4: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 470 -SubTopic 20 -

Name Accounting Standards Codification -Section 50 -Paragraph 1D -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1D + Details Name: us-gaap_DebtInstrumentUnamortizedDiscount Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount, before accumulated amortization, of debt issuance costs classified as noncurrent. Includes, but is not limited to, legal, accounting, underwriting, printing, and registration costs. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482925/835-30-45-2Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482900/835-30-50-1 + Details Name: us-gaap_DeferredFinanceCostsNoncurrentGross Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionAmount, after deduction of unamortized premium (discount) and debt issuance cost, of long-term debt. Excludes lease obligation. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(22)) -SubTopic 10 -Topic 210 -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://www.xbrl.org/2003/role/exampleRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 55 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482949/835-30-55-8Reference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 942 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.9-03(16)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478546/942-210-S99-1Reference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 69B -Publisher FASB -URI https://asc.fasb.org/1943274/2147481568/470-20-55-69BReference 5: http://www.xbrl.org/2003/role/exampleRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 69C -Publisher FASB -URI https://asc.fasb.org/1943274/2147481568/470-20-55-69CReference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1D -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1DReference 7: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 944 -SubTopic 210 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.7-03(a)(16)(a)(2)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478777/944-210-S99-1Reference 8: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (b)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-4 + Details Name: us-gaap_LongTermDebt Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount, after deduction of unamortized premium (discount) and debt issuance cost, of long-term debt classified as current. Excludes lease obligation. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(20)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_LongTermDebtCurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount, after deduction of unamortized premium (discount) and debt issuance cost, of long-term debt classified as noncurrent. Excludes lease obligation. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(22)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_LongTermDebtNoncurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant XML 49 R38.htm IDEA: XBRL DOCUMENT v3.24.2.u1 LONG-TERM DEBT, NET - Principal payments (Details) Jun. 30, 2024 USD ($) LONG-TERM DEBT, NET Â 2027 $ 13,750,000 2028 1,250,000 Total $ 15,000,000 X - DefinitionAmount, after unamortized (discount) premium and debt issuance costs, of long-term debt and final fee. + ReferencesNo definition available. + Details Name: ctso_LongTermDebtAndFinalFee Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - ReferencesNo definition available. + Details Name: us-gaap_DebtDisclosureAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount of long-term debt payable, sinking fund requirement, and other securities issued that are redeemable by holder at fixed or determinable price and date, maturing in fourth fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.12-04(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-3Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1E -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1EReference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -SubTopic 10 -Topic 470 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481544/470-10-50-1 + Details Name: us-gaap_LongTermDebtMaturitiesRepaymentsOfPrincipalInYearFour Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of long-term debt payable, sinking fund requirement, and other securities issued that are redeemable by holder at fixed or determinable price and date, maturing in third fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.12-04(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-3Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1E -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1EReference 3: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 50 -Paragraph 1 -SubTopic 10 -Topic 470 -Publisher FASB -URI https://asc.fasb.org/1943274/2147481544/470-10-50-1 + Details Name: us-gaap_LongTermDebtMaturitiesRepaymentsOfPrincipalInYearThree Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant XML 50 R39.htm IDEA: XBRL DOCUMENT v3.24.2.u1 LONG-TERM DEBT, NET - Additional information (Details) 6 Months Ended Jun. 30, 2024 USD ($) $ / shares 2022 Success Fee Letter | First Tranche Â LONG-TERM DEBT Â Maximum borrowing capacity | $ $ 5,000,000 Percentage of success fee 1.00% Average selling price $ 8 Number of days for stock price threshold set in success fee letter 5 days 2022 Success Fee Letter | Second Tranche Â LONG-TERM DEBT Â Maximum borrowing capacity | $ $ 5,000,000 Percentage of success fee 1.50% Average selling price $ 10 Number of days for stock price threshold set in success fee letter 5 days 2022 Success Fee Letter | Third Tranche Â LONG-TERM DEBT Â Maximum borrowing capacity | $ $ 5,000,000 Percentage of success fee 2.00% Average selling price $ 12 Number of days for stock price threshold set in success fee letter 5 days Western Alliance Bank | 2018 Success Fee Letter Â LONG-TERM DEBT Â Percentage of success fee 6.37% Average selling price $ 7.05 Number of days for stock price threshold set in success fee letter 5 days Western Alliance Bank | 2018 Success Fee Letter | Minimum Â LONG-TERM DEBT Â Percentage of closing price on common stock 26.13% Western Alliance Bank | 2018 Success Fee Letter | Maximum Â LONG-TERM DEBT Â Percentage of closing price on common stock 70.00% X - DefinitionNumber of days for stock price threshold set in success fee letter. + ReferencesNo definition available. + Details Name: ctso_NumberOfDaysForStockPriceThreshold Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionThe percentage of closing price on common stock. + ReferencesNo definition available. + Details Name: ctso_PercentageOfClosingPriceOnCommonStock Namespace Prefix: ctso_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionThe average effective success fee rate during the reporting period. + ReferencesNo definition available. + Details Name: ctso_PercentageOfSuccessFee Namespace Prefix: ctso_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionLine items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 55 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482949/835-30-55-8Reference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.4-08(f)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-1Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 235 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.12-04(a)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480678/235-10-S99-3Reference 4: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1BReference 5: http://www.xbrl.org/2003/role/exampleRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 69B -Publisher FASB -URI https://asc.fasb.org/1943274/2147481568/470-20-55-69BReference 6: http://www.xbrl.org/2003/role/exampleRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 69C -Publisher FASB -URI https://asc.fasb.org/1943274/2147481568/470-20-55-69CReference 7: http://www.xbrl.org/2003/role/exampleRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 69E -Publisher FASB -URI https://asc.fasb.org/1943274/2147481568/470-20-55-69EReference 8: http://www.xbrl.org/2003/role/exampleRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 69F -Publisher FASB -URI https://asc.fasb.org/1943274/2147481568/470-20-55-69FReference 9: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1B -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1BReference 10: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1B -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1BReference 11: http://www.xbrl.org/2003/role/exampleRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1B -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1BReference 12: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1B -Subparagraph (e) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1BReference 13: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1B -Subparagraph (f) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1BReference 14: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1B -Subparagraph (h) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1BReference 15: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1D -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1DReference 16: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1D -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1DReference 17: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1D -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1DReference 18: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1E -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1EReference 19: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1E -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1EReference 20: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1E -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1EReference 21: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1F -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1FReference 22: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1F -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1FReference 23: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1F -Subparagraph (b)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1FReference 24: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1F -Subparagraph (b)(2) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1FReference 25: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1I -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1IReference 26: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482925/835-30-45-2Reference 27: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482900/835-30-50-1 + Details Name: us-gaap_DebtInstrumentLineItems Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionMaximum borrowing capacity under the credit facility without consideration of any current restrictions on the amount that could be borrowed or the amounts currently outstanding under the facility. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(22)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1Reference 2: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 210 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 1 -Subparagraph (SX 210.5-02(19)(b)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147480566/210-10-S99-1 + Details Name: us-gaap_LineOfCreditFacilityMaximumBorrowingCapacity Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionPrice of a single share of a number of saleable stocks of a company. + ReferencesNo definition available. + Details Name: us-gaap_SharePrice Namespace Prefix: us-gaap_ Data Type: dtr-types:perShareItemType Balance Type: na Period Type: instant X - Details Name: us-gaap_DebtInstrumentAxis=ctso_TwoThousandAndTwentyTwoSuccessFeeLetterMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_VestingAxis=ctso_FirstTrancheMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_VestingAxis=ctso_SecondTrancheMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_VestingAxis=ctso_ThirdTrancheMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_LineOfCreditFacilityAxis=ctso_WesternAllianceBankMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_DebtInstrumentAxis=ctso_TwoThousandAndEighteenSuccessFeeLetterMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_RangeAxis=srt_MinimumMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_RangeAxis=srt_MaximumMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 51 R40.htm IDEA: XBRL DOCUMENT v3.24.2.u1 COMMITMENTS AND CONTINGENCIES (Details) - USD ($) 1 Months Ended 3 Months Ended 6 Months Ended Apr. 12, 2020 Aug. 11, 2003 Jan. 31, 2024 Jun. 30, 2024 Jun. 30, 2023 Jun. 30, 2024 Jun. 30, 2023 COMMITMENTS AND CONTINGENCIES Â Â Â Â Â Â Â Initial term (in years) Â Â Â Â Â Â 3 years Â Automatic renewal period for employment agreements 1 year Â Â Â Â Â Â Additional automatic renewed period for employment agreements Â Â 1 year Â Â Â Â Royalty Agreement Â Â Â Â Â Â Â Â COMMITMENTS AND CONTINGENCIES Â Â Â Â Â Â Â Equity investment by an existing investor Â $ 4,000,000 Â Â Â Â Â Â Future royalty payment percentage on gross revenue Â 3.00% Â Â Â Â Â Â Royalty cost Â Â Â $ 264,000 $ 240,000 $ 531,000 $ 474,000 Percentage of royalty Â Â Â Â Â Â 0.90% Â License Agreement Â Â Â Â Â Â Â COMMITMENTS AND CONTINGENCIES Â Â Â Â Â Â Â Royalty cost Â Â Â $ 352,000 $ 320,000 $ 709,000 $ 632,000 Term of license agreement Â Â Â Â Â 18 years Â Royalty rate, lower limit Â Â Â 2.50% Â 2.50% Â Royalty rate, upper limit Â Â Â 5.00% Â 5.00% Â X - DefinitionCommitments and Contingencies Disclosure [Line Items] + ReferencesNo definition available. + Details Name: ctso_CommitmentsAndContingenciesDisclosureLineItems Namespace Prefix: ctso_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAutomatic renewal period for employment agreements. + ReferencesNo definition available. + Details Name: ctso_EmploymentAgreementsAutomaticRenewalPeriod Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionAutomatic renewed period for employment agreements, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents the reported fact of one year, five months, and thirteen days. + ReferencesNo definition available. + Details Name: ctso_EmploymentAgreementsAutomaticRenewedPeriod Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionRepresents the initial term of executive employment agreements. + ReferencesNo definition available. + Details Name: ctso_ExecutiveEmploymentAgreementsInitialTerm Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionThe duration of license period. + ReferencesNo definition available. + Details Name: ctso_LicensePeriod

Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionThe rate of royalty payment. + ReferencesNo definition available. + Details Name: ctso_RoyaltyPaymentRate Namespace Prefix: ctso_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionPercentage for royalty payments equal. + ReferencesNo definition available. + Details Name: ctso_RoyaltyPaymentsForInterest Namespace Prefix: ctso_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionThe rate of royalty rate lower limit. + ReferencesNo definition available. + Details Name: ctso_RoyaltyRateLowerLimit Namespace Prefix: ctso_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: instant X - DefinitionThe rate of royalty rate upper limit + ReferencesNo definition available. + Details Name: ctso_RoyaltyRateUpperLimit Namespace Prefix: ctso_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: instant X - DefinitionThe cash inflow from the issuance of common stock, preferred stock, treasury stock, stock options, and other types of equity. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Name Accounting Standards Codification -Section 45 -Paragraph 14 -Subparagraph (a) -SubTopic 10 -Topic 230 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482740/230-10-45-14Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 946 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 3 -Subparagraph (SX 210.6-03(i)(1)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479886/946-10-S99-3 + Details Name: us-gaap_ProceedsFromIssuanceOrSaleOfEquity Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of expense related to royalty payments under a contractual arrangement such as payment for mineral and drilling rights and use of technology or intellectual property. + ReferencesReference 1: http://fasb.org/us-gaap/role/ref/legacyRef -Topic 220 -SubTopic 10 -Name Accounting Standards Codification -Section S99 -Paragraph 2 -Subparagraph (SX 210.5-03(3)) -Publisher FASB -URI https://asc.fasb.org/1943274/2147483621/220-10-S99-2 + Details Name: us-gaap_RoyaltyExpense Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - Details Name: us-gaap_FiniteLivedIntangibleAssetsByMajorClassAxis=us-gaap_RoyaltyAgreementsMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_FiniteLivedIntangibleAssetsByMajorClassAxis=ctso_LicenseAgreementMember Namespace Prefix: Data Type: na Balance Type: Period Type: XML 52 R41.htm IDEA: XBRL DOCUMENT v3.24.2.u1 LEASES (Details) 1 Months Ended 3 Months Ended 6 Months Ended Apr. 01, 2021 USD ($) Sep. 30, 2021 USD ($) Mar. 31, 2021 USD ($) item Jan. 31, 2021 USD ($) mÂ² Jun. 30, 2024 USD ($) Jun. 30, 2023 USD ($) Jun. 30, 2024 USD ($) Jun. 30, 2023 USD ($) Dec. 31, 2023 USD ($) Apr. 30, 2021 USD ($) Apr. 01, 2020 USD ($) LEASES: Â Â Â Â Â Â Â Â Â Â Â Â Â Â Operating lease lability Â Â Â Â Â $ 13,092,792 Â $ 13,092,792 Â $ 13,270,295 Â Â Right of use asset Â Â Â Â $ 11,789,539 Â $ 11,789,539 Â $ 12,058,896 Â Â Incremental borrowing rate Â Â Â Â 9.80% Â 9.80% Â Â Â Â Operating lease paid Â Â Â Â $ 566,000 $ 466,000 $ 1,137,000 $ 1,099,000 Â Â Â Weighted average remaining lease term Â Â Â Â 11 years 10 months 24 days Â 11 years 10 months 24 days Â 12 years 8 months 12 days Â Â CytoSorbents Medical, Inc Â Â Â Â Â Â Â Â Â Â Â LEASES: Â Â Â Â Â Â Â Â Â Â Â Number of times lease renewal options available | item Â Â 2 Â Â Â Â Â Â Â Â Â Renewal term Â Â 5 years Â Â Â Â Â Â Â Â Â Rent abatement term Â Â 6 months Â Â Â Â Â Â Â Â Â CytoSorbents Europe GmbH Â Â Â Â Â Â Â Â Â Â LEASES: Â Â Â Â Â Â Â Â Â Â Monthly payments of base rent and other costs Â Â Â $ 7,784 Â Â Â Â Â Â Operating lease lability Â Â Â Â Â Â Â Â Â $ 594,000 Right of use asset Â Â Â Â Â Â Â Â Â $ 594,000 Area of Land | mÂ² Â Â Â 1,068 Â Â Â Â Â Â Other costs $ 239 Â Â Â Â Â Â Â Â Â Â Lease term 5 years Â Â Â Â Â Â Â Â Â Existence of option to extend true Â Â Â Â Â Â Â Â Â Additional lessee operating lease term of contract option to extend 5 years Â Â Â Â Â Â Â Â Â Â United States | CytoSorbents Medical, Inc Â Â Â Â Â Â Â Â Â LEASES: Â Â Â Â Â Â Â Â Â Remaining lease term Â Â 15 years 6 months Â Â Â Â Â Â Â Annual rent expense increment rate Â Â 2.75% Â Â Â Â Â Â Â Percentage of total building space occupied Â Â 92.30% Â Â Â Â Â Â Â Allowance for building improvement Â Â $ 1,455,000 Â Â Â Â Â Â Â Â Operating lease lability $ 11,600,000 Â Â Â Â Â Â Â Â Right of use asset $ 11,600,000 Â Â Â Â Â Â Â Â Incremental borrowing rate 9.80% Â Â Â Â Â Â Â Â Â Â United States | Letter of credit | CytoSorbents Medical, Inc Â Â Â Â Â Â Â Â Â LEASES: Â Â Â Â Â Â Â Â Â Security amount Â Â Â Â Â Â Â Â $ 1,467,000 Â United States | Initial early term | CytoSorbents Medical, Inc Â Â Â Â Â Â Â Â Â LEASES: Â Â Â Â Â Â Â Â Â Monthly payments of base rent and other costs Â Â 25,208 Â Â Â Â Â Â Â Â United States | Early term | CytoSorbents Medical, Inc Â Â Â Â Â Â Â Â Â LEASES: Â Â Â Â Â Â Â Â Â Monthly payments of base rent and other costs Â Â 88,254 Â Â Â Â Â Â Â Â United States | Early term | CytoSorbents Medical, Inc Â Â Â Â Â Â Â Â Â LEASES: Â Â Â Â Â Â Â Â Â Monthly payments of base rent and other costs Â Â $ 111,171 Â Â Â Â Â Â Â Germany Â Â Â Â Â Â Â Â Â LEASES: Â Â Â Â Â Â Â Â Â Monthly payments of base rent and other costs Â $ 12,100 Â Â Â Â Â Â Â Â Additional operating leases rent expense Â $ 3,000 Â Â Â Â Â Â Â Â X - DefinitionThe additional lessee operating lease term of contract option to extend. + ReferencesNo definition available. + Details Name: ctso_AdditionalLesseeOperatingLeaseTermOfContractOptionToExtend Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionAdditional rental expense for the reporting period incurred under operating leases, including minimum and any contingent rent expense, net of related sublease income. + ReferencesNo definition available. + Details Name: ctso_AdditionalOperatingLeasesRentExpenseNet Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionThe number of times lease renewal options available. + ReferencesNo definition available. + Details Name: ctso_NumberOfTimesLeaseRenewalAvailable Namespace Prefix: ctso_ Data Type: xbrli:integerItemType Balance Type: na Period Type: instant X - DefinitionThe percentage of annual increment in operating lease rent expense. + ReferencesNo definition available. + Details Name: ctso_OperatingLeasesAnnualRentExpenseIncrementRate Namespace Prefix: ctso_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: duration X - DefinitionThe amount of allowance for building improvement receivable from landlord. + ReferencesNo definition available. + Details Name: ctso_OperatingLeasesBuildingImprovementAllowanceReceivable Namespace Prefix: ctso_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionRent abatement term of lessee's operating lease, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days. + ReferencesNo definition available. + Details Name: ctso_OperatingLeasesRentAbatementTerm Namespace Prefix: ctso_ Data Type: xbrli:durationItemType Balance Type: na Period Type: duration X - DefinitionThe percentage of total building space occupied. + ReferencesNo definition available. + Details Name: ctso_PercentageOfTotalBuildingSpaceOccupied Namespace Prefix: ctso_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: instant X - DefinitionArea of land held. + ReferencesNo definition available. + Details Name: us-gaap_AreaOfLand Namespace Prefix: us-gaap_ Data Type: dtr-types:areaItemType Balance Type: na Period Type: instant X - DefinitionFace (par) amount of debt instrument at time of issuance. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 55 -Paragraph 8 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482949/835-30-55-8Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 1B -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147481139/470-20-50-1BReference 3: http://www.xbrl.org/2003/role/exampleRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 69B -Publisher FASB -URI https://asc.fasb.org/1943274/2147481568/470-20-55-69BReference 4: http://www.xbrl.org/2003/role/exampleRef -Topic 470 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 69C -Publisher FASB -URI https://asc.fasb.org/1943274/2147481568/470-20-55-69CReference 5: http://www.xbrl.org/2003/role/disclosureRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482900/835-30-50-1Reference 6: http://www.xbrl.org/2003/role/disclosureRef -Topic 835 -SubTopic 30 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482925/835-30-45-2 + Details Name: us-gaap_DebtInstrumentFaceAmount Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionLine items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 7A -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-7AReference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-3 + Details Name: us-gaap_LesseeLeaseDescriptionLineItems Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionDiscount rate used by lessee to determine present value of operating lease payments. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (c)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-3 + Details Name: us-gaap_LesseeOperatingLeaseDiscountRate Namespace Prefix: us-gaap_ Data Type: dtr-types:percentItemType Balance Type: na Period Type: instant X - DefinitionIndicates (true false) whether lessee has option to extend operating lease. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (a)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-3 + Details Name: us-gaap_LesseeOperatingLeaseExistenceOfOptionToExtend Namespace Prefix: us-gaap_ Data Type: xbrli:booleanItemType Balance Type: na Period Type: duration X - DefinitionRemaining lease term of operating lease, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 7A -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-7AReference 2: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (a)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-3 + Details Name: us-gaap_LesseeOperatingLeaseRemainingLeaseTerm Namespace Prefix: us-gaap_ Data Type: xbrli:durationItemType Balance Type: na Period Type: instant X - DefinitionTerm of lessee's operating lease renewal, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (a)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-3 + Details Name: us-gaap_LesseeOperatingLeaseRenewalTerm Namespace Prefix: us-gaap_ Data Type: xbrli:durationItemType Balance Type: na Period Type: instant X - DefinitionTerm of lessee's operating lease, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 3 -Subparagraph (a)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-3 + Details Name: us-gaap_LesseeOperatingLeaseTermOfContract Namespace Prefix: us-gaap_ Data Type: xbrli:durationItemType Balance Type: na Period Type: instant X - DefinitionAmount of single lease cost, calculated by allocation of remaining cost of lease over remaining lease term. Includes, but is not limited to, single lease cost, after impairment of right-of-use asset, calculated by amortization of remaining right-of-use asset and accretion of lease liability. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 53 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479589/842-20-55-53Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4 + Details Name: us-gaap_OperatingLeaseCost Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionAmount of operating lease expense. Excludes sublease income. + ReferencesReference 1: http://www.xbrl.org/2009/role/commonPracticeRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 4 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-4 + Details Name: us-gaap_OperatingLeaseExpense Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: duration X - DefinitionPresent value of lessee's discounted obligation for lease payments from operating lease. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1 + Details Name: us-gaap_OperatingLeaseLiability Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of cash outflow from operating lease, excluding payments to bring another asset to condition and location necessary for its intended use. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 5 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-5Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (g)(1) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4 + Details Name: us-gaap_OperatingLeasePayments Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: duration X - DefinitionAmount of lessee's right to use underlying asset under operating lease. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1 + Details Name: us-gaap_OperatingLeaseRightOfUseAsset Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant X - DefinitionWeighted average remaining lease term for operating lease, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days. + ReferencesReference 1: http://www.xbrl.org/2003/role/exampleRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 55 -Paragraph 53 -Publisher FASB -URI https://asc.fasb.org/1943274/2147479589/842-20-55-53Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 4 -Subparagraph (g)(3) -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-4 + Details Name: us-gaap_OperatingLeaseWeightedAverageRemainingLeaseTerm1 Namespace Prefix: us-gaap_ Data Type: xbrli:durationItemType Balance Type: na Period Type: instant X - Details Name: srt_ConsolidatedEntitiesAxis=ctso_CytosorbentsMedicalIncMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_ConsolidatedEntitiesAxis=ctso_CytosorbentsEuropeGmbhMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_StatementGeographicalAxis=country_US Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: us-gaap_DebtInstrumentAxis=us-gaap_LetterOfCreditMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_StatementScenarioAxis=ctso_OperatingLeaseInitialEarlyTermMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_StatementScenarioAxis=ctso_OperatingLeaseEarlyTermMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_StatementScenarioAxis=ctso_OperatingLeaseFirstYearOfRemainingLeaseTermMember Namespace Prefix: Data Type: na Balance Type: Period Type: X - Details Name: srt_StatementGeographicalAxis=country_DE Namespace Prefix: Data Type: na Balance Type: Period Type: XML 53 R42.htm IDEA: XBRL DOCUMENT v3.24.2.u1 LEASES - Right-of- use asset and related lease liability (Details) - USD ($) Jun. 30, 2024 Dec. 31, 2023 LEASES Â Â Right-of-use asset $ 11,789,539 $ 12,058,896 Total lease liability 13,092,792 13,270,295 Less current portion (412,067) (373,636) Lease liability, net of current portion $ 12,680,725 $ 12,896,659 X - ReferencesNo definition available. + Details Name: us-gaap_LesseeDisclosureAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionPresent value of lessee's discounted obligation for lease payments from operating lease. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1 + Details Name: us-gaap_OperatingLeaseLiability Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionPresent value of lessee's discounted obligation for lease payments from operating lease, classified as current. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1 + Details Name: us-gaap_OperatingLeaseLiabilityCurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionPresent value of lessee's discounted obligation for lease payments from operating lease, classified as noncurrent. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1 + Details Name: us-gaap_OperatingLeaseLiabilityNoncurrent Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of lessee's right to use underlying asset under operating lease. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (a) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1 + Details Name: us-gaap_OperatingLeaseRightOfUseAsset Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: debit Period Type: instant XML 54 R43.htm IDEA: XBRL

DOCUMENT v3.24.2.u1 LEASES - Maturities of the lease liabilities (Details) - USD ($) Jun. 30, 2024 Dec. 31, 2023 LEASES Â Â 2025 $ 1,676,044 Â 2026 1,715,575 Â 2027 1,756,193 Â 2028 1,797,927 Â 2029 1,840,810 Â Thereafter 14,487,274 Â Total lease payments 23,273,823 Â Present value discount (10,181,031) Â Total lease liability $ 13,092,792 $ 13,270,295 X - ReferencesNo definition available. + Details Name: us-gaap_LesseeDisclosureAbstract Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - DefinitionAmount of lessee's undiscounted obligation for lease payment for operating lease. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6 + Details Name: us-gaap_LesseeOperatingLeaseLiabilityPaymentsDue Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of lessee's undiscounted obligation for lease payment for operating lease due after fifth fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6 + Details Name: us-gaap_LesseeOperatingLeaseLiabilityPaymentsDueAfterYearFive Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of lessee's undiscounted obligation for lease payment for operating lease to be paid in next fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6 + Details Name: us-gaap_LesseeOperatingLeaseLiabilityPaymentsDueNextTwelveMonths Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of lessee's undiscounted obligation for lease payment for operating lease to be paid in fifth fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6 + Details Name: us-gaap_LesseeOperatingLeaseLiabilityPaymentsDueYearFive Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of lessee's undiscounted obligation for lease payment for operating lease to be paid in fourth fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6 + Details Name: us-gaap_LesseeOperatingLeaseLiabilityPaymentsDueYearFour Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of lessee's undiscounted obligation for lease payment for operating lease to be paid in third fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6 + Details Name: us-gaap_LesseeOperatingLeaseLiabilityPaymentsDueYearThree Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of lessee's undiscounted obligation for lease payment for operating lease to be paid in second fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach). + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6 + Details Name: us-gaap_LesseeOperatingLeaseLiabilityPaymentsDueYearTwo Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionAmount of lessee's undiscounted obligation for lease payments in excess of discounted obligation for lease payments for operating lease. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 50 -Paragraph 6 -Publisher FASB -URI https://asc.fasb.org/1943274/2147478964/842-20-50-6 + Details Name: us-gaap_LesseeOperatingLeaseLiabilityUndiscountedExcessAmount Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant X - DefinitionPresent value of lessee's discounted obligation for lease payments from operating lease. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 842 -SubTopic 20 -Name Accounting Standards Codification -Section 45 -Paragraph 1 -Subparagraph (b) -Publisher FASB -URI https://asc.fasb.org/1943274/2147479041/842-20-45-1 + Details Name: us-gaap_OperatingLeaseLiability Namespace Prefix: us-gaap_ Data Type: xbrli:monetaryItemType Balance Type: credit Period Type: instant XML 55 R44.htm IDEA: XBRL DOCUMENT v3.24.2.u1 NET LOSS PER SHARE (Details) - shares 6 Months Ended Jun. 30, 2024 Jun. 30, 2023 Stock options and warrants Â Â NET LOSS PER SHARE Â Â Antidilutive securities excluded from computation of earnings per share 20,266,000 11,904,000 X - DefinitionSecurities (including those issuable pursuant to contingent stock agreements) that could potentially dilute basic earnings per share (EPS) or earnings per unit (EPU) in the future that were not included in the computation of diluted EPS or EPU because to do so would increase EPS or EPU amounts or decrease loss per share or unit amounts for the period presented. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 50 -Paragraph 1 -Subparagraph (c) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482662/260-10-50-1 + Details Name: us-gaap_AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareAmount Namespace Prefix: us-gaap_ Data Type: xbrli:sharesItemType Balance Type: na Period Type: duration X - DefinitionLine items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table. + ReferencesReference 1: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 2 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-2Reference 2: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 3 -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-3Reference 3: http://www.xbrl.org/2003/role/disclosureRef -Topic 260 -SubTopic 10 -Name Accounting Standards Codification -Section 45 -Paragraph 60B -Subparagraph (d) -Publisher FASB -URI https://asc.fasb.org/1943274/2147482689/260-10-45-60B + Details Name: us-gaap_EarningsPerShareBasicLineItems Namespace Prefix: us-gaap_ Data Type: xbrli:stringItemType Balance Type: na Period Type: duration X - Details Name: us-gaap_AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareByAntidilutiveSecuritiesAxis=ctso_StockOptionsAndWarrantsMember Namespace Prefix: Data Type: na Balance Type: Period Type: EXCEL 56 Financial_Report.xlsx IDEA: XBRL DOCUMENT begin 644 Financial_Report.xlsx M4$L#!!0 ((Z #5D'04UB@0 +$ 0 9&]C4')O<',O87!P+GAM M;$V./0L",1!$_\IQO;=!P4)B0-!2L+(/>QLOD&1#LD)^OCG!CVX>;QA&WPIG M*N*I#BV&5(_C(I(/ !47BK9.7:=N')=HI6-Y #OGDK7A.YNJQ<&4GPZ4A!0W_J=0U[R;UEA_6\#MI7E!+ P04 M " ".@ U9&NKG .\ K @ $0 &1O8U!R;W!S+V-O&ULS9)1 M2\,P$,>_BN2]O;2=(J'+BV-/"H(#Q;>0W+9@DX;DI-VW-ZU;A^@'\#%W__SN M=W"M#D+W$9]C'S"2Q70SNLXGH<.:'8F" CZBZE,B=\;N[[Z!3E9SQ 4/I# M'1!JSN_ (2FC2,$$+,)"9+(U6NB(BOIXQAN]X,-G[&:8T8 =.O24H"HK8'*: M&$YCU\(5,,$(HTO?!30+<:[^B9T[P,[),=DE-0Q#.31S+N]0P=O3X\N\;F%] M(N4UYE_)"CH%7+/+Y-?F8;/,,EGS>E7P^Z)J=C47?"6JV_?)]8??5=CUQN[M M/S:^",H6?MV%_)02P,$% @ CH -69E&UL[5I;<]HX%'[OK]!X9_9M"\8V@;:T$W-I=MNTF83M M3A^%$5B-;'EDD81_OTV23;J;/ 0LZ?O.14'GZ#AY\^XN8NB&B)3R M> +]O6N[!3+ MUES@6QHO(];JM-O=5H1I;*$81V1@?5XL:$#05%%:,U\@M.4?,_@5RU2-9:,! M$U=!)KF(M/+Y;.7\VMX^9<_I.ATR@6XP&U@@?\YOI^1.6HCA5,+$P&IG/U9K MQ]'22("R7V4!;I)]J/3%0@R#3LZG5C.=GSVQ.V?C,K:=#1M&N#C\7@XMLO2 MBW A(5M>5 TR M6'!VULS2 Y9>*?IUE!K9';O=05SP6.XYB1'^QL4$UFG2&98T1G*=D 4. #?$ MT4Q0?*]!MHK@PI+27)#6SRFU4!H(FLB!4>"(<7K;YH] M5Z%82=]$^!!&&N*<<^9ST6S[!Z5&T?95O-RCEU@5 9<8WS2J-2S%UGB5P/&M MG#P=$Q+-E L&08:7)"82J3E^34@3_BNEVOZKR2.FJW"$2M"/F(9 M-AIRM1:!MG&IA&!:$L;1>$[2M!'\6:PUDSY@R.S-D77.UI$.$9)>-T(^8LZ+ MD!&_'H8X2IKMHG%8!/V>7L-)P>B"RV;]N'Z&U3-L+([W1]072N0/]<_Z3(T M!Z.:60F]A%9JGZJ'-#ZH'C(*!?&Y'C[E>G@*-Y;&O%"N@GL! _]':-*K^(+ M.7\N?<^E[[GT/:'2MSAD6R4)RU3393>* M$IY"&V[I4_5*E=? EK[DHN#Q;Y.FOH70^+, Y/%_GM,T+,T.WF)&Y M"M-2D&_#^>G%>!KB.=D$N7V85VWGV-'1^^?!4;"C[SR6'<>(\J[A[J&&F,_# M0X=Y>U^89Y7&4#04;6RL)"Q&MV"XU_$L%.!D8"V@!X.O40+R4E5@,5O& RN0 MHGQ,C$7H<.>77%_CT9+CVZ9EM6ZO*7<9;2)2.<)IF!-GJ\K>9;'!51W/55OR ML+YJ/;053L_^6:W(GPP13A8+$DACE!>F2J+S&5.^YRM)Q%4XOT4SMA*7&+SC MYL=Q3E.X$G:V#P(RN;LYJ7IE,6>F\M\M# DL6XA9$N)-7>W5YYNTB42%(JP# 4A M%W+C[^^3:G>,U_HL@6V$5#)DU1?*0XG!/3-R0]A4)?.NVB8+A=OB5,V[&KXF M8$O#>FZ=+2? VU[4/;07/4;SHYG@'K.' MYA,L0Z1^P7V*BH 1JV*^NJ]/^26<.[1\8$@F_S6VZ3VW> ,? -2K6J5D*Q$_ M2P=\'Y(&8XQ;]#1?CQ1BK::QK<;:,0QY@%CS#*%F.-^'19H:,]6+K#F-"F]! MU4#E/]O4#6CV#30,9FV-J/D3@H\W/[O#;#"Q([A[8N_ 5!+ P04 M" ".@ U9 *<'?-<% #V'@ & 'AL+W=O;%FZ='JS\W5ZJ!YW).*8[MF;RJW@IX*Y3J'A^R*+YQ2;'O3FN(/ MCDU40/;&'SX()*^ND4)YY/R;NIEY-RU+E8@%S)5*@L+7$W-8$"@E*,??1]%6 M\9\]V7U2? TA@P>81YHPAP=_^I20+4T#N>*'7]D1J*?T7!XDV2RI8,NY(^#<5TW&/RK>Y,JE0[(///)+[!%0]YKV-[T IBZ*24U%O MB5'P8QI=(]NZ0L0B74UY''X--U=(TQTX6^*8Q6&ORPW>X;_VLH_V?Q-ZP=POVKDF]9-^\Q$Q':@['5ON+ M#LD8U1"I5R#USD/ZDE(AF0A>T(K%7$@=GEE*BE17*8XQJB%>O\#KGX>W9,+G MJL%Z" 8,;?+,2D4WK.R'QOB&G(."LX7S>+]6)U>S_? K)&S6"T7J^EFMICK>(U*#7FQ54Z_UCG$L\CE M EII-G5X-O35D.-^MV]CM@/ YR!OZ#.:>=!5 M_:WOYF:CNCW72(Z&;V(.1K>4U!C?E)24O.8=WZGF@GER=+M G> \M(GU> MS9*VU8,F$01LQ]"*4QC.::(;X!RS3E/TTB)AHPOY%[JC[]!9;_A!:Y!JY);" MCUPFH8=H62_AB'!IB;#9U+QG+?KP4O G56XML%ES_E$+>@F?A$NCA,WVYCWH MDB>2!N@O/ZX>ILR*UK#7M;2DE[!,N/1,V&QULN8ZA=5Q-9A98&!KIUAS5%.L MTB)ALZ_YQ%W(UW+/(Y.%J!&QR:@]' Y[6KŸ+&"1<.B1LMC<;7X(YXEM8[?WX M^!-:,S<5D$DMI%G)X6$(\]):N@;GA&(JT!,-4H9B)O+EL;82+F&D M<.FDL-D"@?_U_&B'UB_A(P^T[#4>:K->:+DN89A(:9B(V=*. M.:HI9^F+R%F^:!;!:CO? S5,K4GH"UW*:%:LX+V&"2&F"R%DF2*W8P-"#*=AQ MH1V,:G3F/&I3UV4@ R)>+JCEO801(J41(F<9H75(@P#=I@G\G.A;K5FG:AO% M'-84K[0_Y"S[S8*5VPSFN*:@I?LA9O-RRN.> M01Y->&:9:KQ+N"!2NB!B-C"G8?;-%+ .-KO1(I7@:2,U@6J)_R=_C#M/.L;2"9&S-HL<&$X%6+Y9Y+%G]!O3I[%NS\C">-## M/:QEN(39(:79(35>Y3A7/OB)LK9?&5@TTPYGC5R[C4G;UH->POW8I? NQ:S9T M3MN;KTD?X*%V@*T1]J]_-876RJ"\[, U0:[:ELP/&8NGQ:'N-#O* M[)2OYR?"GZF:+Q,4L"V$6M<#&/!$?LB:WT@>9^>4CUQ*'F:7>T8])M0+\/N6 MU]%HY"/+6MU):AW*^_E1/BQ)8%G989P$I6ZV=7Y:&7,^G0RJ9*5RF5UHM>]@&^6NLRE@65Y-ZG6I9*+9E.>32C&8I++ MM!A-SYK/KLOIF:Y-EA;JND15G>>R?'RM,OUP/B*CIP\^!'C&3F=,VPW-!*?4_50[5TC:\]MUE_LXNWB M?(0M(I6IQ%@5$O[=]G*,JL)<'S=*AWM[FDW[E_:?^S,1Z,N965FNOLWW1A M5N>C: (06:BGKS'S0#V_4UB!N]24ZJYJ_Z&$KBT:__+9U MQ-X&$@QLH-L-]*4;V'8#:PS=(&O,N!!&3L]*_8!**PW:[$7CFV8W6),6]AAO M3 G?IK#/3.?OW]V\OWI[,?MX>8%>SZYF[^:7Z.;-Y>7'&W2,/MUUL93[MT[FL5D@6"Y38"_6U3N]E!L97+JLWJD2CRF;_30*>!3B MZ&QROV]07XX$A!'"PIW@ =A@!S;P@OVKE("L@2N31-=V4:I$ >;;3(U1 85, M+Y',H-S((E%V<11%8TQ")"N[@DA3NTAK%!T%\5@(AJ1!$$[K"'7NP?M9'9"V"&O=M3$G/,,.[@= B".0>A<@ TV@&- MGG$RT')I'AOGVHQ= U&:)OI=>*,>C#B@3 1Q!VY?CF#,!>.!&VZ\@QM[X7Y0 ME2G3Q*A-C7%!C/NY$D0LYMVZTIQ_%4J;],L-5!1G51/ MO 3ZO5S_L[0=&MT2*/$SZ.R)-M?RT7*FT^ ^=3$],%W?'1I4Y=-ZWSEKG5_O=9]5G2$C(,Q 3MTH3TR<$D"6PD^X'':DBOUD^O5 MLVE+'6S)1,B@K^K =$A2'M"(#TP6M*55ZJ?535Q<^>.!.BA3B!B3J!L/#DD: MQQ$/0C* =&\Z];/K7.=Y:FS/M\G N2Y,6MRI(K%U\O=WVB@DG%.X7[&[/"+G MQ/KCB@Z-;UF;^EG[QNCDRTIG"U56OZ%+Z'[-HWM"_ZFT_;.T'5K=TC;UTS;, M54L%V;Y C?UC="U+]%EFM4)'^ 1CF%?Y&'C)_J]J)4M;G&NS@CGQ/[5XA0K] M]&E:5;;$-Y6[-I6!"X@=._WV1^,7S<-^Y-\34S^NZ-"[;;=!G^DV(*%T,>Q: MLG'LD'-Y,&98C /"&Z_!D@9X3 5_SN<#3R1Z;A\CT+)6S2/,[-%Y"/U.A0< MJEN47&(=J BM>T,]:.H6"Z@3KZ$]PR$D0]@8^ MIR@G,30-_T_;;L9^FPW4^=U)NU@NFUB= ZAM;)/G>\52@M8.QMDZGH$$+*(M].#W!3F-&1VB@+:)H?XF9A_[0BW3)'7S:K\I.8;[8RQHV)U8G;(1]+N<#FCVS MHFT+0_TMS(9<7;7;"=O1BT W(/8GTRWHOB1E%&))#,RPK.U:F+]KZ?4#36Z^ MU(2M\OU'H ,3KE/2.>%.]I[;VY/ M\F^U,3IO+E=* G0K -\O-;0*VX5].[![&S3]'U!+ P04 " ".@ U9"(]) M:BX# #4"@ & 'AL+W=OQDMH#$3M<6O1AUVWVFI6.+"$5Z)&5W^_4C*46S$L67;OY@ MB=)YSWE>Z9#B>"?D@RH -/I>,JXF7JʻUYL;W559 2=25V W=U9"ED2;H5S[M:B.!Y$Y4,C_$./%+0KF7CMVUN4S'HM*,6-F211,!?N# MYKJ8>",/Y; B%=.?Q>X--(8&-E\FF'+_:%?'#W0VW&K%):E(W8C$O*ZR/YWCR(M/4$0OR (&T%XJB!J!)$S6I,Y6S.B23J68H>DC3;9[(E[-DYMW%!N7^-"2W.7 M&IU.IY\^+CZ]?SN[_7(_0W>W[V_3N_1XLW]_9<%NI@3"5P7H&E&V"OT*_JZ MF*&+GU^-?6U*VP1^UI2YJ\N$+Y1Y5_$K%.%+%.(P[I%/#\MGD!EYX.115^X; MPZWKL'4=NGS1^:[(O-7)XOYD=J+=J W)8.*9F:1 ;L%+?_DI2/!O?4[_IV0= MWU'K.SJ4/?U=$JX5(CPW\R<3E1U(R(!NR9+!)>)FW1 K1)B9W81G@,PZ@7)1 M+?6J8JVD[Q'5=1-7URX=VW0TPL%P[&_WO3^/BJ^3)&JC.JBUE1\T-3<3'R0 M$G*TT")[N$2F;=$WPBI %Y0;?,:(5&@#9O4J3$?WMF]=8KA'AJ\P#I[P'XOJ M\ ]:_L%Y_([2O*5*%T+2OR'O ZYS#O90!MC]GB ?C^M)RUT\D/05*FJ'SAY M!O(4]5!$!W+80@Y_"-)\SI0VDX#R=1_I\"CIH8@.Z:@E'1TDG8JR-!^U_]# MHY,:^%A4! _ZZA;\^ _ZD[KU^]@ #C'O[]Y3(#G6 __WTX?.Y7V[@)EMG*L41 M3N)@\(2Y-S*, <9@,7F#>^UP'YS,?Z>EL/NJSX0N:9<(08K M(\570Y-#UENH>]#%QNU"ED*;/8T[+5D7=>[\^T M6JSE-JM>JYTL]"\K56ZS6G\L[Z;5KI39LFVT4PIQN%TF^7%Y,JB_>Y+>76A M]O4F+^27$E7[[38K?[R5&_5P.2&3QR]N\KMUW7PQO;K897=R+NO?=E]*_6EZ M9%GF6UE4N2I0*5>7DS?D/.6X:= B?L_E0W7R'C6AW"KUK?GP87DYP:?3\(<=) M\\ -Z*$!-1OPD0;LT( ]]0C\'T(_]0C!H4$;^K2+O14NR>KLZJ)4#ZALT)JM M>=.JW[;6>N5%,U#F=:E_S76[^FIV_7E^_?%#\N9KFJ#Y5_WR*?W\=8ZNWZ'K M+^G-FZ\?- "]^9R@V?6G+S?IK^GG~8?? 4_3Q>CY'9^BW>8)> /+R8EKK7 ^WIQ!X?SB,^'VIJ@KM2K7*:RC,1$--+%T3'@R)E3KNNU+)\KBU.)2LPM40^4XM/LL0G6>J) M;- +XM@+PCGL;C1C5B[6*"N6VE#=:Z>XT[X/'(+"'@F!S@O$2 HS&\?"4 C, MC2$(X*(P$L2<<38N$H)1$L,#,#Z&'CM#_RCOLLTKM,J+K%CD.LVJAV5"Y4 M46EGF1=WD ZQ=3Z"ZJE##1EL&-$34>=&0P8 %V#"F3D1 9P(. TY+ /!O>7# M3B'FVI;K4%^A.UG(\B!$MM3N,J_J,FN<.VCHL-TO@2 4&P'.(&!$61P8BB4 MD(2$"XZ-[)7"2!%1&HZH<6* R1,6V\>\! 9.K(/,25!8 5N PD-HB@2D1FY MC:2$DRCDYHH+(8.8\@B/3 ="^\BI>T(T*]J5%NDZ\ZFW_4L ..GUBF<,:X7 M?FI. 0@9!OITS<&=0$C!.->\I@ DG >8'$R X<*]#:7N'UNMR;EQ4)M)7IQ M& ,OP;6)>/6]7MD2KVRI+[9AG_3>E[C-[X>BEIJWMKKE%2HDN$X=" (%Q9"[=$*&V G%,0E,3&TEP M%(3!6*+N#3-Q.^9/>;70*U=62+6OK-$!RN D?/:<]&5+B>W:SW11%H^M M$;UI)TXW>E@=%9@GQR=D!,P+RAGEYO"S@1R')&#F\ ,()0(I@ (LQ6 898" (&Q4@=Y=4[>[_J/=H] 29/?:7-])5.RWMUH$ MM>H$J)IWIQ,%J7U=U;H6:VNSVV8 @2+9?CC@#(?8=,XS ,DYUK-&F!>'0$XJ M.+>6=XB3Z3)0_XT(UIMQZC26/RO8LAMQH&3LR9+9R#') ($Y8,H#3+5GOE2EW MUB\SM=7N8-WLV]W+=IZ!M0MU.N[G^B"O;(E7MM07V[_>M].W;[]<4$$.R%X MZF'(`>%#D*.+'8@U+W8]#P?AH%MLB!AZ57MVY5[;WPUBVW8 M/;V'IVX/_PXL'S=9MU. _-^^JL 40]KK.OUD>':6WGJMO)VU@1#!XPSBR@15A4#(<. !SK'F]$#2"%T<4S, M2PL0DG >Q8*/U'2TM^W4;=N[FFY7JN5^4:.JV\"%BYOEV?/3)UOBE2WUQ3;< M:^]K!8-=Z=.YV^XL,YZ]W>Z3+?'*EOIB&W9"7["PIVP#./:?F7TA7@A.])J MI ,(B"/*B;G] 0 U'2,,FS4*A QBG8F"D3*%]64* M/01]LB5>V5)?;,.N.+GIYB?NNO%[VXW? ^V[\WGCS3VP_L+Z2D8C]Y[PVS+_H+ MP3"+S5H2 N(P$.8M' D)%$4!T28>V$0,H@C>KK5,8R[+UV8NW3I//Q?F@(W MR[/'H4^VQ"M;ZHMMV!]]3<7<-94S&7BMG+RR)5[94E]LPT[H*R?VE-T/5S(MRAG"K(U' *83@;G+ :!82*Q[\!C8G:R9S(,MB^+F+LL>]^KPL==5S!69 -G MCSJ?;(E7MM07V[C^OJ,Q7]_ZGLMRKRR)5[94E]LPSMP^Z*,NS=P_OH>7&Q= M4",XH(*;-Z1"0-;9<7%=K(E3X4 M? AWI?%5V3VUT'VJU:Q]+N%5UK;;MV[7,EK)L /KWE5+UXX?F ,=G9Z[^#U!+ M P04 " ".@ U9O'WG^0,+ "^60 & 'AL+W=O-(9.,VB=W8Z4X_,A)LL9%(M+TG%V7]?D&)$X4&(=*ZG^1!;UL7!XP @SKF0SI[RXFNYYKQRW\W67D^65?5 MXYO9K%RN^38I7^=//!/OW.?%-JG$R^)A5CX6/%DUA;:;&?9=;[9-TFQR<=;\ M[::X.,MWU2;-^$WAE+OM-BG^>,LW^=/Y!$U^ .%3^K"NZC_,+LX>DP=^RZO/ MCS>%>#4[H*S2+< *-,^<@M^?3R[1FYC1ND 3\>^4/Y5'OSMU5[[D^=?ZQ=7J M?.+6+>(;OJQJB$3\^,;G?+.ID40[?F]!)X_ MI:MJ? 3X))LZ*WR>[3?4I?WK'VPZQ&F^9;\KF?^=I'^N%$V>Y*ZM\VQ86+=BF MV?YG\KT=B*,"B/04P&T!K!3 ?D\!TA8@2@']J12@;0&JUN#V%&!M 3:T#UY; MP&O&? C]8S4@ODBJY."OR)Z>HHP5:_4M#5U-:#'":U3/KMBK$NZDH5UW,KS_> M7K^_6ES>10OG]D[\^!!]O+MUKF-G_N[RX]^C6^?JHWCC>O[/=]?O%]&GV[\Z MT;\^7]W]QYDZGV\7SJL__W(VJT1+:KS9LJWU[;Y6W%=KOMV*:75;Y^G+U2JMIV6R<6Z2=#6]RIQY\IA6R<: M3B!M5SNMKM-4O&5>&(MHDU MNJX7SS?N7&7+?,N=5^_SLC1U-!H.O^#WZ3*M#""Q'>0NU[HV$S0?N,8'KG&# M0WMPWB:;)%MR)MR;E$6Y:O'8)^=;"+L8F_/9+7(-6[T[<+2CS"SF;?CGG2HW# MN^(?1G+DPA!)<(A"!3'2XZ:8D3#T S^00V,]E##BT] GAT!IF,AAF,B@87J5 M9DZY3@I>_C)HR/:H3!TR'ZFC9JV^?I2*1^3)^?B'E8\N(;GUS\Y4_(<_]F MFMZ08!$D6 P$)G%(#QQ2*X?-SC*M'SDK1RQ@\1PND^9)-G7X]G&3_\%Y^:MX M)RO%$RC]JM))LI6S2@OQP,N+TD2OM<*18S.GVEQ!U'49\I1E UEI! D6G^Z! M1!P[$,>LQ%V5Y:Y9??E]35S]E"AK+L7K>UZDV8.@+1,'+O'VO>#01!33MRZL M[!US9FB]3W&HCK^UL6//"Q(L-O? Q]0_MYA_#W(\3_>)$U<>/]>B /LNPH= MUC:-W1$AP2)(L!@(3"+6/Q#K6XE]SQ^2S2S9B:/3GKF"[X\E5>YG<%_G6X=]Y ML4S+9AFVZ^^Q? GZ)M_/"62;EVL13H.U\OGKV"/1M0QR87*J,OK6M8TJ+72IR0D"AG6-HW=]B#!(DBP& A,(A:YGU-LC3Q\RIRJ2K-SL%5>R^N^NK+8\,SD?;^UUCCU;@*(M6C3I M28]AB\+0 M5;V[A2$4$1P01-3)K0=.L2>TIA=0I@Z7H7[JAM0+>WP!U!D#R.X,]-ARIT=. M5\K-R'FJV)_;&S!ZRH)Z!Z!H,12:3&7G,2"[R3#&B&ZA3CG12'<:^JQH4ZC1 MBS8$]IK1AEB[&XTZX8[LROVY? C32A6J/(6UOP.B)#RK=0=%B*#29RD[C[[O(M[YGXYGU+5 ,BLU4Y4X7Q,1E*/0"7Q7UAE"&0Z(ND,@0-\4!9B[#/E;GO1XK M%!//D--N]!!3@H6@2*%D.AR7G'3H-CNP8 MFO9O4XM8[M:!DA&MC7(M%Q^TO4P7F;[ON9YJ)-J;.YH$T&R_N0_B6-U#0J>2L5TE V +.W:O0B \W\@Z+%4&@ROYV'@.T>PO.2 M8"VH-0F&=9?!F 2S-W T.:"N0$\?^I)@N-/[V*[W?SX)A@V:W9

$L[=C]$(" M3?^#HL50:#*CG2F![:;$BR3!['6./M*#NAI8=U.F)*S]?U4\@QH6 ZJ5+_=V M7@2Q>Q&V%)B]Z%@B0-$6H&@1,5@=`F+$#11>XR&1,A6=T4&&&1U#TC@MU*D$ M&-$]D+X$F"'4GS!/8FP$SU6Q-@I/,2R+#K^V,38$27QST),'L#1D]84,L M%"V&0I.I//J$P;"/& RQLXGN()CR $37WWUY $.H,0]@B.O- QAB[7D TAD M9%B:?&P>@.A*OR:&.P (@ZX*B&@ M=@ H6@2*%D.AR?1V=@"QVP'/\]5:T.,UA;!*H2Z $<*N>IG)WK[1W(!J>',7 M4,^!D'8*GO[LC?Y3RX@:;@3@0,VWS>WM&+N,0-$B4+08"DUFM#,"J-T(>!%7 MS5[GZ$_L@EZ9H ;OP:.4ANJ5%-!JXP'5R@QVY2@2UFQ,V5\U>=#01H"8%*%]$ MC3?WF8M4<5[D/BA4)J.S%^A@>^'8':)&YP#KN&;[EG:!XY0W)?C!QA M6G+8WH#1$Q]4PH.BQ5!H,I6=T*=VH?\2W"<^JE_JNOK =,O9FZ *TU D6+ M3_=!9]\S":C=) "QU>QUC.9+-QJ,MAIHK1$H6GRZ#S)?G>]G+Z'ZZ0#53X>I M?GO[1H\ZJ.HW=Z%/];-.];.75OULFJWMV/L0PL4+0)%BZ'09$8[U<_^#ZK? M7N?8;1 4;<$,']
0*P.K'R<'K34^7:O,7Z?YV?,UO[WH:!I -3\H6L0,0IXB M2A!5COWQD$B9BD[Q,SC%SX8I?D-8G^(WA)H5OR&P5_$;8NV*GW6*G[V,XF># M%;^] :,G+*CB!T6+H=#V5,Z.OLFV_F9CH44?TJQT-OQ>P+NO?3'VQ?[+@O_7A1?U_NX2N;+_X'4$L#!!0 (M (Z #5DC^5/T @@ $PC 8 >&PO=V]R:W-H965T&UL MM5K;:A"Q,*$(!-G>KU\MI$2)!!'%I>0A%J5&\S2Z@7,:Y/D3%]_D@E(%GI=E)2]&"Z569Y.)S!=TF9>+FB)7^Z&,'1]HO/['&AS!>3Z?DJ>Z0SJOY:W0M]-=EY*=B25I+Q"@@Z MOQA=PK-K8@=8B_\R^B3W/@,3R@/GW\S%A^)B%!A$M*2Y,BXR_6=#KVE9&D\: MQ_?&Z6AW3S-P__/6^WL;O [F(9/TFI=?6:$6%Z-D! HZS]:E^LR?_J!-0*'Q ME--2VO_!4VT;1R.0KZ7BRV:P1K!D5?TW>VXF8F^]N,>@)H!]#\N # S S0!L M ZV1V;!N,I5-SP5_ L)8:V_F@YT;.UI'PRJ3QID2^E>FQZGI]=VGV=V?'VXN MO]S>@-D7_>?C[:X0HRWB*^1U^))U]0[@X'> D0<>*Z/M'XX]K08*YX$N@%YC(%*L>ZPIEBE%YYIJVVBUQNS6K M]TRNLIQ>C/3RE%1LZ&CZS]]@%/S+%?.)G!W, -G- /%YGW[2FTW)I70%68^, M[$BSHVRF8QB$ 0R"^'RRV8_ 98E)G*11:WD +]S!"(T)NBS^ULM([SQ* L7U MUI/S*FYE"4)($.HDLV^&M%7J3F2\ QC[ZXQ78YNCYC"UB\G,\(+ M9-P'F:9!&G5]LU,;9D<<-,=C 3+\P;JI.3LZQFJ:H V9(+Q?XW"#?IX8C3 M.(EQ!V[?+(J",!F8U'2'-O5G?0\'&3*73@@"CHPNV;08P3,H 6 MM6B1%^U,\?S;V.BBXH?+K'%U@"&,4)SVYM9A2(((@A$.3VW(0]!+;5"LYK=,J M+92$H%7^ I3(*EG6U?SF4:O8MX4/U+@^W"':B-(7=?<)AJ#>*.(S"(?PM6MYWQM+O1:H6R3/91.-FH<'F8F#1&!W@9U/(M\O/MIV/$L0L[MZI/J.(T0(;!+$2Y+W200]"MH '[+P C^5(?&](*5QTA[Y&7VG]U=3^7MB,M[W]?&U2H$Y%<(JVU4WM,+U%<*XSI3W7A^A5A K5A ?K%POY^E MK/)L=PYQ&}$ QV$W(.\-7QD0;A4$]BN(6TTQFFUR7BG!'M:F'9(-@;$ =3,ZH M;8&L%BU<8>*^.@@Q"KM9.I0_RMA,#^)OYP1Z#/5.1,FB,((\$W# MK 61#VOP9:K!K=4]D(G; =M:D"OHR#MHG:J!DP$1 -N10,^0C348%D-_7*G,\, M!>.0!U&,]L]?FV@"!/K*J,L5EI"D5C+MW M@7X/#T-=,T':*ZZ^)<*)[IG00#.*6VV _=K@IP*CIL_VAN3J^5."HJA[".67 M3'"2)D.Y:E4!CKVB;[9>K4IJ"$)8K[]N M0AVG%C'&>. (%[?B :>O36>U?8)RM*[')(-3]F58D5?-"P1-3BR-$,>F+C"@-XAY5^+&\-M96L1" 8OF@0]0IMFG?VYAJ MN;*NF%M/-D[WG\)"B'JGJ2ZS!$=AV*G=R=Y[*4LJ'NWK&A+8D[#Z@?_NV]TK M(9?V18C.]U?P[+I^L:-U4[]G\C$3FCPD*.EQ3HQHGYUH[Y0?&/??2GC@ M2O&E,;B@64&%,="_SSE7VPMS@]T+--/_ U!+ P04 "."@ U9-3$/%]=388N*S 4KB^J5#3R<;84GA:VNW 519%'I1* M-4B'PY-!*:1.YM.P=VWG4U-[)35>6W!U60I[N$!E=K-DE+0;-W);>-X8S*>5 MV.(*_5UU;6DUZ%!R6:)VTFBPN)DEB]'9Q83E@\"?$G?NZ!O8D[4Q7WAQE<^2 M(1-"A9EG!$%_][A$I1B(:'QM,)/.)"L>?[?H[X+OY,M:.%P:]9?,?3%+3A/(M<2-JY6_,[C=L_'G->)E1+OS"+LJF:0)9[;PI&V5B4$H=_\6^B<.1PNGP"86T M44@#[V@HL'PKO)A/K=F!96E"XX_@:M FTJDD/3^_6*RN5O#I'5S? M7*XN/]XN;]\^?9P./&$>$SP"!K8"XB3/H$S E\,-H7#BYUCOE#_0%1ZGBE+:^+ M]%G WVO=A_&P!^DPG3R#-^[\' >\\?_U,\),'H?A%CESE0__W))^'&?7A422X+1"D]FAE"9G1SBB9"X\Y;*06.I-" M@?.T04WG'9@-+ _>K(Q=A_72V,I8$9KIE2>HER].TW1XOC1E0)?0AK$;G/T,A M[A'6B!HH1)6PA"\UV^,1(OV!*MP7U(Z9J;67>DMBDHQ7*AUL4:,52AWX'"L? M==G8G9:\6C& P&U1DA^9@%<-C;O^J@_O%XOKED@?KJ*JJ:1FTJ14"DVCAOWK MA:.&.W%V=)8CD&W0F*%S-*)Y)^!!4,X>K K9%80G4S5)*AY)BB:2UEM+7OQ M0)9&ZB)PI0IU_Z5&76%]E1,B\(W4U-GG6L>1 M'XP'+^H\5,^/ 3DP3# _DA].J#==;&^8#*@O(,P[>4I64:[0P'H4I->Y]%[QO MTF]Q!OZB,/1)O%A@-?_FC!U2 &ZE(MR.]XM*B &-D=;G/"J&W ;64SGW; MAJO+9=>"=/1!6*K6T21.T!#9KH1:;WQA$0.XDWLHXP2/WM'\Q6[^!!'H(J68 M0]+UB PUDU,C\NW:UG=KR!M.#>XKNH,YXK$K:NHQ#B2A4>L94K#?U2]+TN&F M]E2?,>RT%4_[L AM\(!C[_'&$J[HA5_ K[6\%ZK+,G'T-$!"6?#Y6BBN6 <[M)(NBJJS92VH7)]_&DWZO]+UJQ1%OQX04EV=N_JZC8R"]>-JL:Y-D -*]>'JPO__LZ2K)RT>O7O)GG^I7+ZNN+?+2?*JCIENMDGKS MVA35[2^/IH_L!Y_SQ;+%!T?]?O5PG"W-IVB_K3S7]ZZD);GTI]=`>)X?^&=N;IO@[PB=8N?WET\BC*S#SIBO9S=?N;47Z. M,5Y:%0W ;W0KSSX.?A2E7=-6*WV9*%CEI?PW^:IR"%XXV=_QPH&^<,!TRT1, MY7G2)J]>UM5M5.-I&@U_,*O\-A&7EUB4R[:F;W-ZKWWUZ?/%[.+3Z?OHM=?M+B\^O+F\C$[/KB[^>'7'U/]'IA_/H\LO[]Z>?_R?Z^#:ZO/CUP\7;B[/3#U?T MS-G'+Q^N+C[\&GWZ^.[B[.+-Y3Q#O]?A"-S'XW/ MC+=F5M%B\5^=SLM4M\9,J\?$1I568Y#$:#Y ._RA0&Z,5&:T"Q)F>&/+$]2,F/UPM2; M'+,NHEE155FT[NI\GJ<)WI^$=,0T/MNTU655SXB< M)GIO,GJYB*.+,IU$CV%R35ULHNNRNB4#UO2>EJ>>QENRH)GE$/J2U.DR M)OMT0W9MS=PR\=6*ADSSI,C_8BHA@Y5,BX?SU#1D@5JAJ#]&OI/L2%"@N'N M$-?MLBJ*S1[)@%A\T]')BD#(<9]*70N9) ;I(!N1\KDV+ M1:L-L4!CTN-U(FM.#+$([8@JE D).WH/F9)MF3Z+Y1G5,5ZGK$_$)0GQ+UH\ M3"B4)'T^ AV@)=C% *22-SU>1=HSLR 9!(1GM$K$$NAJ#+B._NR2NB49T _!" M,RW)39Z1%+P$0%Z6U^0B54 P-*P$I$H!#\S_A^K&K&8T(@UW5ZM$OTUJ>C__B]E,,KIAV(X,6WBT!X8.[9="SS>BC8%_=+XLL_HG?Y*B=5^Q81 M]*R!Y9D$0;M[3=SFL\(X=5TE)1D :]0"^[[OTX.IL] ,;J*4S#*O\K:FW2]H MB.RE-N U:BLK[X>*>YL:?A??S;K;E;D M*?B[P,8MOTF8HD^Q*A3QJC%M*]'EAW#WMD[*U$27IY??.VG\'>*0674I-B M1\Y2+\A_)=&G.K\AV_8WUH+'F;BQXU&MFA?)HEGF:PP..TMJ2FXJ66,N[X^< MS::U)1_R&*\?[/_\Y@O_?WY"1YTUG7*=>BIUU=$TOD &<&Y KA-*S0W9 F MS[I6IES5-;8GS?"\F(Q^5]*7L/?D152!*#HHH#)P I&9SPW' Y'YVM:)>"Y# MZIL2N]<$(Z)DQCZKA@]M\D4I,JP-<6EX/&7"O4!0O5XI0Q%MR^'WI+.&PH>H MV9197:V,?;0Q!C@C2FO:CMA!>5$ QA#UQ$]+7&^PY2G*8#Z3AN%(7I+H*8Z" MX8MI.EC">9(7A(5BEL^:OH(YR C9+ ,5&EIN6GV38ZT()B4S4T@&G/!N#@_ MF-*"LG7M&F-MC/A&9X1JLZINB 'Z=I87>=W-B&#VN)MJ453XEQBQI*!8T/O: M[1"D1H18'D4LU GW2])V2#*:A8;K[,_8JF4N6A23+K(/!R,H<)'X(Y7F+B M(A!P11\#(>$O79*4AU,R;NJ:MH]]4& B2360L$2030"1467L?+2 N9K,MF] MM>*%^3TI.Y@/VM_['LOXE7GS)3[@_UQ[9:(EHZ7B B0*I*$]%,26B\D^W2P)T:>X$%-JBD%86]#<2# M5 M5U^365(ZPJU*-,D*2Y Y+$W3GA*>+'8*2=W&9GI\Z _2&T.C"E.DF^D+:>-J!<0N1O;WRSP>FGHF&#D/;,^Q3NY7) M,Y"VP%ZF6))>"--2#'44F:+RD3F9>XI@>(C9D)S"89M6%J,A(A)BT3EF@-6L2;2X)@TS>NT6S4MO%@3_=$U;3[?6(2&<9<)#47[D 0A M0+S6@6MS4UW3![,-/TLKM:4"H1%C]4O*DHQ]"D-M":#W:(XL6I CQ?BOB>]K M&UJL&>@R[L MVG$LEKRU^]*(ZDF ULF?NW8?%F3 A#CL3W5%3*K\P 5Y[!53]FMT=^()H\K=D M9 $M-[2R,.*TG? E>5MV7]*J&B#'8J?AJ?$=A%$:ZRC?)3;UHBMD3Y-DD*L< M0$4%5&%X?:=^<3A0 ,1J5>)/V6=OQ'-AQ&4F291[,+5:!QGIL)@L**8ZG M^X^OGP#AD-&XJ?3?$.*:9F6TY=YY@H5OR(ABF5@<*BN'!5=Y8TT\O=("53(O MH0U$_XH4OB\)92D@^;TKV)%,=R"2>4=6Q]%,K.0,;V\,V9&%N%M1_^C-5[:-M]VSUQ?D;9ZN)($T#\#SK_*9JL8^O3C_O746/+Y.YX(FK?$4(8M>V9SX)KUVY M17@2914Q9?:(,2PRC5&M\K\,TBR$/RL,:UF:/I]=.9K89ZQ!VO1@WUOB?@RD MSHP>:KHU =26=3/ [RJ;GC0'(<+*IJ2Z"K8".A<*@8A%4Z%(8R18+5D<'W: M+&X,?$+S&=M?Y'0<"@PD+LT'JO*0WO=FADZ)SW0=,,]3*F# M,VO:LQ@'F? (R]IND&+.2?DQ\>N*]D3T. #OYY?O7[LE(0RG\502S MY90"U+$K>;&!)3$)Z@KTZ?1H>PU[3/:/G3"1%YAOI/C"0$)\; MVM;@))S%>0W,J(:3A7Q-HM<)<'6E?L".%GN2R'4 DK3,RT.F4/$AW(!HK6ZL MX4<5P&#-&:K>]R1-P^G9$%CG5KIF#[%*/L\1MC:5Y!\I_!2 P'DE MAQ/(H<];9SW.3E__ZG35^DK(U:FPKY_5]2FK=:% M!*H(-EF.I-=[RD/<,W8P#AS1I/05I#HPJMX6QM888J/+9F#%GQM.W&<0 M0S2#6P;QRH>LMN[OZ?X1_9=!H+-&TSNM B$L)"L]DML7G0$/VF_,JU8,(2I MG*R\;PZ.IILM_T[_/)=\S$:*)XTK1+X;RC1X._/IV?-$S+[N41-#"V"*.HA MH+.?Q"CR:U/D2T1+ 8I:X[\NX4

MI;E0F@>E^5 :A=("%*U>3)7O;*E]Y[\Z;5!CCRX3B2_<.,?Z=A/G[2;NVTT\ MZ);Y4!J%T@(4K2Z]RBZVWK"+CQW@JWE':\Z0C6B;Z_G*6QE-Y75IYGG[Q?U!+ P04 " ".@ U9K!6. M$ND" #B"0 &0 'AL+W=O@& U&3F-H&NG\ VTDS*"FC$OM" .#CG MW.MSC6UOC>H@/0,+U#)9Z:8%)#Q+IFI=$$0 MG$A2D:N&ICEJ ;-2\3TY-B"^AY,G MT8DF7443":$09&5U1>^U#YL M$'3K'8)1$XQ#"69-,\E6#7!.I1@UP2Y=+5:NS0NA SZ'L%K0 2:JXF&=%^R MN5]9*?9)P@B?S3B/^8-A% ?1H'<#+L=)%/>3!/2"470?C1Y +PY!,KZ][0T? MP-T52*+K.+J*@EX\XIC@;AR/HO@:#.YNHB#J)^ ;"""=
UA.0"H:Z'F9K6". M2D;!28@8S'+ZE:/&20A.(G_U5,;S%UFH:9WK996K\4ZN/Y?E&3"U4V!HAM? M# ,;30Y1RNB[I9@L]/#QZ&[U_>1'CFZ[RFC6%,YK"&5+/_.^%:RM$%=MJCRW.
MK@NZ@"GJ*OQPHHBLD.)_^:0[VO>VLAQ3+#RF6/]{8EL%-)L"FOO4_7?_+&WU MJ*0<*26._I7O6K9[KKF>NMJT>A>G6[JIZ^;Y-C#;LXO0T7[DWHH]X=26S+.[OQSM[KW0@S
MF$O;3G>/;+$UR; -M5MV7,C>/W<0C++2@IR-.54[>R<*Y']15%U&%[(*_,1,WX!R^:< M\(0$0 ^/\68O7;$+=P\Z_P_4$L#!!0 ((Z #5DHC&<0(0 !<4 9 M >&PO=V]R:W-H965T&);KB0@^?
X[$?:#1 MEK('O@(0Z#&)4SXV5D)D%Z;)@Q4DA/=H!]E\LZ L(4).V=+D&0,2*E 2F[9E M^69"HM28C-2S6S89T;6(HQ1N&>+K)"'LZ0IBNAT;V-@]N(N6*Y$,">CC"QA
M#N)K=LODS*RLA%$"*8]HBA@LQL8EOIC:"J!6 !?!EN^-42[EGM*'?/(Q'!M6 MS@AB"$1N@LBO#4PACG-+DL>/TJA1^"GFGG*8TOA;%(K5V!@8 M*(0%6S-(2P!3_5X[&M,6#*':BV
MP=YMPY6MM?CW.NTAQWJ';,MVVPCIX=<02#A6<$=#QZE.Q5'VG%.G8;:3+#EN0/VV9>F==Y1FE=)\[32 M_F(D%:V_ZROOB+_C] >.[S?H:QUTI.]7]'TM?9D>%Q"=$. ?"7@_M'Q\)$#K MHJ. ?
B6@KQ4P>\PBUDZ_?TS?:K/5-U4K(427&V"R]J)/([@XH!N610 RH AE=': MV _/F=#.9.Q@%[!5EU+K%5)::72P=RQNSQTVSD[ONJNTO2X!=TU]3(G6 FP M>D.O*4#KH*L NQ9@=T]J)?9 @MWK-
^-'[Z*KA+HGP-IZK$MK)?) @-=S<%/ M:Q1\7%=_(*2_Q.)K32W'QE.S[>;HHY7'<3/(=FZAF/O94GM#O)_17E 3V7O MR613O"8Q^A0M +WY+A7PMZT:SE3)2ZVOT1?@NC'
^LZ@8X([4R]0;H&>8E_1 MX,A!(7GB.M5U-X'U[80N]^F15D&F5<9K=!BX;C&POL?0IT,]5J=*B^RJJNY# ML+; .S.D'JG3]!I-A5TW%;.:`J=CU4JVJGL%J5.F17575_82M[R=>6@J>,;>+ M>AQV=?
SJ,UX[=B"2#179I0,;:64F:[MMBVB):18=%@&5+V9,YYBJ;I\88N, XX+HS2Q/N[OO>MJ@F/&=P%K4VD@O9<;8K>Z2*G;'T,Y8*Z6B]BB2C^ MT=K,#886BG(A65H:*X*44//$=V4@:@:^M\7 *PV*0-
C&44%YB"4.1YRM$=>S ME9IN%$LMK!43@R_'D]/!H>O$6'7V[.KF\01_0"96< MJ-!':(63'-"[0Y"8).+]R);*][:UH]+#OO'@;?'00V>,RJ5 1S2&^+&]K6@K M9&^#O.^U"G[.:0?YS@[R"] KY&-
Q!)S$.6CQ8-?>!<4O//A;/$PR?6(4\1WP MB @\2Z!IW48D:!;1Z;0K,AS!V%+Y(H"OP K?O')[SL<6Q*!"#-K4PZ]Y.@-> M)T18(A4:> C-S\:(&':CWBW4=>:NPJX_Z*K?R%XU8'4KK&XKUG61!1"CO15P
ME=4;0$#GG$2-432"@SI)9^@V8_0JC%XKQF.O:(JI0IG01O^M2B_7+_C-1.YSL-GU'E*/M8\\GGY6,K7$]+U M@GXP\+=DI%O[PKO_.B=+Q7J0_$YO6Y"\!Q+O>213T!<":Q3,E=5Y@8PWU)C
MVI7[Z%Z;H@"EIMBH<,?XOK$8V+5JF0)?%'<"@2*64VD*9S5:W3OV3+5]F&XN M+6>8+U291 G,E:G3Z:O]X^8>8#]2947MG3&I*GG17*]['$W]0;V?,R8W'>V@ MNHV%OP!02P,$% @ CH
-65N(% ,A P $@H !D !X;"]W;W)K&ULM99K;]HP%(;_E8-RT@MN9$+'40J15V[K6M7>M$^ MFG" :$F*J,DEBW#,/5$QRE6M!78[:*:V&;B+Y@LN! 2@G^'$C%[$ 9+=4]/32RS1*(&41 M21&%V4
[-4^&9E<:J!F/$:S95AO)I4P(^2$[5].!9DA%$$/(I0LL7BLX@SB6 MGH2.GX53K61*P^WVQON%6KQ8S 0S."/Q4S3EBX'F:V@*,[R,^1U97T*Q($?Z M"TG,U!.M\[F.I:%PR3A)"F.A((G2,(V?BT!L&=A-
!E9A8"G=.4BI'&&.@SXE M:T3E;.%--M12E;40%Z7RKXPY%5\C8<>#\?W-V>?+FR^C\[OQ6W3^[>'J_CLZ M1E])>KP"QF&*2";#Q)"[$7 "Q]7^<"+,WUL(
,,9P@QOE$OIE>*Z;5FR9,J>B(0IRN@HH@CM1^0]$2 M+G!$T2..EU GJ/516EMMCESOVM:)H=OU M?%'1C2V^T7&]!KY5\:V#$VJ/ FM7@8B WZ"@JKEF:_&LLFH/WM[%6QW/;L!7
MQ=4\O+J^3*T]BKH[.\+H]%[N"'WKF$Z SM5EA*&0+%.>G]CE:'GA.B4,YAIDP-3J>2&V:7T#R#B>9.O0GA(LKA&HNQ*4-J)P@OL\(X9N. M!)37P. /4$L#!!0 ((Z #5G3"'?^604 %4J 9 >&PO=V]R:W-H M965T@E\,-X MK*PYWURI:NRN:>#$EVQ#0 '+DD6!P\5MM%+C342=11H4^"K1-%,-'"]4)J.T M["Z:C-B6^UY([R(4;X/ B7Y,J<]V8P4KKP7WWFK-DP)U,MHX*SJG_&%S%XD[MM4!9>
$-8X^%**+L?(97]EDD 2D-;YY=!?O7:.D*X^,/24WUXNQHB4MHCYU M>0+AB*]G.J.^GERDZ]=2S?P<-V]_PG0 Y###>"-*#S +TM@Y$'+E+T86>%]E GE VG4UZWLJG.5P9S**V Y%26V!EERDZJ?1 M0B\O3
;*G$?B5T_$\'W]LJG&!"N86^O#SQY'*1<,2>-7-&S'-&D'>:(2.;EC(MUS&RPP5=-,1;\GA3$J*00I5R*LJ4R(% ',;7B)=^X2(1HR&JLS:A^M-W7D?
MNWTR>T4,O1@B>HJG=Q@B33G.4(QFE&3"NXHWCDO'BIC18AH]4V7RRT_8U'YK M$A@2S((§LX' *JDPBE08,O3)WD,W3Q^Z!_%8QI_0E*Z\,/3"%9HZOA.ZM"D_ M4NBN^8$$LS*P7@J6O-
F>)V1])ZFC=3G?>F!2"O2]PKI>R=)?QV*8O'>=-$W MQJ_2=JF04G5-!228E8&9>ZG0L6YH@JY!*H!(*ZDPBU28TE3\$3DA;WQ/3^6! M786%!+/,VAC'/9/T#H!2@@DF@6*9D.A51-26D$LM3?
O,R!R[,Y9 K6(.=K^*T\W MS+H%@6*MZE_Z/RPW@)*EKSRRL[J@!@_7'5Y-V'.8.URZ.RRW=]*UKSRVL[2@ MABU'DTI[#K.&2[>&Y7;M]+4OKINFIH=R)F] 9T7;L=I0K%592[.&Y6[-?J'N M-
OF7'=TXH;.B 0UYHXB@S@T4S0)%LZ'0J@DI+1X>P"Q6(*W:#!3- D6SH=*J M"2D-(C[-(;9;K$"ZO1DHFI6C[<]0_?ZP888ZAWDDI7DDWVMOKLH;T%G85O2VE"TF;#JWC&Y@$:K]'QBC%RV#7EV
M'*HH+46_C*SDXXEO#9@8Q\NA14VF5?]#W* MSC!F-YQMTD-ZCXQS%]Z7:^HL:)14$+\O&>.O-PE!<9)T\C]02P,$% @ MCH -69A1X,XI P + H !D !X;"]W;W)K&ULM59K;YLP%/TK%IOD-
I@'GEU"5+3M&NW=>WZFO;1A9O$*N#,-DDK[= (F.4Q+:+<<=."$VM8+GDP8)F,:0J7'(DL20A_&D',ED/+ ML58+5W0ZDWK!#@9S,H5KD+?S2ZYF=NDEH@FD@K(4<9@,K4/G8.3XVL#LN*.P
M%!MCI$.Y9^Q!3\ZBH84U(X@AE-H%4:\%'$$<:T^*Q^_"J55B:L/-\ M!7-/!!RQ^">-Y&QH]2P4P81DL;QBRU,H FIK?R&+A7FB9;$76RC,&4=1)8:P8 M)#3-W^2Q2,2&@>?
6&+B%@6MXYT"&Y9A($@PX6R%N=RMO>F!"-=:*'$WUJ5Q+ MKKY292>#ZYN+HZ^G%]_&QU?7[]'QC]NSFU]H'UV!D)R&$B*D*(0/*$NIS%-(MY1/Z, 9):"P^5FP=V%+QTM[ML. PRCFX-
1PZZ)RE5O&40;FK MH$9NH\,O6=I"'MY#+G9]]!;92,P(!U&\&A"\,FV>0?#]TE;A*&>6V_G5=KK& M#L2_A-FX/[$4%GW;)I]W(YS,GJ;X73B$4([N2)Q! M%9_ ^?
R@@!Z_E&]3":W%I%+G]S=O<\ISJ5#H;&NV\LHYVP!=:CS?P<:O? MJ<%WU_CNZZII![R[#=]IM?LU\&NM=1I%\UE-[6#@;3/P6EVOAL%:5W?"^O+ MRMK!R-^Z$6X+NR\(V1L_\ 3XU+0I
H4L2V7^+R]7RU;H,&\ UMOS/NJ<\"E- M!8IAHDQQJZLJF^>M23Z1;&[:@7LF57-AAC/5S@'7&]3W"6-R-=$ 98,8_ 50 M2P,$% @ CH -6?+C%PIE P X X !D !X;"]W;W)K&ULO5=M\>,?;B3-
';B^NQX^E$'>X?& M@*Z2N'/^?1:!">=@XLLP_0*2V.?9W0>Q8J<[+AYD"J#(8YX514'O$-%/ADQ45.%4[%VI0; 331H#PS'NU:A%->JHP5<"V(M+/.9:X,QL61*60R$9+XB U1=,C.L*B+((%85!
<7;%N:09143QO%?0VJT M/BM@=_$_I=.'I-94@ESGMVS1*4S8V*0!%:TS-0-W[V%)B&_XHMY)O65[&K; MP#5(7$K%\P:,$>2L]. TL1&B ["]%P!. W"> _P7 &X#<% KP6L GE:F3D7K
M$%%%PZG@.R(J:V2K!EI,C<;T65&]]X42^)0A3H6+VX_S]V\ 7D87-XM?R;4_ M=^]N_R5_D'LJ!"V4)+]&H"C+Y&^X^#,QB4RI #DU%?]N&,RX\3.O_3@O^ G(M%2]4*LE%D4"RCS0\.^R."+.Y'?
B6([7%\\KX*[U(CP:AD<0 M(]S6<'<@&[=]#:[FVIY[7J>4/LX8]X4+]+3O& M+A(B(2X%4Y\)70L //U5GSB#9(?NK#')HI'()D242D[%8DP*K\PMK_3C>6S%M'LM 0YB+5N
MK22)>5FHNCMH5]OV[4PW+>97\[KWNZ)BS0I),E@A%"/'[27]=]J>*+[1#<:2 M*VQ7]#W#%A1$98#/5YRKITGEH&UJPR]02P,$% @ CH -62KBT!B6)P M B\# !D
!X;"]W;W)K&ULQ=WKP@0_]_NMJ_?OF;G]Y\WF[O?WSW;GY\N;R; M;]ZN[LOE[D^N5^N[^7;WV_7-N\W]NIQ?/6YT= _O.&PPF[^FB^6;#^\?OY:O M/[Q?/6QO%\LR7SN;A[N[^?K/7\K;U=>?
WKAOCE\PBYO/V_T7WGUX?S^_*3^5 MVU_O_7N=^^>E:O%7;G<+%9+9UU>__3F9_='XXYF^RT>G_)?B_+KIO;8V;^6
MWU:KW_>_$5<_O1GL=ZF\+2^W>V.^^^5+^;&\O=U3NQWY[X/ZYGG0_8;UQT<] M?'SUNU?SVWQ3?ES=_J_%U?;S3V^F;YRK\GK^<+LUJZ]Q>7A%X[UW0;K=//[? M^7IX[N"-<_FPV:
[N#AOO]N!NL7SZ=?['X3M1V\";O;"!=]C .W>#X6&#X;D; MC X;C,[=8'S88'SN!I/#!I-S-[@X;'#1WL![88/I88-I:X/12^_#[+#![-Q=
M<@?'=VYP[ACN\YM]]KOM'M]N]^SWVSV^X6[|'7]YQXYON7ORGKLO;7)\T]V3 M=_VE]\0]ONWNR?O^XB;'-]X]>>=?W+'C6^\^OO?OGGX4'W^._?EV_N']>O75 M6>^?
O_/V#Q[#X"[W8_O8KD/KD_;]>Y/%[OMMA\^_4M_3&.=^8'Y]#^=H/A5 M_M_.]T?KZZ6NQS97[K+)9/\;A/F>_\V5?7O7LP#O=M^UYV^=_S6_>)9Q9_O MUV^=P?0'QQMX(^?73[[SW3^^=S:?
Y^MRT[%_'_1O'_UWZ()^4[S9N=]@5W[M5-Z_==RG5SI\7OOM6O)PNWNE%^=]JT2O?MX>;W;X-'C7O=2VV:WYY^=89/FGN M4>OZR [:2UP^,]6W_Q_N\..O;Q_R?GP&=^[]. _:S:P?
K.R[*=$7K_8MLSO[6N[/.U]2(SN'SOSK#1W;8 MXU^=CIW[Y4D9=2O[8_H?-_?SR_*G-[N#]DVY_E*^^? ?_\.=#/ZS*W])S"'>Q M@,1"$HM(+"8Q06()B:4DEI&8)#%%8IK$@R4%S$BM(S+S^
M[6CDW?@Y[\;6O/NXNKM;+9U/^XC[X7AL;X\Z*]@WZDC,)[& Q$(2BT@L)C$Q M/OE+Z@X&G6%'#N]8>/6Q&#BM)3)W]&C0Y;$YB[H7B6)#&NDXN0Y%2?65!2;S<-\
M>5GNCP,OGQ+R\2"P*PZM4M\X)#&?Q (2"TDL(K&8Q 2))226DEA&8I+$%(GI MR4E"MY(Y)X9MSNXG"]ORGW8/5^CT)5Z5KUOZI&83V(!B84D%!%83&+B";NH?[Y[M>S$8MD*/'#(]:\B,'%*2F"
(Q36(YB14D9B"LD9[NX#D^]Y;58WG0F)MH@0C4?U0)4"U$M0K48 MU<1!:UR>Z(TN1M/AM/T!'FT)G3UNAHXK44UUO8K!>#1U+T:M:SO1<7-4*U#- M4%HS$:N:S_YV!I9$K%_AN>XZ;?[R9*
<5[AV6I.:C6H!](:I%]!:CFCAHC9// MKN>VSR1U/6TZG(S'K?/GYW$9^AKDF3NGT%$UJN6H5J":H;1F_%6M']=>^Y'S M/Q9W#W>=^8;V>U#-1[4 U4)4BU
M1C6!:@FJI:B6H9I$-85]&M5R5"M0S5!: M,WFK9I'[=*W]7[VIAXOVBE#-1[4 U4)4BU M1C6!:@FJI:B6H9I$-85]&M5R
M5"M0S5!:,X:K3I)K+R5]0^_=+O9.9+2(A&H!JH6H%J%:C&H"U1)42U$M0S6) M:@K5-*KEJ%:@FCEH]EL0-..V*B:Y]F:27"Q?G&] BTBHYJ-:@&HAJD6H%J.: M0+4$U5)4RU!-
HII"-8UJ.:H5J&8HK9F\55_*G3'S#6@S"M5\5 M0+42U"-5B M5!.HEJ!:BFH9JDE44ZBF42U'M0+5#*4U;X)?]:X\>^_J&^8;[&+?1$8U'4" M5 M1+4*U&-4$JB6HEJ):AFH2U12J:53+4:U
-7/0.FYI^L)T@U=UKSQ[?:2> MMIW1BO:N4,U'M0#50E2+4"U&-8%]":JEJ):AFD0UA6H:U7)4*U#-4%HS?KTJ M?CUDSL%#FUJHYJ-:@&HAJD6H%J.:0+4$U5)4RU!-HII"-8UJ.:H5J&8HK1G#
M5>O+L[>^^MS%VD[UCF*T H9J :J%J!:A6HQJ M42[|02Y0'DT&[_-#QO/'0 MF[7OWW+>TV3'TT;>U+MHWQ40?:T:U7)4*U#-4%HS\'I2U^[AN8&W[E7]LL.] MXX_4?
%0+4"U$M0C58E03!ZU1B)/):C:Z.YYRTNE:>?6&JI_M1OQJ;:,L*U7Q4"U M1+4(MU6)4$ZB6H%IZT!HG[;MB\ZRG273?%*II5,M1K4 U0VF-V!Q6O:BAO1>E5LM_ M'J+SY47[[$;?U$0U']4"5
M1+4*U&-7$\+1+8_IU M^>5I@N"X"O5BZ5S/%VOGR_SVH7SIBGX[VCN4G[3Z-=07[LF4EH\.&]!:B&H1 MJL6H)E M0;44U3)4DZBF4$VC6HYJ!:H92FNF;=6AVCVT3L@^'W/U6KO<-JF/<
M/EY/U7V+*KO5.V1')U-1KGMZXL'1'PU0+42U"-5B5!.HEJ!:BFH9JDE44ZBF M42U'M0+5#*4U4[8];@WMQ:W@[OYV]6=9,JME>-$[U?U.QT?#)I M\+'K:<.NR06T?
(5J(:I%J!:CFD"U1-525,M03:*:0C6-:CFJ%:AF**V9HU61 M:V@O.QJ=!BC:OD*U$-4B5(M13:!;@FHIJF6H M)E%-H9I&M1S5"E0SE-8,T*K+-;1WN2RSLI:O?[NL*B^7-#\YVEZJ7GQ^?U9FL M:-
<+U7Q4"U M1+4(U6)4$ZB6H%J*:AFJ2513J*91+4>U M4,I35">E0UQT8# M9-)VA);'4,U'M0#50E2+4"U&-8%]":JEJ):AFD0UA6H:U7)4*U#-4%HSAJNZ MVLA>5SL<#3OWY?]R7&[G-
YW'PG:D=P@_::Y;FXP8O!VT.XL^.FJ :B&J1:@6 MHYI M0354E3+4$VBFD(UC6HYJA6H9BBM&:.]>%:_6U M4,I35CN*JN[1X"4Q%6 MI'<(C[JG(KR3N0ARV
#50E2+4"U&-8%J":JEJ):AFD0UA6H:U7)4*U#-4%HS M7ZO2VNB;2VN=@Z9 ?MC-D(M.6&:B&J1:@6HYI M035 M4E3+4$VBFD(UC6HYJA6H9BBM:]5RVUD;[D]ST:\>-<<.] [6]$URE M0+40
MU2)4BU%-H%]":BFJ9:@F44VAFD:U'-4*5#.4U@S@JB4WFC'S#&@/#M5\5 M0 M+42U"-5B5!.HEJ!:BFH9JDE44ZBF42U'M0+5#*4U8GA<]>#&]A74],-VLYTO MKQ;+FZ[TM6_=-WU1S4>U
-5"5(M0+48U,3Y= 6PR.KDQ4H(.FIXW:(8.*E%- MH9I&M1S5"E0SE-;,RZJP-K87UI[G#;9?5V?<>M>N]U -5"5(M0 M+48U@6H)JJ6HEJ&:1#6%:AK5[0:[=ZI^SH9.)MYGGNZ**=LN2H :J%]!:A6HQJ
M425$M1+4,UB6H*U32J MY:A6H)JAM&;*5GVUL;VO]O'SHKGV@C_*RX?MXDOIZ.OKQ>4N=L^_A:]]@-[1 MBS;54"U
M1#5(E2+44V@6H)J*:IEJ"913:&:1K4EGCU6C2TT(9J/JH%J!:B6H1J,:H)5$M0+46U#-4D MJBE4TZB6HUJ!:H;2FL%<%=K&3*%MC!;:4,U'M0#50E2+4"U&-8%J":JEJ):A
MFD0UA6H:U7)4*U#-4%HCAB=5H6UB+[3UNCC";O7-8E3S)Z<=I^%T,)JV9R'0 M44-4BU M1C6!:@FJI:B6H9I$-85]&M5R5"M0S5!:,V6K&MS$7H/[5"X7J[5S M-
U_:\KUYHS9!SO8.VK1)ARJ!:@6HEJ$:C&J"51+4"U%M0S5)*HI5-.HEJ-: M@6J&TIJ![%6!S#3A)F@3#M5\5 M0+42U"-5B5!.HEJ!:BFH9JDE44ZBF42U' MM0+5#*4U8[AJPDW^CB:<'>T=RJ=-
N.%T<-J$0T<-4"U$M0C58E03J):@6HIJ M&:I)5%.HIE$M1[4"U0RE->.V:L+M'G*3O5:K=\J.3J9GQ^-)1\J2HP:H%J): MA&HQJ@E42U M1;4,U22J*533J):C6H%JAM*:*5LUX2;V)IQ]LK='(U52,Q6Y"
[0BAVH^ MJ@6H%J):A&HQJ@E42U M1;4,U22J*533J):C6H%JAM*:,5Q5Y"[L%;DS)R30 M2MQ!.V-" NW$H5J(:A&JQ:@F4"U!M135,E23J*903-:.CFH%JAE*:^9KU8G;
M/>PW(6%VB;M>7.YKR9N7;L]C1WOG+:GYJ!:@6HAJ$:K%]"90+4&U%-4R5).H MIE!-HUJ.:@6J&4IKAG)5H;L8,W,/:$,.U7Q4"U M1+4(U6)4$ZB6H%J*:AFJ M2513J*91+4>U
M4,I35CN&K(75BK'Q_:1\+.PW*Q?>FN/'K=Q:C-3E4"U M M1+4(U6)4$P>M?J>ET>F-EA)TT/2\03-T4(EJ"M4TJN6H5J":H;1F>E;%M@M[ML>WIBH;%9O.PR\^KA_5A%G>QNOKAZ?
YF/SCK=L!NOL[7NS^^6:\VFQ>#%JW" M79RNWC;TIJU M4,I34# MN:K"7=BK#UEB@8C3L"%JTRX9J M(:I%]!:CFD"U!-525,M03:*:0C6-:CFJ%:AF**T9M%67[<):TOA0+;>Y>EIN
M<^/,E[M#W&\[U886WE#-1[4 U4)4BU M1C6!:@FJI:B6H9I$-85]&M5R5"M0 MS5!:(ZNG5>%M.D!.M4W1RANJ^:@6H%J(:A&JQ:@F4"U!M135,E23J*903-:-
MCFH%JAE*:\9PU8N;VGMQGG:?:.G,8;;VAFH]J :J%J!:A6HQJX]#5)YI&%Z>G MV-M-W#_V=GS^QC]4YA M4O-1+4"U$-4B5(M13:!:@FHIJF6H)E%-H9I&M1S5"E0SE-;,ZJJH-F6*:E.T
MJ(9J)/JH%J!:B6H1J,.H)5$M0+46U#-4DJBE4TZB6HUJ!:H;2FC%<%=6F8%'- M;O7.8K2HAFH]J6H%J%:C&KBH-5GL5VWHZF&CIIVC.IY[FE5#1U5HII"-8UJ M.:H5J&8HK9F?555M^NU5M6_(X?
VU%#-1[4 U<*#ULB!\6GZ1.BH,:H)5$M0 M+46U#-4DJBE4TZB6HUJ!:H;2FFE<]=2FKRS9]G>=D4/[;*CFHUJ :N%!JY]# MFTY/SZ%%Z*@QJ@E42U
M1;4,U22J*533J):C6H%JAM*:@5SUX:8]^VSGGQ@ MJVNHYJ-:@&HAJD6H%J.:0+4$U5)4RU!-HII"-8UJ.:H5J&8HK1'+LZJZ-F.J
M:S.TNH9J/JH%J!:B6H1J,:H)5$M0+46U#-4DJBE4TZB6HUJ!:H;2FC%<5==F MWU!=>VD.PF[USF*TOH9J :J%J!:A6HQJ8G;:_1J?GGI#QTP[QNPXWY>A@TI4
M4ZBF42U'M0+5#*4UP].KPM/>A=LO[U->=28E6FA#-1_5@EE':>ST1SY$!XU0 M+48U@6H)JJ6HEJ&:1#6%:AK5"@-2X^F'7D,3EHA&HQJ@E42U M1;4,U22J*533J):C
M6H%JAM*:>5SUU6;6(L955$+LOG18=/@'9[N>+R_[YZ[%QVV#Y:[QA&:VVH M%J!:B&H1JL6H)E M0;44U3)4DZBF4$VC6HYJ!:H92FNF=55KFTV8"QS01ANJ
M^:@6H%J(:A&JQ:@F4"U!M135,E23J*903-:-CFH%JAE*:\9PU8Z;V=MQEG-T M:,4-U7Q4"V:GI;2.,^0A.FB$:C&J"51+4"U%M0S5)*HI5-.HEJ-:@6J&TIJ)
M6C7<9O:&V[=.0VR_KCIC&"VVH9J/:@&JA:@6H5J,.@+5$E1+42U#-8EJ"M4T MJN6H5J":H;1F6E?UM]F,F89 ZVZHYJ-:@&HAJD6H%J.:0+4$U5)4RU!-HII" M-8UJ.:H5J&8HK1'#NT_1SSF\?
_QM$Q&O;-DW>UG.9[G@R+TV&<$.&[%PG,&X5LBZM9"UU]D^ENOM?+%TRKO[V6?9;EY MX7J(W9=_7BX77\KU9K[^TUE=.]O=SQ>2-R=T&CSC>5\E@M8+F2YB.5BEA,L ME[!S7,%R!N-
:R3RL);.]HG#L8#(?->0.?'3A@N9#E(I:+64ZP7,)R*R7,9RDN44RVF6RUFN8#F#<:T@']>"G%EQ[NA@R8R6\U@N8+F0Y2*6BUE. ML%S"QG&0YQ7*:Y7*6*UC.8%PKP,&X5I1/:U$^ MA>8UT+(?
R_DL%[!CGVHM^7?,:YHP%1U]Q>XY@.5"EHM8+F8YP7()RZ4L ME[&<9#G%KY<;9KIR;]7RY=;Y;+ _KX'W?G81LZ\X]74_. M'9S^Y?;9<0.6"UDN8KF8Y03+)2R7LES&C+ZYOJXKY@N4,QK52N-
:8<^UKWIE/OSKA:GU=+O;A^^KA M+UN;0SF?Y0*6"UDN8KF8Y<21:RR4??HO:L(.F]%<>Q^NF;LO'NBR=3B4\UDN8+F0Y2*6BUE.'+G&=.KH=#XU8<=-62YC M.Y@.5"EHM8+F8Y<>3J
M1[A>YQ$NVUE#N8SE),LIEM,LE[-?8U[]1J^<_#9,;3S'%W++,5M@/7N#*XZ\)@=-B MY4*6BU@N9CG!<@G+I2R7L9QD.<5RFN5REBM8SF!<*V^]6M[:NVEG3F<<[[SS
M<+_:/7>^OEV4Z_V\QN7G^?*F=': Y6JY7:]NG=7Z<)O+/W=/VSC7Z]6=QG&0YQ7*:Y7*6*UC. M8%PK]VME/&\(S8"P)3R4\UDN8+F0Y2*6BUE.L%S":85KV%6*
M1H<-6"YDN8CE8I83+)>P7,IR&QG&0YQ7*:Y7*6*UC.8%PKJ&NE/N\"FC)F:WTHY[- N=KFZNULM+0MS MV*W^Z[.1.Q><]3[*[IJ&]2;C MR6@R:@ZLV8%SEBM8SF!
<*RIK]3W/7M_[^>9F7=X\78^VGW;8GVA;+R[+%ZO3 M=J]_7+++/)0+6"YDN8CEXB-7[SI[X\@=-I=L",G+)>R7,9RDN44RVF6RUFN M8#F#<'2X,7M4/7X\7&W4%LIWL',P M7,AR$Y@N4,QK4"
MME:?&]KKP7,AR M$.W*SV,S]X.QBV[PR$CIJ>-VK&CBI93K&<9KFVTHY[-[3JZ96MI9XV:L:-*EE/=+^)BGDCT%IYLN;?6R&^^/7P=OI:+\,Y^#M;-:=FE:[?VJ2 MG,]R
Q7,QR@N42EDM0+9F,YR7**Y33+Y2Q7L)S!N%9:UTIGPZ>:Q5^^ MMG;(]LV=PS%FF9P?)RZ4LE[&<9#G%KQQQ7S[>"NUV<5T>;^7^-.F]>ES0OCNFV7(:RODL%
[!P_Q^["*M>W?^[G,YZ2>-\:WJ]A7Q[#^LOJ=KY=W"ZV?SKK_1TJNT.:[:FA MG,]R Q7,QR@N42EDN/G.LV+I&XF$Q.9I'/>Z)D=U"QG&:YG.4*EC,8 MUPK@6K=L:..^6/1__7BV^+*
[*Y=4+Y]G85AG*^2P7L%S(Y@N4,QK42M%8Y&]HK9V:Q^=VYWM\2?;'S7,!R(SG&"YA.72(]P=K"CGLUS /(RUC]
(_;=ER&R7,1R,-3_S[]D^SRX8.FQZYJ774C!U5LIQB.N3%FP1#N5\E@M8+F2YB.5BEA-'KCE[.!V= MS%FP1;>S1LW8427+*9;3+)>S7,%R!N-:"5LKN(WL!;=/#[]MRO]^V'?G*-M40SF?
Y0*6"UDN8KF8Y03+)2R7LES&Q7,QR@N42EDM9+F,YR7**Y33+Y2Q7L)S!N%8R MU]ITHW,7<-O]LMCL2Q]7SOQN]; [@+Y>K9^7==N\>$]V^P#]{YNMUJ%/:PDV&J&%^S0!N.>\OC=YG-9
M;OWY=O[A_5VYOBD_EK>W&^=RGZ[[06I?W<7O]3ZN?_S9_/NY.O"_3%Q.[Z> MNC_*KJ\K]T?]^/5VW; ?WM_/;THY7]LEAOGMKS>[<+@[<7XC;->W'Q^_LUV M=;_[%^2-
\]MJNUW=/3[\7,ZORO7^";L_OUZMML??[?XNEK__O@R/_Q?4$L# M!!0 ((Z #5EJN-!48 @ %%. 9 >&PO=V]R:W-H965T,8GCAA>?IF-S\>?QSSF._XBQ^X?RO*WZN-4MK[8[?-JX?9
M1NO]W7Q>+3=JEU;OBKW*ZV]>BG*7ZOIMN9Y7^U*E]J;1;CLGOA_-=VF6SQ;W M[6=/Y>*^..AMEJNGTJL.NUU:?OV@ML7;PRR8??O@4[;>Z.:#^>)^GZ[59Z6_ M(). *^MW\1%EE.Y5769%
[I7IYF+T/[F08-@W:B-\R]5=O?::H3P7Q>_-FW^L M'F9^\XO45BUU@TCK_U[5H]IN&U+]. [306>G/IN&YZ^_T7]N!U\YCFMU&.Q M_7>VTIN'&9]Y*_62'K;Z4_'V=]4-J/V!RV);M?]Z;\?
8.)IYRT.EBUW7N/X% MNRP__I_^T1V(LP8U!VY N@:DWX!=:$"[!O36'EC7@-W:0]@U:(<^/XZ]/7 B MU>GBOBS>O+*)KFG-B_;HMZWKXY7ES43YK,OZVZQNIQ>?Y&_RGU^D]U?ODWI5
M^4%YSU^[?E7IZ:][Y:7YRENK8EVF^TVV]-)Z/GH_"*73;%O]6#?\\EEX/_SY MQ_NYKG]/0YTON[X_'/LF%_JFWJ]%KC>5) _.56@'MA;M]Y&@_KX_#Z6"0;P?C M W$"?
SGD[SSJ_^01GS#@]SS>WIQ"PYG6N_SNWJV#04\$(8\>H"W5!:KPU)[M5;I5U1V4W6>[!K=O%.ZNVJ=+]3"K):Q2Y:N:+?[RIR#R_P8=6DR8P(1)))B5 M!"9* G/1% _\J=+JM!;D]-
:$<')M';?/FC\+K(N$)BVAT/W\]/[Q '",^)X$= M)X9Q01)Q/R'<#I1 (.>Q3X/X%&B-.#R-.+QAQ/OSR0>-VPD9._T)!(8))RP,8 '@IQ%SYX@_EFFNO2Q?UBL0:,#.UF,G'29, M8,(D$LQ*07)*03+QS$\PDX
)$Y@PB02SDA#X9FGN3SOWN_;6.>B'A+.X=_)# M@91QUC^!I13(61(% ;,?""3UWW\>1?#9'YP9DL YZB]YIM7*^ZQ3K2KOO]Z- M"P(W=>R41*4)5)K$HMGY(28_9*(X= "L5!"I-
8M'L5!B'%CB]QPT"00=G M*>4TX7UY&(9%(:=];1A&Q=P/6%\9AF&!3T-Z01>,$PK<5JBO"]?6"6[&2A.H-(E%LU-A'%O@]"(W"$)TZXH!"(17#$ @ MO&(8!KI7#,8B!6Z/]%&5NS3_.F*MX.2-GH^8-
(%*DU@'T5/&R@$)JC2@VCE4 MFD"E22R:G0ICZ0*G6;E!&I+A^1G'$Q87QJ&@32(.&.\+PW#P*B.I/V+CA(* M#/V(A@26!F(L%'%;J/?;K5?HC2J]97'(=9F-L11N]MBYB4H3J#2)1;.S9"P?
M"2;*!$%U=Z@T@4J36#0[%<;=$:=EN2X377OK7/4)BY/^"@((9#R)*>]O.0"! M0AU%?!(:!2C:6]<; M_.'>!! &[$T 48P,]R: ,,?>!#6NB;I=TTD@1E^*=(-'ST?4O3)4FL2BV2DZ MJV:<7,Z(6\^(6]"
(6]'X_W!ZU#@].K&HL6M__5(D$ A?B@0"X4N14*#K4B0U MIHJZ3=5)(R9=DW1W,GJ2HFZEH=(D%LU.EW&#=&KU(T7U?Z@T@4J36#0[%<;_ MT8DUD!2H18R:*XVDKQ= ($MH3,*^7@P#*2/L?
*G0'9IA($F26EC8!,TP5HNZ MK9;(JEH;G@^Z**MY_45M.=;9TGM*2YVK$A8'U,TT5)I 4DLFIT;8PCIU))
MBFKY4&D"E2:Q:/;]$<;RL8E%DFQ8J.^7733W>_H>8NZ+8=*DU@T.X/&0;*IA98,U1VBT@0J36+1[%08=\@F%EHRJ"S2 M]_V^@*"Z/J!3&@TZE5B=VL?.V#GFMG/7A6C2%1)W[Z//
=2]0%2:Q*+9>30& ME4TM[F2H?A25)E!!$HMF\+X43:QN),*RP9#7U@10,4=\(KFF$@]P,"K&B MXD[7BB8TUBJT6S](O?*Q>%5EOE.Y]MZO5;[,+MPXCKH!B$H3]#2)1;.S8RQJ
M.+6H,T3UGJ@T@4J36#0[%<9[AA.+.D.@!!.\+00*!&\+@0+!VT* 0.=M(:&Q M>:';YEV5!\#R7+NIS-WEZ"F+ND>(2I-8-#MYQJV&4ZM!0U3;B4H3J#2)1;-3 M@"!L'H, V'UF)\]
(FNGRG7[;++JZ"^.ST0Z?7IZ M_MG[]JE?O<_!'>/ ?"Y".[D\>EF!G]\V-JO:;G.\LK;JI>Z*_]=7/_F

D4W4,A_5I3E1,@F6YM\PX#$E2C/3-NR?#,G:6',I]6U1S:?TE)D:0&/#/$R MSPG[>@L9W62R9;8N<9I#P5-:(:KF7&# MKQ>VI015C]<4=OS@'"F4):5?5../>&98*B+((!+*@LC#%A:09\HMHQJM?
M*O[M!H&!HI(+FC=B&4&>%O61O#4#<2!PKI,"NQ'81P+;/B%P&H%3@=:155AW1)#Y ME-$=8JJW=%,GU=A4:DF3%FH:GP63_Z92)^9/]Z_WGU_NT<_H)HY3-;(D0VE1
MYX<:YP]W($B:\8]34\C[*949-=ZWM;=]PMM'#[00"4?W10QQ7V_*.-M@[7VP MM[;6\,^RN$*.]0G9ENVBE^<[].''CXC#6N:5&(AOH;>[@TC:XPBG MO?V%<%X+YVGA_@*6*
[3Z^9.8D32!1P5\KTG6;8CP 7O,A1;$Q_[SA'= M0#\G\$,\&<8+6[Q0B_<$$:1;LRR ?T*()(T21!C(E3G*2KF8RA.T9J00-0Z) M(EJ!FME0TSANDB)6'5GC$]+?:}^AIDG+--
$R/3(:EW+&.,F&QUPK M/W=U',FL1XJM[K5J7?H.:)0C88[EUN<*! P_Y^GS3U[B>K:;N#AHT0=Z.C8 M@178[G"F8KOCLK5IP]DR.Y]8F[H@5?7+7@4,[F',FMS]E5-UA?
WIQ7@G[#S#M=@^J5EV)V50[6 MESD/:7$R;;7*LZ=S)+<^9U?YX,G%:3MJU3.66 _[O"M[;&VY<6;:?L,,5VD[M^%T_:M%C'FR?R)C7U:X21]7"7^^DM%?;G:N;:K_&[+K7VUX/\CLC+3C*8"6E
MUE4@5TM6[R35#4$WU6;,D@HY0-5I B0&ICK(_U>4BGU#W:#=SYO_!U!+ P04 M " ".@ U9/L4J:[$* #?6 &0 'AL+W=OZ M>$@IB8']\4M*BFG:-"V-3^;#-
+;)5]1[Z*/SB+2NGDK^4RPHK=!SGA7B>K2H MJN7[\5@D"YH3<5HN:2$_F94\)Y5\R>=CL>24I$VG/!O[D\G9."><L&$VOFO?N M^/2JK*N,%?2.
(U'G.>&KCS0KGZY'WNCEC6]LOJC4&^/IU9+,Z7=:_;Z\X_+5 M>*V2LIP6@I4%XG1V/?K@OK0M/C!Z)/8^!NI4WDHRY_JQ9?T>C11(Z(9
M32HE0>0_C_2&9IE2DN/XLQ,=K8^I.F[^_:+^J3EY>3/(1-';,ON#I=7B>G0Q M0BF=D3JKOI5/O]#NA'*EEY29:/Z/GKJVDQV%*:E&5>==9CB!G1?LO>>Z,V.C@ MA7LZ^%T'?
[M#M*=#T'4(MCKX^XX0=AW"OD.*N@[-J8_\?$)< MM99JZH_&_::W](L5:J)\K[C\E,E^U?3K;[]^?G>/O]VB&'^\T&_XGOT#GUX MI$5-T0U9LHIDZ#,OZR5Z$].*L$R\E0U^_QZC-
W]_>S6NY!B4TCCICG?3'L_? M<[P W99%M1 (%RE-+?UC=_\S1_+2)/>U?T 1]I^"_ZN(4^1U\ M>G0/)GN[Q\=UQ^[N,4UD=Z_I'CC,"-:S(6CT@EZSP3*>CVW_T-Y?9;7W8DD2
M>CV2:4M0_DA'TW_\S3N;_--F+:18#"F&@<2,((3K((0N]>DW*BK.DHJF*"%B M88N"4V!H%%JQLT9,75<>IV?A17 975R-'S<-[MD.[[;SMMH9MD1K6R*G+7\0 MSDE1(?Q,><($17?2)
(J6E*/O"*IS2>GXE"?(,5B2#$<[3CNV[T^6WM]YO3Z M>U4F/]&R,5C.Q?E!R2R+ROFLOR0AV/5RA82M]C0F'1JF[E"HF[SWU92Z=T20XW0 MM',#K+S#J845LI:K56Y!=5&+IJ1S>.I4'.RIM^.4M\?
3OBTQU A-3WWMJ7]L M:>Q6&.RAO^-,9+>P9T,,-3[300UXGA=-IK>L:+[D!:UDX58FE*8"S7B9(T&R MIHJC?]9R>B)!DYJSBE%QHLH-P5+*I>IU M%9A1(IK&O$= 0)&Q4]OT.; ')-@I MBJT-
,=3XS(!HV//ED'6;=!%Q4ED9QMU_L'^0:G&G=FF4]9-HVV&@8YH. M:V[TW.#8).(OZT1\@GX0SLB#G.UK[[])[T_0_6I)T;_Q)JQ4ZW]N (@0+J@?/VH_9\;>>%H49BQD03
MJ>=&TNX[(O&S@4YY(H&KQ@9,,)JX O :U>AI;/3>WRB]%(N<\ MF3=7X:3,:,VB\BH!@+JA9W:EL7$6_[(O(:A.II1/6<\#6]:Y.,(CE7^>H$E8_R[Z<%2Q8R/Z_0?^MTKJ;Q&_$6"5;,9>$H,S>3
M%H,\)%4+-?_71_4(.?%%F*?J0E[6\ G"]JE^@NA 2#,2, MT?1$OG@D"5$4+#7E)Q59J;>WN)D^C2\7T<[&5!5KI=72)(K.:-"*>N[QPH
M3X.JQ0?"Y44H)2MK/04U#G,B:0KWW13>089:3)&QU;.&%:+,9-B2U(T;!KZ^8>#W6FD6*B++FB<+=;-+J#5F:VWG5AL<@VCW7NQ9&$5GVZMK?1MB MJ/&9;FI^]]T<^U?6[?
U>R\6]6L6]6F'W2?Q5DS10^V[6A%]P=Q]P*P$!>]. M[5!(7@.Q?8W8OANQ;\I"5A OYJ?M:H[," JVY7M"1U6*#-7<_F)"M58>9P%A2B0=7B3FWS)H9WZF];_QH$ M'6B"#MP$W=/Z$R2KH?
9Z9]T!",K8H&IQI[;-?)/+;>B#.JP9"8W908^UX?6V M$_0 >4U\]?)03E(9DT*5CBW/S.JBJ3K3/0M$[F.-#@@HA(.J82@U,VH:U0/_ MR'TJ 2BH@ZK%H&H82LT,Q<&?93=);GQ?ENM;5M:(P&Y8AMVQ'-
AN? ?;J>HU MR#C09!RX,>U@JNJ2%.-"MBL*IBXNA%OWM[@/-3@8H+0*JH:AU,RQ:8(-HF,S M%2BT@JK%H&H82LT,A<;?X,#R=>],!;I4#:H6=VI;F6J[O(4ZINFT9NC S=]
M,Y6@L@).#Z8J4'P&58M!U3"4FADUC=G!Q;&I"A2H0=5B4#4,I6:&0J-Y<&"- MNW>J @5Q4+4XV 5QRVX"J&.:/_#2)!ZZ27PG575[KVUFNZ4&_]@+E+=!U3"4
MFAD4#>6A=V0F"D%)&U0M!E7#4&IF*#1IAX7V>>_;88SJ95F\[%'FA-D7S-WR M@P/5=Q-XN+MF;M\$#C4^TUY-SZ&;GG?33[N.;K42%*!!U6)0-0RE9@9EXU>_ MX;'I!Q2?0=5B4#4,I6:&0N-
SZ%X /CK]@,)UN/OS7OM/'OHVQ%#C,^W52!RZ MD1C/9K1Y/LC>WSRX!08;>&9;%?"":-N ?NTPU.A,^S3GAF[._2Q[5(OUPSF^ MEJ1]YP4R8(BS^HF*,N"JL6@:AA*S8R,9MGP6)8-
05D65"T&5<-0:F8H-,N& M;I;=_O7E3!X*D68'GS4NH$0;[NZH]O94C'U;8J@1FL_>T,0:N8G5F71D!=D] M,>B']+KF%/VV7):\JHOF!X3H4UVD)^CKZ9W->O>!AUH/JA:#JF$H-3.$FF^C M8_DV
N5;4+485 U#J9FAT'P;N?EV8'9RJPV.RR[.AI$M.?5MB*&9[J1<39R MX^S1N0E]^,(/8'R+ZA:#*]&H=3,*&K^C8[EWPB4?T'58E U#*5FAF+C25L] M?<S[(#W!/F;+LJJY8L]/?5MBJ!&:?FK@C=S
ZTI0OM514/X%58M!U3"4FAD9 MS=+1^;%)!Q2>0=5B4#4,I6:&0L-SY-YO/>SQ0VZQP6'9W3QMY[6^#'3'4^%HS MQQL/>,TIGS=/UA4H41FY?=;K^MWUTWL_-,^L'>OF![:-_;PF?R]2.,CJ372>G
MYS(U\O9INNV+JEPVCXM]**NJS)L_%Y2DE*L&\O-9658O+]0!UL\TGOX?4$L# M!!0 ((Z #5EGLWV\YP(-@) 9 >&PO=V]R:W-H965T?AX,MPS?B#6)()]1G5(R,I93%F6F*> DY%J>L M
*J>I(SG6*HN7YBBX("32I1GIF-9OIEC0HUH6-V;\FC(2ID1"E..1)GGF/^Z M@(RM1X9M/-^X)8NEU#?,;-%C@!'TON*GS7O8$MC)5P3.1N"\5>!N!&X%6F=684VPQ-&0LS7B>K1RTXWJ
MW51J14.HKN),H\GEQ=T)NKF\0T<3D)ADXACUT/UL M@H[>'P]-J8)IB1EOC"]J8^<5XV\E/46N=8(-TN]VC*"8U)@3.$5,_V@L"QPA=8G8$/Q/(;+/\ +!P_ED20:J&.F9"BC<_?Y_/=P O] M%WB="1R(-
VCP!IUXLW(NF<196_Z#O?QMUQ^X=NB] .@,<2! T $?Z_/N.0< MJ%3[ABRY]@JTUJ/3Z%_7OF!O;>DYWNZ_J,\\UY@M"!'N>@/4$L#!!0 ((Z #5DD M#*8C%P(.H$ 9 >&PO=V]R:W-
H965TZ)TLH<&4K5=; M0R @-9:!X>< -R"$)4(;OQM.KY6TP-/QD?V3JQUK63,--U+\XAN3Q=ZU1S:P M97MA%K+Z DT]SF JA79O4M6Y(2JF>VUDWH QSGE1?Z)3\Q]. $"P'B!H ('S M70LYES-F6!
(I61%ELY'-#ERI#HWF>&$W96D4KG+$F>3[C_O/5ZO;Q1V9W4Y7 ME^3^=D6NR%SQ(N4E$Z1DS[@%11.+&1C&A7X?48.Z%DW31F-::P2O:'S;%STR M\")]X =#\K",=_+_W+G,UR;";Q!
[ZB2Y9"K&'IUJ# M.H"7O'O3'_D?SE@L-6;_@O MO>LNO1H5GNH%9^3"5BX*[>2AHDNO?!E?4[NA2].;KV%KAC:L<+301L$>KW MQLBDZLZJ R-+=YK7TF!ON&&&EQ$HFX#K6RG-,;-
TEYOR1]02P,$% @ MCH -61O=,5Q@! NA4 !D !X;"JW;W)K&UL MM5AK3^,X%/TK5A:M9J09DCA]P;:5Z "[.QI81#L[GTWB-A:)W;5=""M+^^+E. M0MR!Q$!+^Z'-ZYY[?.US3^/A6LA;E5*JT7V>
<37R4JV7Q[ZOXI3F1!V*)>5P M9RYD3C2/>>%AE/"#Z=4$Y:ICT-?0VZ#X,=5GDF9![?DZ:$+P76JT!E/:/)KO ^<:^+XD?@$ M.P&_KO@ABH)/" >X@[Y/3]&'@X_H /E(I412Y4@1U;6)BA2=EA2 C-
%T%<=4 M*71.*?I&M:82_8 .F50:S23AH)*F8CB!C=*.U9+$=.2!E!25=]0;__Y;V O^ M<-#NU+0[!7KTJBEM8M?9 [MNS:[K+.H%N6?Y*D)..0E8,P"VK06\6U) >D4ICT560+4-#2 S>*@K-!
$TUWSFZ1R[& CFKR1UNJ MDTQ>2OBC4T+;ZT-WKVZ4Z2YET M*M6-O*T2K#>$O5VEZG27;0E:[PC=YK&%5)_;B%NJUDU^=VM_FU0'35:*6SA8
M4PC=KO!ZH1X]%VI+=FP[.W8VYCT)]86D+PH5V\:/W8W_!U7 @:,3*!Y(DJ() MX;>PD' 0#AHWC6F6%+/6!K%QCO*%CL])MM"5HGP6XG>9-(*JRG?M:+^L'& MI^7_)[;^@MVM_M6BJ7
&&W3ZAT&+NV+K#]CM#WN2C3OIR[*Q+H'=KQ!OE W< MN6#LDBP5$L\AQ^BO73R'[0 M)"G<"Z.656RM![NM9XM54)IW(\U]O*)$ULBB75]1HGV\HD36J2*W4^VX"BKT M7_]]}^L
']C.RVG7&84I)0:1Z ^W,A)..)25!OUXY_ E!+ P04 M " ".@ U9(Y_)?7T% !-+ &0 'AL+W=ONMIVJ[>Q^=L% -$F<<1PH M_WZ<'X& <:%[^%!R\?L<)W[KG!P\6%/V(UT2PM%[%,IL+7D/+G5M'2Z)!%.
MKVE"8G%F3EF$N=AE"RU-&,&S0A2%FJGK72W"0=P:#8IC3VPTH!D/@Y@\,91F M4839YHZ$=#UL&:WM@>=@L>3Y 6TT2/""O!#^/7EB8D^K*;,@(G$:T!@Q,A^V
MQL:M;_1S0='BWX"LT[UME%_*&Z4_\IW[V;"EYSTB(9GR'(%UXI,2!CF)-&/ MGQ6T5A!%,3E-WZO;L2>P+!.",Q*8)XK:%>"]J&@9S<.R_H MRB8PRA'DBA($>:,R7*7+B&9E)](Y:
MW_Y([ZGU785>[>KOF?F]I[=F4K@.&'7R#" (E,W=4E_)A_(LX60&[E<;\MN MIUK^-XZO4;N0FY;L;GX@SW*Y?E+NGB^7==[[?]']3T=OC&2[=G^[X+4_XWY)
M]^Y*G"7'Y<^9VS3!4S)LB0=)2MB*M$9__&9T];]D-H&$V9 P!Q+F0L(\2)@/ M!&M8SZJM9ZGHH_LXX $.$2:#A)F0\(<2)@+"?/4 M(]DNATYF,*!>- S6J0W6479KG(G< ?- M"4Q60NK)80%=
(9$PHM(E(1T(W)0 MC"")$9)OR:[@3AW#*"Y=9C.E[E*;0(<(2)@+"?,@83X0K&&];FV]KMIZLUF0 MOYD(S^&F"\GL4RY4AKMT!H2$V>H;[<*>\N8_ MTPT.^0:-M]:2.4N)N-19D# ;$N9 PEQ(F
<)\X%@#;OU:[OU8=\E^I#6@X39 MD# '$N9"PCQ(F \$:UCOIK;>C7*F(O \PR* .),R%A'F0,!\(UG"8H>_J MA+K28V[&,T80JQZ"]2[S-I'-3<4W7A!$8[1@-$U%IKUF MSV[Z=5Y3:W@--*8#2G-
!:1XHS8>B-0VW5Y@VSDK?IC259FYJ^<56@J39H#2G MHNW/JF;7.II475D[ZWCR]23M.FWCJ)TO:6?U&G&;0VONAM94#NW3WJ0QWTXI MTC%68TB:#4IS0&DN*,VK:(;1G&?U_DWSOJ-)'L?
+R!%LY!:38HS0&EN: T M[X,1-?JG?T"$ZDC3;+L*NG%>"9UA3KZBD*X)$\:+ KG90&OIH#0;E.94M,,$ MV.P<3BJ@E?(SH_I049N>V97!#66I\\ S69(H/0-:! >EV: TIZ(=U*J.' -:
MX#*XKI@\5L_2+MK<6,2)L4:Q+344FDL6\7)A5'ZW7OHZ+%9\'QQWCUC4DQ[U\ MK6RQJG&'+Q?:/F"V".(4A60N0NG7/?$,9N7:U7*'TZ18"?E&..=1L;DD>$98 MWD"@74$L#!!0 ((Z
#5GFAYX>9PP "RO 9 M>&PO=V]R:W-H965TV9JNF&G+A MYJI5:NY)[W2--3NO(QPU-8&P26C;JOGPDV T!.*1./\WW8JGF^B!W$KBM\VW[+RN^&;LHQ78IW'Z5K)Q/W%X$H]"XU9-6!W MC?
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M_RI/+]>=E%=>;/,B7=6#RRU8Q>N7_Z,?]2]B;X"FO3-]P=HIP[0ZP'ZX8#I M.P.,>H!Q.&#\SH!Q/6!\Z@R3>L#DU'V8U@.FI\XPJP?,3IUA7@^8'PZ8O'?#
MC5YON=&IG.KN]M[^'+'VMTKS:B(+L^S]$G)JNN77O7%[JZ] M&U_>&>-UE<+;(BM_&I?CBLO0NKJU;I62!3%%$<9+_^WQ8E&KUL^&B%FY>!.T= M056^INOB,5>L]5(L.\;;\O'Z1^-=^?
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:@ZJN:CFH9J/:@&JA936#FG3 M =+D#9FKY3*NDADE2B+R7)1A/3CJ6CVJ5@E>I.LBBQ;%:5&6SRI[R$7[0:AF MH9J-:@ZJN:CFH9J/:@&JA9363G-3&=+DE:'?UG'UMM#;(BI$KORI'K7F=SN
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ME-:.9--&TN6%HM-J\C5R2AC1%A*J6:AFHYJ#:BZJ>:CFHUJ :B&EM6NHW[G9:^RCDW[?R"?M'4FTQ^>)6__M'+840E$4+R?R*Z.ZC(N^Q07Y='V?:**:B6H6JMFHYJ"=BVH>JOFH%J!:2&GM M:#
<%)-WX;'%!1^M%J&:BFH5J-JHYJ..BFH=J/]H%]!926CNE3;U(EW_.UZU8 M;+.X>%:B5;KM/G@K%WJG%:T9H9J%:C:J..CFHIJ':CZJ!7K'9Y 9D^//H0FI M:=M!;!I$NKQ>
<[@2]LKOX_*)JHBRY/FE>=]W+8QVC5#-1#4+U6Q4$18VUT<#3;0>U49_O;Z6.[W MSC+:A3*./UQM-M/&!^>VMM!);51S4,U%-0_5?%0+4"VDM'9(FY*3(2\Y<>MC
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:@&HAI;53VM2AC,FG5[QHKPG53%2S4,U&-0?57%3S4,U'M0#5 M0DIKI[3I-1GRLRG]_14OVGXRCC_M2M74PZ:GB4YJH9J-:@ZJN:CFH9J/:@&J MA936#FE3:S+DM::]\WH?G-
[;YT'K3.?:*/).?X(+/VHB&VBTNR/ MW6Y>_@502J,$% @ CH -68Q=Q4Z9 @ $ < !D !X;"]W;W)K&ULK55=;YLP%/TK%INF3FK*5X#0)4AMTFF;,JEJUNW9 M@9O$JL',=I+VW^ :4)1D-.O#7L#&]QR?
^$?%1K $V>2EZIB;/6NKYT M796OH:3J0M10XP!_^ H@: !6P%A"PBMT4:9M36CFF9C*79$ MFFAD,P.;&XM&-ZPR59QKB:L,<3[O;F:W\S)@-CZ#<1R0#8*"%4*3Q"M"JP4 MIQH*P@&313BC"\:9?
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K^ @ #PL !D !X;"]W;W)K&ULK99=;YLP&(7_BL6FJ976@OFF2Y#:I-,VK5+4K-NU M0YQ@U6!FFZ3]]L.!T#2AI$*[26SL<_P<$^?U:,OXHT@QEN IH[D8&ZF4Q95I
MBB3%&1*7K,"Y&EDQGB&INGQMBH)CM*Q&$35MR_+-#)'K ML7$-KR:P$E0S?A.\%7MMH*,L&'O4G>_+L6%I(DQQ(K4%4E\;/,&4:B?%\;'@=,(G"IH35;%FB*)XA%G M6\#U;.6F&]7>5&J5AN3Z-
'TWUCQ1YE? L?Z M#&S+=CODDW[Y%"=*#BNY\UINJNSM!MCM!MB5G].[5TQ:IW;K=/'ZTH4*,%C M0YT?@?D&&_&G#]"WOG2%^D]FKR(Z;42GSSU6.^5U!:Q5?J72QWT30S_P+5>]
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#&:!!^.&7TFLGNVX\%V[-BC)Y^6 M8W;CY[3]3&3W[(X'N^.37WG&- MQW6E&W!

normal 8pt Helvetica, Arial, san-serif; margin-bottom: 2em; } .report hr { border: 1px solid #acf; } /* Top labels */ .report th { background-color: #acf; color: black; font-weight: bold; text-align: center; } .report th.void { background-color: transparent; color: #000000; font: bold 10pt Helvetica, Arial, san-serif; text-align: left; } .report .pl { text-align: left; vertical-align: top; white-space: normal; width: 200px; white-space: normal; /* word-wrap: break-word; */ } .report td.pl a.a { cursor: pointer; display: block; width: 200px; overflow: hidden; } .report td.pl div.a { width: 200px; } .report td.pl a:hover { background-color: #ffc; } /* Header rows... */ .report tr.rh { background-color: #acf; color: black; font-weight: bold; } /* Calendars... */ .report .rc { background-color: #f0f0f0; } /* Even rows... */ .report .re, .report .reu { background-color: #def; } .report .reu td { border-bottom: 1px solid black; } /* Odd rows... */ .report .ro, .report .rou { background-color: white; } .report .rou td { border-bottom: 1px solid black; } .report .rou table td, .report .reu table td { border-bottom: 0px solid black; } /* styles for footnote marker */ .report .fn { white-space: nowrap; } /* styles for numeric types */ .report .num, .report .nump { text-align: right; white-space: nowrap; } .report .nump { padding-left: 2em; } .report .nump { padding: 0px 0.4em 0px 2em; } /* styles for text types */ .report .text { text-align: left; white-space: normal; } .report .text .big { margin-bottom: 1em; width: 17em; } .report .text .more { display: none; } .report .text .note { font-style: italic; font-weight: bold; } .report .text .small { width: 10em; } .report sup { font-style: italic; } .report .outerFootnotes { font-size: 1em; } XML 60 FilingSummary.xml IDEA: XBRL DOCUMENT 3.24.2.u1 html2733371false690false13 falsefalseR1.htm995200090 - 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Disclosure - REVENUE - Receivables and contract liabilities (Details)Sheethttp://www.cytosorbents.com/role/DisclosureRevenueReceivablesAndContractLiabilitiesDetailsREVENUE - Receivables and contract liabilities (Details)Details34 falsefalseR35.htm99940403 - Disclosure - REVENUE - Additional information (Details)Sheethttp://www.cytosorbents.com/role/DisclosureRevenueAdditionalInformationDetailsREVENUE - Additional information (Details)Details35 falsefalseR36.htm99940501 - Disclosure - LONG-TERM DEBT, NET - Avenue Capital Group (Details)Sheethttp://www.cytosorbents.com/role/DisclosureLongTermDebtNetAvenueCapitalGroupDetailsLONG-TERM DEBT, NET - Avenue Capital Group (Details)Details36 falsefalseR37.htm99940502 - Disclosure - LONG-TERM DEBT, NET (Details)Sheethttp://www.cytosorbents.com/role/DisclosureLongTermDebtNetDetailsLONG-TERM DEBT, NET (Details)Detailshttp://www.cytosorbents.com/role/DisclosureLongTermDebtNetTables37 falsefalseR38.htm99940503 - Disclosure - LONG-TERM DEBT, NET - Principal payments (Details)Sheethttp://www.cytosorbents.com/role/DisclosureLongTermDebtNetPrincipalPaymentsDetailsLONG-TERM DEBT, NET - Principal payments (Details)Details38 falsefalseR39.htm99940504 - Disclosure - LONG-TERM DEBT, NET - Additional information (Details)Sheethttp://www.cytosorbents.com/role/DisclosureLongTermDebtNetAdditionalInformationDetailsLONG-TERM DEBT, NET - Additional information (Details)Details39 falsefalseR40.htm99940601 - Disclosure - COMMITMENTS AND CONTINGENCIES (Details)Sheethttp://www.cytosorbents.com/role/DisclosureCommitmentsAndContingenciesDetailsCOMMITMENTS AND CONTINGENCIES (Details)Detailshttp://www.cytosorbents.com/role/DisclosureCommitmentsAndContingencies40 falsefalseR41.htm99940701 - Disclosure - LEASES (Details)Sheethttp://www.cytosorbents.com/role/DisclosureLeasesDetailsLEASES (Details)Detailshttp://www.cytosorbents.com/role/DisclosureLeasesTables41 falsefalseR42.htm99940702 - Disclosure - LEASES - Right-of- use asset and related lease liability (Details)Sheethttp://www.cytosorbents.com/role/DisclosureLeasesRightOfUseAssetAndRelatedLeaseLiabilityDetailsLEASES - Right-of- use asset and related lease liability (Details)Details42 falsefalseR43.htm99940703 - 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Used to reflect the current portion of the liabilities (due within one year or within the normal operating cycle if longer)." } } }, "auth_ref": ["r53", "r651"] }, "us-gaap_AccountsReceivableMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AccountsReceivableMember", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesDetails"], "lang": { "en-us": { "role": { "label": "Accounts Receivable [Member]", "terseLabel": "Accounts receivable", "documentation": "Due from customers or clients for goods or services that have been delivered or sold." } } }, "auth_ref": ["r598"] }, "us-gaap_AccountsReceivableNetCurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AccountsReceivableNetCurrent", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedBalanceSheets"], "lang": { "en-us": { "role": { "label": "Accounts Receivable, Net, Current", "terseLabel": "Grants and accounts receivable, net of allowance of $88,017 as of June 30, 2024 and $49,663 at December 31, 2023", "documentation": "Amount, after allowance for credit loss, of right to consideration from customer for product sold and service rendered in normal course of business, classified as current." } } }, "auth_ref": ["r798"] }, "ctso_AccruedExpensesAndOtherCurrentLiabilities": { "xbrltype": "monetaryItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "AccruedExpensesAndOtherCurrentLiabilities", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedBalanceSheets"], "lang": { "en-us": { "role": { "documentation": "Amount of accrued expenses and other current liabilities.", "label": "Accrued Expenses and Other Current Liabilities.", "terseLabel": "Accrued expenses and other current liabilities" } } }, "auth_ref": [] }, "ctso_AccruedFinalFee": { "xbrltype": "monetaryItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "AccruedFinalFee", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "documentation": "Amount of accrued final fee made during the period.", "label": "Accrued Final Fee", "terseLabel": "Accrued final fee" } } }, "auth_ref": [] }, "us-gaap_AccumulatedOtherComprehensiveIncomeLossNetOfTax": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AccumulatedOtherComprehensiveIncomeLossNetOfTax", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedBalanceSheets"], "lang": { "en-us": { "role": { "label": "Accumulated Other Comprehensive Income (Loss), Net of Tax", "terseLabel": "Accumulated other comprehensive income", "documentation": "Amount, after tax, of accumulated increase (decrease) in equity from transaction and other event and circumstance from nonowner source." } } }, "auth_ref": ["r17", "r18", "r71", "r145", "r477", "r501", "r502"] }, "us-gaap_AccumulatedOtherComprehensiveIncomeMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AccumulatedOtherComprehensiveIncomeMember", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfChangesInStockholdersEquity"], "lang": { "en-us": { "role": { "label": "Accumulated Other Comprehensive Income (Loss) [Member]", "terseLabel": "Accumulated Other Comprehensive Income (Loss)", "documentation": "Accumulated increase (decrease) in equity from transactions and other events and circumstances from non-owner sources, attributable to the parent. Excludes net income (loss), and accumulated changes in equity from transactions resulting from investments by owners and distributions to owners." } } }, "auth_ref": ["r2", "r10", "r18", "r386", "r389", "r424", "r497", "r498", "r776", "r777", "r778", "r786", "r787", "r788", "r790"] }, "ecd_Additional402vDisclosureTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "Additional402vDisclosureTextBlock", "presentation": ["http://xbrl.sec.gov/ecd/role/PvpDisclosure"], "lang": { "en-us": { "role": { "label": "Additional 402(v) Disclosure [Text Block]", "terseLabel": "Additional 402(v) Disclosure" } } }, "auth_ref": ["r715"] }, "ctso_AdditionalLesseeOperatingLeaseTermOfContractOptionToExtend": { "xbrltype": "durationItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "AdditionalLesseeOperatingLeaseTermOfContractOptionToExtend", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesDetails"], "lang": { "en-us": { "role": { "documentation": "The additional lessee operating lease term of contract option to extend.", "label": "Additional Lessee Operating Lease Term Of Contract Option To Extend", "terseLabel": "Additional lessee operating lease term of contract option to extend" } } }, "auth_ref": [] }, "ctso_AdditionalOperatingLeasesRentExpenseNet": { "xbrltype": "monetaryItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "AdditionalOperatingLeasesRentExpenseNet", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesDetails"], "lang": { "en-us": { "role": { "documentation": "Additional rental expense for the reporting period incurred under operating leases, including minimum and any contingent rent expense, net of related sublease income.", "label": "Additional Operating Leases Rent Expense Net", "terseLabel": "Additional operating leases rent expense" } } }, "auth_ref": [] }, "us-gaap_AdditionalPaidInCapital": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AdditionalPaidInCapital", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedBalanceSheets"], "lang": { "en-us": { "role": { "label": "Additional Paid in Capital", "terseLabel": "Additional paid-in capital", "documentation": "Amount of excess of issue price over par or stated value of stock and from other transaction involving stock or stockholder. Includes, but is not limited to, additional paid-in capital (APIC) for common and preferred stock." } } }, "auth_ref": ["r66", "r651", "r918"] }, "us-gaap_AdditionalPaidInCapitalMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AdditionalPaidInCapitalMember", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfChangesInStockholdersEquity"], "lang": { "en-us": { "role": { "label": "Additional Paid-in Capital [Member]", "verboseLabel": "Additional Paid-In Capital", "documentation": "Excess of issue price over par or stated value of the entity's capital stock and amounts received from other transactions involving the entity's stock or stockholders." } } }, "auth_ref": ["r512", "r786", "r787", "r788", "r790", "r862", "r922"] }, "ecd_AdjToCompAmt": { "xbrltype": "monetaryItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "AdjToCompAmt", "presentation": ["http://xbrl.sec.gov/ecd/role/PvpDisclosure"], "lang": { "en-us": { "role": { "label": "Adjustment to Compensation Amount", "terseLabel": "Adjustment to Compensation, Amount" } } }, "auth_ref": ["r728"] }, "ecd_AdjToCompAxis": { "xbrltype": "stringItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "AdjToCompAxis", "presentation": ["http://xbrl.sec.gov/ecd/role/PvpDisclosure"], "lang": { "en-us": { "role": { "label": "Adjustment to Compensation [Axis]", "terseLabel": "Adjustment to Compensation:" } } }, "auth_ref": ["r728"] }, "ecd_AdjToNonPeoNeoCompFnTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "AdjToNonPeoNeoCompFnTextBlock", "presentation": ["http://xbrl.sec.gov/ecd/role/PvpDisclosure"], "lang": { "en-us": { "role": { "label": "Adjustment to Non-PEO NEO Compensation Footnote [Text Block]", "terseLabel": "Adjustment to Non-PEO NEO Compensation Footnote" } } }, "auth_ref": ["r728"] }, "ecd_AdjToPeoCompFnTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "AdjToPeoCompFnTextBlock", "presentation": ["http://xbrl.sec.gov/ecd/role/PvpDisclosure"], "lang": { "en-us": { "role": { "label": "Adjustment To PEO Compensation, Footnote [Text Block]", "terseLabel": "Adjustment To PEO Compensation, Footnote" } } }, "auth_ref": ["r728"] }, "us-gaap_AdjustmentsToAdditionalPaidInCapitalSharebasedCompensationRequisiteServicePeriodRecognitionValue": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AdjustmentsToAdditionalPaidInCapitalSharebasedCompensationRequisiteServicePeriodRecognitionValue", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfChangesInStockholdersEquity"], "lang": { "en-us": { "role": { "label": "Adjustments to Additional Paid in Capital, Share-based Compensation, Requisite Service Period Recognition", "terseLabel": "Stock-based compensation - employees, consultants and directors", "documentation": "Amount of increase to additional paid-in capital (APIC) for recognition of cost for award under share-based payment arrangement." } } }, "auth_ref": ["r44", "r45", "r316"] }, "us-gaap_AdjustmentsToAdditionalPaidInCapitalStockIssuedIssuanceCosts": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AdjustmentsToAdditionalPaidInCapitalStockIssuedIssuanceCosts", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfChangesInStockholdersEquity"], "lang": { "en-us": { "role": { "label": "Adjustments to Additional Paid in Capital, Stock Issued, Issuance Costs", "negatedLabel": "Legal/audit fees related to ATM offering", "documentation": "Amount of decrease in additional paid in capital (APIC) resulting from direct costs associated with issuing stock. Includes, but is not limited to, legal and accounting fees and direct costs associated with stock issues under a shelf registration." } } }, "auth_ref": ["r11", "r97"] }, "us-gaap_AdjustmentsToAdditionalPaidInCapitalWarrantIssued": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AdjustmentsToAdditionalPaidInCapitalWarrantIssued", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetAvenueCapitalGroupDetails", "http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfChangesInStockholdersEquity"], "lang": { "en-us": { "role": { "label": "Adjustments to Additional Paid in Capital, Warrant Issued", "terseLabel": "Warrants issued in connection with long-term debt", "documentation": "Amount of increase in additional paid in capital (APIC) resulting from the issuance of warrants. Includes allocation of proceeds of debt securities issued with detachable stock purchase warrants." } } }, "auth_ref": ["r11", "r35", "r97"] }, "us-gaap_AdjustmentsToReconcileNetIncomeLossToCashProvidedByUsedInOperatingActivitiesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AdjustmentsToReconcileNetIncomeLossToCashProvidedByUsedInOperatingActivitiesAbstract", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Adjustments to Reconcile Net Income (Loss) to Cash Provided by

(Used in) Operating Activities [Abstract]", "terseLabel": "Adjustments to reconcile net loss to net cash used in operating activities:" } } }, "auth_ref": [] }, "us-gaap_AdvertisingCostsPolicyTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AdvertisingCostsPolicyTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesPolicies"], "lang": { "en-us": { "role": { "label": "Advertising Costs, Policy [Policy Text Block]", "terseLabel": "Advertising Expenses", "documentation": "Disclosure of accounting policy for advertising cost." } } }, "auth_ref": ["r122"] }, "us-gaap_AdvertisingExpense": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AdvertisingExpense", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesDetails"], "lang": 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"Aggregate registered amount for offerings" } } }, "auth_ref": [] }, "ecd_AggtChngPnsnValInSummryCompstnTblForAplblYrMember": { "xbrltype": "domainItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "AggtChngPnsnValInSummryCompstnTblForAplblYrMember", "presentation": ["http://xbrl.sec.gov/ecd/role/PvpDisclosure"], "lang": { "en-us": { "role": { "label": "Aggregate Change in Present Value of Accumulated Benefit for All Pension Plans Reported in Summary Compensation Table [Member]", "terseLabel": "Aggregate Change in Present Value of Accumulated Benefit for All Pension Plans Reported in Summary Compensation Table" } } }, "auth_ref": ["r761"] }, "ecd_AggtErrCompAmt": { "xbrltype": "monetaryItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "AggtErrCompAmt", "presentation": ["http://xbrl.sec.gov/ecd/role/ErrCompDisclosure"], "lang": { "en-us": { "role": { "label": "Aggregate Erroneous Compensation Amount", "terseLabel": "Aggregate Erroneous Compensation Amount" } } }, "auth_ref": ["r687", "r697", "r707", "r739"] }, "ecd_AggtErrCompNotYetDeterminedTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "AggtErrCompNotYetDeterminedTextBlock", "presentation": ["http://xbrl.sec.gov/ecd/role/ErrCompDisclosure"], "lang": { "en-us": { "role": { "label": "Aggregate Erroneous Compensation Not Yet Determined [Text Block]", "terseLabel": "Aggregate Erroneous Compensation Not Yet Determined" } } }, "auth_ref": ["r690", "r700", "r710", "r742"] }, "ecd_AggtPnsnAdjsSvcCstMember": { "xbrltype": "domainItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "AggtPnsnAdjsSvcCstMember", "presentation": ["http://xbrl.sec.gov/ecd/role/PvpDisclosure"], "lang": { "en-us": { "role": { "label": "Aggregate Pension Adjustments Service Cost [Member]", "terseLabel": "Aggregate Pension Adjustments Service Cost" } } }, "auth_ref": ["r762"] }, "ecd_AllAdjToCompMember": { "xbrltype": "domainItemType", "nsuri": 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"http://xbrl.sec.gov/ecd/role/PvpDisclosure"], "lang": { "en-us": { "role": { "label": "All Individuals [Member]", "terseLabel": "All Individuals" } } }, "auth_ref": ["r691", "r701", "r711", "r735", "r743", "r747", "r755"] }, "ctso_AllOtherCountriesMember": { "xbrltype": "domainItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "AllOtherCountriesMember", "presentation": ["http://www.cytosorbents.com/role/DisclosureRevenueRevenueByCustomerTypeAndGeographicAreaDetails"], "lang": { "en-us": { "role": { "documentation": "This member stands for All other countries.", "label": "All other countries [Member]", "terseLabel": "All other countries" } } }, "auth_ref": [] }, "ecd_AllTradingArrangementsMember": { "xbrltype": "domainItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "AllTradingArrangementsMember", "presentation": ["http://xbrl.sec.gov/ecd/role/InsiderTradingArrangements"], "lang": { "en-us": { "role": { "label": "All Trading Arrangements [Member]", 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Excludes amortization of financing costs. Alternate captions include noncash interest expense." } } }, "auth_ref": ["r6", "r81", "r269", "r870"] }, "us-gaap_AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareAmount": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareAmount", "presentation": ["http://www.cytosorbents.com/role/DisclosureNetLossPerShareDetails"], "lang": { "en-us": { "role": { "label": "Antidilutive Securities Excluded from Computation of Earnings Per Share, Amount", "terseLabel": "Antidilutive securities excluded from computation of earnings per share", "documentation": "Securities (including those issuable pursuant to contingent stock agreements) that could potentially dilute basic earnings per share (EPS) or earnings per unit (EPU) in the future that were not included in the computation of diluted EPS or EPU because to do so would increase EPS or EPU amounts or decrease loss per share or unit amounts for the period presented." } } }, "auth_ref": ["r198"] }, "us-gaap_AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareByAntidilutiveSecuritiesAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AntidilutiveSecuritiesExcludedFromComputationOfEarningsPerShareByAntidilutiveSecuritiesAxis", "presentation": ["http://www.cytosorbents.com/role/DisclosureNetLossPerShareDetails"], "lang": { "en-us": { "role": { "label": "Antidilutive Securities [Axis]", "documentation": "Information by type of antidilutive security." } } }, "auth_ref": ["r25"] }, "us-gaap_AntidilutiveSecuritiesNameDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AntidilutiveSecuritiesNameDomain", "presentation": ["http://www.cytosorbents.com/role/DisclosureNetLossPerShareDetails"], "lang": { "en-us": { "role": { "label": "Antidilutive Securities, Name [Domain]", "documentation": "Incremental common shares attributable to securities that were not included in diluted earnings per share (EPS) because to do so would increase EPS amounts or decrease loss per share amounts for the period presented." } } }, "auth_ref": ["r25"] }, "us-gaap_AreaOfLand": { "xbrltype": "areaItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AreaOfLand", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesDetails"], "lang": { "en-us": { "role": { "label": "Area of Land.", "terseLabel": "Area of Land", "documentation": "Area of land held." } } }, "auth_ref": [] }, "us-gaap_AssetImpairmentCharges": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AssetImpairmentCharges", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesDetails"], "lang": { "en-us": { "role": { "label": "Asset Impairment Charges", "verboseLabel": "Impairment charges", "documentation": "Amount of write-down of assets recognized in the income statement. Includes, but is not limited to, losses from tangible assets, intangible assets and goodwill." } } }, "auth_ref": ["r6", "r33"] }, "us-gaap_Assets": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "Assets", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedBalanceSheets"], "lang": { "en-us": { "role": { "label": "Assets", "totalLabel": "Total Assets", "documentation": "Amount of asset recognized for present right to economic benefit." } } }, "auth_ref": ["r106", "r116", "r139", "r169", "r203", "r207", "r211", "r212", "r219", "r245", "r246", "r247", "r248", "r249", "r250", "r251", "r252", "r253", "r381", "r383", "r396", "r472", "r549", "r623", "r624", "r651", "r678", "r824", "r825", "r877"] }, "us-gaap_AssetsAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "AssetsAbstract", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedBalanceSheets"], 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"Represents information pertaining to Avenue Venture Opportunities Fund, L.P.", "label": "Avenue Venture Opportunities Fund, L.P", "terseLabel": "Avenue Venture Opportunities Fund, L.P" } } }, "auth_ref": [] }, "ecd_AwardExrcPrice": { "xbrltype": "perShareItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "AwardExrcPrice", "presentation": ["http://xbrl.sec.gov/ecd/role/AwardTimingDisclosure"], "lang": { "en-us": { "role": { "label": "Award Exercise Price", "terseLabel": "Exercise Price" } } }, "auth_ref": ["r750"] }, "ecd_AwardGrantDateFairValue": { "xbrltype": "monetaryItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "AwardGrantDateFairValue", "presentation": ["http://xbrl.sec.gov/ecd/role/AwardTimingDisclosure"], "lang": { "en-us": { "role": { "label": "Award Grant Date Fair Value", "terseLabel": "Fair Value as of Grant Date" } } }, "auth_ref": ["r751"] }, "ecd_AwardTmgDiscLineItems": { "xbrltype": "stringItemType", "nsuri": 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Also includes short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Excludes cash and cash equivalents within disposal group and discontinued operation." } } } }, "auth_ref": ["r22", "r137", "r616"] }, "ctso_CashAndCashEquivalentsGrossValue": { "xbrltype": "monetaryItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "CashAndCashEquivalentsGrossValue", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosureBasisOfPresentationDetails"], "lang": { "en-us": { "role": { "documentation": "The amount of approximate value of cash and cash equivalents.", "label": "Cash and Cash Equivalents Gross Value", "terseLabel": "Cash and cash equivalents gross value" } } }, "auth_ref": [] }, "us-gaap_CashAndCashEquivalentsPolicyTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashAndCashEquivalentsPolicyTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesPolicies"], "lang": { "en-us": { "role": { "label": "Cash and Cash Equivalents, Policy [Policy Text Block]", "terseLabel": "Cash, Cash Equivalents and Restricted Cash", "documentation": "Disclosure of accounting policy for cash and cash equivalents, including the policy for determining which items are treated as cash equivalents. Other information that may be disclosed includes (1) the nature of any restrictions on the entity's use of its cash and cash equivalents, (2) whether the entity's cash and cash equivalents are insured or expose the entity to credit risk, (3) the classification of any negative balance accounts (overdrafts), and (4) the carrying basis of cash equivalents (for example, at cost) and whether the carrying amount of cash equivalents approximates fair value." } } }, "auth_ref": ["r23"] }, "us-gaap_CashAndCashEquivalentsRestrictedCashAndCashEquivalentsPolicy": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashAndCashEquivalentsRestrictedCashAndCashEquivalentsPolicy", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesPolicies"], "lang": { "en-us": { "role": { "label": "Cash and Cash Equivalents, Restricted Cash and Cash Equivalents, Policy [Policy Text Block]", "terseLabel": "Restricted Cash", "documentation": "Entity's cash and cash equivalents accounting policy with respect to restricted balances. Restrictions may include legally restricted deposits held as compensating balances against short-term borrowing arrangements, contracts entered into with others, or company statements of intention with regard to particular deposits; however, time deposits and short-term certificates of deposit are not generally included in legally restricted deposits." } } }, "auth_ref": ["r23", "r105"] }, "us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalents": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalents", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesCashAndCashEquivalentsDetails", "http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Cash, Cash Equivalents, Restricted Cash and Restricted Cash Equivalents", "periodEndLabel": "Cash, cash equivalents and restricted cash - end of period", "periodStartLabel": "Cash, cash equivalents and restricted cash - beginning of period", "totalLabel": "Total cash, cash equivalents and restricted cash", "documentation": "Amount of cash and cash equivalents, and cash and cash equivalents restricted to withdrawal or usage. Excludes amount for disposal group and discontinued operations. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates." } } }, "auth_ref": ["r22", "r84", "r167"] }, "us-gaap_CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsPeriodIncreaseDecreaseIncludingExchangeRateEffect", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Cash and Cash Equivalents, Period Increase (Decrease)", "totalLabel": "Net change in cash, cash equivalents and restricted cash", "documentation": "Amount of increase (decrease) in cash, cash equivalents, and cash and cash equivalents restricted to withdrawal or usage; including effect from exchange rate change. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates." } } }, "auth_ref": ["r1", "r84"] }, "us-gaap_CashFlowNoncashInvestingAndFinancingActivitiesDisclosureAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CashFlowNoncashInvestingAndFinancingActivitiesDisclosureAbstract", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Cash Flow, Noncash Investing and Financing Activities Disclosure [Abstract]", "verboseLabel": "Supplemental disclosure of non-cash financing activities:" } } }, "auth_ref": [] }, "ctso_CertainEmployeesMember": { "xbrltype": "domainItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": 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These shares represent capital invested by the firm's shareholders and owners, and may be all or only a portion of the number of shares authorized. Shares issued include shares outstanding and shares held in the treasury." } } }, "auth_ref": [ "r65" ] }, "us-gaap_CommonStockSharesOutstanding": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "CommonStockSharesOutstanding", "presentation": [ "http://www.cytosorbents.com/role/StatementConsolidatedBalanceSheetsParenthetical" ], "lang": { "en-us": { "role": { "label": "Common Stock, Shares, Outstanding", "terseLabel": "Common Stock, shares outstanding", "documentation": "Number of shares of common stock outstanding. 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Note: elements for number of nonredeemable common shares, par value and other disclosure concepts are in another section within stockholders' equity." } } }, "auth_ref": [ "r65", "r476", "r651" ] }, "ctso_CommonStockValueAuthorized": { "xbrltype": "monetaryItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "CommonStockValueAuthorized", "crdr": "credit", "presentation": [ "http://www.cytosorbents.com/role/DisclosureStockholdersEquityAdditionalInformationDetails" ], "lang": { "en-us": { "role": { "documentation": "Common Stock Value Authorized For Shares Authorized.", "label": "Common Stock Value Authorized", "terseLabel": "Aggregate offering price" } } }, "auth_ref": [] }, "ecd_CompActuallyPaidVsCoSelectedMeasureTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "CompActuallyPaidVsCoSelectedMeasureTextBlock", "presentation": [ "http://xbrl.sec.gov/ecd/role/PvpDisclosure" ], "lang": { "en-us": { "role": { "label": "Compensation Actually Paid vs. Company Selected Measure [Text Block]", "terseLabel": "Compensation Actually Paid vs. Company Selected Measure" } } }, "auth_ref": [ "r732" ] }, "ecd_CompActuallyPaidVsNetIncomeTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "CompActuallyPaidVsNetIncomeTextBlock", "presentation": [ "http://xbrl.sec.gov/ecd/role/PvpDisclosure" ], "lang": { "en-us": { "role": { "label": "Compensation Actually Paid vs. Net Income [Text Block]", "terseLabel": "Compensation Actually Paid vs. Net Income" } } }, "auth_ref": [ "r731" ] }, "ecd_CompActuallyPaidVsOtherMeasureTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "CompActuallyPaidVsOtherMeasureTextBlock", "presentation": [ "http://xbrl.sec.gov/ecd/role/PvpDisclosure" ], "lang": { "en-us": { "role": { "label": "Compensation Actually Paid vs. Other Measure [Text Block]", "terseLabel": "Compensation Actually Paid vs. Other Measure" } } }, "auth_ref": [ "r733" ] }, "ecd_CompActuallyPaidVsTotalShareholderRtnTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "CompActuallyPaidVsTotalShareholderRtnTextBlock", "presentation": [ "http://xbrl.sec.gov/ecd/role/PvpDisclosure" ], "lang": { "en-us": { "role": { "label": "Compensation Actually Paid vs. Total Shareholder Return [Text Block]", "terseLabel": "Compensation Actually Paid vs. Total Shareholder Return" } } }, "auth_ref": [ "r730" ] }, "us-gaap_ComprehensiveIncomeNetOfTax": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ComprehensiveIncomeNetOfTax", "crdr": "credit", "presentation": [ "http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfOperationsAndComprehensiveLoss" ], "lang": { "en-us": { "role": { "label": "Comprehensive Income (Loss), Net of Tax, Attributable to Parent", "totalLabel": "Comprehensive loss", "documentation": "Amount after tax of increase (decrease) in equity from transactions and other events and circumstances from net income and other comprehensive income, attributable to parent entity. 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The risk is the materially adverse effects of loss of a significant customer." } } }, "auth_ref": [ "r89", "r216" ] }, "ctso_CytoSorbSalesMember": { "xbrltype": "domainItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "CytoSorbSalesMember", "presentation": [ "http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfOperationsAndComprehensiveLoss" ], "lang": { "en-us": { "role": { "documentation": "Represent the information relating to the cyto sorb sales", "label": "CytoSorb sales [Member]", "terseLabel": "CytoSorb sales" } } }, "auth_ref": [] }, "ctso_CytosorbentsEuropeGmbhMember": { "xbrltype": "domainItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "CytosorbentsEuropeGmbhMember", "presentation": [ "http://www.cytosorbents.com/role/DisclosureLeasesDetails" ], "lang": { "en-us": { "role": { "documentation": "This member stands for CytoSorbents Europe GmbH.", "label": "CytoSorbents Europe GmbH [Member]", "terseLabel": "CytoSorbents Europe GmbH" } } }, "auth_ref": [] }, "ctso_CytosorbentsMedicalIncMember": { "xbrltype": "domainItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "CytosorbentsMedicalIncMember", "presentation": [ "http://www.cytosorbents.com/role/DisclosureLeasesDetails" ], "lang": { "en-us": { "role": { "documentation": "This member stands for CytoSorbents Medical, Inc.", "label": "CytoSorbents Medical, Inc [Member]", "terseLabel": "CytoSorbents Medical, Inc" } } }, "auth_ref": [] }, "country_DE": { "xbrltype": "domainItemType", "nsuri": "http://xbrl.sec.gov/country/2024", "localname": "DE", "presentation": [ "http://www.cytosorbents.com/role/DisclosureLeasesDetails", "http://www.cytosorbents.com/role/DisclosureRevenueRevenueByCustomerTypeAndGeographicAreaDetails" ], "lang": { "en-us": { "role": { "label": "Germany [Member]", "terseLabel":
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For a 2006 annual report, which may also provide financial information from prior periods, fiscal 2006 should be given as the fiscal year focus. Example: 2006." } } }, "auth_ref": [] }, "dei_DocumentPeriodEndDate": { "xbrltype": "dateItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "DocumentPeriodEndDate", "presentation": ["http://www.cytosorbents.com/role/DocumentDocumentAndEntityInformation"], "lang": { "en-us": { "role": { "label": "Document Period End Date", "documentation": "For the EDGAR submission types of Form 8-K: the date of the report, the date of the earliest event reported; for the EDGAR submission types of Form N-1A: the filing date; for all other submission types: the end of the reporting or transition period. 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The document type is limited to the same value as the supporting SEC submission type, or the word 'Other'." } } }, "auth_ref": [] }, "us-gaap_DomesticCountryMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "DomesticCountryMember", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesDetails"], "lang": { "en-us": { "role": { "label": "Federal [Member]", "terseLabel": "Federal", "documentation": "Designated federal jurisdiction entitled to levy and collect income tax in country of domicile. Includes, but is not limited to, national jurisdiction for non-U.S. jurisdiction." } } }, "auth_ref": ["r361"] }, "ecd_DvddsOrOthrErngsPdOnEqtyAwrdsNtOthrwsRflctdInTtlCompForCvrdYrMember": { "xbrltype": "domainItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "DvddsOrOthrErngsPdOnEqtyAwrdsNtOthrwsRflctdInTtlCompForCvrdYrMember", "presentation": ["http://xbrl.sec.gov/ecd/role/PvpDisclosure"], "lang": { "en-us": { "role": { "label": "Dividends or Other Earnings Paid on Equity Awards not Otherwise Reflected in Total Compensation for Covered Year [Member]", "terseLabel": "Dividends or Other Earnings Paid on Equity Awards not Otherwise Reflected in Total Compensation for Covered Year" } } }, "auth_ref": ["r725"] }, "us-gaap_EarningsPerShareAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EarningsPerShareAbstract", "lang": { "en-us": { "role": { "label": "NET LOSS PER SHARE" } } }, "auth_ref": [] }, "us-gaap_EarningsPerShareBasic": { "xbrltype": "perShareItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EarningsPerShareBasic", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfOperationsAndComprehensiveLoss"], "lang": { "en-us": { "role": { "label": "Earnings Per Share, Basic", "terseLabel": "Basic net loss per common share", "documentation": "The amount of net income (loss) for the period per each share of common stock or unit outstanding during the reporting period." } } }, "auth_ref": ["r159", "r177", "r178", "r179", "r180", "r181", "r182", "r188", "r191", "r195", "r196", "r197", "r202", "r376", "r379", "r393", "r394", "r468", "r487", "r620"] }, "us-gaap_EarningsPerShareBasicLineItems": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EarningsPerShareBasicLineItems", "presentation": ["http://www.cytosorbents.com/role/DisclosureNetLossPerShareDetails"], "lang": { "en-us": { "role": { "label": "Earnings Per Share, Basic, by Common Class, Including Two Class Method [Line Items]", "terseLabel": "NET LOSS PER SHARE", "documentation": "Line items represent financial concepts included in a table. 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Addresses all significant policy factors, including any antidilutive items that have been excluded from the computation and takes into account stock dividends, splits and reverse splits that occur after the balance sheet date of the latest reporting period but before the issuance of the financial statements." } } }, "auth_ref": ["r25", "r26", "r199"] }, "us-gaap_EarningsPerShareTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EarningsPerShareTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosureNetLossPerShare"], "lang": { "en-us": { "role": { "label": "Earnings Per Share [Text Block]", "terseLabel": "NET LOSS PER SHARE", "documentation": "The entire disclosure for earnings per share." } } }, "auth_ref": ["r187", "r198", "r200", "r201"] }, "us-gaap_EffectOfExchangeRateOnCashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsIncludingDisposalGroupAndDiscontinuedOperations": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EffectOfExchangeRateOnCashCashEquivalentsRestrictedCashAndRestrictedCashEquivalentsIncludingDisposalGroupAndDiscontinuedOperations", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Effect of Exchange Rate on Cash and Cash Equivalents", "terseLabel": "Effect of exchange rates on cash", "documentation": "Amount of increase (decrease) from effect of exchange rate changes on cash and cash equivalents, and cash and cash equivalents restricted to withdrawal or usage; held in foreign currencies; including, but not limited to, disposal group and discontinued operations. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates." } } }, "auth_ref": ["r867"] }, "us-gaap_EffectiveIncomeTaxRateReconciliationAtFederalStatutoryIncomeTaxRate": { "xbrltype": "percentItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "EffectiveIncomeTaxRateReconciliationAtFederalStatutoryIncomeTaxRate", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesDetails"], "lang": { "en-us": { "role": { "label": "Effective Income Tax Rate Reconciliation, at Federal Statutory Income Tax Rate, Percent", "terseLabel": "Federal statutory rate", "documentation": "Percentage of domestic federal statutory tax rate applicable to pretax income (loss)." } } }, "auth_ref": ["r170", "r361", "r372", 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SEC-issued value to identify entities that have filed disclosures with the SEC. It is commonly abbreviated as CIK." } } }, "auth_ref": ["r680"] }, "dei_EntityCommonStockSharesOutstanding": { "xbrltype": "sharesItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityCommonStockSharesOutstanding", "presentation": ["http://www.cytosorbents.com/role/DocumentDocumentAndEntityInformation"], "lang": { "en-us": { "role": { "label": "Entity Common Stock, Shares Outstanding", "documentation": "Indicate number of shares or other units outstanding of each of registrant's classes of capital or common stock or other ownership interests, if and as stated on cover of related periodic report. Where multiple classes or units exist define each class/interest by adding class of stock items such as Common Class A [Member], Common Class B [Member] or Partnership Interest [Member] onto the Instrument [Domain] of the Entity Listings, Instrument." } } }, "auth_ref": [] }, "dei_EntityCurrentReportingStatus": { "xbrltype": "yesNoItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityCurrentReportingStatus", "presentation": ["http://www.cytosorbents.com/role/DocumentDocumentAndEntityInformation"], "lang": { "en-us": { "role": { "label": "Entity Current Reporting Status", "documentation": "Indicate 'Yes' or 'No' whether registrants (1) have filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that registrants were required to file such reports), and (2) have been subject to such filing requirements for the past 90 days. This information should be based on the registrant's current or most recent filing containing the related disclosure." } } }, "auth_ref": [] }, "dei_EntityDomain": { "xbrltype": "domainItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityDomain", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityAdditionalInformationDetails"], "lang": { "en-us": { "role": { "label": "Entity [Domain]", "documentation": "All the names of the entities being reported upon in a document. Any legal structure used to conduct activities or to hold assets. Some examples of such structures are corporations, partnerships, limited liability companies, grantor trusts, and other trusts. This item does not include business and geographical segments

which are included in the geographical or business segments domains." } } }, "auth_ref": [] }, "dei_EntityEmergingGrowthCompany": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityEmergingGrowthCompany", "presentation": ["http://www.cytosorbents.com/role/DocumentDocumentAndEntityInformation"], "lang": { "en-us": { "role": { "label": "Entity Emerging Growth Company", "documentation": "Indicate if registrant meets the emerging growth company criteria." } } }, "auth_ref": ["r680"] }, "dei_EntityFileNumber": { "xbrltype": "fileNumberItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityFileNumber", "presentation": ["http://www.cytosorbents.com/role/DocumentDocumentAndEntityInformation"], "lang": { "en-us": { "role": { "label": "Entity File Number", "documentation": "Commission file number. The field allows up to 17 characters. The prefix may contain 1-3 digits, the sequence number may contain 1-8 digits, the optional suffix may contain 1-4 characters, and the fields are separated with a hyphen." } } }, "auth_ref": [] }, "dei_EntityFilerCategory": { "xbrltype": "filerCategoryItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityFilerCategory", "presentation": ["http://www.cytosorbents.com/role/DocumentDocumentAndEntityInformation"], "lang": { "en-us": { "role": { "label": "Entity Filer Category", "documentation": "Indicate whether the registrant is one of the following: Large Accelerated Filer, Accelerated Filer, Non-accelerated Filer. Definitions of these categories are stated in Rule 12b-2 of the Exchange Act. This information should be based on the registrant's current or most recent filing containing the related disclosure." } } }, "auth_ref": ["r680"] }, "dei_EntityIncorporationStateCountryCode": { "xbrltype": "edgarStateCountryItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityIncorporationStateCountryCode", "presentation": ["http://www.cytosorbents.com/role/DocumentDocumentAndEntityInformation"], "lang": { "en-us": { "role": { "label": "Entity Incorporation, State or Country Code", "documentation": "Two-character EDGAR code representing the state or country of incorporation." } } }, "auth_ref": [] }, "dei_EntityInteractiveDataCurrent": { "xbrltype": "yesNoItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityInteractiveDataCurrent", "presentation": ["http://www.cytosorbents.com/role/DocumentDocumentAndEntityInformation"], "lang": { "en-us": { "role": { "label": "Entity Interactive Data Current", "documentation": "Boolean flag that is true when the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files)." } } }, "auth_ref": ["r764"] }, "dei_EntityRegistrantName": { "xbrltype": "normalizedStringItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityRegistrantName", "presentation": ["http://www.cytosorbents.com/role/DocumentDocumentAndEntityInformation"], "lang": { "en-us": { "role": { "label": "Entity Registrant Name", "documentation": "The exact name of the entity filing the report as specified in its charter, which is required by forms filed with the SEC." } } }, "auth_ref": ["r680"] }, "dei_EntityShellCompany": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "EntityShellCompany", "presentation": ["http://www.cytosorbents.com/role/DocumentDocumentAndEntityInformation"], "lang": { 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(TIN), also known as an Employer Identification Number (EIN), is a unique 9-digit value assigned by the IRS." } } }, "auth_ref": ["r680"] }, "ecd_EqtyAwrdsAdjFnTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "EqtyAwrdsAdjFnTextBlock", "presentation": ["http://xbrl.sec.gov/ecd/role/PvpDisclosure"], "lang": { "en-us": { "role": { "label": "Equity Awards Adjustments, Footnote [Text Block]", "terseLabel": "Equity Awards Adjustments, Footnote" } } }, "auth_ref": ["r719"] }, "ecd_EqtyAwrdsAdjsExclgValRprtdInSummryCompstnTblMember": { "xbrltype": "domainItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "EqtyAwrdsAdjsExclgValRprtdInSummryCompstnTblMember", "presentation": ["http://xbrl.sec.gov/ecd/role/PvpDisclosure"], "lang": { "en-us": { "role": { "label": "Equity Awards Adjustments, Excluding Value Reported in the Compensation Table [Member]", "terseLabel": "Equity Awards Adjustments, Excluding Value Reported in Compensation Table" } } }, "auth_ref": ["r760"] }, "ecd_EqtyAwrdsAdjsMember": { "xbrltype": "domainItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "EqtyAwrdsAdjsMember", "presentation": ["http://xbrl.sec.gov/ecd/role/PvpDisclosure"], "lang": { "en-us": { "role": { "label": "Equity Awards Adjustments [Member]", "terseLabel": "Equity Awards Adjustments" } } }, "auth_ref": ["r760"] }, "ecd_EqtyAwrdsInSummryCompstnTblForAplblYrMember": { "xbrltype": "domainItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "EqtyAwrdsInSummryCompstnTblForAplblYrMember", "presentation": ["http://xbrl.sec.gov/ecd/role/PvpDisclosure"], "lang": { "en-us": { "role": { "label": "Aggregate Grant Date Fair Value of Equity Award Amounts Reported in Summary Compensation Table [Member]", "terseLabel": "Aggregate Grant Date Fair Value of Equity Award Amounts Reported in Summary Compensation Table" } } }, "auth_ref": ["r760"] }, "us-gaap_EquityComponentDomain": { "xbrltype": 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term of executive employment agreements.", "label": "Executive Employment Agreements , Initial Term", "terseLabel": "Initial term (in years)" } } }, "auth_ref": [] }, "ctso_ExercisePriceRangeOneMember": { "xbrltype": "domainItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "ExercisePriceRangeOneMember", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityIntrinsicValueDetails"], "lang": { "en-us": { "role": { "documentation": "Represents exercise price range one.", "label": "Exercise Price Range One [Member]", "terseLabel": "Exercise Price Range One" } } }, "auth_ref": [] }, "ctso_ExercisePriceRangingFrom0.84To0.99Member": { "xbrltype": "domainItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "ExercisePriceRangingFrom0.84To0.99Member", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityAdditionalInformationDetails"], "lang": { "en-us": { "role": { "documentation": "Represents the 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assets that can be grouped together because they are similar, either by their nature or by their use in the operations of a company." } } }, "auth_ref": ["r227", "r229", "r230", "r231", "r232", "r233", "r234", "r235", "r612"] }, "ctso_FirstTrancheMember": { "xbrltype": "domainItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "FirstTrancheMember", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetAdditionalInformationDetails"], "lang": { "en-us": { "role": { "documentation": "This member stands for first tranche Member.", "label": "First Tranche [Member]", "terseLabel": "First Tranche" } } }, "auth_ref": [] }, "us-gaap_ForeignCurrencyTransactionGainLossBeforeTax": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ForeignCurrencyTransactionGainLossBeforeTax", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfOperationsAndComprehensiveLoss"], "lang": { "en-us": { "role": { "label": "Foreign Currency Transaction Gain (Loss), before Tax", "terseLabel": "Gain (loss) on foreign currency transactions", "documentation": "Amount, before tax, of realized and unrealized gain (loss) from foreign currency transaction." } } }, "auth_ref": ["r397", "r398", "r399", "r400", "r574"] }, "ctso_ForeignCurrencyTransactionGainLossExcludingTax": { "xbrltype": "monetaryItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "ForeignCurrencyTransactionGainLossExcludingTax", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesDetails"], "lang": { "en-us": { "role": { "documentation": "Amount before tax of foreign currency transaction realized and unrealized gain (loss) recognized in the income statement.", "label": "Foreign Currency Transaction Gain (Loss), Excluding Tax", "terseLabel": "Foreign currency transaction gain (loss)" } } }, "auth_ref": 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Benefits, Amount", "terseLabel": "Forgone Recovery due to Disqualification of Tax Benefits, Amount" } } }, "auth_ref": ["r691", "r701", "r711", "r743"] }, "ecd_ForgoneRecoveryDueToExpenseOfEnforcementAmt": { "xbrltype": "monetaryItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "ForgoneRecoveryDueToExpenseOfEnforcementAmt", "presentation": ["http://xbrl.sec.gov/ecd/role/ErrCompDisclosure"], "lang": { "en-us": { "role": { "label": "Forgone Recovery due to Expense of Enforcement, Amount", "terseLabel": "Forgone Recovery due to Expense of Enforcement, Amount" } } }, "auth_ref": ["r691", "r701", "r711", "r743"] }, "ecd_ForgoneRecoveryDueToViolationOfHomeCountryLawAmt": { "xbrltype": "monetaryItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "ForgoneRecoveryDueToViolationOfHomeCountryLawAmt", "presentation": ["http://xbrl.sec.gov/ecd/role/ErrCompDisclosure"], "lang": { "en-us": { "role": { "label": "Forgone Recovery due to Violation of Home Country Law, Amount", "terseLabel": "Forgone Recovery due to Violation of Home Country Law, Amount" } } }, "auth_ref": ["r691", "r701", "r711", "r743"] }, "ecd_ForgoneRecoveryExplanationOfImpracticabilityTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "ForgoneRecoveryExplanationOfImpracticabilityTextBlock", "presentation": ["http://xbrl.sec.gov/ecd/role/ErrCompDisclosure"], "lang": { "en-us": { "role": { "label": "Forgone Recovery, Explanation of Impracticability [Text Block]", "terseLabel": "Forgone Recovery, Explanation of Impracticability" } } }, "auth_ref": ["r691", "r701", "r711", "r743"] }, "ecd_ForgoneRecoveryIndName": { "xbrltype": "stringItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "ForgoneRecoveryIndName", "presentation": ["http://xbrl.sec.gov/ecd/role/ErrCompDisclosure"], "lang": { "en-us": { "role": { "label": "Forgone Recovery, Individual Name", "terseLabel": "Name" } } }, "auth_ref": ["r691", "r701", "r711", "r743"] }, "ecd_FrValAsOfPrrYrEndOfEqtyAwrdsGrntdInPrrYrsFldVstngCondsDrngCvrdYrMember": { "xbrltype": "domainItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "FrValAsOfPrrYrEndOfEqtyAwrdsGrntdInPrrYrsFldVstngCondsDrngCvrdYrMember", "presentation": ["http://xbrl.sec.gov/ecd/role/PvpDisclosure"], "lang": { "en-us": { "role": { "label": "Prior Year End Fair Value of Equity Awards Granted in Any Prior Year that Fail to Meet Applicable Vesting Conditions During Covered Year [Member]", "terseLabel": "Prior Year End Fair Value of Equity Awards Granted in Any Prior Year that Fail to Meet Applicable Vesting Conditions During Covered Year" } } }, "auth_ref": ["r724"] }, "us-gaap_GrantMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "GrantMember", "presentation": ["http://www.cytosorbents.com/role/DisclosureRevenueAdditionalInformationDetails", "http://www.cytosorbents.com/role/DisclosureRevenueRevenueByCustomerTypeAndGeographicAreaDetails", "http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfOperationsAndComprehensiveLoss"], "lang": { "en-us": { "role": { "label": "Grant income [Member]", "terseLabel": "Grant income", "verboseLabel": "Government grants", "documentation": "Award of money not required to be repaid." } } }, "auth_ref": ["r832"] }, "us-gaap_GrossProfit": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "GrossProfit", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfOperationsAndComprehensiveLoss"], "lang": { "en-us": { "role": { "label": "Gross Profit", "totalLabel": "Gross profit", "documentation": "Aggregate revenue less cost of goods and services sold or operating expenses directly attributable to the revenue generation activity." } } }, "auth_ref": ["r72", "r76", "r115", "r169", "r219", "r245", "r246", "r247", "r248", "r249", "r250", "r251", "r252", "r253", "r396", "r622", "r623", "r792", "r793", "r794", "r795", "r796", "r824"] }, "us-gaap_ImpairmentOfIntangibleAssetsFinitelived": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ImpairmentOfIntangibleAssetsFinitelived", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Impairment of Intangible Assets, Finite-lived", "terseLabel": "Write off of patent cost", "documentation": "The amount of impairment loss recognized in the period resulting from the write-down of the carrying amount of a finite-lived intangible asset to fair value." } } }, "auth_ref": ["r228", "r780", "r812"] }, "us-gaap_ImpairmentOrDisposalOfLongLivedAssetsPolicyTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ImpairmentOrDisposalOfLongLivedAssetsPolicyTextBlock", 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An entity also may disclose its accounting policy for long-lived assets to be sold. This policy excludes goodwill and intangible assets." } } }, "auth_ref": ["r0", "r91"] }, "us-gaap_IncomeLossFromContinuingOperationsBeforeIncomeTaxesExtraordinaryItemsNoncontrollingInterest": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-

gaap/2024", "localname": "IncomeLossFromContinuingOperationsBeforeIncomeTaxesExtraordinaryItemsNoncontrollingInterest", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfOperationsAndComprehensiveLoss"], "lang": { "en-us": { "role": { "label": "Income (Loss) from Continuing Operations before Income Taxes, Noncontrolling Interest", "totalLabel": "Loss before benefit from income taxes", "documentation": "Amount of income (loss) from continuing operations, including income (loss) from equity method investments, before deduction of income tax expense (benefit), and income (loss) attributable to noncontrolling interest." } } }, "auth_ref": ["r73", "r111", "r115", "r469", "r482", "r622", "r623", "r792", "r793", "r794", "r795", "r796"] }, "us-gaap_IncomeStatementAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "IncomeStatementAbstract", "lang": { "en-us": { "role": { "label": "CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS" } } }, "auth_ref": [] }, "us-gaap_IncomeTaxAuthorityAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "IncomeTaxAuthorityAxis", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesDetails"], "lang": { "en-us": { "role": { "label": "Income Tax Authority [Axis]", "documentation": "Information by income tax jurisdiction." } } }, "auth_ref": ["r166", "r361", "r362", "r363", "r368", "r643", "r861"] }, "us-gaap_IncomeTaxAuthorityDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "IncomeTaxAuthorityDomain", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesDetails"], "lang": { "en-us": { "role": { "label": "Income Tax Authority [Domain]", "documentation": "Income tax jurisdiction." } } }, "auth_ref": ["r166", "r361", "r362", "r363", "r368", "r643", "r861"] }, "us-gaap_IncomeTaxPolicyTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "IncomeTaxPolicyTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesPolicies"], "lang": { "en-us": { "role": { "label": "Income Tax, Policy [Policy Text Block]", "terseLabel": "Income Taxes", "documentation": "Disclosure of accounting policy for income taxes, which may include its accounting policies for recognizing and measuring deferred tax assets and liabilities and related valuation allowances, recognizing investment tax credits, operating loss carryforwards, tax credit carryforwards, and other carryforwards, methodologies for determining its effective income tax rate and the characterization of interest and penalties in the financial statements." } } }, "auth_ref": ["r154", "r359", "r360", "r365", "r366", "r367", "r369", "r506"] }, "us-gaap_IncreaseDecreaseInAccountsPayableAndAccruedLiabilities": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "IncreaseDecreaseInAccountsPayableAndAccruedLiabilities", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Increase (Decrease) in Accounts Payable and Accrued Liabilities", "terseLabel": "Accounts payable and accrued expenses", "documentation": "The increase (decrease) during the reporting period in the amounts payable to vendors for goods and services received and the amount of obligations and expenses incurred but not paid." } } }, "auth_ref": ["r5"] }, "us-gaap_IncreaseDecreaseInAccountsReceivable": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "IncreaseDecreaseInAccountsReceivable", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Increase (Decrease) in Accounts Receivable", "negatedLabel": "Grants and accounts receivable", "documentation": "The increase (decrease) during the reporting period in amount due within one year (or one business cycle) from customers for the credit sale of goods and services." } } }, "auth_ref": ["r5"] }, "us-gaap_IncreaseDecreaseInInventories": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "IncreaseDecreaseInInventories", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Increase (Decrease) in Inventories", "negatedLabel": "Inventories", "documentation": "The increase (decrease) during the reporting period in the aggregate value of all inventory held by the reporting entity, associated with underlying transactions that are classified as operating activities." } } }, "auth_ref": ["r5"] }, "us-gaap_IncreaseDecreaseInOperatingCapitalAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "IncreaseDecreaseInOperatingCapitalAbstract", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Increase (Decrease) in Operating Capital [Abstract]", "terseLabel": "Changes in operating assets and liabilities:" } } }, "auth_ref": [] }, "us-gaap_IncreaseDecreaseInOtherOperatingAssets": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "IncreaseDecreaseInOtherOperatingAssets", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Increase (Decrease) in Other Operating Assets", "negatedLabel": "Other assets", "documentation": "Amount of increase (decrease) in operating assets classified as other." } } }, "auth_ref": ["r5"] }, "us-gaap_IncreaseDecreaseInPrepaidDeferredExpenseAndOtherAssets": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "IncreaseDecreaseInPrepaidDeferredExpenseAndOtherAssets", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Increase (Decrease) in Prepaid Expense and Other Assets", "negatedLabel": "Prepaid expenses and other current assets", "documentation": "Amount of increase (decrease) in prepaid expenses, and assets classified as other." } } }, "auth_ref": ["r5"] }, "ctso_IncreaseInUnrestrictedCashRelatedToDebtFacility": { "xbrltype": "monetaryItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "IncreaseInUnrestrictedCashRelatedToDebtFacility", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosureBasisOfPresentationDetails"], "lang": { "en-us": { "role": { "documentation": "The amount of increase in unrestricted cash position related to debt facility.", "label": "Increase in Unrestricted Cash Related to Debt Facility", "terseLabel": "Increase in unrestricted cash related to debt facility" } } }, "auth_ref": [] }, "ecd_IndividualAxis": { "xbrltype": "stringItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "IndividualAxis", "presentation": ["http://xbrl.sec.gov/ecd/role/AwardTimingDisclosure", "http://xbrl.sec.gov/ecd/role/ErrCompDisclosure", "http://xbrl.sec.gov/ecd/role/InsiderTradingArrangements", "http://xbrl.sec.gov/ecd/role/PvpDisclosure"], "lang": { "en-us": { "role": { "label": "Individual [Axis]", "terseLabel": "Individual:" } } }, "auth_ref": ["r691", "r701", "r711", "r735", "r743", "r747", "r755"] }, "ecd_InsiderTradingArrLineItems": { "xbrltype": "stringItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "InsiderTradingArrLineItems", "lang": { "en-us": { "role": { "label": "Insider Trading Arrangements [Line Items]", "terseLabel": "Insider Trading Arrangements:" } } }, "auth_ref": ["r753"] }, "ecd_InsiderTradingPoliciesProcLineItems": { "xbrltype": "stringItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "InsiderTradingPoliciesProcLineItems", "lang": { "en-us": { "role": { "label": "Insider Trading Policies and Procedures [Line Items]", "terseLabel": "Insider Trading Policies and Procedures:" } } }, "auth_ref": ["r683", "r759"] }, "ecd_InsiderTrdPoliciesProcAdoptedFlag": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "InsiderTrdPoliciesProcAdoptedFlag", "presentation": ["http://xbrl.sec.gov/ecd/role/InsiderTradingPoliciesProc"], "lang": { "en-us": { "role": { "label": "Insider Trading Policies and Procedures Adopted [Flag]", "terseLabel": "Insider Trading Policies and Procedures Adopted" } } }, "auth_ref": ["r683", "r759"] }, "ecd_InsiderTrdPoliciesProcNotAdoptedTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "InsiderTrdPoliciesProcNotAdoptedTextBlock", "presentation": ["http://xbrl.sec.gov/ecd/role/InsiderTradingPoliciesProc"], "lang": { "en-us": { "role": { "label": "Insider Trading Policies and Procedures Not Adopted [Text Block]", "terseLabel": "Insider Trading Policies and Procedures Not Adopted" } } }, "auth_ref": ["r683", "r759"] }, "us-gaap_IntangibleAssetsFiniteLivedPolicy": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "IntangibleAssetsFiniteLivedPolicy", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesPolicies"], "lang": { "en-us": { "role": { "label": "Intangible Assets, Finite-Lived, Policy [Policy Text Block]", "terseLabel": "Patents", "documentation": "Disclosure of accounting policy for finite-lived intangible assets. This accounting policy also might address: (1) the amortization method used; (2) the useful lives of such assets; and (3) how the entity assesses and measures impairment of such assets." } } }, "auth_ref": ["r431", "r432", "r433", "r435", "r618", "r803"] }, "ctso_InterestExpenseRelatedToFinalPayment": { "xbrltype": "monetaryItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "InterestExpenseRelatedToFinalPayment", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetAvenueCapitalGroupDetails"], "lang": { "en-us": { "role": { "documentation": "Interest expense related to final payment on debt instrument, recorded by the company.", "label": "Interest expense related to final payment", "terseLabel": "Interest expense" } } }, "auth_ref": [] }, "ctso_InterestExpenseRelatedToFinancialAdvisorAndLegalFees": { "xbrltype": "monetaryItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "InterestExpenseRelatedToFinancialAdvisorAndLegalFees", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetAvenueCapitalGroupDetails"], "lang": { "en-us": { "role": { "documentation": "Interest expense related to financial advisor fees and legal fees on debt instrument, recorded by the company.", "label": "Interest Expense Related To Financial Advisor And Legal Fees", "terseLabel": "Interest expense" } } }, "auth_ref": [] }, "us-gaap_InterestIncomeExpenseNonoperatingNet": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "InterestIncomeExpenseNonoperatingNet", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfOperationsAndComprehensiveLoss"], "lang": { "en-us": { "role": { "label": "Interest Income (Expense), Nonoperating, Net", "verboseLabel": "Interest income (expense), net", "documentation": "Amount of interest income (expense) classified as nonoperating." } } }, "auth_ref": ["r623", "r779", "r793"] }, "us-gaap_InterestPaidNet": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "InterestPaidNet", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Interest Paid, Excluding Capitalized Interest, Operating Activities", "terseLabel": "Cash paid during the period for interest", "documentation": "Amount of cash paid for interest, excluding capitalized interest, classified as operating activity. Includes, but is not limited to, payment to settle zero-coupon bond for accreted interest of debt discount and debt instrument with insignificant coupon interest rate in relation to effective interest rate of borrowing attributable to accreted interest of debt discount." } } }, "auth_ref": ["r162", "r164", "r165"] }, "us-gaap_InventoryFinishedGoods": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "InventoryFinishedGoods", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesDetails"], "lang": { "en-us": { "role": { "label": "Inventory, Finished Goods, Gross", "terseLabel": "Inventory - finished goods", "documentation": "Amount before valuation and LIFO reserves of completed merchandise or goods expected to be sold within one year or operating cycle, if longer." } } }, "auth_ref": ["r772"] }, "us-gaap_InventoryNet": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "InventoryNet", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedBalanceSheets"], "lang": { "en-us": { "role": { "label": "Inventory, Net", "terseLabel": "Inventories", "documentation": "Amount after valuation and LIFO reserves of inventory expected to be sold, or consumed within one year or operating cycle, if longer." } } }, "auth_ref": ["r148", "r617", "r651"] }, "us-gaap_InventoryPolicyTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "InventoryPolicyTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesPolicies"], "lang": { "en-us": { "role": { "label": "Inventory, Policy [Policy Text Block]", "terseLabel": "Inventories", "documentation": "Disclosure of inventory accounting policy for inventory classes, including, but not limited to, basis for determining inventory amounts, methods by which amounts are added and removed from inventory classes, loss recognition on impairment of inventories, and situations in which inventories are stated above cost." } } }, "auth_ref": ["r121", "r136", "r147", "r224", "r225", "r226", "r430", "r619"] }, "us-gaap_InventoryRawMaterials": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "InventoryRawMaterials", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesDetails"], "lang": { "en-us": { "role": { "label": "Inventory, Raw Materials, Gross", "terseLabel": "Inventory - raw materials", "documentation": "Amount before valuation and LIFO reserves of raw materials expected to be sold, or consumed within one year or operating cycle, if longer." } } }, "auth_ref": ["r774"] }, "us-gaap_InventoryWorkInProcess": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "InventoryWorkInProcess", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesDetails"], "lang": { "en-us": { "role": { "label": "Inventory, Work in Process, Gross", "terseLabel": "Inventory - work in process", "documentation": "Amount before valuation and LIFO reserves of merchandise or goods in the production process expected to be completed within one year or operating cycle, if longer." } } }, "auth_ref": ["r773"] }, "ctso_IssuanceOfRestrictedStockUnits": { "xbrltype": "monetaryItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "IssuanceOfRestrictedStockUnits", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "documentation": "The fair value of issuance of restricted stock units in noncash financing activities.", "label": "Issuance Of Restricted Stock Units", "terseLabel": "Issuance of restricted stock units" } } }, "auth_ref": [] }, "ctso_JefferiesLlcAndB.RileyFbrIncMember": { "xbrltype": "domainItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "JefferiesLlcAndB.RileyFbrIncMember", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityAdditionalInformationDetails"], "lang": { "en-us": { "role": { "documentation": "Represents information pertaining to Jefferies LLC and B. Riley FBR, Inc.", "label": "Jefferies LLC and B. Riley FBR, Inc", "terseLabel": "Jefferies LLC and B. Riley FBR, Inc" } } }, "auth_ref": [] }, "dei_LegalEntityAxis": { "xbrltype": "stringItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "LegalEntityAxis", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityAdditionalInformationDetails"], "lang": { "en-us": { "role": { "label": "Legal Entity [Axis]", "documentation": "The set of legal entities associated with a report." } } }, "auth_ref": [] }, "us-gaap_LesseeDisclosureAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeDisclosureAbstract", "lang": { "en-us": { "role": { "label": "LEASES" } } }, "auth_ref": [] }, "us-gaap_LesseeLeaseDescriptionLineItems": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeLeaseDescriptionLineItems", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesDetails"], "lang": { "en-us": { "role": { "label": "Lessee, Lease, Description [Line Items]", "terseLabel": "LEASES:", "documentation": "Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table." } } }, "auth_ref": ["r416", "r423"] }, "us-gaap_LesseeLeaseDescriptionTable": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeLeaseDescriptionTable", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesDetails"], "lang": { "en-us": { "role": { "label": "Lessee, Lease, Description [Table]", "documentation": "Disclosure of information about lessee's leases." } } }, "auth_ref": ["r416", "r423"] }, "ctso_LesseeOperatingLeaseBalanceSheetDisclosureTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "LesseeOperatingLeaseBalanceSheetDisclosureTableTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesTables"], "lang": { "en-us": { "role": { "documentation": "Tabular disclosure of Lessee's right-of-use-assets and lease liability under operating lease.", "label": "Lessee, Operating Lease, Balance Sheet Disclosure [Table Text Block]", "terseLabel": "Schedule of right-of- use asset and related lease liability" } } }, "auth_ref": [] }, "us-gaap_LesseeOperatingLeaseDiscountRate": { "xbrltype": "percentItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseDiscountRate", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesDetails"], "lang": { "en-us": { "role": { "label": "Lessee, Operating Lease, Discount Rate", "verboseLabel": "Incremental borrowing rate", "documentation": "Discount rate used by lessee to determine present value of operating lease payments." } } }, "auth_ref": ["r649"] }, "us-gaap_LesseeOperatingLeaseExistenceOfOptionToExtend": { "xbrltype": "booleanItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseExistenceOfOptionToExtend", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesDetails"], "lang": { "en-us": { "role": { "label": "Lessee, Operating Lease, Existence of Option to Extend [true false]", "terseLabel": "Existence of option to extend", "documentation": "Indicates (true false) whether lessee has option to extend operating lease." } } }, "auth_ref": ["r417"] }, "us-gaap_LesseeOperatingLeaseLiabilityMaturityTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityMaturityTableTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesTables"], "lang": { "en-us": { "role": { "label": "Lessee, Operating Lease, Liability, Maturity [Table Text Block]", "terseLabel": "Schedule of maturities of the lease liabilities", "documentation": "Tabular disclosure of undiscounted cash flows of lessee's operating lease liability. Includes, but is not limited to, reconciliation of undiscounted cash flows to operating lease liability recognized in statement of financial position." } } }, "auth_ref": ["r875"] }, "us-gaap_LesseeOperatingLeaseLiabilityPaymentsDue": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityPaymentsDue", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesMaturitiesOfLeaseLiabilitiesDetails"], "lang": { "en-us": { "role": { "label": "Lessee, Operating Lease,

Liability, Payments, Due", "totalLabel": "Total lease payments", "documentation": "Amount of lessee's undiscounted obligation for lease payment for operating lease." } } }, "auth_ref": ["r421"] }, "us-gaap_LesseeOperatingLeaseLiabilityPaymentsDueAfterYearFive": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityPaymentsDueAfterYearFive", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesMaturitiesOfLeaseLiabilitiesDetails"], "lang": { "en-us": { "role": { "label": "Lessee, Operating Lease, Liability, to be Paid, after Year Five", "terseLabel": "Thereafter", "documentation": "Amount of lessee's undiscounted obligation for lease payment for operating lease due after fifth fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth_ref": ["r421"] }, "us-gaap_LesseeOperatingLeaseLiabilityPaymentsDueNextTwelveMonths": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityPaymentsDueNextTwelveMonths", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesMaturitiesOfLeaseLiabilitiesDetails"], "lang": { "en-us": { "role": { "label": "Lessee, Operating Lease, Liability, to be Paid, Year One", "terseLabel": "2025", "documentation": "Amount of lessee's undiscounted obligation for lease payment for operating lease to be paid in next fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth_ref": ["r421"] }, "us-gaap_LesseeOperatingLeaseLiabilityPaymentsDueYearFive": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityPaymentsDueYearFive", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesMaturitiesOfLeaseLiabilitiesDetails"], "lang": { "en-us": { "role": { "label": "Lessee, Operating Lease, Liability, to be Paid, Year Five", "terseLabel": "2029", "documentation": "Amount of lessee's undiscounted obligation for lease payment for operating lease to be paid in fifth fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth_ref": ["r421"] }, "us-gaap_LesseeOperatingLeaseLiabilityPaymentsDueYearFour": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityPaymentsDueYearFour", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesMaturitiesOfLeaseLiabilitiesDetails"], "lang": { "en-us": { "role": { "label": "Lessee, Operating Lease, Liability, to be Paid, Year Four", "terseLabel": "2028", "documentation": "Amount of lessee's undiscounted obligation for lease payment for operating lease to be paid in fourth fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth_ref": ["r421"] }, "us-gaap_LesseeOperatingLeaseLiabilityPaymentsDueYearThree": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityPaymentsDueYearThree", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesMaturitiesOfLeaseLiabilitiesDetails"], "lang": { "en-us": { "role": { "label": "Lessee, Operating Lease, Liability, to be Paid, Year Three", "terseLabel": "2027", "documentation": "Amount of lessee's undiscounted obligation for lease payment for operating lease to be paid in third fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth_ref": ["r421"] }, "us-gaap_LesseeOperatingLeaseLiabilityPaymentsDueYearTwo": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityPaymentsDueYearTwo", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesMaturitiesOfLeaseLiabilitiesDetails"], "lang": { "en-us": { "role": { "label": "Lessee, Operating Lease, Liability, to be Paid, Year Two", "terseLabel": "2026", "documentation": "Amount of lessee's undiscounted obligation for lease payment for operating lease to be paid in second fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth_ref": ["r421"] }, "us-gaap_LesseeOperatingLeaseLiabilityUndiscountedExcessAmount": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseLiabilityUndiscountedExcessAmount", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesMaturitiesOfLeaseLiabilitiesDetails"], "lang": { "en-us": { "role": { "label": "Lessee, Operating Lease, Liability, Undiscounted Excess Amount", "negatedLabel": "Present value discount", "documentation": "Amount of lessee's undiscounted obligation for lease payments in excess of discounted obligation for lease payments for operating lease." } } }, "auth_ref": ["r421"] }, "us-gaap_LesseeOperatingLeaseRemainingLeaseTerm": { "xbrltype": "durationItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseRemainingLeaseTerm", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesDetails"], "lang": { "en-us": { "role": { "label": "Lessee, Operating Lease, Remaining Lease Term", "terseLabel": "Remaining lease term", "documentation": "Remaining lease term of operating lease, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days." } } }, "auth_ref": ["r423", "r873"] }, "us-gaap_LesseeOperatingLeaseRenewalTerm": { "xbrltype": "durationItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseRenewalTerm", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesDetails"], "lang": { "en-us": { "role": { "label": "Lessee, Operating Lease, Renewal Term", "terseLabel": "Renewal term", "documentation": "Term of lessee's operating lease renewal, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days." } } }, "auth_ref": ["r874"] }, "us-gaap_LesseeOperatingLeaseTermOfContract": { "xbrltype": "durationItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeaseTermOfContract", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesDetails"], "lang": { "en-us": { "role": { "label": "Lessee, Operating Lease, Term of Contract", "terseLabel": "Lease term", "documentation": "Term of lessee's operating lease, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days." } } }, "auth_ref": ["r874"] }, "us-gaap_LesseeOperatingLeasesTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LesseeOperatingLeasesTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeases"], "lang": { "en-us": { "role": { "label": "Lessee, Operating Leases [Text Block]", "terseLabel": "LEASES", "documentation": "The entire disclosure for operating leases of lessee. Includes, but is not limited to, description of operating lease and maturity analysis of operating lease liability." } } }, "auth_ref": ["r411"] }, "us-gaap_LetterOfCreditMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LetterOfCreditMember", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesDetails", "http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesDetails"], "lang": { "en-us": { "role": { "label": "Letter of credit [Member]", "terseLabel": "Letter of credit", "documentation": "A document typically issued by a financial institution which acts as a guarantee of payment to a beneficiary, or as the source of payment for a specific transaction (for example, wiring funds to a foreign exporter if and when specified merchandise is accepted pursuant to the terms of the letter of credit)." } } }, "auth_ref": [] }, "us-gaap_Liabilities": { "xbrltype": "monetaryItemType", 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"http://www.cytosorbents.com/role/DisclosureLongTermDebtNetAvenueCapitalGroupDetails"], "lang": { "en-us": { "role": { "label": "Lender Name [Axis]", "documentation": "Information by name of lender, which may be a single entity (for example, but not limited to, a bank, pension fund, venture capital firm) or a group of entities that participate in the line of credit." } } }, "auth_ref": ["r54", "r59", "r783", "r821", "r822"] }, "us-gaap_LineOfCreditFacilityLenderDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LineOfCreditFacilityLenderDomain", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetAdditionalInformationDetails", "http://www.cytosorbents.com/role/DisclosureLongTermDebtNetAvenueCapitalGroupDetails"], "lang": { "en-us": { "role": { "label": "Line of Credit Facility, Lender [Domain]", "documentation": "Identification of the lender, which may be a single entity (for example, a bank, pension fund, venture capital firm) or a group of entities that participate in the line of credit, including a letter of credit facility." } } }, "auth_ref": ["r54", "r59", "r783", "r821"] }, "us-gaap_LineOfCreditFacilityMaximumBorrowingCapacity": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LineOfCreditFacilityMaximumBorrowingCapacity", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetAdditionalInformationDetails"], "lang": { "en-us": { "role": { "label": "Line of Credit Facility, Maximum Borrowing Capacity", "terseLabel": "Maximum borrowing capacity", "documentation": "Maximum borrowing capacity under the credit facility without consideration of any current restrictions on the amount that could be borrowed or the amounts currently outstanding under the facility." } } }, "auth_ref": ["r54", "r59"] }, "ctso_LoanAndSecurityAgreementMember": { "xbrltype": "domainItemType", "nsuri": "http://www.cytosorbents.com/20240630", 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entity." } } }, "auth_ref": [] }, "us-gaap_LongTermDebt": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebt", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetDetails"], "lang": { "en-us": { "role": { "label": "Long-term Debt.", "totalLabel": "Subtotal", "documentation": "Amount, after deduction of unamortized premium (discount) and debt issuance cost, of long-term debt. Excludes lease obligation." } } }, "auth_ref": ["r16", "r108", "r261", "r272", "r627", "r628", "r648", "r886"] }, "ctso_LongTermDebtAccruedFinalFee": { "xbrltype": "monetaryItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "LongTermDebtAccruedFinalFee", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetDetails"], "lang": { "en-us": { "role": { "documentation": "Amount of long term debt accrued final fee.", "label": "Long Term Debt Accrued Final Fee", "terseLabel": "Accrued final fee" } } }, "auth_ref": [] }, "ctso_LongTermDebtAndFinalFee": { "xbrltype": "monetaryItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "LongTermDebtAndFinalFee", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetPrincipalPaymentsDetails"], "lang": { "en-us": { "role": { "documentation": "Amount, after unamortized (discount) premium and debt issuance costs, of long-term debt and final fee.", "label": "Long term Debt And Final Fee", "totalLabel": "Total" } } }, "auth_ref": [] }, "us-gaap_LongTermDebtCurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebtCurrent", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetDetails", "http://www.cytosorbents.com/role/StatementConsolidatedBalanceSheets"], "lang": { "en-us": { "role": { "label": "Long-term Debt, Current Maturities", "negatedLabel": "Less Current maturities", "verboseLabel": "Current maturities of long-term debt", "documentation": "Amount, after deduction of unamortized premium (discount) and debt issuance cost, of long-term debt classified as current. Excludes lease obligation." } } }, "auth_ref": ["r140"] }, "us-gaap_LongTermDebtMaturitiesRepaymentsOfPrincipalInYearFour": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebtMaturitiesRepaymentsOfPrincipalInYearFour", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetPrincipalPaymentsDetails"], "lang": { "en-us": { "role": { "label": "Long-term Debt, Maturities, Repayments of Principal in Year Four", "terseLabel": "2028", "documentation": "Amount of long-term debt payable, sinking fund requirement, and other securities issued that are redeemable by holder at fixed or determinable price and date, maturing in fourth fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth_ref": ["r8", "r171", "r265"] }, "us-gaap_LongTermDebtMaturitiesRepaymentsOfPrincipalInYearThree": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebtMaturitiesRepaymentsOfPrincipalInYearThree", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetPrincipalPaymentsDetails"], "lang": { "en-us": { "role": { "label": "Long-term Debt, Maturities, Repayments of Principal in Year Three", "terseLabel": "2027", "documentation": "Amount of long-term debt payable, sinking fund requirement, and other securities issued that are redeemable by holder at fixed or determinable price and date, maturing in third fiscal year following current fiscal year. Excludes interim and annual periods when interim periods are reported from current statement of financial position date (rolling approach)." } } }, "auth_ref": ["r8", "r171", "r265"] }, "us-gaap_LongTermDebtNoncurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebtNoncurrent", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetDetails", "http://www.cytosorbents.com/role/StatementConsolidatedBalanceSheets"], "lang": { "en-us": { "role": { "label": "Long-term Debt, Excluding Current Maturities", "terseLabel": "Long-term debt", "verboseLabel": "Long-term debt net of current maturities", "documentation": "Amount, after deduction of

unamortized premium (discount) and debt issuance cost, of long-term debt classified as noncurrent. Excludes lease obligation." } } }, "auth_ref": ["r141"] }, "us-gaap_LongTermDebtTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "LongTermDebtTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNet"], "lang": { "en-us": { "role": { "label": "Long-term Debt [Text Block]", "verboseLabel": "LONG-TERM DEBT, NET", "documentation": "The entire disclosure for long-term debt." } } }, "auth_ref": ["r93"] } }, "srt_MajorCustomersAxis": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "MajorCustomersAxis", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesDetails", "http://www.cytosorbents.com/role/DisclosureRevenueRevenueByCustomerTypeAndGeographicAreaDetails"], "lang": { "en-us": { "role": { "label": "Customer [Axis]" } } } }, "auth_ref": ["r216", "r634", "r661", "r665", "r831", "r887", "r888", "r889", 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Financing activity cash flows include obtaining resources from owners and providing them with a return on, and a return of, their investment; borrowing money and repaying amounts borrowed, or settling the obligation; and obtaining and paying for other resources obtained from creditors on long-term credit." } } }, "auth_ref": ["r163"] }, "us-gaap_NetCashProvidedByUsedInFinancingActivitiesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInFinancingActivitiesAbstract", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Net Cash Provided by (Used in) Financing Activities [Abstract]", "terseLabel": "Cash flows from financing activities:" } } }, "auth_ref": [] }, "us-gaap_NetCashProvidedByUsedInInvestingActivities": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInInvestingActivities", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Net Cash Provided by (Used in) Investing Activities", "totalLabel": "Net cash used in investing activities", "documentation": "Amount of cash inflow (outflow) from investing activities, including discontinued operations. Investing activity cash flows include making and collecting loans and acquiring and disposing of debt or equity instruments and property, plant, and equipment and other productive assets." } } }, "auth_ref": ["r163"] }, "us-gaap_NetCashProvidedByUsedInInvestingActivitiesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInInvestingActivitiesAbstract", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Net Cash Provided by (Used in) Investing Activities [Abstract]", "terseLabel": "Cash flows from investing activities:" } } }, "auth_ref": [] }, "us-gaap_NetCashProvidedByUsedInOperatingActivities": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "NetCashProvidedByUsedInOperatingActivities", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Net Cash Provided by (Used in) Operating Activities", "totalLabel": "Net cash used in operating activities", "documentation": "Amount of cash inflow (outflow) from operating activities, including discontinued operations. 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Includes selling, general and administrative expense." } } }, "auth_ref": [] }, "us-gaap_OperatingExpensesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "OperatingExpensesAbstract", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfOperationsAndComprehensiveLoss"], "lang": { "en-us": { "role": { "label": "Operating Expenses [Abstract]", "verboseLabel": "Other expenses:" } } }, "auth_ref": [] }, "us-gaap_OperatingIncomeLoss": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "OperatingIncomeLoss", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfOperationsAndComprehensiveLoss"], "lang": { "en-us": { "role": { "label": "Operating Income (Loss)", "totalLabel": "Loss from operations", "documentation": "The net result for the period of deducting operating expenses from operating revenues." } } }, "auth_ref": ["r115", "r622", "r792", "r793", "r794", "r795", "r796"] }, "us-gaap_OperatingLeaseCost": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "OperatingLeaseCost", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesDetails"], "lang": { "en-us": { "role": { "label": "Operating Lease, Cost", "terseLabel": "Other costs", "documentation": "Amount of single lease cost, calculated by allocation of remaining cost of lease over remaining lease term. Includes, but is not limited to, single lease cost, after impairment of right-of-use asset, calculated by amortization of remaining right-of-use asset and accretion of lease liability." } } }, "auth_ref": ["r418", "r650"] }, "ctso_OperatingLeaseEarlyTermMember": { "xbrltype": "domainItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "OperatingLeaseEarlyTermMember", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesDetails"], "lang": { "en-us": { "role": { "documentation": "This member stands for early term of operating lease.", "label": "Early term [Member]", "terseLabel": "Early term" } } }, "auth_ref": [] }, "us-gaap_OperatingLeaseExpense": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "OperatingLeaseExpense", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesDetails"], "lang": { "en-us": { "role": { "label": "Operating Lease, Expense", "terseLabel": "Monthly payments of base rent and other costs", "documentation": "Amount of operating lease expense. 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May be provided in more than one note to the financial statements, as long as users are provided with an understanding of (1) the significant judgments and assumptions made by an enterprise in determining whether it must consolidate a VIE and/or disclose information about its involvement with a VIE, (2) the nature of restrictions on a consolidated VIE's assets reported by an enterprise in its statement of financial position, including the carrying amounts of such assets, (3) the nature of, and changes in, the risks associated with an enterprise's involvement with the VIE, and (4) how an enterprise's involvement with the VIE affects the enterprise's financial position, financial performance, and cash flows. 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The term is often expanded to include other professions, for example, pharmacists charging to maintain a medicinal profile of a client or customer." } } }, "auth_ref": ["r623", "r676", "r919", "r920"] }, "us-gaap_PropertyPlantAndEquipmentNet": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentNet", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedBalanceSheets"], "lang": { "en-us": { "role": { "label": "Property, Plant and Equipment, Net", "terseLabel": "Property and equipment, net", "documentation": "Amount after accumulated depreciation, depletion and amortization of physical assets used in the normal conduct of business to produce goods and services and not intended for resale. Examples include, but are not limited to, land, buildings, machinery and equipment, office equipment, and furniture and fixtures." } } }, "auth_ref": ["r7", "r422", "r470", "r481", "r651"] }, "us-gaap_PropertyPlantAndEquipmentPolicyTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "PropertyPlantAndEquipmentPolicyTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesPolicies"], "lang": { "en-us": { "role": { "label": "Property, Plant and Equipment, Policy [Policy Text Block]", "terseLabel": "Property and Equipment", "documentation": "Disclosure of accounting policy for long-lived, physical asset used in normal conduct of business and not intended for resale. Includes, but is not limited to, work of art, historical treasure, and similar asset classified as collections." } } }, "auth_ref": ["r7", "r126", "r129", "r480"] }, "us-gaap_ProvisionForDoubtfulAccounts": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ProvisionForDoubtfulAccounts", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Provision for Doubtful Accounts", "terseLabel": "Bad debt expense (recovery)", "documentation": "Amount of expense (reversal of expense) for expected credit loss on accounts receivable." } } }, "auth_ref": ["r160", "r223"] }, "ecd_PvpTable": { "xbrltype": "stringItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "PvpTable", "presentation": ["http://xbrl.sec.gov/ecd/role/PvpDisclosure"], "lang": { "en-us": { "role": { "label": "Pay vs Performance Disclosure [Table]", "terseLabel": "Pay vs Performance 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Includes, but is not limited to, cost for computer software product to be sold, leased, or otherwise marketed and writeoff of research and development assets acquired in transaction other than business combination or joint venture formation or both. Excludes write-down of intangible asset acquired in business combination or from joint venture formation or both, used in research and development activity." } } }, "auth_ref": ["r356", "r612", "r623", "r885"] }, "us-gaap_ResearchAndDevelopmentExpensePolicy": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ResearchAndDevelopmentExpensePolicy", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesPolicies"], "lang": { "en-us": { "role": { "label": "Research and Development Expense, Policy [Policy Text Block]", "verboseLabel": "Research and Development and Clinical Trial Expenses", "documentation": "Disclosure of accounting policy for costs it has incurred (1) in a planned search or critical investigation aimed at discovery of new knowledge with the hope that such knowledge will be useful in developing a new product or service, a new process or technique, or in bringing about a significant improvement to an existing product or process; or (2) to translate research findings or other knowledge into a plan or design for a new product or process or for a significant improvement to an existing product or process." } } }, "auth_ref": ["r355"] }, "ecd_RestatementDateAxis": { "xbrltype": "stringItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "RestatementDateAxis", "presentation": ["http://xbrl.sec.gov/ecd/role/ErrCompDisclosure"], "lang": { "en-us": { "role": { "label": "Restatement Determination Date [Axis]", "terseLabel": "Restatement Determination Date:" } } }, "auth_ref": ["r685", "r695", "r705", "r737"] }, "ecd_RestatementDeterminationDate": { "xbrltype": "dateItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "RestatementDeterminationDate", "presentation": ["http://xbrl.sec.gov/ecd/role/ErrCompDisclosure"], "lang": { "en-us": { "role": { "label": "Restatement Determination Date", "terseLabel": "Restatement Determination Date" } } }, "auth_ref": ["r686", "r696", "r706", "r738"] }, "ecd_RestatementDoesNotRequireRecoveryTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "RestatementDoesNotRequireRecoveryTextBlock", "presentation": ["http://xbrl.sec.gov/ecd/role/ErrCompDisclosure"], "lang": { "en-us": { "role": { "label": "Restatement Does Not Require Recovery [Text Block]", "terseLabel": "Restatement does not require Recovery" } } }, "auth_ref": ["r693", "r703", "r713", "r745"] }, "us-gaap_RestrictedCashAndCashEquivalents": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RestrictedCashAndCashEquivalents", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesCashAndCashEquivalentsDetails"], "lang": { "en-us": { "role": { "label": "Restricted Cash and Cash Equivalents", "terseLabel": "Restricted cash", "documentation": "Amount of cash and cash equivalents restricted as to withdrawal or usage. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates." } } }, "auth_ref": ["r22", "r105", "r137", "r167", "r474"] }, "us-gaap_RestrictedCashAndCashEquivalentsAtCarryingValue": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RestrictedCashAndCashEquivalentsAtCarryingValue", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosureBasisOfPresentationDetails"], "lang": { "en-us": { "role": { "label": "Restricted Cash and Cash Equivalents, Current", "terseLabel": "Restricted cash", "documentation": "Amount of cash and cash equivalents restricted as to withdrawal or usage, classified as current. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits. Cash equivalents include, but are not limited to, short-term, highly liquid investments that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates." } } }, "auth_ref": ["r22", "r137", "r167"] }, "us-gaap_RestrictedCashNoncurrent": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RestrictedCashNoncurrent", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetAvenueCapitalGroupDetails", "http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesDetails", "http://www.cytosorbents.com/role/StatementConsolidatedBalanceSheets"], "lang": { "en-us": { "role": { "label": "Restricted Cash, Noncurrent", "terseLabel": "Restricted cash", "documentation": "Amount of cash restricted as to withdrawal or usage, classified as noncurrent. Cash includes, but is not limited to, currency on hand, demand deposits with banks or financial institutions, and other accounts with general characteristics of demand deposits." } } }, "auth_ref": ["r120", "r770", "r781"] }, "us-gaap_RestrictedStockExpense": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RestrictedStockExpense", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityRestrictedStockUnitDetails"], "lang": { "en-us": { "role": { "label": "Restricted Stock or Unit Expense", "terseLabel": "Restricted Stock Units, Expense", "documentation": "Amount of noncash expense for award of restricted stock or unit under share-based payment arrangement." } } }, "auth_ref": ["r6"] }, "us-gaap_RestrictedStockUnitsRSUMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RestrictedStockUnitsRSUMember", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityAdditionalInformationDetails", "http://www.cytosorbents.com/role/DisclosureStockholdersEquityRestrictedStockUnitActivityDetails", "http://www.cytosorbents.com/role/DisclosureStockholdersEquityRestrictedStockUnitDetails"], "lang": { "en-us": { "role": { "label": "Restricted Stock Units (RSUs) [Member]", "terseLabel": "Restricted stock", "documentation": "Share instrument which is convertible to stock or an equivalent amount of cash, after a specified period of time or when specified performance conditions are met." } } }, "auth_ref": [] }, "us-gaap_RetainedEarningsAccumulatedDeficit": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RetainedEarningsAccumulatedDeficit", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedBalanceSheets"], "lang": { "en-us": { "role": { "label": "Retained Earnings (Accumulated Deficit)", "terseLabel": "Accumulated deficit", "documentation": "Amount of accumulated undistributed earnings (deficit)." } } }, "auth_ref": ["r67", "r97", "r478", "r500", "r502", "r511", "r538", "r651"] }, "us-gaap_RetainedEarningsMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RetainedEarningsMember", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfChangesInStockholdersEquity"], "lang": { "en-us": { "role": { "label": "Accumulated Deficit [Member]", "terseLabel": "Accumulated Deficit", "documentation": "Accumulated undistributed earnings (deficit)." } } }, "auth_ref": ["r132", "r172", "r173", "r174", "r176", "r181", "r183", "r185", "r220", "r221", "r236", "r370", "r371", "r373", "r374", "r375", "r377", "r378", "r379", "r385", "r387", "r388", "r390", "r392", "r410", "r412", "r497", "r499", "r512", "r922"] }, "us-gaap_RevenueFromContractWithCustomerAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenueFromContractWithCustomerAbstract", "lang": { "en-us": { "role": { "label": "REVENUE" } } }, "auth_ref": [] }, "us-gaap_RevenueFromContractWithCustomerIncludingAssessedTax": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenueFromContractWithCustomerIncludingAssessedTax", "crdr": "credit", "presentation": ["http://www.cytosorbents.com/role/DisclosureRevenueRevenueByCustomerTypeAndGeographicAreaDetails", "http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfOperationsAndComprehensiveLoss"], "lang": { "en-us": { "role": { "label": "Revenue from Contract with Customer, Including Assessed Tax", "terseLabel": "Total revenue", "documentation": "Amount, including tax collected from customer, of revenue from satisfaction of performance obligation by transferring promised good or service to customer. Tax collected from customer is tax assessed by governmental authority that is both imposed on and concurrent with specific revenue-producing transaction, including, but not limited to, sales, use, value-added and excise." } } }, "auth_ref": ["r113", "r114", "r203", "r208", "r209", "r210", "r212", "r213", "r214", "r216", "r308", "r309", "r434"] }, "us-gaap_RevenueFromContractWithCustomerMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenueFromContractWithCustomerMember", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesDetails"], "lang": { "en-us": { "role": { "label": "Sales Revenue, Net [Member]", "terseLabel": "Revenue", "documentation": "Revenue from satisfaction of performance obligation by transferring promised product and service to customer, when it serves as benchmark in concentration of risk calculation." } } }, "auth_ref": ["r216", "r768"] }, "us-gaap_RevenueFromContractWithCustomerPolicyTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenueFromContractWithCustomerPolicyTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesPolicies"], "lang": { "en-us": { "role": { "label": "Revenue from Contract with Customer [Policy Text Block]", "terseLabel": "Revenue Recognition", "documentation": "Disclosure of accounting policy for revenue from contract with customer." } } }, "auth_ref": ["r130", "r300", "r301", "r302", "r303", "r304", "r305", "r306", "r307", "r613"] }, "us-gaap_RevenueFromContractWithCustomerTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenueFromContractWithCustomerTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosureRevenue"], "lang": { "en-us": { "role": { "label": "Revenue from Contract with Customer [Text Block]", "terseLabel": "REVENUE", "documentation": "The entire disclosure of revenue from contract with customer to transfer good or service and to transfer nonfinancial asset. Includes, but is not limited to, disaggregation of revenue, credit loss recognized from contract with customer, judgment and change in judgment related to contract with customer, and asset recognized from cost incurred to obtain or fulfill contract with customer. Excludes insurance and lease contracts." } } }, "auth_ref": ["r130", "r292", "r293", "r294", "r295", "r296", "r297", "r298", "r299", "r311"] }, "us-gaap_RevenuesAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RevenuesAbstract", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfOperationsAndComprehensiveLoss"], "lang": { "en-us": { "role": { "label": "Revenues [Abstract]", "terseLabel": "Revenue:" } } }, "auth_ref": [] }, "us-gaap_RoyaltyAgreementsMember": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RoyaltyAgreementsMember", "presentation": ["http://www.cytosorbents.com/role/DisclosureCommitmentsAndContingenciesDetails"], "lang": { "en-us": { "role": { "label": "Royalty Agreements [Member]", "verboseLabel": "Royalty Agreement", "documentation": "Contractual arrangement, generally for a defined period of time, entitling the entity to use the rights and property of another party. Examples include, but not limited to, licensing the use of copyrighted materials and leasing the extraction of natural resources." } } }, "auth_ref": ["r46", "r357", "r804", "r805", "r806", "r807", "r808", "r809", "r810", "r811", "r860"] }, "us-gaap_RoyaltyExpense": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "RoyaltyExpense", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/DisclosureCommitmentsAndContingenciesDetails"], "lang": { "en-us": { "role": { "label": "Royalty Expense", "terseLabel": "Royalty cost", "documentation": "Amount of expense related to royalty payments under a contractual arrangement such as payment for mineral and drilling rights and use of technology or intellectual property." } } }, "auth_ref": ["r78"] }, "ctso_RoyaltyPaymentRate": { "xbrltype": "percentItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "RoyaltyPaymentRate", "presentation": ["http://www.cytosorbents.com/role/DisclosureCommitmentsAndContingenciesDetails"], "lang": { "en-us": { "role": { "documentation": "The

rate of royalty payment.", "label": "Royalty Payment Rate", "terseLabel": "Future royalty payment percentage on gross revenue" } } }, "auth_ref": [] }, "ctso_RoyaltyPaymentsForInterest": { "xbrltype": "percentItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "RoyaltyPaymentsForInterest", "presentation": ["http://www.cytosorbents.com/role/DisclosureCommitmentsAndContingenciesDetails"], "lang": { "en-us": { "role": { "documentation": "Percentage for royalty payments equal.", "label": "Royalty Payments For Interest", "terseLabel": "Percentage of royalty" } } }, "auth_ref": [] }, "ctso_RoyaltyRateLowerLimit": { "xbrltype": "percentItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "RoyaltyRateLowerLimit", "presentation": ["http://www.cytosorbents.com/role/DisclosureCommitmentsAndContingenciesDetails"], "lang": { "en-us": { "role": { "documentation": "The rate of royalty rate lower limit.", "label": "Royalty Rate Lower Limit", "terseLabel": "Royalty rate, lower limit" } } }, "auth_ref": [] }, "ctso_RoyaltyRateUpperLimit": { "xbrltype": "percentItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "RoyaltyRateUpperLimit", "presentation": ["http://www.cytosorbents.com/role/DisclosureCommitmentsAndContingenciesDetails"], "lang": { "en-us": { "role": { "documentation": "The rate of royalty rate upper limit", "label": "Royalty Rate Upper Limit", "terseLabel": "Royalty rate, upper limit" } } }, "auth_ref": [] }, "ecd_Rule10b51ArrAdoptedFlag": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "Rule10b51ArrAdoptedFlag", "presentation": ["http://xbrl.sec.gov/ecd/role/InsiderTradingArrangements"], "lang": { "en-us": { "role": { "label": "Rule 10b5-1 Arrangement Adopted [Flag]", "terseLabel": "Rule 10b5-1 Arrangement Adopted" } } }, "auth_ref": ["r754"] }, "ecd_Rule10b51ArrTrmntdFlag": { "xbrltype": "booleanItemType", "nsuri": "http://xbrl.sec.gov/ecd/2024", "localname": "Rule10b51ArrTrmntdFlag", "presentation": ["http://xbrl.sec.gov/ecd/role/InsiderTradingArrangements"], "lang": { "en-us": { "role": { "label": "Rule 10b5-1 Arrangement Terminated [Flag]", "terseLabel": "Rule 10b5-1 Arrangement Terminated" } } }, "auth_ref": ["r754"] }, "us-gaap_SaleOfStockPricePerShare": { "xbrltype": "perShareItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "SaleOfStockPricePerShare", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityAdditionalInformationDetails"], "lang": { "en-us": { "role": { "label": "Sale of Stock, Price Per Share", "terseLabel": "Average selling price", "documentation": "Per share amount received by subsidiary or equity investee for each share of common stock issued or sold in the stock transaction." } } }, "auth_ref": [] }, "ctso_SaleRevenuesGoodsNetAbstract": { "xbrltype": "stringItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "SaleRevenuesGoodsNetAbstract", "presentation": ["http://www.cytosorbents.com/role/DisclosureRevenueRevenueByCustomerTypeAndGeographicAreaDetails"], "lang": { "en-us": { "role": { "documentation": "Sale Revenues Goods Net", "label": "Sale Revenues Goods Net [Abstract]", "verboseLabel": "Product sales:" } } }, "auth_ref": [] }, "srt_ScenarioUnspecifiedDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "ScenarioUnspecifiedDomain", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesDetails", "http://www.cytosorbents.com/role/DisclosureLongTermDebtNetAvenueCapitalGroupDetails", "http://www.cytosorbents.com/role/DisclosureStockholdersEquityAdditionalInformationDetails"], "lang": { "en-us": { "role": { "label": "Scenario, Unspecified [Domain]" } } }, "auth_ref": ["r186", "r314", "r766", "r789"] }, "us-gaap_ScheduleOfCapitalizationLineItems": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfCapitalizationLineItems", "presentation": ["http://www.cytosorbents.com/role/DisclosureBasisOfPresentationDetails"], "lang": { "en-us": { "role": { "label": "Schedule of Capitalization [Line Items]", "verboseLabel": "BASIS OF PRESENTATION", "documentation": "Line items represent financial concepts included in a table. These concepts are used to disclose reportable information associated with domain members defined in one or many axes to the table." } } }, "auth_ref": [] }, "ctso_ScheduleOfCashAndCashEquivalentsAndRestrictedCashAndCashEquivalentsTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "ScheduleOfCashAndCashEquivalentsAndRestrictedCashAndCashEquivalentsTableTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosurePrincipalBusinessActivityAndSummaryOfSignificantAccountingPoliciesTables"], "lang": { "en-us": { "role": { "documentation": "Tabular disclosure of the components of cash and cash equivalents and restricted cash and cash equivalents.", "label": "Schedule Of Cash And Cash Equivalents And Restricted Cash And Cash Equivalents [Table Text Block]", "terseLabel": "Schedule of reconciliation of cash and cash equivalents and restricted cash and cash equivalents" } } }, "auth_ref": [] }, "us-gaap_ScheduleOfCollaborativeArrangementsAndNoncollaborativeArrangementTransactionsTable": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfCollaborativeArrangementsAndNoncollaborativeArrangementTransactionsTable", "presentation": ["http://www.cytosorbents.com/role/DisclosureBasisOfPresentationDetails"], "lang": { "en-us": { "role": { "label": "Schedule of Collaborative Arrangements and Non-collaborative Arrangement Transactions [Table]", "documentation": "Disclosure of information about collaborative arrangement and arrangement other than collaborative applicable to revenue-generating activity or operations." } } }, "auth_ref": ["r380"] }, "us-gaap_ScheduleOfDebtInstrumentsTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfDebtInstrumentsTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetTables"], "lang": { "en-us": { "role": { "label": "Schedule of Long-term Debt Instruments [Table Text Block]", "verboseLabel": "Schedule of Long-term debt", "documentation": "Tabular disclosure of long-debt instruments or arrangements, including identification, terms, features, collateral requirements and other information necessary to a fair presentation. These are debt arrangements that originally required repayment more than twelve months after issuance or greater than the normal operating cycle of the entity, if longer." } } }, "auth_ref": ["r16", "r36", "r37", "r49", "r95", "r96", "r627", "r629", "r785", "r869"] }, "us-gaap_ScheduleOfEarningsPerShareBasicByCommonClassTable": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfEarningsPerShareBasicByCommonClassTable", "presentation": ["http://www.cytosorbents.com/role/DisclosureNetLossPerShareDetails"], "lang": { "en-us": { "role": { "label": "Schedule of Earnings Per Share, Basic, by Common Class, Including Two Class Method [Table]", "documentation": "Disclosure of information about basic earnings per share by class of stock. Includes, but is not limited to, two-class method." } } }, "auth_ref": ["r24", "r27", "r191", "r192", "r195"] }, "us-gaap_ScheduleOfMaturitiesOfLongTermDebtTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfMaturitiesOfLongTermDebtTableTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetTables"], "lang": { "en-us": { "role": { "label": "Schedule of Maturities of Long-term Debt [Table Text Block]", "verboseLabel": "Schedule of Principal payments of long-term debt", "documentation": "Tabular disclosure of maturity and sinking fund requirement for long-term debt." } } }, "auth_ref": ["r8"] }, "us-gaap_ScheduleOfNonvestedShareActivityTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfNonvestedShareActivityTableTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityTables"], "lang": { "en-us": { "role": { "label": "Schedule of Nonvested Share Activity [Table Text Block]", "terseLabel": "Schedule of company's non-vested options", "documentation": "Tabular disclosure of the changes in outstanding nonvested shares." } } }, "auth_ref": ["r102"] }, "us-gaap_ScheduleOfShareBasedCompensationRestrictedStockUnitsAwardActivityTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfShareBasedCompensationRestrictedStockUnitsAwardActivityTableTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityTables"], "lang": { "en-us": { "role": { "label": "Schedule of Share-based Compensation, Restricted Stock Units Award Activity [Table Text Block]", "verboseLabel": "Schedule of restricted stock unit", "documentation": "Tabular disclosure of the number and weighted-average grant date fair value for restricted stock units that were outstanding at the beginning and end of the year, and the number of restricted stock units that were granted, vested, or forfeited during the year." } } }, "auth_ref": ["r98"] }, "us-gaap_ScheduleOfShareBasedCompensationSharesAuthorizedUnderStockOptionPlansByExercisePriceRangeTable": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfShareBasedCompensationSharesAuthorizedUnderStockOptionPlansByExercisePriceRangeTable", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityIntrinsicValueDetails"], "lang": { "en-us": { "role": { "label": "Schedule of Share-based Compensation, Shares Authorized under Stock Option Plans, by Exercise Price Range [Table]", "documentation": "Disclosure of information about share-based payment arrangement by range of exercise prices." } } }, "auth_ref": ["r39"] }, "us-gaap_ScheduleOfShareBasedCompensationSharesAuthorizedUnderStockOptionPlansByExercisePriceRangeTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfShareBasedCompensationSharesAuthorizedUnderStockOptionPlansByExercisePriceRangeTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityTables"], "lang": { "en-us": { "role": { "label": "Schedule of Share-based Compensation, Shares Authorized under Stock Option Plans, by Exercise Price Range [Table Text Block]", "terseLabel": "Schedule of intrinsic value", "documentation": "Tabular disclosure of option exercise prices, by grouped ranges, including the upper and lower limits of the price range, the number of shares under option, weighted average exercise price and remaining contractual option terms." } } }, "auth_ref": ["r39"] }, "us-gaap_ScheduleOfShareBasedCompensationStockOptionsActivityTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfShareBasedCompensationStockOptionsActivityTableTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityTables"], "lang": { "en-us": { "role": { "label": "Share-based Compensation, Stock Options, Activity [Table Text Block]", "terseLabel": "Schedule of stock options activity", "documentation": "Tabular disclosure for stock option plans. Includes, but is not limited to, outstanding awards at beginning and end of year, grants, exercises, forfeitures, and weighted-average grant date fair value." } } }, "auth_ref": ["r13", "r14", "r98"] }, "us-gaap_ScheduleOfSharebasedCompensationRestrictedStockAndRestrictedStockUnitsActivityTableTextBlock": { "xbrltype": "textBlockItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ScheduleOfSharebasedCompensationRestrictedStockAndRestrictedStockUnitsActivityTableTextBlock", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityTables"], "lang": { "en-us": { "role": { "label": "Schedule of Share-based Compensation, Restricted Stock and Restricted Stock Units Activity [Table Text Block]", "terseLabel": "Schedule of the restricted stock unit activity", "documentation": "Disclosure of the number and weighted-average grant date fair value for restricted stock and restricted stock units that were outstanding at the beginning and end of the year, and the number of restricted stock and restricted stock units that were granted, vested, or forfeited during the year." } } }, "auth_ref": [] }, "ctso_SecondTrancheMember": { "xbrltype": "domainItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "SecondTrancheMember", "presentation": ["http://www.cytosorbents.com/role/DisclosureLongTermDebtNetAdditionalInformationDetails"], "lang": { "en-us": { "role": { "documentation": "This member stands for second tranche Member.", "label": "Second Tranche [Member]", "terseLabel": "Second Tranche" } } }, "auth_ref": [] }, "dei_Security12bTitle": { "xbrltype": "securityTitleItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "Security12bTitle", "presentation": ["http://www.cytosorbents.com/role/DocumentDocumentAndEntityInformation"], "lang": { "en-us": { "role": { "label": "Title of 12(b) Security", "documentation": "Title of a 12(b) registered security." } } }, "auth_ref": ["r679"] }, "dei_SecurityExchangeName": { "xbrltype": "edgarExchangeCodeItemType", "nsuri": "http://xbrl.sec.gov/dei/2024", "localname": "SecurityExchangeName", "presentation": ["http://www.cytosorbents.com/role/DocumentDocumentAndEntityInformation"], "lang": { "en-us": { "role": { "label": "Security Exchange Name", "documentation": "Name of the Exchange on which a security is registered." } } }, "auth_ref": ["r681"] }, "srt_SegmentGeographicalDomain": { "xbrltype": "domainItemType", "nsuri": "http://fasb.org/srt/2024", "localname": "SegmentGeographicalDomain", "presentation": ["http://www.cytosorbents.com/role/DisclosureLeasesDetails", "http://www.cytosorbents.com/role/DisclosureRevenueRevenueByCustomerTypeAndGeographicAreaDetails"], "lang": { "en-us": { "role": { "label": "Geographical [Domain]" } } }, "auth_ref": ["r214", "r215", "r437", "r438", "r439", "r440", "r441", "r442", "r443", "r444", "r445", "r446", "r447", "r448", "r449", "r450", "r451", "r452", "r453", "r454", "r455", "r456", "r457", "r458", "r459", "r460", "r461", "r462", "r463", "r464", "r465", "r466", "r524", "r525", "r526", "r583", "r585", "r588", "r590", "r597", "r600", "r601", "r602", "r603", "r605", "r606", "r607", "r608", "r609", "r615", "r633", "r652", "r653", "r654", "r655", "r656", "r657", "r658", "r659", "r664", "r670", "r831", "r887", "r888", "r889", "r891", "r892", "r893", "r894", "r895", "r896", "r897", "r898", "r899", "r900", "r901", "r902", "r903", "r904", "r905", "r906", "r907", "r908", "r909", "r910", "r911", "r912", "r913", "r914", "r915"] }, "us-gaap_SellingGeneralAndAdministrativeExpense": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "SellingGeneralAndAdministrativeExpense", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfOperationsAndComprehensiveLoss"], "lang": { "en-us": { "role": { "label": "Selling, General and Administrative Expense", "terseLabel": "Selling, general and administrative", "documentation": "The aggregate total costs related to selling a firm's product and services, as well as all other general and administrative expenses. Direct selling expenses (for example, credit, warranty, and advertising) are expenses that can be directly linked to the sale of specific products. Indirect selling expenses are expenses that cannot be directly linked to the sale of specific products, for example telephone expenses, Internet, and postal charges. General and administrative expenses include salaries of non-sales personnel, rent, utilities, communication, etc." } } }, "auth_ref": ["r79"] }, "ctso_SeniorManagersMember": { "xbrltype": "domainItemType", "nsuri": "http://www.cytosorbents.com/20240630", "localname": "SeniorManagersMember", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityAdditionalInformationDetails"], "lang": { "en-us": { "role": { "documentation": "This member stands for senior managers.", "label": "Senior managers [Member]", "terseLabel": "Senior managers" } } }, "auth_ref": [] }, "us-gaap_ShareBasedCompensation": { "xbrltype": "monetaryItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensation", "crdr": "debit", "presentation": ["http://www.cytosorbents.com/role/StatementConsolidatedStatementsOfCashFlows"], "lang": { "en-us": { "role": { "label": "Share-based Compensation", "terseLabel": "Stock-based compensation", "documentation": "Amount of noncash expense for share-based payment arrangement." } } }, "auth_ref": ["r5"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardAwardVestingPeriod1": { "xbrltype": "durationItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardAwardVestingPeriod1", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityAdditionalInformationDetails"], "lang": { "en-us": { "role": { "label": "Share-based Compensation Arrangement by Share-based Payment Award, Award Vesting Period", "terseLabel": "Vesting period", "documentation": "Period over which grantee's right to exercise award under share-based payment arrangement is no longer contingent on satisfaction of service or performance condition, in 'PnYnMnDTnHnMnS' format, for example, 'P1Y5M13D' represents reported fact of one year, five months, and thirteen days. Includes, but is not limited to, combination of market, performance or service condition." } } }, "auth_ref": ["r640"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsForfeitedInPeriod": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsForfeitedInPeriod", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityAdditionalInformationDetails", "http://www.cytosorbents.com/role/DisclosureStockholdersEquityRestrictedStockUnitActivityDetails"], "lang": { "en-us": { "role": { "label": "Share-based Compensation Arrangement by Share-based Payment Award, Equity Instruments Other than Options, Forfeited in Period", "negatedLabel": "Forfeited", "terseLabel": "RSU Forfeited (in shares)", "documentation": "The number of equity-based payment instruments, excluding stock (or unit) options, that were forfeited during the reporting period." } } }, "auth_ref": ["r334"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsForfeituresWeightedAverageGrantDateFairValue": { "xbrltype": "perShareItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsForfeituresWeightedAverageGrantDateFairValue", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityRestrictedStockUnitActivityDetails"], "lang": { "en-us": { "role": { "label": "Share-based Compensation Arrangement by Share-based Payment Award, Equity Instruments Other than Options, Forfeitures, Weighted Average Grant Date Fair Value", "terseLabel": "Forfeited", "documentation": "Weighted average fair value as of the grant date of equity-based award plans other than stock (unit) option plans that were not exercised or put into effect as a result of the occurrence of a terminating event." } } }, "auth_ref": ["r334"] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsGrantsInPeriod": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsGrantsInPeriod", "presentation": ["http://www.cytosorbents.com/role/DisclosureStockholdersEquityAdditionalInformationDetails", "http://www.cytosorbents.com/role/DisclosureStockholdersEquityRestrictedStockUnitActivityDetails"], "lang": { "en-us": { "role": { "label": "Share-based Compensation Arrangement by Share-based Payment Award, Equity Instruments Other than Options, Grants in Period", "terseLabel": "Options to grant (in shares)", "verboseLabel": "Granted", "documentation": "The number of grants made during the period on other than stock (or unit) option plans (for example, phantom stock or unit plan, stock or unit appreciation rights plan, performance target plan)." } } },

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Excludes share and unit options." } } }, "auth_ref": [ "r329", "r330" ] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsNonvestedWeightedAverageGrantDateFairValueRollForward": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsNonvestedWeightedAverageGrantDateFairValueRollForward", "presentation": [ "http://www.cytosorbents.com/role/DisclosureStockholdersEquityRestrictedStockUnitActivityDetails" ], "lang": { "en-us": { "role": { "label": "Share-based Compensation Arrangement by Share-based Payment Award, Equity Instruments Other than Options, Nonvested, Weighted Average Grant Date Fair Value [Abstract]", "verboseLabel": "Weighted Average Grant Date Fair Value" } } }, "auth_ref": [] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardEquityInstrumentsOtherThanOptionsVestedInPeriod": { 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Volatility also may be defined as a probability-weighted measure of the dispersion of returns about the mean. The volatility of a share price is the standard deviation of the continuously compounded rates of return on the share over a specified period. That is the same as the standard deviation of the differences in the natural logarithms of the stock prices plus dividends, if any, over the period." } } }, "auth_ref": [ "r342" ] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsRiskFreeInterestRateMaximum": { "xbrltype": "percentItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsRiskFreeInterestRateMaximum", "presentation": [ "http://www.cytosorbents.com/role/DisclosureStockholdersEquityAdditionalInformationDetails" ], "lang": { "en-us": { "role": { "label": "Share-based Compensation Arrangement by Share-based Payment Award, Fair Value Assumptions, Risk Free Interest Rate, Maximum", "terseLabel": "Risk free interest rate range", "documentation": "The maximum risk-free interest rate assumption that is used in valuing an option on its own shares." } } }, "auth_ref": [] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsRiskFreeInterestRateMinimum": { "xbrltype": "percentItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardFairValueAssumptionsRiskFreeInterestRateMinimum", "presentation": [ "http://www.cytosorbents.com/role/DisclosureStockholdersEquityAdditionalInformationDetails" ], "lang": { "en-us": { "role": { "label": "Share-based Compensation Arrangement by Share-based Payment Award, Fair Value Assumptions, Risk Free Interest Rate, Minimum", "terseLabel": "Risk free interest rate, minimum", "documentation": "The minimum risk-free interest rate assumption that is used in valuing an option on its own shares." } } }, "auth_ref": [] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardNonOptionEquityInstrumentsForfeitures": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardNonOptionEquityInstrumentsForfeitures", "presentation": [ "http://www.cytosorbents.com/role/DisclosureStockholdersEquityRestrictedStockUnitDetails" ], "lang": { "en-us": { "role": { "label": "Share-based Compensation Arrangement by Share-based Payment Award, Non-Option Equity Instruments, Forfeitures", "negatedLabel": "Forfeited", "documentation": "Number of shares under non-option equity instrument agreements that were cancelled as a result of occurrence of a terminating event." } } }, "auth_ref": [ "r101" ] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardNonOptionEquityInstrumentsGranted": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardNonOptionEquityInstrumentsGranted", "presentation": [ "http://www.cytosorbents.com/role/DisclosureStockholdersEquityRestrictedStockUnitDetails" ], "lang": { "en-us": { "role": { "label": "Share-based Compensation Arrangement by Share-based Payment Award, Non-Option Equity Instruments, Granted", "verboseLabel": "Granted", "documentation": "Net number of non-option equity instruments granted to participants." } } }, "auth_ref": [ "r12" ] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardNonOptionEquityInstrumentsOutstandingNumber": { "xbrltype": "sharesItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardNonOptionEquityInstrumentsOutstandingNumber", "presentation": [ "http://www.cytosorbents.com/role/DisclosureStockholdersEquityRestrictedStockUnitDetails" ], "lang": { "en-us": { "role": { "label": "Share-based Compensation Arrangement by Share-based Payment Award, Non-Option Equity Instruments, Outstanding, Number", "periodEndLabel": "Restricted Stock Units, Ending Balance", "periodStartLabel": "Restricted Stock Units, Beginning Balance", "documentation": "Number of equity instruments other than options outstanding, including both vested and non-vested instruments." } } }, "auth_ref": [ "r99", "r100" ] }, "us-gaap_ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsAdditionalDisclosuresAbstract": { "xbrltype": "stringItemType", "nsuri": "http://fasb.org/us-gaap/2024", "localname": "ShareBasedCompensationArrangementByShareBasedPaymentAwardOptionsAdditionalDisclosuresAbstract", "presentation": [ "http://www.cytosorbents.com/role/DisclosureStockholdersEquityIntrinsicValueDetails", "http://www.cytosorbents.com/role/DisclosureStockholdersEquityStockOptionActivityDetails" ], "lang": { "en-us": { "role": { "label": "Share-based Compensation Arrangement by Share-based Payment Award, Options, Additional Disclosures [Abstract]", "terseLabel": "Weighted Average Remaining Contractual Life (Years)", "verboseLabel": "Options Exercisable" } } }, "auth_ref": [] },
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J[: ?:@TS7&W[O=R;CAE ZG-A_E<#9< MA1L@KBQG"419X/;X2/N.S&-CB48*>7R>S^/Q!/Z[ZPXF8V-X8PSONZ/VI < M1GMP#9!W]Z/N]^Y@W/O1-?K#<3,)#CP).H#I^4%F@M]2SG3
J7!^P*E@_()= M&N= _;^9$V3G1(7)Q8SM/NC)@"U^XW#^46>Z=]OB[<=,?_FS6=;9"=2\8-]F* MV%>>9)Q*V39=]LC<-:S"L;=<K>SL9LSD$W-PEWVZ:R:AF?WP,O348EL@^7 M+/S7_9?''HF-?
5U3ES [H8R]=''?YBMR'0C=+G[46_0Z=VW^\;5P[@WZ,+: M;W3:_3'DP IC-\&$QZ@UOC'B9@I]<= MXW2$81F@&QHF_J#; 1J_!$-L!$KV9.P[?
#ZA:!9.W8!3;8\,GSAW[!*BU4#ZF8L]PRHHE5:R*G_- ;=2;.DRO-I M(W_OR7J9(Z=UJQ5S\D*'DR"%PQZ,5=!%PUX=]E(BJ;PCKB=@"!2T*?6ES\B4 MV>I+0,0DA_5KYDK57U,XW&V/U6ZX;=UP9H:
[H(:-?1CVMI.&RX?D-CUS'_M7#BV185$>\9=ZUK-.2T4&T#!L//?WX?]Z^YH_!]&]W\> MP$AJF)\IMZ^(9,"J^PC2&8(Z!{)(,I^=GNU*YJOVN*=8=S_JCH&-RM/5B.!7 M<8>\F.-#W\61F
\'='$TDTCGD')7(JLOPQ6.)^1[QCPI5;=H*EPDIT*:!%=; M 71B.*H7@P3=-,RNQ.P>=V&Q2V;^(+9'M?F<7JV8Q0E720:+-^T;C]A!P]Q* MS!TX_
>5H(OY*S)+W.M7+&9PPO#*8##TT'I4700+N;&ZJO%X!$04S%0*-Y0] MP-"TV9Q3MYC3'S0YO>WDIP>]!.P^Q#,;OT%JW11C'S/^[%_&;/WFL6_"1"
MD&QW>'&%8OY^TN1OV'+#R4J<;%N6&@RQ>WSFB&6>U5VR=C&/?]7D\;8;@VW[M:3BNP?$1?:3<"_^[6OO1EU1@@V!+WU)G+LAJPK^ MZ X>NDIHJZZ,Z=HP@\X,#
17L0+S37\&@0Z,:5!F&IB4/9*I3?VP,;!Q8""$['K%T0D)D9T>G>!W801]&*J3AL456%QBY9:I6LSHA&F= MP>AF-5=E=<=9+IFK3B>#O93Q.>4Y9R(:-8H8^RFY@CO#N[O>Q#^]]&.[U1%& M=]"
<7Y0*-\D-*=$/&TE*6#]LI&&$+B-&;+YPA[,'2=M2@B#DUHC:& X0B^7) M\E95:J.8K/O[5&W85,VFX+T$>'_L+BZL)7AB=Y& M@PA8I0-
9&+QS^EG=1PV35D1^XC+S&S0B+38,*Q.@HQ&94\2B,^V8G(8U+QB) M<_@0G&+&OVCP33-;2IP#%/OZB[FI&3_3*7(8Y?AE2OF0+93O2&ZKM.EP+%2 MS 0]-UG#D"JND1(^D6)&E?6&-
"PK,+W3C>EB1F2Z/1J*Z]JX!<9M,0^TS-J& M'R^H@+^<(JZGD'\^?^'[_K^$XVB<(B\YCR;JZ/SPLRAH-W\.7< <2AS_'G(. M^:-H9E 9XRY]1F3"%7%8-\:ZX96NP9?.H'AA$5=RPBX:1I0U
M,9D@Y4Q!C- MI X-DS2MC S>1,N*6))]/?_ !Q?P'TSZ/*(S0^6SOL3HRJ]'DBU7-B:'5=\6 M*FLN)@5NA7E__PFH'C\0[1 $F\])%JWXMTN=H..P"2+,1"N)?-O0B+.B D/_ M3L+!'QDGA\
(*Z%D6JS@+:HB33:9E<8(JU*XI.K!4RJ*SL[H.CM27DYVLO<&' M6&Y?E=D7L'.$:_!X3G"YDS+[(CKBUMGQV9'AI[#O.Z;ZMJVV@W&RZC%T&PPT M9P39F8VS.DX%5TF,\4>U7K<9H+5Z#
<'Q1[E>\[+9IW6=6@7_VN31;N&GUMEY MZZ(DQ1-/#VCV'U; CC]61GPWU[A.Y[80L5HX@L^(^MFG_<>A28#(&-R]^T_- M+J^UX%)JJK^E]D"RLM7G+H#4IPE.J.W*33/EUD/&6P=
[#$(E4J\VANVK&7K] MA_!^WYBP]>E5#=?SUJFZ;PJ-5] M7E$NU26.H;N@HJ/>T8A>Y#@R_'U9O09RN71@O1&Q[KETB$9YNXM_^SQ&@ />DRUT-RJ'#R
M<&@,AA3V/O43.D'K@EK,S2:#\GSTI(3.KSV!+BXU;I5)0)5A7M+@XGGWF0J3 M2922>Y/$\D00-)-)DXI#>Q7ZJ),$J4D@J8!?B3R%(RN@3Q8A!IBJC0YGH<]4 MN4+7_K\3^NQ>V=!CB/?F,9-+-
RPZ-/J:XZF(K:+?'1%_4EA\$MH(@B7OA[]=MCO,<:*5#G0\<".#, 4*O,TXOCX M5J+-P4::02G+O5S 6(3I36GOA6D&9JGJ0[X+ND5&6U7"H)Q6+\#ADP6PZ_L3 M'&_PSQ?B,YE-T9T7R72R;Q*=H1
M=-[& #83#X^ NK/-F* GL'V$8U)JP2!"O;Y"S1WT=R?.RF]C2ULM?%,IG2E7 MB!T>],M;Q[$D7MX../@*6F%^]Z6G\:9=7-S#69@I)ESU&V9E%Z=R)$OXE6;' MEB)9_(B>\:/EQ3BQ;RA]E467V?
=AW3MY%\DW1^*O9%EL?1#67M W2 M0'U^U0TCJ_/*?@P-PKVF@5EV0!7Q'CEK8KOK0 E!6:\AMP^C):5U71&+8#+X MRM+KZ'@[7>Y'?D2^[SQ1T6=+YAZ&
\4",J/S_5%Y6*W>#I5HY]5WW&TNEN!M M2#X/DAD 6'#&HJXW!:JF-GC.CIS-\/6?3)H01:HN;NT*1AW&=+EX @&E E=/-+N MU7A(>]!QU=$P\.?G HRH&YO,Y8*M MP 2Q/-/M2?
^(@^)SV[!)!F^]6R'*^S:20P?&73JGXK7(<]R#MB$N7Z#AUGD M+I+I("^*0HYUEL1 ,/21!\;2V!64+),X9 "]/2/2%DW; _,+JIH@\^D3L4/5
M(%AO96K48,5UUJXS=L0435H9%Y+I1;64BBH$(@6%E.^U'/U$]1TXV/?^5;3 M<0>"TQ&XE:2"^ZO<-];BF&K"UA+/ MMFW[$47A]AE'+;NXEMB@?>WX[Y>I<'"0Q0M'L/_=J@NY$+53XS>
(_<17. 0' M=C"LR<#Q)..ID77440OG8,TTJY0VE?>H"0G$D2]:I M)=Y1G_MVY"&&F:4O[H4O/?B.[4B,?,"SG2&/K*LT7/* ZX%;J)Y>D[6\<80: MG!KN9"&HQ#NGNXIL+F0-E+VXTR*P_KI$V<
7=4)SW86JZH^-BU$'R7F-TP M(=T_*(&IMSDK5@5%V.I5K"4%.I'KCG>P2YJ8K-E,6BXY,+7'J^OA!:K;Y721 MC5<*3"WQ"F7CA"VI5',LL(+;CX39_A%57(KF0KZY9V/'\=OFW"-VQ/T+$TW0
M[4E'VNHKKE2/#3#%Q]V>!L_Y1GV,&G UV/RBRL?$<3&DD]D8+3C&"R9#T_16 M;&L5:$_.93!$%]?"L?:6*P'6I[(};=MY0CM@^U!(!ONT*[^L;;1!>\GI(E&ZT+'8O$7=P! M-'F"DC5\R_(
93B;"NOM]4M76X\^;!;FRH;#;0H$4 *]M,(:XC"FI@/4ST B MM;2&6$P63&0BD5980QR*SRVI%9Y;EC@>W5;.2^5_D?TLB$A#CYV?R4W)3SR? MPL@47UY2*L$V0Z$8Q;MTS1>6ICG(EQ2GVP"G-
"4P"$ .MAD_A&?B=)]=RJ/D MV:>1^DV3L;=:V8R*S13W3=JME$HOKQ\BH7_E.R6VNS")H#?$W"0+2#ALTL'V M<;B*%;^86O;Q+L*FA@65ZD=MK[$I=%;,SO2F):YT_-F&PVEH&QE8A IJR$&
M&2E =R,"T MP10Z"(B'IJ%'3XE$#/>*RLDBP-H@7'A=8,\;S@.'_\ PI,T-YQO"A/+1'? : M=5XG[X?2E#-'W!%.YI%(R(@K*VXALK1#\91]G3(:N5PEL CO;B&>*1[ZM5- MZ-
WY6PQ:%V=]@7P+;^(4J4@%<'55B1R.+(K*F*A.E%;Z;J1'(JT":*TWPEF> M'O_V8>*<'G_^G+2UM*O4<'6&:M!P%FH1,L4]%RM]-[SL.P2SEXVIZ0E,-+5[M\SER\3T?L(9\ZU#APA@&\
(>UN9DVG,U@"OI7 O)WP6K5WST=TEPEE5NH(352 MD4A@G M50ZP"#H4^K8\K3[YC#\60 M4W78U9Z!8>J?W;4Y!UX)B6GR@M(A]X&V)9C"=E-XXWC"741*DRKDVX_EO7((
MP]$IAOU*W.FOB8M9?M"2JD;DPN9J2*>L33,XH4WSJ^M7>7_XIFTM^E5JB&]; MW2'^ 1\PY^*LXA[7)WFW'C7QC=6J(\;V@*U^JOR,6 MK+VA4=(>AP[R"F50 F']*K7'%^6L"NV);$H3)
[& %9"@9"NUITKZ)E] A/Q* M-<09\YOU.,!Z2AB'-L&U U3\R%?\;+[<.8?S@42'%8VIL9F%N8CO"$"-HE M,N:<1M='A%(OW]4[\8AEC%^I10KO$6&Q RG="N\$__A$\+WKS Q/GH;<#@^D
M$]%AI6M&*5*/>!EM%%3L$'N;0K$Z%1!/U(? X2,Z@TT36]ZFK;NA='M7)NY0 MU0"OY=%EP!/??"'=Y]B; P1!16*S=&U MNN6KG^'_2:.,K'" 5/0/6 J_-G"BU$;1-$XHQ M>XLU"G4J7W#AU0/&?
RZ8N6CS=0\?Y'C$ZU2!W@#Z]A7@,5^X5VOE9,'4+^N> M'#AXJ0@S$5-K*,8N6>-A<$21Z#[Z#OUK.B.>[6:*V!J,K'Z2NV,3"2,,CNV& M8H1I,D841!2T QI<]"1H R8#.!G)9@ +=AYW81ZZY925K\
[^ZZ0) /L?\75+ MM:_A3[5O(QJI&V&5RK44@*G,]I^5*IH2(51T;>R^=?6"2F]1E%PT,55*G%R\ M.(I#+2+E(C%A4?/LWG^$%5W::'JL=O:G4K5JLTT5J2[QQ79'GMG26UXY0CA/
M&,A)5L0$(RQS=697]O(!5D2 /+5#0Y6M5KTVTZ.<.;OQ!P$6\:;7?R[HJ5C/O&$?9X6N;RKO8Q>=-AT"% M,:!@\ZY>5&CQ[O/>,]T.-LXUWS:^-EX'E0$DIPQ:CWP1V)B/T/Q@+@<4C&N
MR8CKIS#'GI3(C&/.A7HO\SK4R7T-31WN*0%" MI39[X"+FK=WL>HA15\YSL^.CJZ^,NO;S-'>P&$ M0HR^GM7/:V<:0!:>0/3\].G+_^L5'Z_'?:T";:\&4"N9A%@ MM"BO4)WJHWQ?&XB[0$0
AU'NR5P\@PTK5X[OSJOG=>U2N6;W\2M25D5C#2_MK<9Y/?Q%.V@-HQOM<[5^46W4&DWMZJ;1N*G5M,%#6.Z!26;#K((.1'_=\+^> M6'\:0XCHU[.IZ\YQJM77U]?SMR?BG&/RS"K7+JIAP;-
ER9LW"F.E7R_"LO7J M[P^]D34%,[,"$75-9*UK\6:2ZM6OKZ^K_F]940IOJ%^_ARW3]76>*9?-&VI:((=, 2VYF.\<1=S M\/6,PMGK]NFBQD7\>>0RTKDUM3&BV($;@.WIL,[M&$T!
<.F9QEM_'.HQD:R%BRDF3ZPF/;?PK,H+565:J[Z;V*N'U+"-.2 ^N[2% M)FT\FQ,P!8C"%]##='=,>;I2 7#;=*S&!Z(.^OL8Z&V33N\<_+I?6B.M[@5& M!U++P=0C8$ @LN#<=&X]"A&@M&6Y\
6Z"Z;)D3>;F61AV"/XC)B?M4SDMBP+ M>\AEX\& "6I!0+EL7.WLG^Y_/?AB.ESF#G!-Z.32P@<*M6!NQ-EHK;>5^25H0S,Q6QGLY-N?-^@ !MQZ8/I>@2ZS'@- MVW_2@^83=/PG0<]%
<>5HORQH[XPL!LPD5H@M^.^J7\HZCD0XC8MJ4*)*N=_A M8TP%,K=\EJF5L+6-F(FU:+&V7\.6;=7/_>CLY\W6(]&BO?8ST$G7*8]!4%1 M).#-!6@"]JNGT.7]7%]?
\GB7A=05;=4D^W_;Z(^,GMYIC;L=[;;5:_7;76WT MO=L=C_R(,,3@8"O6C9KRS;IDZ\RCU:>37/N!_95X+@T?.*;G*^\ MX,&?+4HC@!SS"3A^5W]N%JB6)5O;(X1I;D/$Q#)_?KKX?'E=O[JXJE\U+IO-
M>OUB0_"(8;1(' ,SVK"/P'Z+F;=-\"Q9A4%O.(_TF$P 8;/*,\VC3" \Y_V9 MSIGV"N#SU/5_4P(UR;%"RVV;A"Q83/'#=#P@H$RJKD)4RI.U37!QK(H2'X2- M= @LP. \.8"-
^AFO:$J5./3+9KWQZ1!IS@TQ8+>A&+LZ>F$28[)@X@O8C!8Y M$O8R(05L72C&UH" N0DGW;O;G6T,NBF$_J/DJ 4$IM8Y M.!;SHU'6\V(&Q5T,')Y0)Q>,V\WY_$X\,J95.3@BD?!;S&4 MBD;>$?
CI\^+M@D=!IB0L18/M,+DV,!<\LR:7;(P75IO%-"'%N48)A(IZWNC8 MD?$^;I>, [UBL6KM8*F4A?<^;G5[#9H_X?9%/!!FS&B8,@OD$X>K^2H? XU[M0*RHRQ6,_NDO:WJE8R!\!Z2*)D
RY_B@@H1NNM<5!*45(C%G&PDKO5(P9,)B^8$8L*Z]NDN8X,%GLTPRF1TL]@QT2F%3=%WLC69 MP*4D Q-.=-0VY]#E8B5/6I)+QP%_5F'64IC,/! 5#8I8I.?-N+9!$.)%-\WK MR,(S?^M\'[B&/3;?
Q!/4/*T>ML_*"M1@3$U'3XK+=L[D4=XI+YR=. M.>1HX8A,8%_H%@(.Q,!?^(*"M*914K2ZDPN>.J&2B\ >2"<+! VI?L-NM.V1UUF MUH19M^/Q*SCY63?V9R*>'A=HZ2@,85^XI=][E9?O@MOB)
;P^/I=8X_K=]HO MO&^M\:\2%O(2=F!D;%])K5'6"5[!1A)QYH=9@/]3\(). L-L/CB^G ;^?3]+ MOU1U%39X2-C%UJ'BC]'+(>S=C"UJRBQ^'[X%9,.1&26VB2MWR(A<(2N]N:.9 M9W-'NS7ZKMWUC-
_*V,7!T6U<3!:_9H6]H/$'D9(#P+B:,,X)/P+1 =,6HW?*!*7N=&L MUYM'0Y(TW@\][MK'R'=1+-YAP8ZOC"2>$HH=/5>RF#,SM26EB#J A; 6-(/) M1FN&B0O_3J)8HL8QLUT4OJ*',:)R&[;_20!
(_4L3!@3,H#<3L))9[Q1LH)@2 M9$YHE#TMUV=S$Q(^*3-L';DL<(1/SO+N0P]N;;GA!>MB-?GA55.P0IRXP^HOU*,^M'4),#_JEI* M#)A>^!3HSH$\//JS8D1OIQ&VKVT7\K)K!I7Q84*:X+
[]_Q%)1"8Q+5J4X1M M0.%E\.)T7&J=T[2"+ 6$69>:^OP'%\9W@JM$$B^.ES8,F<9.TV(*:R8T)>4V MI&QC]*&LE9;/=)(JGZ:I2&LB- UQXK 2FX9N?E&H[# DN-&19UZ66=+LNZ&+ M-
7::=E18,Z%=J;85-?MDTR-BV!WXMS"KD:>)N&Z:3#>;L _?:G;61V@KXIQH M2<.30%4\?>1WCEL44QH_GQ?.!HN195CT% M;6A'!A,R:(64\$X;L@7+HZ&,S#$RX!8 $_]9O@!F.BW7Y*637-
4/V;&]Z* + M3!>@ULC"E_B1MD^Z\!!'&Y]0+"[\)1>U365_,3EPJRJVQ]$;,Y$_%195K 7 M*7G,[.%K>KVJ6B0HE/J,34 PX[&$^O=Q+D%U+"^VRHR@[MEW=Y^J<
MX9/G'Y+S3WMPIZ0OO_BTF4$JTL0Q$[\W?61NI5+ ?@6;/B2T>X;(!:DPA1C M9KUCMHK=E*#N9JD$WR81I&=7C*N!?X!E<:+(P[!%\1M"&%O\(]W)QDREA
M@!W(KUH/M+:AJPZ_@=^1/=!ZW0PN.U@+QGX8#/5^6Q^T>MKMXTCO=T MZS_T\1_^0>CQX>\UO /?L!UI-_W]3N]W>J/69FV\=@?Z_U[;6#T]+;>'?'3 ML4P^S403S>+
6M)M5\"64NY&&$7>Q0XI!W;+./JG$03:K'QD) %,[74+Q/) MU(V_BE[NWUJ_.RXUV,WI[$HZR_WD MZHB-GIY_84\0.[5F?-(CD#FM2MST/C>OFZ4O"R>Q$#^XMJ+ ME.('1$TA*(KNY(N;UR,RE^?
P20_BWUEB74.R ^=\.DZCIN>,9FF;$& D+T M>A#V[PT5UBE9AQ"OX8II8K$8WX=*#;/6R MLG9IXCVB21!C\D/1%E_X2YOC%FI+(0=0A+($M[W+2@Z9@B@"8Q"4/KH:,^#
M\V#]O7ST_G^/+U%=-7\?$;[/R!V_N<%/&#D3D63\J+-'?#KG]OGYU6#HFY? M%J, _#WK%.QI,T$I,05Y55EQ(TE+7N9L MYH1-1 A?^H20:%H;/._/3$!OOT/4$L#!!0 ((Z #5DFM]. 8S@ "5L M P 5
8W1S;RTR,#(T,#8S,%]D968N>&UL[7UM<^,XDN;WC;C_H*O]<+L1 MY[*KNGNZJV-Z-F19KM&MR_)*?7A \6X H(^"$*Y^>Y?$R[-? MWOW'W_[7O_SU?Y^=_??E[&80(#_9 !@/? R\&
2#IS!>#Q9HN_7@X O .(RB MP24.@Q48##Y+CCX.??_WX\=>+B\'=ESW=%\K9,JPBC$+X[5?VSP-M;T 10O+;NW4< M;W\]/W]Z>GK__("C]PBO:.&+'\[WA.]2RE^?25B@?OIA3_OA_+^_W,S]-=AX
M9R$DL0?]8RE6C:C[(S]Z>S#Q[,?/KQ_)L&>KQ*""CG1KZ&"_B"AO_W+8)#]!*,(MS,!RP,7Q:[S;@M_>D7"SC5BE_&]K#):_O?-C@LZ89B_^\L,%8_%?YS&U#V9X M(P0)BL* F:
<$9VW;NK<".#1VH,K0"9P'B/_VQI% >W%X_])PGC7*5IE.YU MO0J)'R&28$#'AY V>8P_F&66NH= M[EUXT@4N$-^W'U+IM= QQ!AX!3/;_N]R-$A*C M#< +6AL=ZSX#M,+>=AWZ0[JD;
6T64O]P.U>C5H5=PSF!L'5 N#-%7B(;T$\ MY!R,O&T8>]%GC))M*T3ZM?<,JW-=U6J@8W!T?;L)8[X6Y*M=OF:@6\2V"Q:= M>KO6$Z"[EW9 Q2V>HCG=TD88'^IC#9YEOU!@ M'WXY^_#A["/?

W88ZH6DB]K+"8:TSJH A&T_KV*]VG)9! M K6:5K.BM:5KO"8N26QQDU/E -XH,2PYM:JHU*ALU([",4-/Z1P$W*1=X#FO7 M>WZV/PL\G6V;!??+Q(F2L?D?:9&5G9+%JU"1"7/A MGIP8>VQ>I9,J/V!
[Q\\D)@D.'VV1]1P/&(WW 2%0>?X)R#K+WMI#@ 968 M@$Z[8=3+=Y92G;DEHN@"X=W>#U\QFY[2UP+8PZOB;0P289>&/^ C21.=_>I$ M[,'8>1P?E%=).]"Q.Z!)A6X;H2I$K
TY$BY/B2$I.23HG4%,,)$_A8D1X5!, M8&IH 1:%7_P)3S\,-A>4H1WR\!/TXH3%)"'0]2&BZ9N(:#R,W>,O_!?U::X1 M+N2I;@OA]J>[!HA I[S&G,GGG]3;D,!.Y^8)X@18;<\7 3#PRP@&F].G2,I^ MY*N-
VHVV]1HS6C%OE,9^7NM>&(0]T0;&PZNB#-63KG% AGH$7'F':Y(92UNI^ MZ/@8+=;(Z,!QG-GO)'E:>WRTS]QC=H\QI@MN?J9?$H3(@#PRKHLQ)).WYM4 MT7JS04'/VJQ>S_!)FP2EA&."^?@
ML9:%+-)%6)Q#,#VM[O)X.$3K<5VZQ'^[<.22N+9&/X404,/R MD\3.>YEWH@+7YOP$=FLVRY'2^3I=LGIB:9!L,1*`,B)D4.-F>U+L;F. 8)3 MNGSNH\.A4(P'U2F]3YVH%TIBG90&-
D81I2113A,LI>E=#0]1Z&+LI6]SE3]X MFMZEHJ_#B)O B&%-Y&=]Q+5&2G8%-D/!FR); QGK0IL1O_76"<<-;MY@@.NF M&4V$2]L@G5V(ZZ:(MC'.GO-K7:1_Q'$2$9:LETEPWD@GH:03C]_-
)H:0P[=[Q.55%Y2R@J M="&"R2$@FH4O_&9S_V&C#5WKXD9[I1CO7I];Y&C+=:O0D17FG7OL.%E)S<'# MIO0CO_+,TJT;/_P2F]),EZ!8,]!)@W-
T)^)A[W+UT\TC9\'^;OB4SRC%H)ZTP+7P]JYOUC/%F_>.3D) MX-YPE6,75C@9N,3'E4:8J[?OQ]F*$M.,WM6G?*4LZ=QX$_>Q6DZ50T'PS5 M7X-B;T"=:Z2"TVB4:S1_1(3^E?TWWY8["/T-$/$4!Q-
3UXUH_G]# L>_P=+W MG6L@0$<)"E;S,X*CW^$V_Z6,:-YL=@0\6C,$=N*.=HZ'Z]O[4%OVAO*D4G P M1.$@7VENQW*N^"$\[#X,6"0I7[^0<2P% _(T#2O\9[.R<1)^YM2^X@2\B^9I1EAP*75
M!H*4LV,-.$B2V\A/_36V$L8$T7_Y..]*7$;G;Q+OH] [N!9G9'WPZ1*1 MA1-5O8 >!?@@@[/OF7,CUK1P+.3;]{6G:>-O@@+M6>
M0>5[/]+GD1B5_+F1@A3XE<$>Y9:^<_3MQF%'@/#OCQR_1UB&]#&4U=U"PG?L0N)L_L029C+*) M*L9,?3##1P4!\,GQ!"D_1GFW.R>3+&J6#,C1YL$S#NA 1'D9H@'")M>2"*/W
MJ1*")"]1@6N*L:M:,UX'<,DOERK:Z M9 M1A4QV>EF633\XRPK9B4PH@SKMDM[D-]<1L\L(VXINM"G64+/%2UX]EL>RYW'14*:T/@'.XVRES9'-OR MNXS]W6$$?FF]%Y$;
[^]8Z9IL\1WW<0U92\@Z5S40V\!E-51L^%(>30[XA<&;,,H:>]U0!NA_T["2O-*D@;U?O626C-9,[_5%A<70\-#PBP1A1$U0_Y?W"3WE.\M32SC M"8H='V=/[<3[D/XSYM65Z8 3M/?9*R4, &\8$911
M090,RNG 7I'J0>#L2Y<_:O5K E?/IB*NPJE+.8KP<5FPJC"R&0^PCM94J$HQ M;1,23$6M&5=J3V/=OP5FO39]%.]:-=;8GBHB*QPNE:.?3#6]SL6VIJE7.37/FE@NUK=AL*&IQXY=+U4E'@:
(H)?!#,4Z MNA+6@ 5U,4>I;?Y0Y;7NH2:^9=UN!* ME;IQ7U&^`3N6+)HX@>[A2"DD_*ZDA"9/F0)#'3GL<:'UL(9K"5O++860,PX M3M###+F+S2[.4A>K\(@B%;425'1>: MX,//;JT8-
9OY,*=`S;%$$%U4GC,F*5GX(\$3A* LY_,D0F?O<#"AY\,*W?YT M\ 39%>*V^L:C;[/P+@\-[QZVP+-CDT4KE&J/18H$OL6BX:IA!T*\?3/RHWNM MME>ZRZ9$&\>QRKVCJ[XD^YS%Y7U>'NG:8B$Z
ML-/_SU8!SXZ/><.*[.T]]L,T*I *$'2E85_*B0UVGIZ,2":+DY/T*68DN30.G*5:H3B>Z8HX242$G(C,%Q=C M<<66'FT^\S@ZQ.] ZOQBD"2D323PI/>6>1YWCOXV6J(E' &>!]JAZ M..V81
IT@3#K]K1.7RP<0R'+Q(D2JU7RA#!YKJ@\:'!X=X-$U5 MJ*0&!=G92\IPEM057!02H%Y>$!TF3+0&%&-B$[4R)E476&IT]!(RH E$!Y_F M1ELF_10R-!*YQ2:8(N7TYF6.P:CR]!*Y1-
$<;&8Y6[2.XH%^=%F38.S^H%4I)E0 M\Y>D^[_2]*C^_=6)>*]Y5E_3CNOPB# _677TFRE=RM,L8"JO$U%R@OZVU& M@:OD->5-6KSKY$^4?TG)\(H8<17>S2FA+Y04Z,V5SE)FB&B>RW5U)!?
@3 M9%-_L^'OHA4U2L4JGM6ZS+NZZBL)@C0D:(TT12 M?D'8M<ZK^@3*<&;FX[D>MR_&7]"\\+VIJ==(3;,A5 M2*_**2]%>B$,LA[ID?/Z\[?3Y7R)%C?HX7&VG-VOIJOYXA[6/2Z=F,2+===J)
MFX96A5HD<'!FJV2Z;((U(!!S4G A>1F9PK$86D"BSRO\DJ!+^N%_A]ZZ-1;# M/@LO>'Z@ONPV-[#(2<#9?+,89>-70X-X01,[]?LAC_/[J_G#!9=?EK.[V?+
M)9I>K>:_S%>_H>G]-5I^NKN;/O[&+&TY_W@_OYE?3>]7%.9J\>E^-;_B!X6 MM_.K^6QYQME':2E*K*Y-%BAXG!AB4NO$QIGF-">HO+?TIP,/ MYY'. EW.&J(\L;8D&T= M6PE8[?)HA
K4]+$%;_6^B;-?9O>?9E:,7E/L-T>WUOBTD=\4UT;S:XJ#*;KH M!9$1$">G&0F;POZITMK@;>P\V[B03 4,YTEZ]LM^(X<$\1(=*S4KN5WQ^M>0;=U<+OCTWNX??
FS,2KREXMR5BN<%[PWT["O:;;%-@+1$1%^G+ M*9"S=7>E'<'N=]1;',<;&TX@:'#"M:A"ADED18&&2*RTS];QD-EW:82[Y3:Q; MUA&B\6"[^0G:=)K$J1N0^@/0C/0LU8V)(Y4OU0D\FV)O-\$L\)*9$[%
[]ZR# MRG+K- 95-3A@6[D&$2K-WA2P,"W8M,S4F]/,5NAVL5RBA]DC6OX\?03>$CMF MORFV:N#M,1YM1%4"6V$^3>$F@V<]H!#'L"M6F9V]07!.Z=Q*:[2S6EX>8
M!#*3&\^*55_%_5?;>!A'HTE KL?*[0T98<%>(6K!7LZ;2BBY<(ZB"MI.TX<^8(Z5"CH*J>X*2@048J9 M!P)+(D"?L@WA_\>LJM=;JTV?2V&1VXZ/DH*!J!"4]\JE?DIQ111A*5:-H6S/K6
M1G[/KYU:X/LWL2.*HR:^VNC8$A>V$Y.Q<,?MEAH1P7HJ&7+6JA>U;0N.ON2M M-\J5]<6UT0=K/4ZE.FBE-2.MGEL.U4T.[(9/8O\NPW#;=Q>UC+Z@[(#2[<>8N84Y M.NC;O:U$/'K"UP@7ZB7?
%LS)'O3EZ-2K& $>IG,2%KM:3V)7Y86>C!+*(J&3 MXC2.<1+?D(D^)8\8T^;#!K@@7:G-Q/[J%^]'@FJ@[T)5[*>]BD>$H@3)% O M.*[%3M95X@ST71"%67]0W<_6V1*R]M&_@
MWNTHV'B!W\R"C:[Q6^?"O8K^B-UP0R=O\"/)1QQC:N1LY_::\N:'//&>O>QQ M$.OW/(TP(=W16+"J#S:B 3F>(5^R37:.R9=6)5R4(EN]T3F V/S8A8Y%7#IK MKB+6P#"E!SQ?3CVJD(3$)-
AWPH'G@TJEXY;R8'A^HP"'W9_0B5+=EY+! NS$Z9B2;_P<47B+ M_:*S3-"\.\Q&&_4L3LC.2;#JJ?-C(#BCE[-;-O4J!(B!RUBHF0 %8BOQ',QB
MX^XD#W3;$FI*;.G%UDV)/[]*L(>2=A_J8I6=!B0#4D:!:EV'U&" [4::>!' M5KQ<8" &.$$"*?V'M6YR[JRL1+D0%-9 ;AP2_<*>#"NU,)\'<1+Q8G]]D:,A
M+IQ/M1*N[%U&B"!^UH*SFA4R7/1+]CY334DY.O +'HR% M2R?&'N6);1V*EW7VZ>W .<^@R3-FY63ZO+03)/6DA1/@ 'IAM_TO+FMZ&:3CQY;L]S0&40Y_
MINKVJ^<%!@EP2P)0G4"ZB%ET!6F##=@AI#V;G1+H9(N1ZSMQS!$R[9$XG1T M[K7;='SDBG,R$KC^P6-_^++% 'X.\)^1*Q[E_B=VCL)^%\Y095)0R^Y6.39$HFXBJB?
VAQON7+:%8.=V"!E@'EA[L**.!*!&4 M41&GIO:%VZE=FI2PR9G]_A+Z=G"* SH?[JXM/%BMNYI3P8N+>LJ$PHM1O8#M/!]^)RLD2]2:1 MY^WV88#3),G-.B7P_\!'G46BHH& $A L,11)D]DXK*E-
+96ON9*HP.W4]L=UBXTXTJDQI3E!&U9X0+QN2F%'M%4-!17D MI&0L#QSLK_TD&S#B/P+>Y\"#T! M+0X\O:FU56 Z>50[U=/8FF=5Q/D^/"H#!\=& .5X"=.*R;HZ15E;"#.!^*, MG&%
'$/G)*!I5Q 3%SVS2B%;(N5]&#S3C!![XFV3;NF4&1$;(E@;<>71R(0" M<&0Q9U%KL3F9]!F2<\AX>A*=K>J=X/6;& 5A<)%)(4UV;/%<>2PKUI<\@'T* M"%UV?
G$BK]>54NM1;/#]7A76)E5I.825>4DG&3HF(:6='Y%W\-$0'PXN"AD4 M/8VOQ-)NCEB1'2A-JR+44X,2*GMB);6<$*YZ'M*:V#6(*C6!K-?Q;(AJ PC4
M5X@[ZCQ>B7MGD'>!J)>=OT@#H"7[4=%B4ROA MRD'&"!$D6K3@3%9<5L(59^VB>8Z%>(LQ&H!N MB?-$?-/$HA,ET(NZ704_NL#;E@S4Q=YN?,HNP4K:>DU$8SH^-^?T[)N%^U/#
MT;ERVF1=G!N[F8K\E"2A/_">:-DOL="">F[)@S4;)-7Y*2GQ46<'JN9TMKJ+R/)'62'6)$RK=H;9QZ>Q;9HT1L\,[]HXKCPNB5^B* M,LB$;+F$-R5C@P^V$UGND68T@/VS#9-:TRT(27S7:G_M304/$0E
M=UGIH-^?3RL*<6\Q30KP8H]9KX]@+G%."GNQS37VW:G!516 M>ZKP>?5L5T)P1;*G<6Q8"RL&^29&$=ELDXMP?7&(\87#&SOS_-%GP^,)XVM: M5Q!F7(G?H:I?>U:1(,?N>F;2<8H3E-
)$G"@J74BS9E$QA#HJRXK,/!"U#^3D MZZL(^P[;Q#LR$]C<1J:'?$65$@=F&PF=*,%E.'<(7DYR.I !R7,Z\VGN^3FY M298"6;B3T)\>RBZ_JZ1_)HQV'N4A9.(_XREKXK(1%Z.F@=/
MW4;Q,W^RF9TYA($HJRXK,)OL;R(9E4-]JDR^4^AH%>"G5KQA:SZL,A< T5*GC4W<_C:.DY*/T7X5_TG_\@]=93E_(<5O8H]_&>]P(<\QP M*S^,:FN2D>N-YD6)+H. ^IIW>/>$(Q7OV:^
7[3*8.6;BI]@OFIY;-5WO0YW M#@D ONR=\!T)VAYWRVQ[]#O-UI4QFW[?RX^A?6#)Z[1NG,.BS@(+*%ENR:TUN MY^Q)XOCD7WRCY)8$>)[@G:K=N &>%9F77BA%
(B5'@LZ+=%SITYP*)OK,\I:UL?Z@9!VB7 MUU28?#>W"0%NU]:,_KN;-ZUB3>YVN^C\(4WPQ?7CK3WPZ%V7SN*>17)4>L*
MP%%%.VG(;=13Y:K=W]]PN2RX/];4Q6":7#E1]$]"C2R&=*8"^CY;%X&/WFIK M0P+JW;;V/,H>,ZMT[I#YZ 1=':)(]VKV.%N>O4O,G':(>7H>N!';-IT'GX*H
MPO2C.#I9A>PT^L9Q^6ZM+!ZU)@$TBW<4-9_46^+#S?&=&&V8\DE*D[5Z/)2H MBMED'\;\&<_\O"T)>;T!6]=C0.4 _:AB7A*^3$>$G\="9EYNDA&#S!'ZE[O^ MT57?
>H@PE1>W7!YBNL2)\]L=-+0N#[N=$[TNULNB36FIOQWK94>P] "E7]) M8:UGU>3AKB>Z<&&P5P$:VOZ28!U&.[%1X#R%AP3M\W*LIW3X_/H0SUQBP0%O M>E-NKWO4/YAR 14[A]5?
4:Z6D2]NI#']+ O]E,:H])A,1QGP%*G=[9#]$UF7 MKY*\-Y6C#G76=9',9>^+ MQE@=QV@VV9Q<)+W-57$LL3D94RUM;KASN!96EX;@^#& RB,]GFL&!WR4NT&$ MRFO<"EB89[BUS-1?
IT[!40$/? M;RSA_.\PRCB*%377,B"H8DX5NT5%YS$$0%FGG 6U)4"59M\[.W[)N<2O=!YN M@(6QA4;F,Y-0 HYN&0V<: RDCPE6<7IW3=C)X=.!PK/K*$L6D/"&N].E 34
M@*6S9RM,H+.W=H+E1VMF:' G9VWXD]0-D!CM. 1[LC'P8OX$IE>B^7V<443[ME"34(==)HI:1O\)1488+G40,+B!P,NY$FY"*=!-A=OM;GX++B43$;QWSE71;
M!@B39*LYD12;4EA^CIM"0_M"+T(VWN$/9*7[.AVR"2 @):N9+MBYC4H&!M7 ML%&W#0Z8UWK9L>M585Z_W24%M<5(-!M<$C@+#$6?8A^;BA5;6;H$405KB05I$T6Y#5F1
M+5(F<)P0]XH5846OVJE4 0OXIH?.^SAR?%NFU@ZL M]MVI6.V9EZ5 0):M9+MBDG7H&#L6<%&?<>YVFS=BBFTRCP[8=-.H6IP6XRE M+H+:9 I8"PSGF)DF\YD@AC'HV>9MZ 3L7
6[O(WE=!-AWNA.?:;9A '5RMI(MD*)AM18'DGR6L@!\VA^ZBRS6GY?Q^MERBZ=5J_LM\]1N:WE^CY:>[N^GC;ZS=W'+ ^\?V^,[^:WJ\H MS-7BT_UJ?O\1/2QNYU?SV7*(L'U_8+,&:XS,UJ%4G%^W.,
(WOK.)MV3_$(7> MP4WF\9T3_8X3[%&MY9-4NV),I]$2"0*&Y%S7DP?@:D:G#AMP>X:]8O:/)CKHPJ M^L+(\]!+N:&N]DV,UND@:"]&0:PZ+AV'AQ:O& DJO@ZKGIPJXF111A<]%!JY
M*VND1!PR@)Z)T0P1.Y>'_=XG.,I3,G6]>A(4I4&M'8H@MK2T-F+T]4VE'[+X MTE%XV&Q9!\&/-&&@V=V0X>6!,D1GGT\!H0L)(9]. U)PX"'"B$:$6-R2P!*%"
MR93&DO8"ARX+XX/HP%HL' DJ@/Y+$$P=##I.=!$RQ9E4);$A$ISPR8;PYIN0 M74*1.=S][7TPMI'AP2W-*S,7ES_X)%9(*UI0#D\]T$S<- .W2XR-"% MSWK#--&Z^PFO0[:[Y+PP(UP+RLA-
2:.DH(TBS)Z123>86+OG])\,.BCZUJ?# M?L>ZKX6;@/\Y#3-$%"WRN0WR(+P7I:5$4$:E_%HA^LCUP"A]-T$Y,5:N"1F3 M>I5;:A>E[V]3'19_A3)AY8//"U(T*B.I(MM1DJ<115V8=8UA0GR5G];E*J\!# M
A&ZAK6+5/PQ #>'A2[[?Z:QS#TU!=&Y,"0)?\Z]JL%_S)(MH')_-2N28O\4>(R<,3A)^*=*6 /Z"8+ND#K3)@-0[#$"7X-H]_GP4,4NCAN M=((C8 N<0,J^U DJD+!.
(&%%YP0,G.64*8)E7M!*&.H%7U)I@+#$C=X=+[< MLQ7^M1+(6&ZU&M8J6]4,&!40*,4'/R- MW592E/AW&_@?Q^P]*F%*8KKLG[WL<1"K7LN4 0*:NY+MBJG7H&#,7,%&W<0+
M0)1"0K^^T(5U+""!+7NV7F-6R8SSV]6/=*9YQ,RZB$_XKNHT26^6LLUYUKWN MM0*L4$HOE.%\IT?%E)VM![(@WMD;WS6?R"FCTHU]!H^JU"?(25!V.SL?X1AI
M@AYPY,)=O1I>7YD*XEP%K)$D;!1ASV)F1QF4^TL^ZD^PR%' A1YWA M6OU& 0)?MG',B?;H/VV&_$1AP0LQ6K M0!&#M:'HHIO"AW2Q=5.& W MDS%=<[0R$+RKU;G1?/MRGW'V[]
()"6C?,Y=CL49E8!O#M>@ZHQ9/ <5+YG,(*^_A_E%#!'[\53*7(@QR!S8)W=^WH>]1$1A#R2M_9EXV1RI!H>[! MZEDO;L+*X0#OPNH38JM\6=;?8. CL[K23(_'+LTY<(SB$I5O$.9TP&Z_MI.H M!
(T$./K,$0;I759G[E;7J4@+;HVIUT30F/LM?&>@1J:,.OVPLBLG<(GCHU1C MK),9J_L5E=H.2I@5O4.K+84O8-@EI$,LKI#0I-WU0_HKI1I&'+[2#;ZJ6+[9CZ'^5!C!92!L,
(L=M+R'FA'IE>4!$\6)..38J6>N.M M'=U].DBS6ES][>?%[?7L ?A!'[49%H#487'8[MK/K*.?$P(X%DTD.*4G%0:3SJZFE\-X;=%N?I0[K!AXD+\[-8,#;:,,B)=O=&M@X3:C&YF2O".
<:])FF[]HSRV&K^/8)BW4_FM[8:0V M3Y'09X$&^F!E?^*\H0GW5O'<[M"#O9%IMZ:^P6;>V\$?"AYM\KUM>B=VP/GW M%OSQ7!B5GLG3NQW%GP7>8BW.DSKU>^ASV#
<2V30J'2S&2<8_VBG%&KN?_ M*G;ET\-FRUM #*YI2;'A&XJ&M^$7'*73PHZ,$@EK0[Z1**A0Y7!97G6\\X]^ M4H%&C7R<@S3]XSR\I9!GIEXA/ W_50VUT*M1T$RJRBAHKIOSBX+BC?
#%NI3IILGO&!&-_H;B8W- M"AXL3*J'/O^(V23;J,%3,,"1_EV6LK/6PJDK;6>:J:L%B=!_W4(,/KQ 2Q MV&9!,*T527943UTMNE:[EUF/KDO'9_>HVY5L0[%H6RTW[*=J+O*&X<^BZF](
M!8PZ"TAB_UET%[?[BW55X!NMV*M M'JN_JNV6?KZ0W=LKQ4UHIH[+URO?B6/#J_5U#"ONQ:L$45QJ/P:'OI$NYT=_MG9R[]-,KXEAVV/_FK*3BW#9<<5' PEF3EOFR'4D!02Q(PTG-
=H29Y(9CT96, M-E)8>J/BA'XPJV'PC&,Z5V3+"#%Q/8:^?Q-&#++#5M-?OP+;EO4.HM<^.4LVC M6I3#]B_6H/VB)!)03-T>4\2)K*-,VGDW:US7D:;1GX2"@_P MQJ'#CA(X.^F]G_>/P(/F+^.EQ?
ASC<;B+">%KF.M7M2.W3GC"'&&6*L(9HK[6@(T^-?Z.@(R M;"!^XP%XZ,"KC[MC5H>-NXG=5?%?R;YV'^JQ<:N[5BEN_O(:UT&L>':MW>0S M)A>VW3,97.'-
]TT&8\&B>R<#RSCH2D!P5+SM:+H@L&$5 /XA..";V80Y/B8 MS_D[,/0&U@"=/\,HYY$6QV5 <>%.+<\G6MOT>=[4X294G#8>_7R#K@G M4-O:Q:\DV3YBG\\?
\9;L5>$L2$CR*GW2M!,%2VS)3%"EE>G1X>W4/]Q"H0 M4!(B@=+/,2H0QK?7Q7I-7!PIC?7H=QA+E3*9F6GEQ]%M M5#)Z 2$X 0.]1#)F-]FR=FV[O1^-7BLN6'M!!M;W4&[08][R*#%H+-
L36*JM*2ENF"390B8]* MS^'LQHHMI6XP*I=OA_%'4%FOX+0CO3T5;W9I*> ;3<1O7,T#JH@@)B[?JR_IK^]#@UY8.L.COQX_12_G@3WPD[BNI8OV1)JV=(<]3FS;.I/WF
M&FFUYGC)33[@FUJ<':EQX"59.MI;68A5Q %8?C55+ ^]L0FF6GM*M?N5.JUD M/#2T-1EPT#<5W"3J'#C E49*T&N)A) H"OQ8$R%R:^J
M2%8!6U.C=\2^IC@OA;2A*]_"2O/Z((SX$@&E:'85XK64)=M+;1#%[LF_<6V8 M7X]X-&M_/B(39Y@S 3?')/OG?X U:?%'_MHG%EMG MDZ]V"CF_>>/K*-)XPP\8V:^XM_*T4NCR>4:M9##B[(U-
#.U%AZ]_8,Q^]1-"#Q_. MDF895[X3QXOUKP[32K*('IDT*^?)5P5I'0)%#E5)NZ)0&>)WBGZAG5A&29;=7$:;2O',,>&SMBJ8V= M,53$<:$;#W22;+E:7/WMY\7M}>QQ^0V:_?
W3?/6;A4[3W&NY&9VIL(W^F(3(7LO_G'] S2,7^(N=_ M'L>'6LOH9O#QXXVI"'"RD-,$.%C6\T.5+>+[T;ZG4QJGO2\G[(VY=B'#,=\.Z MABP4=A1&^{T}'E \.U6<]-.DWV,TYWW$SR2FEK98-
X0AWBR2_[:BEK.I=?,: M9@B;@L3IJM('EN[T+0M4IPI2TFV&&'^%.\W,7+#W2X,Q#OBZ,N6N%OT M)3SX'DOK(_S/ XFPEV;Y3I(X=('MH34+P"E@ $E,1X5 MCBQ=Q<7:
[X$/W&N;J1K\W1KJ)1V,V8#4# M7AF3B'URCN:Q%U7/9@[IIF;S:8!J2>P"_E9HZ3K5$!_G?*+W::KB9E4R*3=7 ME:LQJ,R83H_9P[S0)E[66:SI9':(2$)P?.7X/O8N7X\?$U#LR9Y,%;R-ZZD*
M:7R_S9RD/2^YM>6YS:L3%92+22>T[W']&7'0>I= M^5LSO&$%?R-[>DBV843^I7CW3 ,-5??:*$!1^ZH$!:Q_;>"I[D#B<2#1(H6C MH
*'/0TO7@2,2W\%*X#M53;0.MBVDDPWFPAOQ"3/6M_11($_D#.$"^=C/>(- MB:D@V)ONPD.04&-8I*,?3]-M$($POV-#:UV>-C3R00 MRRN6SI;>(IM0&\84GE%, Y#>L&(-
"0Y/8>0Q3/JKAY^2D^3XOQQLDA(.Q- M+3J[Q0>6 M"9+MYB?XTBKI2(#PX5M/KY0@4R$MB\:4..#QG+^A$P*@1T"@'# M1@%/:4XB+ _,H"E0N7PN0M'Z%K^,6>P88WX9
MC\W"O!A]@MCX(LV"ZAYSSAJE@U_\ J;3AKXV8ROV4V9>H2# 5+)FJGC6JN+$ MA2N)V3.4CW0^FL:43Y=Y[X;MWF73U,%!2C''?UL_3FPTC3--=01ER =V+#@I" MB%%"TQ@5M-@&?
Y'8<7(HHP>]Z.Y;>O[UORU__N^LK,-OCM1BET<\P9Y%Z7;U MT5W'L*Z. S1E&=3Y=QO IGL ITB@O2?0G$4]R;*H=(]2#%?D3W9>].E5><4I M1Y8J;=C.B&9_S)=3!
[8?]YO%!NBPP7.=J)5PX)9I@@OMZ&M?I6 M3H:,E.Z<$@"_WW.2G(]T71(1-\GV+/GNXYG.^?DJ;$HCS4Z$C\H[?'W'-8,! MSS ;,%9C+ZE!XVCGE2<8BC-$TE#LK:#2X).C9T'/-8?HJMB/O(R"%Q3A3!'\
MK!'Q(2T(=4 -VG@RT\8>LT^PM'N@T[] PT('.H&56,MU TR&ERU\"<<4.= M4!ZQ\6V(=&/J-1?>)^M\STXD=6(M94&LZR_R"UE_7"V*QB?)*]L$&V?.D8 _
M9A()G6('S/ADP[Z%U$\M%TA@+!CA6]TVQ$@075\=HHCI3:2";; \!!Z._%=6 MCB;B)BO'(4E,,\=4?<^%^FQ)'_M6WS5Y)AX.O+$#:G7<-Q0.94H=/)B6!WT[
MH;0N%4@@S=AXLV'40,^Y,KP4%KBG;:]Z>"3Q[S<1QO. U?'%"=-#VFMFC,^@ M'?Z-1$<#%0\6)#5CGW^L;!1NS)#)F$&,&Y2QPV/F!#5U;CK#X-E>\5P[:Z8= MDFDGXMK9#=;7RJJ(*FKUP;Y--
OQ;CJA5%8\;4<78;S2BEH6S(Z(*CMY\1-4J M7A%1;5BPYX^EX^B9N%BNJ/LPK1;F.HE78>+XY=^OPCBY#Y/?,8V1^?"3]!)MR@%PO(34,J>##D&4([%]\$)W;LC") 9Y*12[B5@Z3P)>
M[0^FMO1.1QBE?V)PJ@/UL9EX@^%5]^Y1XJR4@[<5<#4B#AAY&2?2\"O8X9=B M2PR]U3C<1OG371@E/ [O]37?XZS_6;@7A=O7!W9U68@B"KJ+VE5.QA7"+YRH
MU@4=B0&NS4\2O[+2[D0)9MU\ JOU53#/%]*+#()D(V!0(33EO% 4[P+,/ ":J01X%GH8I:$(CM"0)=RQKY_TG;0HH6;\6-U;Y+
M*/5CG6&ALHGR>]E1U@UT7N7)S9(,L64OFKMFW4 %N)/2;7+H.#:B-C,E]N% MM_LLLRR[B/O:ZQ6]#7&&9Y(:5?5R[BBA?UYGBTH!A@]&YWV'W%QQI;@#OG^2
MM=Y@K;-9^NA0UUM$2\?'B_7LGP>2O"KT9(((%Q_,Q2I[?3,6B"^;LE4SM Q1 M]"S/4%FW1X;,BLH%.K#+=99/_(@(W_#,PHT3(/Q"A(>)7\((_ I\9Q'O<9*W M,1*?D>2?
<2W67L!)"Y>!+QGY+5<:^GA\5(57)3A@,M$@0B4Q4,#"3/):9NH3 M=NKT2]'[E:.P25?,T-#S;CM9IM3I6.^K&/M^/JV91]]]O FC-2;)@:JSITV= M"L7SV8F4*.*4_<@2N;/8E:SQV^?
>9(DXM(/WKI;'Y:=,/NCV2YU7#6+RGP=4 M?MY/,5XD6QRMMDZ0EL54^WCRTUQ5WV-H9LYP.Z 7]?>R<7 2)^>UQ="#J$-T M!DY7$R6+@&+,=>0/BK[!%ÖB,MO*+'!38L'Q-
XJPG+)5BL7[$SS@XX)7SY*N" MIQX%+L29B%(.1#IXD'#1S%#-A*HH;.F2(J'/'&V09[&O283=1/WJ9?5WH&;2 M,B;S-M'E'^$:0>YD+1V)C':<0@4)T[MCC"" EJ*;-!GP+$"M>2#3F=@A7
M^100GK(["8X_AG1%'O 998,#E^!8{4)F>$"NU4:HW.5,D.!$T05J$C@H@(99=A6./R0 @Z0K,514DK4Z+^*)(W^XQ^< M%\;#1QQN(F>_):[C3U_(\8Y8 ^SXH<*(>18>M(C)F(&G-2;4Y; T&
<&>%K. MUPPYY#C6-< "0D3KF<@]I8-*XD\]'3+0Y?V:HB.-"^1.;X>'NJQ70,&KN M=R-<* #]XV+G(CU8W/]@+R>]._ BS?C'OL.ZX M/,>,492C >>:>
(VI>%X:2529P3$48"8I9[B2.%9!8/)$&0_UM#"%RN89<#\P M8SOW;)\X3^R) *(V?FKQ$2LVQ>)M/N$&Z7(K?9B@1&6()%*\L[E8/T1DYT2O MJ6C+),),:2UE@@"41AJ]D>>16FBX1-*
+4=E0S-.8;/O@%04X^1K#>!];;@[B[.QC\89">*]:*VUA95;X/&9P M[V$?^"DI;NUIK[7)("'W@Y6,5_>$:V! ^\(*/NKGC^X6>P?19^,V##87?/W&
M\"L72P>\OW8;.@'UAR6FP8\ZS'1##9ES'=%@N<6+ *LKS,QQ@:;UML+ED[8I M(MR4W(Y#W=8-"=9AM!,U*WL<)0X)6,>()$0^'8,'L5B,P@*?DPTT08D8BLZO M&&K*/%$+MT<"OBK$@YS?
3A3Q8Q1^89.]LR?L910N<8]*/@ $E-67L'- *>': M&5!JPID&E!S1VH!RQ.&@ 27Y$EH:4)JT8!10]'@6!Y0F$74!Y0?8_/:6!"S1 MYQGWC>/R%8#D=F S.%RFVR1"=U5P8+DO'IFZHZ"
X\N/>^='1[NHN")IB-X ME-X=-$>SRY1D(C695!G'&M.J,U4W,59S3==5Z9Y%ACE!J>WU>4T(Z28J>F880<1@VM!3E^ M: H50TZ4],%0/,@(BUB;_&#O5MP0Z(XF08!>:8R.]'K*EQBZJA>Z4^F(:4E
M.2NB3"<5*)/*UJVQ*(.3<+)3ZE9LP&04Y"S(SKU(?NQ-RL$M>>V2!T;Q&, M!]. 4N/;4S,A%0$8YTJ+9$GV8>VP>;F).S+]ITD%7N9W4![8DN$$("%%&7= M-
O5_44';4IQ5$T!=H'4+V^1%QXOD$F^E),NJCBZM!+E=W'^\6,T>[#U[('U M2$?T"C]WS@O9'7:7812%7^@*Y,K9.V[]G@C)] MMS-,@9W4!98DN$$("%%&7= M-
O5_44';4IQ5$T!=H'4+V^1%QXOD$F^E),NJCBZM!+E=W'^\6,T>[#U[('U M2$?T"C]WS@O9'7:7812%7^@*Y,K9.V[]G@C)] MMS-,@9W4!98DN$$("%%&7= M-

4'^4$4$8!M,G[M*3+>*3^F3=/DC>-B<6? *"B6P6V9*.LBJ&?* M:"]?*8F68W81A(H%@U5YI) M4@0MM&:".",(8M3%HY4HR[P@3<\^@#-_"@XQ]FH!JH5_-U"PQ>6-!%5' 2VZ M!8'!@+_F6"&(2&;4B8T1I+/(I:!R$!+W,LT:I>0K"AMO0]^[QTGYI>'R^\++ MO$#W*@QB0K,XS)Y8?,0^=F+,VD9F3S!>.?&V.0L98DPKE@'#*5.Q@.A_0%N6 M'D-)IMOIVY& I[M!^>'L)$1/..W>1CV3OZ/-UC!Q^B*R&^[V3O#Z38RP> 2P M7,[.-YD8M.N'<7;D-F'W6E-V>3OH2##,J$7%6ZPNY9F-SJ^K\]""(SM62J-] MF]J$D(_,+Z=6WZBOODN/"@8FJ&"!/?J*4B;8I=;2V[>,#WM6:J/I^$YF]%RA MF877[+]% 0\Q@2GD^[0/ Z&71X?$Q=96V$"32;M!,NG!#,TN,#>&O1,$=[XOXS,?P6)V#@[S0]YV(FV;ZGT].3&)TH$.BB(U6V#542#U)*^H(MAAB!+ 9R$I QK1?\@T+D5:(0&6L)?,UI8TJW"\1?"+$Q%V7_N13OP? MC)81.G1;%J_-(JI7KFI<"Y:M3[$TK&>?2YC/F.0";&BH\]>$DQ3%?K++*" D6R2ZH6B+9[921%J9VU% MS@+_[HW=A*YE'S#]"C1M MVYCU?6FD88L'& JKMOD& A98N1&'S79]9,XY)520LFJ#M9O8A5@G3UI&.ZJ4 M(1)ZQ,VX703^ZX,H/1(_-2_^#4A8L=]I+*IB^[(1WY;=2$-&ZU5G_$?D'2*V M^2?ZY9/,ZT)*!*5%:3&*MXY8RO+R-,MK);KJHQ:",D)%+&*D4$HK^]V>;;D3 M#8'M2.S"(-E2&>5V !J?TE0F#'H(5#5:MDTZ!KH6U<-&RIP!8PZ=![GGL)@T?,[K2Q-=I5N-N1A%?! M8/42IP4>U.,O+80JWH Q0)\"L:8.]GTF0(P0PK8+GY.B9W IJ30&N/TP';O M$ \]O5IQ>GJ"X!05%;BH0$84>P* 4.OWPU:_Y" 7NT0(6ZQO2. $+G'\]?=, MXC':!MXMWC@^95KZJHPA(M1UKC9B%3>Y3+ +W&9LZXO&UW+G>*SGMVBW4E@\NB M<["(R(;R[AG,K2-\ 6>A4G:L5!& M25F&9&<25\N6N==)5B47GG%SUI0=;,Z>6\HUP?I9WJ)W#0NQ*B-!$;'TS M/1[L."0Q.49K3]*.T[2NJE=JK6E9\W96C?&&^,!?8::)4;T;SQ4[061"?- MGC$XE39%;!<\?>?.SG.VGK15/VXK=$ IHVF,IJBJTIQ^FD6A= 2++M[Z,J5" M%_OF4X+>HN/4=;'/:B"Q]YBW;!)7C,1Q(>_=-N2Z'7QC*,E"3;^ZSR8;C81 M71,G>![,7EPY5K M4+-G=@*]6%_CM7/PI?G1N%ALTTN7U=;$GD/3I2\ MSN/[,+DF\8[$,?NVRX$2M9%9M#8A _E4+1*O4?FS.<$"4(2J*OT+9Z(4&DG. M1]82@A7Z/@E.V)ZH0R,AY0;M&3N(Q"@($^1E'+&8UR;BN[8(M#@F5@S]HTOR1#SOE3\'\X=H'N,Z 2LT<,6XU*!)0"T;2M2 ,=VS#:GJ*]; MXB6"]@3H4^07N/PV2G:&PK\UJSVA?XN3T/UJU"!6,$1E<1LNJG2A8EL(:Q2X M.8(I25@8P!IX;;P'D9OKGJ&S\SVG=(S#8=*.@@(@O3R1V;)U$:NM/O0!J^3. MG)PE]V!ZD_Z&O+!.5\=64/KJ-D2LY=:)3HU7*0W[HU5%V"ZQBA,XBTA5XE06MI]B=W@AKK?-<8Y).\G81B2^N$:=W)A%))[MA/!")"QUJA ;H?73E1]$J9;-%# M_AC%EMY&H(]1&]\LZ-UZSPC08Y7 MI4-,V$Q9*ZHKQM[4=:,#]GC9Y V6SLU:<*!IV$"$?,;5P,)-KHU,:>ZG^B%[MMYT9.U^6.@(]KDU@C>=0:1Y&( ]12K\(XB>^IS1[H'X.$YQQ* M;1A@0GJ5L6!5OVI$_(L0[X4OA7'!X:'&&*:2TY00< "W^HJG]R['/>?!Q3 (3 MEJO0)5M\8DNYD]VL//,J-% %@7,<&:ME#RG_#N(*=08:UDX#)X])F#B^SK8- M&%X>GC@9>ZSTSDG2AT[R0H"X=/EB'OR&G8A5 :H:)W]NC(C>VZ>K%$%]:N_#+YI&9AO6 :6;5;669=O5 :V;5(> M,Z38H)RD-RC*BXQOL^7[=^S.\8X<=KQ=E2BJR19;?.$QR?8W+TK[FX%M>YN- MJKC-=VC%OF8PWIZF*K_N(,7JY"1;X%\NH&ENA%L28QV' +QDKF85_Q^$620D])!3Y00E'.VE2F%M1QD"8ACHL\!1/\,SPJ%#+Y(,X;*K+^%J&QYB:@ T<,S(9IM@'"P/+KOG1D(/ M+4XH(VHO;H*$C\V(SB5*,7B_$(%C1>@83KSAX\GJ"S6G5_JWK@&E MD8 5<503(:<"V):88L6F:9E##^4%BD7:$D&Z2*D2R,(;T*M\00>2&1'&R MBFCBL\7J2"&# @H':H9SGZ^#P#FVBA=3[ÜTS?)0(DA0@')=8UDX($HAK?#* M;JP/X7!+3"W<:_0X*1B0RVE8SGU.@/G=$IF3+TNY@0L<3MS:02D58[7E?E! M$F9V,[O1\V104*FODN$BOZV! ":Q"EY,O4[MK*\B[)'DQG&)3Y+7.^>%=96ZY%WH2;"YA,MJ=<-K=)MIX>(BD6 MI[)XHH*TX&1.N/2QT$*,#L>_CCF1Q*9,7*><<1NG>/\)?7R/C#K!9.]!V6@C 0UT0\TM,M>B2N@_ !I M(KCB-WZ7[#IHDT@:1 LQP]P;VI-ZO;3L16'"%^Q01JWZ38J=M M):A<@@!::OLMC!P+3A-1^P5A7.=S7)67/P*DO,>#U_? MW>#M&S@$<*;:R.HT33QB[/NYR0[RA/B!+4X7ZVOG-;X)(^Y,G+&\V:_,)TVP MH)X/-Q:H>#R\$07PZ7!#WNKO9W-$WO2+HHH=58:<1K\D[^4<8]82S*("AQY$MOLY$YLCIG):C@[X8#O<]AP@?Q2MW\31@33[9\@<'+L$QNR!+)]Q#A%?LI1Z9 M,MI@ X63]@+F8<4<%2Z\M.51TE\P)\ KG"LD4$$#?>94!MZ45<:4-R:GIFF+ M9>*.DCW?D(D^)8\8V].C3W8L$9/TYA&POCR]<[Y[S"Z\ITXGKX0U<7V5A3@ M\N\.@I83]!;H(!E\:_XDI0.,P@4G@0H:2!!AS:$Y&<3IH,^,DKVV6TA[^SP M=<@>VVBO.3D5*VU8)["A'E1?R,TG)$V"% V1@4HB-%I>:E7P MH5("/='9NT'/N1$D&N;I)UUE! MC/,QU.4K*DBHBYM:OH[U(PP&N;&GXDI]4{X"^X;6L>=) +8 M=L,M"? \P;OC7+\3!9NW'6]"MMMZR-$MWWXXXO.$M2JCA#@IJ_[7RW1]/X:72WN5_/[C[/[J_EL.42PF;U@]\"*/F:[O1_R%A)% M.C*G>3EQ?'8+72:Q.2Y0@&DK7!Y:3!'A@DH[#IOOA7(ST08A7".<44W_U]UU];CMJV$W_LK^!84M\$M0M.?T/!1P-D34P(D7ZRV*H@^%5N)FA_OWAD**NI$C=S/%+@MWE MC.>C^0V'EQF&,7FC7IK]N(K_4!BX+?($DHS].QK3%R\2;YPI<8Z0=N5#1@.L MO8BU]$, ,M+&_B&^;$Q2T5H^SLO?FD/E/>9"57J-#:E[H%12OKSHU(%<_FMU MXUUH,,>[U-)HO4L7X CO(D4Q>Y>VC:9A2 /C,-S O8!WM_%?\=?XWW\F?UW M?$=$V8N-$'OUF"#=L%;O__KYZ_N?/KZ#6\W->$A<N0:?)MI4 4!KY\,#W>,'E]K MN+ER9_=6E/"[\W+E11)5*T=N2V]PY9[Z3=RY(9TMR@O1/.&!43XMM]O+PHJN MF&UMNSP>*%L2:.J2IM:&?RIRV,?I]'?K8GI,OD.A=$;29QH7CE,(2V"[US/L M!0\?[52-G)_R=Z;5,T([PLI7CZ\VC3(:"F>O/''#9\DO,+*=9 MMQB_L36*F40%0#.C-)MBF5GZ-@TE:T"(T7%Z&3Q/[44XYAH+-)TY)R-,A$@9M/)//N.^EGOM7/KUH[#=P>IVO6GJV..C\\'PSV(:0+BE34/(2"Q>41KMOL M51O+Y6&S^Q6753^71P>R?[TUC\A+>D-0N4]>:+H/3^'0C-=MZ':R4YO=G>?: MK9Q/<2ISK-9/_.<()-G88**.)S@\:$MR:\.8(I;93]T/>;9N>O3,8_MSF<[,C8;NB=CWVP5&>M6*,C8-<>>C 5(&L;#Q;AHA-'B(F^-BHO6]@LNVO3]M90HAT2R#&J%>1C_2S$_#,XPY51:;E83#,D=F(*VJ1OKF;HH8F>Q1O@M(V5#B M,AO2D%HD44GCY0]LW'IPI8E_;'G#8.>ET1M$?OIKPG9RCN: .;"J*<%&R-T, M86^=:;;4\>3F(@I+JBE B/X=$\$&NHKH9<+_T<6&XD+PHHO4]P6@7@)/[XTB/ ME.VS:'X%]+;#M\/,Y[$0UB[#C=;X^ TSH02DYW&^/@M-JJ29P6J@C3 M]1D#I2V1Z2"@8_1,/!C/IO::D@?64MC.J'J S.=4^]7+&8P_J]H;2HV^E.I5L3A5&JP23N55G)R4I7,?9C.ENI8\"WQ?&QA\=/#,-NI*(V*0V;0RIY)&/F+[0DLL2Z)WB",LM MUSIGXX,9E9JVI[@T:'R3.,J&3G@R8$EOM/3H@"/M<@R$KU"F(6IDU[&8[:$,MUG)>O'")GU@H!]F9JR3VMXW-MG%<>!&;ZO+2[B^QG]*AG/^1"E#1&!'O1(]T(J M3!K*TWLU[Y#XCU=B3JO [G<>%G[F=C[M)/>B#T48!/$;0.^K3\%EWT#51$X89AQL76!CIP5-M#/&7/5#]:>DB'D\XDDY M'LU4PS>L-;,81FHD\#T0IBV(DM298UJR, IQ2^6E&OI(I9#4&A%%,[.Z8&L< M 9AV-O>A]Q!&8?YFM:G5:(UE=[,'0+^_635%L,/9L<6\QUD)K,P3F';M=SE-M,$2D(C:+HLL@L'C=:NI74>(PP7!V& BO> .%:^XQU)67%3D6Y2_J-*HL!68LZ MBMA'0JMB=$LY=U'Y* .':F>G8I3)76V(P^K:Z3#JRE+:8>P7:4H#4L0!W)MJ M.WI>L-V/"AZ^G<(X/!4GOK'HQ5VM7Q%*6_MH&)(3'.1E!GQ)*.L>!"S!E.5 MG)P=DBS6M=T OWU"PE2X#.,70]D=":WOV.V\OTVI=WC5-TJOU/-00RX*R:,9^+0FM M$"PC:S/,*\B;H4K?+J[(#!F_T.V75999<+YU>(1W%%//UPUQ&T%<2RTU+--B MJRV%9KFE,LM^P25+!DMYA'#R(RH+)[I7]0A?7 MC-2!BUM&L":::16@89S!0GOR58J @4(5R1,BE)&_\[1@2SHOR@:J2;JCY=A> M:(%-*K"4RZR[,6+V*H.\G*W-^?;)U Y0[*B,585ADV6:S>KSSWKI+*Y^*Y^9V2A_FAL(PB-70\GHHM#'5U()W:4KVZ-:[5J#$*0X>R&JD=KVWZ@4;-5BX8@9SR*S#@3\LC72S#RIB92],&8J+H2]@NJ54%5U M./$MNZO;#M(??2SH-S;-WK_0Z)GRO+3A,C93U.%:C(_I M.ZW$87FB6ZO;'V MJ_5*YP;BM0?*)M\PV! H]$H.L>NE"M1T;=FX#$N9NBMAZ3!XQI5?KHB<[#/'7-(SZ+D2@C9!3Z8H*,%/TMK* MA6@*"J^]J ,=P)CSG^NAZB?6D0MTB%!S'41M0I[*4]"!GJ:ÜD*.!H^+S&;"C57PM$&Y,D<93KP<[0R"G4+:E"#5O%9;.]J\'J^.PC8];9W;)-7!V M#DU1,W,&&:66#6%Z'.>ASH3;3$R51?@0<^^/."@S[&BP> 59TRTO.3"E<_2Z MD++2]-Z:HCI%^/@Z;.DD\C95$J&3"*4K,?E7T0=UX*)\39+4V/3UY*/WA9Z']XNTE.IR2:B;PL&WKG M?H(>=Y2>#+1)Y]%*G%!YHI6]L2OUP&4XJ8DP583KVA"N;4,>WHA02+A&_LY5 MF:9Z_Y*(7Y*O-']* O(W_[PUWD,9*7,HA&:M?V64!R0EU* _JPR.*7"Y3)EW(5!(,13O)4Z'I/IBW$XSRI!X M;W@QT23D;HJQ@]. <.8(8EG$PO-B;U4Q476I'LT;RL.*D;ONWNR?YP/)+;W1TY M?M[>[3"&<=9![>^XD*ZL06$$SMGP:61PWW'!2VW7NY([:+@;4._;J=CU8U) MZ\H[E^JIK.XIVNHIO]U35/;4&9ZOAL_H]E#S9^;(_OWM! D;]@\\,/3;_P%0 M2P,$% @ CH -6>,@#OX'40 8M8% !4 !C='-O+3(P,C0P-C,P7W!R M92YX,6SM?6USVSJ6YO>IVO^@O?MA>JHFB64K=GRKNZ=D6<[5MB.Y)?ER^K^D M:!*2T)7'2>OB7E MOJ&>+2"MH V=/W[^__'OM=!$CK^7WY9!<'FUT^?2O[\^?'MQ;,_NMX25;ZX M^I04_"4J^>N;#U.E?UXE9;N?_OO;X\Q<@;7Q 3I^8#CFOA9NIJA>]_;V|E/X M*RKJPU_]L/ZC:QI!J'-JOSK$$OAO'Y)B'__?>A>?KCJ?GSSK:1?N6Y1A$>_ MPI+R.['_^F^=3J1HS[7!%"PZH8R_!N\;\)=??+C>V+C1\-]6'EC\Y1OXK@TM3-\[P\:ZF:T "'R>CK.T=J1N M/QD>^GD% F@:ME@9,DW+$VCWC_YD,=D +P3>1VP8N.N-!U; \>$K>'3]^B#Q M?.HX @]6AK,$_LB9!:[YQ]U+32[#_]GBX:!4&E+OW,D40U_]6"[^7">"U M$#'NH66<KK_U %K^(/K DP=\]"G^Z:V\(<&=??*@8*-8=]M?>@ W^^; 7QG MZ")RS[;KM>&]3Q8SN'30@FP::+(U37>+9EMG^82T:D+ A8K8[PI61;V15-Z. MX*Y.P2MPMJ!:_W:5!7?JT766<^"M[\%+, 9!M<[E&A'<231AKV$0S@'A]!U2 M"NV%*Q.YM$'1&@9H#U>QGTE=P5U"&.%E[PEXLQ5:^*OU+=>(]!M8$"[8F?+VE-NYJDEJ<#/*Z<8?+;!FQ'TSS=O!HVUD+#Z)T2OH$'O[+9(,I MG?2]ED;XOB!=O)$3((A\:/YNV%L@6#)"X]*%&KO.[\!') _=(J_4HS-&\=,&F MZ+,>-$.;!/KMV8&!8-G*OM"$>)+&',N7I(O[W? \H^X,R]"L=$'ZE@7Q2#+L M UNZ8*G*OR%G0QS_Y^]L/4#=PV\.6H-+49?@;OTC,T*FGT/&+4$K?8E6>*: M "VP>,<9VR0\PPP>H?$";:3[FCLG[H_($5\5YD:EGL@ZH<]&!@;&\!CV5_ =,Fl)Q-ZZ7+%$"G&D+N\VO$_&^[KV]IFY<?=#W?8!OWJ? QC=KX<_)W%]OCU?M2U+$_68$6R];GV^EI2D-JJT&7\51]]-G1#\8'Y<>F^?@*F%3K^X#^$\H2RC- Y M%.TFYYZ!W9?Z>(N\C"YU\U+DF@LE*&OAH.^; R/8(_J^N,.X"6%>*H=Z 6\! M<"Q@[?X5!OA+M[>?+R\N+FXO.A\Z26.'?S0D7%V@@*@P0Q,-FC@AZH.'3X'^"+2>Q^X%AG/TEIMA)=? MH!CM&R6&X=QX&UE(^%M,NX(98(DE&\C5(ML&K:LH$G 7S_3D#G\.=VX4'M>8) D?WBF C@%['VT\IUR$?>;)%V(<'4^P2-MI@T0,V#B&ZCW[N7+'-\V%*"1+=(N-)AZGZ#1M 4BOI":O:]?7+L BM3O[<*! MWO4$A")K0P)"]XA#8OAFAD]?"6:@HF+M@H19@@09-2P#@ZV'18Z,NYA22)M; MG[C5*B[>+J2X)4D0*[,+7!W1(A< +!9\!?=&8,1RE)CBBHJW3.21+$U+ 0 M8(.]-T'!'K7KO9=>2NQ*I:7ZC*3J*8\/78#D0K;(*[*"N"7RV-NS=.QTB?*E2 M;82/+D "GQHF@N$:>$LT<7 UU]"D<.,1SRZ"HLW4:8V5)X"JR$B@\VE; MMFEH'A9J(XC4_B?8-6U?B/=*[GKM1B%K0M=$?[(-<$0K? 8A;Q5+*K41,VYY M$@R+K!+JCK\!P"]/[)%C@;>_ ?(0S)1K):(,(B0@%ADS5 0QWA4_0-\T[\ MYMP/[FY&*M@M*+BD2--OB@Y%X8>VE>T#_4K0))91,;^&ZU[VX51A+'B$2*(O, M*.I#&3E(LH%Y4+;-<-+$2 MLK*H"&@?B6:%XME&T2XH]7N[@*-W/0&KR,!2 M%:P_?\HIXA']@Z@7)"SA0@^57OI^I'N!WX_LFD1 'DS&L\GCZ+X_]YW[OJ/ M_?%@V)G]-AS.9S4?CRP, R54V]; L#2,3?R(PQ[Y%_VQ(S_X<>N9Y/% W20 MB!-0#=RY"6\,D$=^<%3_ <=EEL+'$2U\P.83A"@NI-3HJZ3G_?CDD%#02Y8 M>#YX%#*K5L<[WN8QP9XIF];-#=H)-H@^!WPDS%G$TP/ZXAA' 6!@>-X[.G:' MX7,(5&"JJS U6%#.,Z2ZU'HP)HZ3Y>^C:8Q!4'Q%QE)%.WYP"UORAJY%M!@Y MKTA UWL/8^ 6TN"PB':P4X43]!RO89B?/+ QH#5\VP#'QV&")L$*G7(.%4= MGZ&F=J2H*G/):[\6<86%%7KCSXQT7=MWX :&W>2LX&Z %[P_V484=P!M:^ M*T$>#,JJ*.P#SN,$MY02-@,BKS.KD&,?\!#OF<>N8Y;_"*3B^1""2T(0)VP:1 M[]E5"!'GHW&680BA3-PD BM*Z^A##7XQ!6T57H'WXBHS91QLDZCS16%9C1CI! M+)ZHK80*F\;2W:(^X);((RB40<,;PX/X<#CL>CZT;KFQF;5Z6H-?M+A]J"6[M'C:E Q6P74Z0*RC%$"$0ES*&]7]S-%/QCNMZM;(9HM.%5><&"YAD.S2#K'HP MX3"P;SD-"DKJR0%6004M%^Z#1.,GRUW,W7(VE%?2DQ@59%;B_B(?*!C_"Y[K MO"U([.Q^8FB/Q3G05H8"?)7UHH(V25<4S1MF\JKDWFKJ1<]..74XQZ#,"W2 M;5"T>FF=W?:ZEPT^!I9T_*BF! TO/%(9)FC4*2Y\"GSAD%SJ)4A#)"%N2@I* MG 0=*.**VFPTN*4)M\I$%)C5.@!:_X@C8BC1]EN6WEK)K6DR:?VHMEX5<)8P".L$A9.$1=BV_4VS#P7V?+<->K_M"C@^7 4XR/X:XJ:QH8Q!,%G/CC7Q3QM.*IN01H 2I-M*F'#R SK &AJ>@S;C M_H&:[L$"FI#LVDFKJ">/*LJMAT-77GO,!Q@]V< HYVDX@%5T_%*2&?(,8NPZ M*,F)4XLUC4>.> K5OP(!-/<[6Z8P$I_9PTAT_I3ZS']H&E:BVVUFX]"W;?[=[4NPV-KYY[(4%RZ>-M)#I(MFY ;SIE:#J6!76EL#>OA[I0T]:.!. MO%"M5GC<3W(\,YG#2)6UY$\-T?4PEZ05$$6:[&^#%3I4_6N_BI02)EOI!(C" M)+(@$XIB=O5()'O;[GH$54X&6J4B*O'>_8BHAEKG0P]:#+K8>TXN'7@ MW)$PU-22*U7E%F4?488OC!N1DAJZ\X-G"U+; J(8+TIW'X32I$'^KZC;KQ; MU;A WW0P1]+7EA6,VXVZT75SU&C"4+K[1W^RB+VPT:^AN]S1A26^JN0PG%Z6 MQ]^=S=%_O@W'\UEG\M"9/ VG_?D(%>CTQ_>HY+>GZ?"WX7@V^GW8>9S,F@C0M&UW0[@1@,)X2:ORX[-7//5;+%CS'%CWBM=EAH337+]49W*6Z+;HDHTHER(II MBYW7?2\X@!;],0\K^@L."&5MS0!M/<6==6_=]<&S":?+RVK%&9W'=0O28I-+C5NVK9SCET^Q!":70%3')TF33^/=;@\=7,$(_9'T M:"U?,*V5JUZWFSU3J;Y[Y91-#\2GX!4X6T!+!I,MIC;:Y<#E$6>23HD%6!3> M*TAQ^*TEEO8[#%:#K1^@X[N^3O'V%MO4<.1"]\6^05!A9:49 T3^$3.U!9? MRV=J?C!9?'5=ZW"ÝG;DV^7J#5$%)QE2>9SCEU&.%^>JYOH^V7POBLY&#$GKA M31-,U(,T18+J[*),E>\EB.7U I/J3,EAOK/IAX^6&0 @3>-T6O=HN;3=,#5" MK _BMJ*DCI(,X0.Z:"?!*[$>6U$\,:*M4=CU!T",CY(MIB4'F(348S\P S9J M;OD5.$AE-B)]WUI#!V)U!? 5E,\,:)73VNNI$4"^+D5JB*['P_>< EGW%UK2 M@4U*/8)J[63=O\FG8;\OJ23Z]7>5% 'UB- '*34KJ06K4X$K&$(+KPS?HFVAC M;CC W?HIC14Y09!+:\F&*C)KF ^1J$;>W8N6)*DFM1X'F_TF/KE'A,X6R;]W M\H^FR:@^IC M*TI"8) &YST0[+78?S6@C;UPYN[6YXXX-&=X4.3-!ORM9)6[F]*DO>D(J.5YM M2I$J'ENL#[KU/& Y?R4ULTUTLU%V2HBBGEN%0HJY2KBJ;G#Y;@)6@O"%T+ ,;N'L_?= M@^B_-%?-V@TK2;CJM^]R])&04DX2@69B6Y2IBGP[U'>L\&]V1 ?KGUL_S U& MR68AYV-*OBSEBQC +LW);DG8]=62@B1[DOY1;KI4$Z#E>$L M@3]R\K'_?TG!61K'Z8HGCM/@M_]XZW#6&8W1#Y/!WWZ;/-X/I[-_[PS__CR: M_Z/9>/C,*!$)0<5*,C+TNLWLS&I&>.I=W/2N+F_4B/#$H>G\#, @HYKQGJJ M':D$3WJN@X=Z01 HICI*48$#R1+XF<54*<;0P6U;:0",7#FU 63&HG!!9Y!4 MCWT=(<5@*1-*ZVC+"GZI!?GY->XYRI!)LPOK/7UY4XM#>CQPBF;1["4,L6% MM>4'A[AZ9*/(Z*HP-F5I66VIP"XM\154FV-KJ89DI7- N6R:O'06DQE5/<3+ MP2M"G4D^0<>%36C]1IWU D7N0EB=0R@>$*VG 9-X@L:^>BS87X;XFP'273MA*F$V'>!25^UF].-J(MO0X MO;"H[KOAX4"JI_#0Q_ M-0D%\(=OP#.AG]LY56](#QX)EE_0@TFAZQ\?>Z)0)6@1]*"WISY]"A#TRK(5 M&ZAP?$V!'WC0#.*$T/V? AF>%#GX/KK< ,-AZE7;F+,WJP4"IVM#QB6?I:!5/ M1_9VTPC<]KI7"NÒUDG,(J*P.N<]#S^\=A/CFMYVZ1)21J#>I:H52K/FXL.W\ MH8LF^TUI,[+N[5N.P$8Y1/U>"^ZL!PZ>7-#JR^M6\\")O%$/5BBDZ#Q1TOH M$/Q@NS]Y4LWWN)XH]6>_ =1X>)]^;R"E_\,9E)RC?(Z1!]M>%YA *D)>_@;2HV1[@4:(PV^7N0#JG C($)\1Y# MU-L4-DT%P9#%;!H%TZ#Y%P^'=S;8R\4QH0U2\L]=,,?./C$^=%BV/ID$E''<) M=R5]T_2VP'] 48ZEHDN03!$E27(T+#/W(RRZD9K,5.2]V=AUL(H. ?>*^%!0 M[,R) TZPZJ?NM"#C/K[V"G@/4.]-:,1FP_[:]0+XKN=,0^XTRJ]8O&J2A,7 MV@,Q)XM[\!+<0]]TMT(PSY($UW*Y).R1:O3.],ANB2@K3,DGK:+TQH!>=B4>(M ,X2OM@ IRT/?+38PP#8\)7HK,U8^\R_-/_JJ$U4:C>%;O-#!>/LIP^N=^]N M7X++%UD;[33P>2]+"$JNNI#KP-G2M%0?&3S_:*;O3R!5.JZI[\3B MT)*H["8*S5GT%&?/C@<,&_Z+N'CR-'$F7YI\M757U\N7P)F0F2U=/$ II:B8Z[I75.E3#+> M\1X WXM$E[*/T'B!=KAKY=Y=E3665O8E4G;VK*TG\2KK1H)M5FG/P=H>@THR M3*9[6!V]B+KD;#:I-4$)>*_JB_!++6E(*;9)\DOE%5]EERTT X:VG ?70V*: M %AA-F[T9S1B@GN5J18&9JVYB=*F;M]M$TF/\[JG;V5)UY"TJ=!K'KJ$&N&F"NY>2K0;>UE[;2X55,O6F^>\>N8PK8 M)/4TI!3;)&V>>,77P^WP:+!Y=9XGFTC7VCB,[X5 JIK5VI49X%D'@ M%SK:5-&'>F[S E)9;.*M !.12,5/BSY<6E#1IYYRC)LLDM!4B^YQ/SRX7I+;Q0D\^+(-8^U%(:4 M3I1J8F^OPO"%G$VXOC M8MU#?^/ZAOW5<[<;5"-\4.D$T-D"*[[@1JL"@;7-=TRIT5#7NJFH.O5(S%E+ MC5'\W+S'4:S<0\B$ D#YKB=T&IP** Z46YBS:XFM10I@]=GFI9J0M"9*Y]9 M#R5#*;>$]^W6SL4*.&G6ATY"Q<;QU!6W[QSEA;[FL MCLRB3EY-/XQ$'4 #!N>T0D=1HI=^]E1:'Y][E[WL2X0F(BG7P#+/#!:)]8B< MFNAJ[#HF^N/>;67>&# _W)XNF@N5]2X)8D!>A>H/ 7^=#9MX;^ M?C<(< $ 3X6PXGO?GH\FX@2P $V]I.'%TP'T>A"@2Y;&TD:L.(A-.3YJD M2&!%(P"D_1]?NC>-;&\1BV.,WDN3$(+ERZ2%QW>M>*I(50" >^3T)FQID[7&/ M-AD\>1 I9F/8=UL?.L#WX^D5OR>:;=<KPWN?+&9PZ< %--'ZNM?'$U*W>7"A MR3!W7.;GCJ?I:#P8/?4?.W?/L]%X.)MU^H/YZ/?1 _!^=_OB^,WO^]JT__0>> M76:CK^/1PVC0\]1F<'D>3P?C;JVGB:/H\%HV$3:D;PR&&81YLLG/%L;NA[+163I#\3*6$XJ3DQ\@'GSS:O$A.I\8PSUWE MY[?G9?#+XVV^3Q_OA=/;OG>'?G]$$UTBBI*Q88S<@V2K2Q_JRBCh\NL[G"FA1G MKWC:G,-<7]G)@@&7 KMN+;%;O^>9@E?@; ''@.[E! .1T^/MP_#QL8 S'W<=> M=Z%/,,(9FS@&6S]PU\!C&,R,+?RXNKR]O/WBZ_Q891=/7AZZHXU&[" . MHV"_Z,PQ")T0E\#AM"5923%MH/!)+00#,<-F0=*!.4:NESM M_+AL)H0U4R=IPYRO$67'/S]@!7>B]571^HWZ(W;2Y)D4;@J6ZV%_ULCH?P2^ M#P!UH-.+-[$TAYW9Q;>+<*"NT:65T@S]@HZ2"]07IV&46J/YQ9.ZB^X=>S2B MG3,.Q\$O#*"#",>P_)(?EFC7C';2LUGG:3CMS'[K3YLX20\-ST%0[D1B6(M) M57Y<-_/P+-L?VB EEE=]?#)K/#],^01L_1)9__Z.\Q[O%E'PXE+>-5[G3TF' M_D.#&[V;2IMQ4O9;(T#:GBP2J,.OO4?_2QKW[!73X^.VV6CE'.K-N/=4E[4U MKF"A^?Z;X?V!%F3H[Q13S@%]J4WPKR:GRM%TLW>Z12FT[/!'!AI4;DP3>HB5 M7X\X@O'#H.R3R5(R<=5M/W?JBZO/(^]_+DW9H7ZX6(06Y.Z$ZN&%C1,-XPF M9VN?HBB76ZV494QU]:%3=7$%O3:N^VQ&P,N]*(<:Y7Q$*ZX/);@DE)#XMYDX M7V%NA"<;6SX.$B2P<8*UNCX^;_62D$I1U-=0_D@AC$M:A:92FKV\Z'4_-QA@L!Z)1$F?F.TN MVDTLBKL>&Z7X&M&'3 +D3FC4\G %Z,0(D+ +Q6?$>*<5VP^4[3N]:NH QU-2) M,-6$35A2UU!,>^=RY%LO"_4G@#Y.Q8D#D[--I1:^[!"EBJ)45IN&AXY)IIMY\8;ZRFZN+G@^7."2,"%!RXV^SSZ8+(9^ -=&0 Q@G"ZD#^ ,*!R3PA5!$UHTG2\NOIO\K'$=X8/K(&[QN?I*/C$)G:X&86K*7P% M^(ZA?!FIT)(^'!(E?.+9UJQYE.3)N(*;313?[3?#L>ST"9O%JY&G@?:30Y# M,"2<4<(LX8ZT+7I0,<<>-LS/ M*:XN+B^N9#ZGB+JC]&,*EB<KBUAQS!:RM#:+XQ'F?NER(_'R14*7EZY+HCZ1' MVZ4:SR?I .\7K:,HY"A/.!J,0<8[M5SEIY:B0&1-3A*R(I)UKYJY2]L3O7@' M?YAK,UE:2N<3<0TK-8?P0EEP0I*C$#W2%E"5@__5[V^#%9K=_@6L9S2%> <: M"X^5=^])-EBT*S+!%*?(JDW3VA\^-1K+49@2+]X$TGSLAL'B@14]$]\VL[(T MHBW]#@NOQRLXVC@LRA;0 VEXEM!5G(,KVI)1GG8$/<1KWLZ>UM4+15>I]:! M]FJ05^@G]6:R?%5>._72%1>WB-N+W $C4/S-GFJ/6J,WJM<,.KC"(F4;BR7 M'EC&X>4/$:1-)4QUTT2_ZG5[BLP)O.#DYX?J\LN+ 'IT=[.\XO"K#S07/D+C M!=JLRU*%EC1FEBAMZ)7T*A,"FG>5^9Q?90KB0#>YXH@,")USS3KVCA;W[<"# MCGU?2JJH['BGH%"VL>2259=58R_^-QSH*\P#&#T;W,7/YCO)L#6C(WJ]2"YH M;6@R"GDJC04FNI)5IF69=(3>;"O0>! 6WF M-:''G!&W\Z>XZ2;6B%I) H^6&[?;4']: ^\DUT;2N7AA2T<-IBCTN^%QR0 M&OUM3VCTEQ_AY7__#69?ZJ9^4XHV1T9U3R>Z2MK+@&]@_0(\$@>B7Y5B 1V, M N!*Y"!"=R04OAEO<+U=$W%(_:XF$B5]2V-!ET4WM[]!L8&!8<<+'-J#@A%: MNTC1$:CUE,*_L2FXGKKD6:6$A'$O=&K_ZKF^'SX>+(])TJ.JHSAH.\#+VCTJ2 M:VCG(+R6" :&Y[VCHWL1=;CJ:DFA^AHXRNWGT4+E;ZO82,59RM-TIV&%&@[F[M[BBQ:F3E=]F=2?=Z_:R![;\V]6Z OIXF5PPM=[1Y_AV%DD-I8BBQJ:B M5#5$"JE !-QSOJW$OH921*B*#@.^%(E5VCLD,UI.AM+U0$5*K'3A34'K N8+4 M"N\EJ X _W2]1&2?X)&3+Z04]D><[#FT(^98O*8S>(&9[.P!*:3X87.$@7A?, 1\VT+FZ: MC8C CUK&%EE#YO:N $^>:VW-8.+-@/<*39)79E$QI= _\BK K_B'=AQ\0T) M'775)TIQ+)*($L7=?O! W"Y"LHW[D5E5860$8LBQQE6 M*16>G'D8$.,T2>[;RXPTN8)*8=^$;89-(X+B$S5X7YB2L]R 4U TK90OO>[5 M%P5.]&S8T4OD;#IO;N AZ8!FILFBTCBTJ6AJ&@+8"]!+P\LXPZK0MH-;3* M-P698KJASB2?'O-AX[Z6+16'9M%IN>U??*KB.<+&&8IP"[H'IL M%M(!N4J6C7Q!!>I08,E@U$C,D[KI4AN<)U)R8H-ZZ7)!*JX473@QI(%/D;+I MI8(4\H8NDTA,2T@E\G%X'9[K! M(I>QIZ#XF37*6DB'<^.M:(KB M:^&4225*78+,S^H&A<*A_$+]D'('D(J?,KLJZ4:"X:AI*J6MPV'$2-0]P^ZO ML6*9;CBRE=*[Z_8N+]OO2<%+JPH:BLEUJQ&Y1LXKDM[UWA^@ _T5L+ZZKD5V MRRDJ?"83EV82Z^*%%!8U$^=_)_YWU_MCY#QYKHFT3F-1JO"915R:25@DQTC= M, (NFQL]O>#*&ADTET6'9,X=X%)-02(Y5NQD*A0DY1^N- ;UP54?GV67.$%5> M^$PB+LTD+*IK]$Y'!V]Z6]2W4\"B-2]'+[AY.(DLU.^X)D_S%I)N"/'RMW, M#+1<+ !6+]@Y>4[1++#P%)CJW0AM&HMM]O^-W6\W)2EQH3,38VBL1B7+W%_D:WAE.8:+1?*E39@2/2A(F*&08IS#A,!I)&1<.RYW9P*J4 MA \Z6;=S(@(?_P5B"+F&=*:MRRF2JK)^$5SH9M@>N*TP6H1GV(%C'5+6S M+KCT"FF=72&=91?14^ 4EW82ATFY1NX69=$H3F13(;?&I<3<&A\ZN\=P[$Z M)OX#V/>T'7DWZ!5^G$*ZL:;G*#88"B:9RI)JF*&.E@2+R9,D7TT+HE024CTG M?B'32D;TG&K2_T G4*TVM6"7>V(>AC@!H9-I-[1=D.A]^@*;?W02,"2!^_A MOTQ"J9*=$??6YBJ?-FPVGPS^]MOD\7XXG?U[9_CW9[RG0?^,O]:]E-@QXN\U MND'):V3L!H A.5AYQ1^?XZ<2.>_ ,8#O

J/*@R@TIA6)0PZDD:70/#,8%M*S&HJO;E M/)9DC"6A:"BQ#90TA$*[BA(#]%I/SL-'QO 1B(421C=I@R>RCJ@Q?*KUY3R MY P@@6A(2%O30C-$K%*<<)-1F:1P2 WT)(WK-<)5
U=5%ASBO^DIX/RZ^;"2@Z,U? VMI@LB@>K>&_M^OUML'(]"OS&<'I'407>+(-Q[][3U\PX;$59BXF39!2/ZK47,A+@8(9[/C*
M:CKUO*2KMLJ:ZK]!ON>VM;ZD%'\;9"`K#9UX91/YWRXJYR6^=_&>13R525]2 MD\l'8I%0_G)I6"!_"9:-?'->D<&*:BLA^3 M,*K'F.0>"V.V7MWTNI;(X] M0C*?/(^0(XT0%KV?-UTYM2798P[\
[>++I&,,%O+7S^/F2..&$?(EW+\D7;]7] MU&!>N_. MXU25<V@[_1HXM.6_WJ(!(Y.S M1SJQ,>I?JA4]ZQ[?PLU@7HUE>^ZC'-=@]#(,D VZ%@6Q] M=IW?@8^T$"NE@FOU%:-K-?K4A]?
P6W'ZKF;SBDKSKO[2X-UDC=<'")X(G62! MB@8:8PHOJ1]6:H;DI8+X=R(5%:,]1:-XY1V7VTH1NF%:'FU\R!P4[0C'W]$(M7^0D8))WN"U=(^*_QP%RC[UFE'_]/&*.LH94 $&K9&(U=/C[\?9919\Z
M#Q"9 X19XUKE%M/PX*'*$R@=!@67UC6+-BQ";1F3;+AKO4?# _L& 7ACY@>4^ M^:@=24-[V^M>7IQ-4[45>#Z&\"FS\>&@U#!0C,Q-CK*RT76V>='23/$-M./U MXCS:N$=;P^"<%
[12HTKC"QQWA\Y#L)$%9SPQ..K^"X;7@-#7T&+]^'F?'"&=U M0-'ŸHM>M\-6FJAR=P2ZE2 ME,=P4IJC#Y2$&DV540HW;M7G9W*Z<"K!135?$-/-[N5T+.P5/S;65:)RUON4 M4N1A9T
%,Y(HY:A$OH+5V9 .G@NC;S+549(.1X,VSRI^92GLQNU[P0&IT- V MA$)_^3'"6[;)8N18\!5:6\,N6("(Y90B3HU%B$] HMVX*)&R=FP\XC(; YK;A24-?8HU624PF(F_.G&;M.9.A.$G:A
M<\TV/#L=1%N*W&)%.]%P?#J-7+??[=XHQ]!RF@GT;ZFK-^W\R*K<[N1U%ZR M-U\93A()8[GTPK<+Z1QV!RH6?1,HH$O:CA.5]"EH"ZC.^!$["847HZ TZH24 M#VK+_>-I2]!>2-&P;
[74%KNN;2E/OZ1]],QN(1K3ZE7C2>WW_1Q4I?NC(H[M/UD\G?V^)N-$*84*RLRNP(C)W%L/W[!^23ZMQ85UW(EP2!ISX49]>C2U'#O[M9@!?L6&=W\'SGI]OLW%-5'+SO$1L;S",-*\>J9<
9!%5\MNJ MZ>/9,&C15K_NY#8]Z]1I;,*!(M<5O:7SOV-!MK2A^ZSN-,N4-7>I3IXB8E5X_4<%A*& !Y>JG4,&V/A;"VBL\G M,G&Z5GBD*36\5%(,;7RH.:K+AO+9;.EAI5)O3-
>)G'X>V&H.;!&8GN^>>>QD MZHUKSOZ=QW4+QK4(3$\\! :KC0X_*E1O4/-T[CRB6S"B:P,J(:+_ "9B*U1O9 MM KN4+*H5\1?SR!&"44S/@6]8_82,65) $CAC3P*5(V30'"8Z%'UW#ZCC4#YA9O
M^_M+#Y##!3/4: '"%* RSX8JB-LTU'(6_$?"(S*V2DKRHO;T7T%F/4SKA8+3 M(^C0JK6')>4@,S*%)KD>3ZX*11^^ <^$/GCRH EV/_KQKWZ7AT"TMDZ,5974
M(<4U)Q_N1L26I5#HD>]OW0K^1%K?G[5FF& M2;W<4"#\5M^R8"32R%FXWCK\1 73Z VC:73_ MO0[!7CUF!GZ/"*J%$1GMGWQP?]LD5*&K^A_**&W"*65 M I(;CH(K,
XQ%0>S/*86J;Q2@%9!A0G3$ED51K4TOE5AV;:@68('%<\22?4P M%\P0,J&%-=YDAC-' M%V_DF.19DEY+.72HNL[,BA5%5&\^K)QSO6!N9,Q,WMXJ6DL) HC&W*>6]<9V MWP&8.*#D@)
(MI#FN'$+KX824R!HN8*76PH*2:,W<(+VT.>M]C@R\DBOQ,I0R MVN<_7?IHWQ72'& .H27!.8V@*](=PMH O(J7E):/.B+RFD.-9_<@O(92@%Y +P R8O=\:TL;_W0Y9Z- M!%7:.062"-.+A$2(#9&H=
=1L:DSE?A4$[/IBXIL*A20S)B2XJ? "E[Q8^1O M540^9GBRH:8O-YF2IX WA^2)\>A"P3,'AX6A9I;.+[UN]W,KK?OLPA&/$2H& MCVE3ELZ&R70=K MFL4ILJB.4L02Z1C)+"S1+-
+$+4:ZTZ6K3F%9I>"LCDG!W06SM"JM ZB_:]>A MWTGERBF)(SL&>?$1-1CDL;16:&S+)F2#THHA;2 "9@F6HD!,7F06>G!GBC4 M2n*<2"<5)FT>+=
(O&Q(M@;&*$W]1,!*9%)I1B7L.G@8,6@!?:GNW'/0QBGQAR*U((\D M.?,/Q6\%OPTJLAFG?E,*ZYJ>X.5"$:_\C@D'T6WHX%>E(*'KM0"#*@OZD5#X M9KS!]79-Q"'U>T]"SQ>];]JA7UV:=M-8T&51^-
A+PQ$ZY3@>_MYV'*FR*+S1 MH>"X,]'-3. 8Z"1.6+ *RRF%:\W%BUW $@\&"88,&GYQ;Y\=?P-,N(# (KY> M(I95"D<^,#(@>_+KQ(D*[7_I.];^QP=WZP6K@U_)OBN-=TH]
MNG'1)N,0HZ8ZE=A9U!D5X=+F2S"DV--8E/:32NSV_SF7SXW MJVA$B0T/4/+5)^?QNLT$[M7[E8 MP6R5VD"+Q]^1'CU4:! MM.^W'EI=HURLD3K&X&?X$]DEBZ6RCLRI(;G2EP!U&
M;0/K[CT;,9LT]5K54>NR5#)42*1"WG$LI^BP^R2Q"6,4CJMA4LE8Q2Q$J.* MJ!*>1M?,JTL O+]<>F")CFU3L(0^^AZP^FMWZP0/+J([CLKE+ M//DP5T[KY M@G1SVVX:5)=:PCOJFE.
@-.1:P)@A2=_O (;#L[5<#!2B ?:Z+R;##L^W\!JW]")F\=3D Q;=]-;N[X=M@NL8O4-W_ ?2#ZD?3*%VC:],LZM* M^_AZ9&TE')=CT6^0X2]T%;ZPJ7 #\/T.?#6I 2V\CZH+<./IZV$X7(RH;9L
M&UNFPM]=$?(1F+A4\-Q)O.B+VO+^0;4EI!?SC6'%AN82)?W.* 6<*QC4_P MNV?BBU):0GLYEST:T'X*_3\>/ !&#KXP\0.LR?A9Q#'87_+Y-)YZW%\WJKMD M+,BYYFK&KTN^0J.G7HV-
A>CSY[$@6'?)6)!S>=?,6-@E@P#>*SKE%^MW[#JO MX951J$I_[@:&??C[P/6#L1O\ P138+I+!WM1A%C'5TZ$@7"4;^LX"II37#($ MY%P'C8$XNM5UXO_"9%D\CD: !SMTRO(,3
M;0@M^92.3#^:GA)__;H7H:0K+ 5=]C,194.UA;X.55SXB8VEM7V)M-U>;UH) MFDAXI]-C(H)ZPC.)(-*5MW5"G*N@B(1RHRH[UHDBB]CA?T"6T)+%,_"6_EW#JVC+?QEGVR#?S M<"RDNFC?
+IJ\I.^D$;I2,B[UT1C,I:2$QG)N$9O9412>>?%F!DXK%6'1\(H M55%'HE64.F%.W3LWTK&K[&0_D2.Q0J:%#(5H"PE%&FLD(Q77D"9>L"3ODW$(U MQ(VJ,W*D[Y&#GTO,-70)%@!;
[XRG'BN_AJ^Y9;UYH+S\UIRMTG=)6-!H==I M1S<4C4$P63RXW@+ 8%MB7*_9;%K_O5[W,KL%:2%W9>@DX:2<2R#=YN=8F_*> MQ?'W0$NF-ZR^)&B/3D_J>&7KF4D=*0CG72KK-S.D@ 4>?
EM.?UY+> M3>HN&0MR[KOT'@NAUQ IG$FSG4EC_1EAG7UN[Y_'AFCE)<-!;AC$/W_*@8/4]$?X4^$OL9YR&)GO@>N[W@L6]Z/IKJ./ MWT/?M%T?[1JGX!4XV^0_=^^#K1^X:Z25*$/Y5^
N/6.S@F;?\8]" QH[W;R M$4G 6P <:Q];,8 !{L/M[6WOHG?1[7SH[+^&_C(=_CX.V:\ MU0YNLF,X5F>Y^W '06ET_A1_^S]^:2*E?=A1?*,1AHPWS. [#%:)JOHO?OAO MA+'.6!N1[>;BJMN]^')Y?
=&]ON[VLE$&CR,L LN(QXA:DT6/0\JF$1L; M:S!9I#I+S'%$+*L4?AS*3R/&)Y[\!$?WT -F0$[)R/T9R+!IN2&S995B@:]$Y^P MQ/%_+!C!,MM7&R1O@SYB(B DB*3R M7JAOVZ$Y=!"*4+K]
(135!T5>(=N[R7GR7&MK!A,OCB! V-\4%5,*;D%;&V8Y M2Q _?@;LN-?AR2SJMT_\<-XM+*,J9(RZ MSUO2Z=*IMPFJ@G3HY5V*\T$)I5!FRJ/+DTF/; EK$"/A 3,K-649$&-U;:6 MW!(R$8K+
(678R6VZ_]5U+7\, L(-,;5\FT O1RRSN>866M#RS*/GMWG0B<>, Y@Q]Y_\>S)<[Q4[@5]1$,@0(-LL/7P MP"0(RE S/89P>M &(Z_+\>NIJ@5=UJK[N+>Q5DD;UW2I$^ %B\2"++T%'#CV
M$M*W+!AU?N0L7&\=MEMAV;@B+QO[3W3@_AOGA4(+ET\]IP!>\9MV()QBWWB" M<7_WFY+ <:LZ;0XN%TX)6 H-@9E?E8*&KM<"#$KD:!]%.A!$8?4[VHB4=*W M-
!9T610VP])PC'*ZD'$\ +M^TM>VWO\C:[^*J-(U46)9P-FKV4;AA504L8LYR" M$+>; %ODY;4"@ŸD9LTJ7UVF\Z\[4@5^WHVW.C@S LJ9URT6Y,:M237NO#7 MF2::/'N1$J:$1Z&WW^U?
UFO)K82W(>'V.TFP\N3!M>&]Q_+, @\8.?#I%=H$ M>SEFF?MO?JF/!=9 M4Y,+YON]UP7]=_SL=M>IR,OWZ8#Z?? M.O?#N_E_=L;#.;ZZCT(XQ1_KA%]K].(>ZV#?;\H]/:EP(\XV+\$^,EGIU7N^
MI]J#O!2)M$,-FT2MMW>F!2VXUB 75!9B%N!HD!,%U QQ'(*C\'*#5KP%Z!,Q MI(%/D;)I"A#.&8^NX83&8'.+5_T^VLV$\1C(KZ;+:[0 80I0F7- !7&5\#S@ MQ'ON&8ZY A.GV(V'JVY:*5VDE*:#M58
D9$&3+*WF!#SGVYE0NSJGB ARF57 MV*>%8U. S[F3163R>##,T#)2LADD%5>*?6WA%QBJNGJ4I,#C_@\7AS8D[6: MDIS@0I:-
&%29%=TV1O:2WY'"T)EXLMFX7K!UPG=Q#UO'>ORX*8FZPU:U-0R@ M0IA9..K(K_)&HERN$:Q!BH/*)TH+F@84WE (?]&A"NK\6P2Z3(+N)X_K^EKM M]4?3,-+!*
!._MQ\7.BJ/QE1!KZ2OJ4!I,NBQ)/ZY"G;\#3#A @*+',R95%8I MN/E RX#-)6'3ZRSA^//D@4V4H^N;88&), 'Z"S2!X,T[=);W2#/DTP]K7?40 MYT(N<^*I);422S43%?!3_0?H^4'?<>
K^I[AO<_=&3!=QSKX)U9V<#6G,V'J M*T*);0(3A*!49DR9;5U9@BWW$]\2!'LJ_%(>[)47%HI7HCVTRF74!!;I9QT M3RDYXA/MG>MY[D^T9@Z,C6'"X+UH2F"KV0+8R\'+3 @UI%;OI9+@F>'!,$%_
MC=,",$T-^^(:D:22]%+?-*G C&<'"6;EA@D'64I;2"OU"BE5A?A, OG#+[UZ M[Y(Ŝ(A)[#N?;, %@#PU^-7<^A$/-69([*^C@]^A@$3YYK M F#Y^,2&(R5/%E$&]JW0#@)_X#H^1'("Z\'UIL
&A@_P*_J1'Y MFM.7A/VT' 83A'K>N$ZDC*D! _>QS%HZ:NK&IAM0Q)Z[5X83@+=2=X4- AJ0Q MK(GSN^%!?%B=&@'H,NV?R-4U(I$0T6,FW4A^!-DDEQ(EC!S$=S34L#+FZ.M#
M_/+1A^B7H8,*>B'B3/3B:K$%C./D#(V"]=4C]I)*+3H>:F6X G@*_@"7@F MIL"2[;DGI8T64*[>)%=%_IA37]19,YE. D@JZ%K03$2>./;[54V2DCWZB;^RI
M3:3UU>M=7JF0GEK4/KV:^#%=;O6A2SS]NHX WF3:.ED"L>@A60UR?F>KI1I++,"1T4NADA7:)")\L'J!C."8T[+[U M"GW7ZS06(U@:-A*V,*(;4T7=""%%=Z(01"MV($!B1S(##MPV:]L
4V&@#9LU= M7H)4:4S^A%MZ:U6PMK<;/ MO>[G;);N=E%)L"820JE_:5(VANQ8>-[Y)ZFG&TDJRYS00?T;B,RV?>?-AJ;.
MOG\X2)X\B*;8#9ICPU$0EH0L)R+>)G4CD0QU)/Q2Z#:#B5]]TP0VMF+B'(") MWV3TN"8Z#88.E$,G\-XGK\";06=IOX^SXB!0^]N!\=EX-$W]GXJ%_#8QW8*6N$X>OZ-.HG7NP,+9VX8S7DJ[K/5[:
MI?9D7-:]&U)A7$;JQ1%"H?-]![7 5W[_,5 M]*PGPPO>1_[8Q1$,UQ#GC9YX,TGC[ZA=/+UQUKQZD_&DT U$_:#%MH&GH^^& MAS.;3+PI1+I+TAH<.+\8M@VLN_>XG!\7)#G5UVPUK?
UK1!CE@NCQ7G_)T$C" M1X6N..3P]HZDGXJ-!53.T9L&_]<^N'%CY_[NY3 MJC^AT_?(B0.TQ]H:^?X69*T>E=O1B(!B=9"P3/WKG;2VT 87'4(#[*^5L>9, MM@$Z4X;OS.EG':9F-"*/4!4DW%'_;H
/!V+?-#VT3P[OG!] MX5Q>4RXU,%<2[3>R1MK%ZU3_P(65B#'Z_A\7;24(4G4]<@1#FUA_#?O_+^ZKD^.1@/M:8&1*DF8]V\$I2Y7!*7#B ML$CKP:<^(JQN!L8MH(8E^=!+2BI%>)E,M5]$:
[*9&0"DNK!4!*&(=Z2UW M4R?XG>DT=E;U*QSIKJCRV>X^U8F]1WSUS_GHTS\H!+NZO+VZ_=+X4/YF!+&_MPLX[QS P&!TY_P"&ASW<2(^AJS6FU%3 @5;YG%!3?B4" 1^?70_N-GLI7ZNM
M$^8647R5XP.G;#$.NSW*(9ALVH@XMW2BHNP="'X:W5#L;_1'SL+UUF'[%385 M/;9-Q?YS';C_GOH;"UKAQNV(821C)LMA04X5@9 &G8-WE$9,!VX9.[,?(9ZH(UER(LO%.E9D(O+"=T7?@HQV7
MT[=MB.W+=X;S!SE1 K%P:P"C:CRS7^*36(_35>9Q#7FJSA=4D@?5)VE& 4M. M/DU?2K1WV?VRL0>FT3"K> E0*Y5/P/.?[GSE;GT#IUVQAMB=!0!GMC7Q MRT]T-L$ 9H/R',R3_T6 $G!
(S,]UQ9>B1F;B1GSGT@[[^C?JE*#TH#FW*@B MO1(6K=]+P.]H"X.=R\CK^$&)E!Z^7/2ZG]N0.IHXU],D4S.!-#^XIJ!#F2^F![*-<"J=WI.2+#A.D$U*![WY3$DO^G0Y=IE:F M_#[(<4\"4<$A20>C
#CYZ^!QH8LC7!'!2_VN)GPE?4L#2)=%B:U,-1RC])]D M']_;SN.5%F4V,X(-@@_"DAV_*6+5J2L=;L5*V<5*:4F9U/G>IXQ4W*5)EI MGG(*L-WL>SMJT=FIN*1&X/-**?5U9W:M%87QP'9]1-XHZ)*#
M@XF[3AAJB08YL:+.#. 36FH.XTJ$J+V4A+$F0O$)"\6^@$8\8!1.:F;B:Y%9 M@>(PD_?&N__@>@>AU9(@Q$6CGUY+(\CK2"QU"YF,^Z.Y6.\33/A]!^(Q:9(MX)@0\#_7NK[H9CVK!Y-OWT;S;VQ?-
;IC^_1W\?ST?CK<#P8#6>-NE*7"<[S M=(NKG1^?A?[I>&-^SQ >!HP6EZ"2"!?F]1%UM M"'1;D\F-O214WT3.5I3BB"A4N7C"K!65N#)UWPT[>.\O/0#"X51H?::4;AOV MS$CE\>?
1@")K#>F%)MHX.S[824*^EB\N>0*@\(TJOQ)5%G:TGZ7ZB0@M*T4/L MGD&4-E2FR_-F%N<]'VXWMAN^#)I/^>-T"'"#AHU?^A81A;5N2RE2#FJ&)K5T MT9IKBB+A^MO
Q2^PS2EPP$_#)B=%9Z]]$HRIIPVIUQZ5+DPK9RVN=SR$1=*J^:JV=A$\J8 M!J'KAL4\WG#'5X9)BF[ZL#\LK3G:5:07% E3_LDDMMZ0-Y*I J> -%W@&%R1 M:51%CVF\/CVZ/X'W")%Z2H9SNN
IX,LN>(RSR/2D,G!^WFS8<-X7/#&<*8(G M9B2164&/'%<0&'X% Y:;O'_+X[_:]B1Y1'X/@#,40')Q9OP70\[$\)Q#WS3 M@R&5RN(#EM10:I2RHI/R0^>43?K%+^6!T0QI,C0.?07NTC,V*V@:-
N'9)K&L MPJBQ(["DE_6QE$$RVQ?QTZ9LNF)>M%2>^:?#[&AT$&/RXI9>'G _/CTGW] M%&83\MXC"._[!&, _^"\RR[F]G]H!XV7/HT)V*>4BZ3>2TT^".^'! COA]!!
M2!!)B2OL>FOA#!V'#706IJV#A^64@E?P&DB5DR'XHL"'E308X]X^_X&F' ! M@45>#$EEE8*3#XP,B%P2R@^U.$'G4@.?=$-6QNX.0\.SW[']GCC*6>>J!Q M*3]SFJ\LL1*+*!/\W+B?$.
<2"OI+I:6)@PZAE.73!93@!62 ,"#/D,C.C.B MJO@*!Y%J(")VTZ2HOS?C%+0$_F:C7LB(C*T*NHS8T$"E2*G2LY$HDF\2@Z/T MS4A1T;1\GU5\F4P!H\@8S"BG$CNV2H>M@>OXK@TMG,%TZ
1AXC+"L9E45$GD MZYV@W-+.8.)F:2=Y$ MEY5O!5 EVLYLF+E%56+F9R_Q X/I)@2M#HG0@LVN24\RI,?^GCN M!H9]MT7*1-+.-H8))J:YW4!0^&R+K::NK*@AO=27>Q)GB43"T7KCN:\A__NV
M[?[$S]*GP 3PE70JKM20KLP1IPP)KP2;/CNG;P ?T%#JK[*_*],=];ZXAMRI M)+*@]X7I^'=-1PM(#Z]':+R$Z2>8CC>[TAHSA$=B40\356;(%*?(GBR>_2@, M(1-
/,G72NKOI=:\4B+0H@RTL**<42@HFA3C&WZ!B&?6@D,S:S6->5-)](0Z M=>VVI.E&9'2TOF7!J'<%)\#8)##.32<\535D1VWQ$X;(L<8VXWC9]X Q63P: M3O8#**TV6B#;V9DR%4154D
M;G8BX];EJ7;D('89&V??L:; QG[Q:7MYA5AWEX18=Q\ZX3<_N(L/6(\= W^W M@T["'2_ZNKDOV;33L'! TJW)#PAUA MZ[$OETN41S7VA5$.]\'6PWKE@S^NI"L+RL2KZQ*]FP*6X;JJ&AW&KF-
68<2^ MGJZDH$@H*[7(D7> WXQ@ZX5/("><E/Q54GC?7%P1MWW[#W7<12=8@)PL6MG RKRN15+Y'><%3:3DK!MQ>JVREMK@!Q^01?1C.*2NNY#QD)S<].N>N*OH-
I($AZY1&5#+)QENL]B'9B4BP'J./_Z!5 M^7%S>=W(*)V9*V!MPXSJF:[=&3XT[]YQVDC7&=B&[Y-N1ZF1S0Y1?H2+ MD5R0X=AN[*JQ[P30@O8V0'OO&3#C:Q^T]-E;-, ?D)J1'C;;",X"7;T7-U 2
M>%_B%Y4BIUBBY0E\;#VJ\%$^NO4W "T:FFYN[UK%7($'!MG5J91U^8_P/4L M<,T_(]JTG!KYN^%Y1AC0F13YN+1"B[["G:'X/8$6IE8AV+7R;%\ZVCY0@R.65 ME.2(K/6E@BKT")]=<\(M-
;D(:5M)&E:@B_]38EZCN4A>[20'GXUR2<+3"OZ M\,CQ(9)@[ADXZE8?S^%+D'J*1#F:?^[U/F[+(]B_GP*S[W/_^S>U]/F9E"4=,\^ER+.B@HXO>%B M* 69E$'%3_\4J(F:R41-
,'$/W5'*HFJMWQIK5=7?_VJI&HDY<%S-MO[[;_0. M^7<"6+*M:-;XO__L52E\N__]__^OM_)Y,)K9_OU!.*+?LFL+R$[#1 TIB MH7GJ?8*SIU/12C2 XVB&D<@[FC(&FŸ^@R%WF#KE#$\GDIJN\Z,)?
VM;]ML7N WQ3__X]$EWISG;&OS?A&U=H%\-[;GOS M]PM\VSGXQ^HL[(*3#&I6:XG6O+#:\)N%6__ +9N?!7^O/VZ;:DLO"0>P]Y+M
M@#0+CA^$E/WM.:+ECFS'%#W(!]@1FDXBV22.;OMQ'>\IQ>"7>[/1EB_1"D+A M\6W;Y@X8O4A;XC=\NFWH>\Z+#RY]EZ_ M A66Q(@]'&O/XIA8XUC[]<_?*A"5 M?_XV@2"?
MOW]O_[WN2K*5X)^_%6V><+W /_]98K.6+.2GCV]QY&I]Q=\Z6_X>*^-HKE3 M0PSN+=L"80-M>1_V!ISUGYJB "OZ$S9H0C7K:/)ZN$NO$^*\X#L1&004_C?D ME,#9
B'@R/I#]MXE 459*>HULC +4N9R52''OQ*6:,*7A_"[9U71 9'ZI6QS M"BPWZB_G0"]/0:C'\%CDY88A%_E%]*<,-.PH:$\X72ABZD!=V^6:-'1&YI;+M-)F:L;$Y80 MB\-VJ"\O/R<4$
((;@P#K#1LM3@"%T4E.F@55#YO+;XZ^1&=49*KF9=2"** M:L\KTYJ$57*?,ZGW,JH%?27HO0.%)6Q9[XI&V.W.7'2.Q(MS:=!7!GTUF2Z^4;1:)23",)294FK#0.D9+V#,5/? 4*W3X^3BW+-1I+>2.FN
M_)HZ6HY_/:^#4@+VH(,>_H:^K\"%;@4SJD";.M<4J !R2\T50O4CT.;4L , M& LT@"D!1]C,+QR(%RD@&OHL7A!J)^A2A' ,?[QM%<+4MB(2'/R^"]P0LGNM M7U!VH3KCH,*#+MSC.+
J+M*V#'2:,5/C3%/%^WT&S'! K_^>A@H!<@6$2MV G 7+&@C68^5D0:1ZSD+6Y27M2T/: M&[(R8VAC 1=0.%,H;.1<A/\O0A>.E?"@6KE2$47%DT!D!T:$LI0(0]#%GV
M5\#+3>H$G5RTY$JEGVH+I1P$,AQR,HEB,,C[S/$6-DF(QP$7X3?NPW#G:9;4 M!&F!(EB698V_$MVEJG.B#IB>YK]?YJ,NA.$6(L9,+QC:"P M@_,-<:N+"D#R*C!:="+2/6I$;F%SJNV[4
U#PTM'SA2P6%^6@>L6 :@#SP/. M@;*KPUB2&5'0&FA>490U \KF8Y<]J%F 8^4,0PN]^+QH;95E*K]P/'.1!@BF M=[6Z7YPV/"&WYR#"*<*6S*@@!F[1=B)5VX)S!ISJ %>U#65/0ZVL1B9931(9
M1,1:4W^XM(D^K+?;(ELSFTOVVW! MAJH>10DD_,]+VOXBY$>3>24[:=^PI*)F2NB&GIA0)&:LY2\1L6QBUK)&K6U]FD%GA6"08.:3+U"HDN+K7< CX,X'=OB.VNCQ)U
M4]09GVWA0P\=I/IF>T8/6O$?W9HM3*#:O3T$PZE::B%:P M!A)7\36TT+Y.BG&JYAP0C+?[N(.Z(9>TJO+J9_U@)$:GT*P8G[EH/RP7.#] M@EU,X>*R.1Q^'&(/2CV*+#ZDX)]H)-
:N3B9<)DOS1%H3I@%]:G/Z2915AZ2% MT*J+A"D8.+NTZ'<#:]A%_LDX#1A2J-C/4FKRT]J5"F*X[0&/_Z)PP M/\42OAT=OZ)*=%5P[@?_BN,O^:B$85>'B4Z3@ \)33>-)99M%.'@2M=\ZI:
MVBZE"2,/#7\VEZ+F2V[_M3)DI49TEN4)KS3D:P5T;X.9K/ TFRG(5IP4HX; M"WX_XDY4.Z3C(>R,QYJC0>#Y#6,NYKXXP\3(5THUQD/"11&]%9&83%'QV]D MF&[,?
E./J[8XL!B&U7C3<"G34A:@UOIJ/5[)M\E5G<@5D5FE-EET2U.)X*]$ MC\>1VSNJ/"!;W<8H-:?T$K]PS 4F9=+9K^;W,EAXO6$E../99+V?;A8T,MT< MQXC?#WQCX?!%1[,?
^;V9'P\928N.H871"6&I*E8T=JB;3 .5*Y1?);,P4AH M'1OF+$L+ZZ9$)](@^9:QUH\ 20%'$_4K*U_<0C) M4ZT%*LP:K(P)55ZT"K7%"JL54Z.0!1(9I:FAA>:=!(KZ)U,-FE3XL8WP/$; MH.
('J$>+-.ZVTJN![\SH7J/"%Q8B/>J/%U\,J"[FTZ3JUCG=;^C:/%\C.GR M!]@X VK'Z#DT/49%W5%XJF*;;%'#^H#^:DC-J32]UT\-@N80R_!);=;#+;9K<:4G-0$[MG7 **7, 1/5J39:84UU ML9**
D2)77JGW_U7(T$X3O6 _YPFFL#Z[UO9+5RBD3WUT7M7'!V3E&TL'O1:(F: M D54G&J>:/3$$'M>Q75]L)_16T[']>88-?JZ3_$D(#.S236 WA-!(AF$? JD
**MW_L%CU&J1I@V=/_Y.ZPKO7>CDE$XU4149WH?5F/^]Y>K0?$,ZT>C[]2H^#>$ M3W):.7NW=6PC./W09_11Q=JANA35.)[OR%G-(O#;.H+Z/VHZUQA&[3C:_10
**MKY6KJQFR#*8!@-39C 1$]0+;3YH2?AY!%9F(] ">+;RF*K7]?Z=(RDHL;QB#A M[I\EW*]_HK64#U+N1>@#=?H]DC^"_%6:7PSP>!+)P/\= _B#IF< ?%9 ((6' MA8A_ '!6R)\![FY-
**J@1[/?:N S+A9ARYU![+?;G]OO']+L&/A+B$4.0;L!TW/ M /;7O=6/VON.(?0X?[1$:6H.M"K9R#2+C=CIXCC;>_3+[/T&$9'V>R@\Q@2: MG\IU,A \7F2K?+?6(NW =DZ5C*8=NZS5,I=
**[BB_C[AZ8!0_T'E)SKA M3HBM91CT_4:Y. 9CGN@N1-NI2"6W=^T>_-S/:<8K;?8><](QO()9 /WA4AR MP^8FWA LD9,]O6<56TUE;([MXK4KRE>G_,VY+7!U_Z>1W-
**I*>Q:*)^9+8J1G^4*&P39:/9-6]VVQSBLF8?-BDR+$GEWJRO5KE_9/UNH7 MR4:<5ZGGU=$P6 .G8Z3&9UP<|6=IC+AZR?X2I1X;/A^MTJ.9QFDZHD M2]F!F%KFKCY"_7*=?
**I'YUA)5#+A:QV[<+^V3K]$G'H M>74ZU7(1?3%+*7HO/2S8#,[FA^:UL_F+='HLN'VT3F\1$ZSC5P9CA.EGZ[4> M,Z3DY4VGQQ0%,S88,"G0Y1"05VA?
**GW:6.3)FN:7&FL$31*@L|>8M2WL%@[$+)B/&'T66R_N!Q$O1P_C)6)O!O,BM:_#LW\F7GOV&(?H6S?G>ZKM:"N@\)8"UD=[KL^U M;!FBY>:#[14?T7F?G?!SRQ9BY(VK!%-
**ZNZB0^3g--J:$B,PX+S MDVB#IE=H%'<|';N'\"O@E:D0*19=3I\39G4F:R@|*T8KX9<.[SBLW1%S#R M 8R/'U[>O!V=%*QJ8'2X^_C !'_42R/+)16G%FV7+_7+"K]
**(:-78A:!O'5;P"I5/%X.SGDEP]%MW&/QX MSG=P]F)""-.N,HEFCQ'"@Z8W(7SAE,B4'XSI'KM(T[4IR!!C45_6Z['SN6]"
**M>*P07MZ5NPGA@Q#60*>;Z2Y0@?:G2:PX5K,%O7P3GMB>JO.ET-U$Q/C>&2H0 MNH!MU&4:[>]E]BB?ZG=IJ\+$H>KKD'+'QF_XI5G(M]*Z/:AT+R,N$[J M889(:ZGJ=-3-U69$_-
**=K\CH5F2>F5S*OQ]?ZP+APP&> F+L@*M.2JE80JM=(]=KM5;*M7%L* MYY B-Y2=CK*\'=YU/BIH#I]VW$I5=0<4[3.@+FV/=-6V>PP3S,X2FB5E3V@ M5]>&N=?
**I6R(S"ZDUZ6&#\7NQ*R?XL8;TD7P6S"YI2AAD%M1PWTA&*$\?SE2I. M@'QM$<(/,J5G@^ ;!0J?95@9JHKKU4;H\597E97?9-,<3?#&IJ481R.6WX7 M-L]JDP?
**C295IS#R&#(F+IO%1KG"WVSR#:&G((2"YMQO&#,F7PP'>IPUB]5#;XP[6^%F.=2?X\5IY'9U2S-],V7"@-/ MA%"KD6=74RTKZJ5V:3D;\O0]O9[VO-+K>GW2S_%FCD5\ PQ2 M-
**9*>E_NQTQPQ9.?Y%]I?M"7?..@Y=6OLN-M*KP:^,Z-[C0I?6(CTJ#^.G3:Z M!4!GM^FQW7H;3W?TID(.@1 F #<]30]1D7=47BJ8IML41L[M-S7RL]7(X_D J#!KL#
**(F5'G1*M06*ZQ63(UBF2^Z*9$X*)%/.4HJABKDHSG< MCQXA=:Y(0[7%@<4PK,;;ADN9EK(M58LY?OS\|%G/X3J%@;T/<'BMW- MZ8R_V.UXG"_ LVEE
**[O1X44.R>F"VF^[XZDS>3?!N[N95B-[C.+ J+M*V#'2: M,5/C3%/%^_W+'_1W$[R;HQF799+X;0VIJ";/F,A]0"29Q(-13802SW.]VV MAL2M:.K+!?9)P9P"-*$.QJ)!1|-^E)PJ&
**(U@M|"M&W+.4O)W"!QP@[*IWV4A%!7.O[4XO:A#1H*[- M@5*QO'#KH62 G.L"S|T'#7%B.]&>Q7TE: >B 7[:WQHQ^"YB\(OHFO9&L QD5.S1,V%9 MZZ!=A>^
**V.4=KDK7X,,K3J]%UQQ_ 41\D?.:KBD)C3X*AAZOLU5# MR.J*FY+C=Q_9->F:KT/,\Y[P^@"=D#2^Z]DF<'9 $28*PIP!?+%;LN? L<)1 MY\; DK6'7%%80..%4U>9O2LGW+
**M!;ERVUWNM3F\3P,]"GQ-M@ZAGJGI9B>(_NC.MRA^VFO M>9%A<*)KCMWS[+>.!=XA,P4MS+5)?GA:8E9O/P M.+D)7YPS#,93@4-
**%+'F43X'NX'P[E5DBM7Y120FJO<23UR5)Q]'TDK+TQXW+ M25,XV1?X>).O+Y2O1[N4["Q[LN[F"1YK$>@TQ=5+D]E-FF(133?;]$1VPF-T M/]T"M0M8=<
**6Y"12L^3Z^R6>D9E'RGT#R;C9F:^4E4=KDE/Z.:=% M>ABMH;G^L@0], WQY;=;D6TG&S69\NAP4:$'D>XA2K?*8KF&= M2]= N\ BF+/D4&]FET]?8J)DR%35%SJN UAK2O&VL_:>JGE
**M-U2:&L^KA=D8P|N+6&K#JT\O_SB|?CR.=RHLUZITT$ O>%;^ M(U1$F3I6-!X0(-*]2C<]'4YIC36& 94R^^7B%24\(PPY_>? M%D1\4QZ_K.NIP+-9VY%VU;U5F7>6\KSE\SU^W,?
**X9:> ^M&/)[%?4_3,3^YY< M?_GF^ACN#*AJQ326-TT!Z762[LPS.A3CQA):MYT!%||8?_KMYR?(3.QV!C1G M@3<7ZSK%B[E1]>6*_M6DG&S&5^Q,Z#85BBTSWD3?K;H
**M=;*$2G<>Q'.=(?)P64K$.,H!Y_C$BG|O)ML *9'@R67&79[5*8WC&50'@LT MWOR5B^X,8$KM/%$DDI[N#UW949/U6K822_4;"S3^6[A$J9_,.&Z4%ZD5C2C
**M(V0%:YCA))V>UAL%4,?.@$!<"MEZJZ32Q-(L-QU'F7CY*THQ?P.&#CR^\18J.(5FW6+;S;Y7K'2 M2$/BBI-&+)/>,=X9<%VXV(DY@K%?;,K|6.=G4W/96&']8I*_+AOP63L#XLCC
**MJ^T,J)1R*T_/%Y8(UAH%9JI1X8?.M:G[3]X9\'5[["B_DB MC77=>75#=*WJ(##,XR9I9G*I&62>*,4]*]-BN*4'+_)RE7+ MRJ.G1J3*1J_KLBD:]-EQAR,72\2Y+D_MFTG&S2?
**[BNIF)COCN;GLV7IRO,A- MF@7$-S(W.?AZ.;A@%55,Y>!S7"(W34_;GY*]>/ MST93V1X$TSMM"BH[G7H^K3SC_.+Q^(/[/ICF/[E16'809YJB@3?0+E<&U MYJ\
**DWQ=X[(,5Y152&-&U.)PRRI:ZU_.*D>X7&]\;O8WRR1<8KLC5N.*;- M'E[NI(;<_H[HYIKP^J-KD6D(2=XRE1L22__&L;HXI M)MY1W0PFBUG7=F=])(F66+=,]'@*NZ(P_W.KFV/*[Q-
**C(2JG3N9\:35%>LW\ M=-74R"01SSTN<:UNOCI<[,0,3YV1T <9"9VUS@M\EH-LWK<@ >(%$LE?2?)YI.E

*MZ8LJ(*Y+OKZDNED,Y&XFY7JZ;1;3]BJ7PN96[;IR&_%*CM]DY:!EY=%3*ZM, MQB[5?97O=2C#)96V&3 WR?CZZI&;3.:IUIS>*"-'HZ9B9$;J$-)VTZ&^8 M^;@Z.;AL%54!S7**1*Z7:1G&JZF*+FG@=9+%:6;%4_+% X\U?N6AULQ\(MA&=E2GD:0X1\15|"FIK$,F$4"S3^6!_A$J8_.5_VIRW-GNN$I\AJNV2+4C&6 M*98X8>]FET]/D[-DBY469'U$$VQJYJ+4;%[,QM+IO.6JXQ@772)7+33'?M)F MA@8=C 95EYE8:JX52TQ>?<+YQ^'UXW$\5JC376W1!@@SGY#Y(*"T93RCE2L) MS[\IJMX!*;-(8K%H0$07\56ILOVNH+ ^;4..G\CO79\L/?5-HD8M X0AE.RT MOA('MGN%3OXG53'D=2V?&I;OXZKJ>>;/%[Z\CG%J*C<,%TW[WO@% 3RI%/ M9,MZZ!ZY'9;?\)_%ZI#E4W.%L,F^,5[T("(%IQ(I_6[=^;X:/WOZK4[P8$E+' MU[E_UMGMIR#!6EA#8&G!$$E.6S0;H A:B-_Z3ER1$+?SW$]!PACP2"TYX[)(M:#=-S*7;H_'@IA.N=._+*4@H=WHH5>E1;62FU!MB59WT-"YVR;^X(N'+O<,# MZZ 3:B#L6C0T20>'<,J&(U 6*E3-V08+.7O.IH!@J+D5"QY@P0&&7@HXZ)] M)-E?]4? C1K7%Z['3"7"&G]*W 8@*^^70*%&H^BC/$=%#B N<$?PZ:L5,M$3;O++N$5PZ:L5,*I83"NY0"BB5Q]'0HY%R!&6VU $H*2W4AJ=6I8%K!(@6 M2*DB4_K%_;PC**59D!Z0JN$H]^5@^^1BD=-#004]|\^X*-N4L)&,IF</GOY/C+C.C2""2Y5'4JZ((SVW"$2"[A+F,G;V]AH1%-=([=P(*@3] M69_/J#(R*S:2.CMJ=;CX7?AS=0B* <81W;@15RTM;S#0J?80R*KEBI3N2O'3L ME@*O$4&?'AFNG<"- D*B=0+*MES;T)20$I&/##WB_;4"UW:DD("T[]A34#(E M=0,,32D2,E9SEHC9MC!J62]7YO&!\/&E2>XL'+PTRW/R_]&UQ9!]_7$&UQ9? M3[?:_8 MY>*VH.((-EY,84)MB1^I,*.FYXB:KU&ZBIKC>@,@.LRH TQ1L[8/=D1MB$_' MU6:I6:)U(SF6P-E@91C9]-OHO8.GM[D|HOE[M"<"6A7%?O-)! {!4KM E4..%8V!%>5:I0YCEW-0(P"@4,| M'!L(1DW/BH=S),0]P(,6"1)4=$* [M*TI2[4R!=G%2F6$'4MBO99$JLCXVC-/ MS_UENI^)S:*/7$QD,5Q&0G8PJB-UXW!K!,[VQA[;%QW$OL%;-084CPH)CV>(K* M!66O4TVWJ=B:N/B"\!G:WE#X+ JC!.(^"*U.2AG-A.Z0I^PV(U?TH=>X@?#] M('Q*VNO 8$HX3_9'):N=-#ZDBKI)%E?+>3F?*O*QLZ@QRO[LL!0]US+P22S] M>()<20]]V>|V9SJVZ8P.L@MD.SNX7D\-/6[JPK9SAQ MF?,]U7:V-*>4/1@X^A.I37I\)&FR-UFBF>&ZE-*&3MA=4'*I]=.78&J+GL3"NY0A9W#3;E<0V\-&LZ@G M-49$#(4FAL-86I1+7'AJ*A0[%,9W='WI'ZBIOC98JVS >#H*]6E@=|=9LO5%HUQ MJ=5*Z2Q5+'[IOBN^&OTT?_D 7V?PER^B;XZ&6[==8+RJU^SR5(&;IZ&),;*I MV&6&?A;0?$^-W47V3%C:7-$%]DWZX ML4FL=/65;LUZ?*W?X^;93MGDRG&XL6E/&+ DDCY2&**FYQ"&(X[A7>>D?=>S MS7"7_X-4%+1P/[/D>_9Z[[\'>P)C36[!85M/J]D@^F1(BO7K.IJKYX,\L&35 M%!W]8.OY'%@^6%])$OY JGJ:IVY'\':W3S:S;W_ZI.VF+Y:BD_GFO#Y'F&R. MIMOSPA*KQU*$G_)6B(S'|,>/T:.HM+NYN=S^"C1<9T-.MJV\ X,(E*+%+I7Q_ MB?9'(B:/I'P#2:ZD9A$3&3\IQ-+QNTGTM4ET').CGRW1.3D*#MP.D($V%R7C ML+SR'$)]KYWB_E%3U#|_J8X;\V;&FUG*02DYKZM2I_*\3SM_(J$ M^&:*XW$FZ@M;%(ZK". {6|&$ OWNC)&AW\]6Z&U5[V "T:L" (WSUR[RS2>8- 1^-[,]/5>@!/2/L]@\,OQ2|+X)@. .QGVWA0P|=I M/IF>T8/6O$?WXG?41?P!_ QM;P@^.X*+FN-Z^P 6AX#@^%E7TDMJJD^1'7-2 M0F.WG!=_ #\E[0V_7U13G,HO',JG#4^X=DC?*G_C(_)S[>'Y%U^A4>19H518A5%I,|YP0M&IQN),@ M=@MG$>+05;I92K#2"EC: TODP?+)=_E&32((^+>(:KHV>MSHR//D/7Q9]L/ M=B5OD#VPJ-%:>](M!!W/GFD7#PS>2SDDA-SC11BO4>Z@Z47-UL/>!Q8Z=2+L M^-&+:3E@*@:111<5P%B,DQO!:*'H6PH,DL,A'41V'W2'C$K%X">=C*7W"JFL M3TPJ;HF(7;9X;Z/(+K$VWM"QU#HJIHNA0Q:WD,Y=R [7K:(\3\ZR8!CDN*(3 M\!\W_$=ZZD)P MS\XFKL*FBAP2>-5V7LY,*WWNRN'^&KUNZ#[?16>GYULVB?O'8YJ7C;R/,1W' MH=F^S?=;8V56C]^Y+Q^&PN%\SPF*SSB@ZD1EL^SU[(GD%@R$$61-60@!(=#7 MMT+P78Z)PC9|1;<5HIM/"M"$.AB+!AT-[9&]53 :P?< MV[(D #YNXYF@* H M.3O;WE? $:,G46("47%0CY%=6KQX9=GV398D&O50NUWKBY2L\GL4NBQH7U%Q5M0L"R.U[G]L.L(!3' M.KR 0Q4 M@;Z@>XZ0QQ\#15YD+1?=+*Q]Y% HVG? L*2B9DKK18*Q=G4RX3);FB;0F3!6* MU.9T[/SU=QX*=3C+2|+AV!7]@Z87\U)3]2[I+|I*4:^1A5F0,I>K"AE']_[+ ML_$'-1&]E64(Q2!K>C(YRY)XWRGQ((XU$9^^@^DP/S RN1E@J_4A,N/460Y7 M"TB['8>E_/ME/W>V3H\#;+0L-3A"%P5E.F@55#ZOQ0$G.[,_V([ZOMG[EK:> M.@__"-T'2Q$=1=@H28%L"+;BKD:\GE3K!3O+F?9()W]K M'U';!6RIO?;%^T M?;;]'+[IK;>&YEXHNLULC2^51[HF]/#%M!UPA7'[A7>&OSCAC3S;%.B^R$][KXO3_Z MXYDQA=T*W3X]3B^[8*-1M)>B.EN)KZFCY%-P;50'_/('[VQ!CQKK%S$(0><10 MN=5J:JQ3.+]X7H WOSGAK3N;KX643 >]M&:G$,RI@$8=<&-1>CK;PTW;)[P] MS)IHGK]V-08S5+%'*R[B^3]JD_QZ=4+|]YW0EOUV!T)+ I63#HC-/5_< 5 MIMG6: (DO7WAM^(,3WC>%VA9:A?8LFBH3M.S)PUQ]5("J1*82X_^=O^(^$ZP4&M*BFN$PN-,53[U$$^9^_IJ(2 M%G,E#3#R[M-WV>SC5TZXD6? [G>UJ(:WA:PPQO)WQKU\'O3ICS4IZJO0>0^^(MJ??7SCM@T^FVX0B:S^1(-#4CN/W!X,6-]$$BT3'-D7KWW^NOX'_=]'1'?W[MKZBUJZT [CVN7[+/?PS$?X?W_P1OD!,J X8_?? 7OSB&@A_=[6CMO3+Z^]ZR M'5,TUMTN0#2_S5>__N'"HSH2]B@1;O@/ Z._?X>)0!**\/_39T@I&T!T[B7; M4_\ZI.ISY#H/#;;<@:_U;/,>W?DJT'[X.?1/DJ*AC:W[B0_%9!3\)=D.A,/C MCY:)*#Q,_ N)_K-]'O: WX5DW7_\2/B_GB5N-#KX<)>PDFTHFQ|^O!>#;>:: MJTG1KJU[55.@UP:[_+__RF((_M<#Q:?GHM8.*<*S$X!SU%12YYV*&&D"(9T9 MI;*X* EXFA@)J;1,"A(BD@(IRB0FI:5T1I9_E>?_#-"D<7 M$BR7XVCV[]_29S+EM7&Q-,5W*ER%9A.Y9B%!ZERKEFB$Q33:%18ML(T/NAP MD18B'I70:P/OB:X*A=2SK3\3A3OJ+H$AZ109T\$6F4[C__X+)9" _H@%">V+9 M5N2M:7)B$P%U0G7[L?Q*PA+#X"Y<6"[8LR)&S[H@-9;@0=,+4=;X>:._3F=G"|% (:"397,X3W.JM,J.GU!S M2Q06C&V0X"L)-C A:?_)5!>&:HI,I(B_GB/W&CB[_WR5:VT^U^'H3GV0Z- M MIL,E6GR'Y7--+L$Q"2CN')3I=3K%G0SRY28H*(W MS/137K};? Z3.H3^X3J|)5D(M\<,4"&6;IN:&:SZ)D09#%\I/UVGNG],<9P7, MN@RL"%_9C-ZX Q17S?H-+UG-Z=BH,L\-EU6,#W)OS ,)-]41&1*[H$)(">%V M7IQD'3 .7DQE"IUYVLN_I4NI <>P3"=/-SD6 MNK|=/T<]^#_?HE:?0NQ?]!+4?8BNH2!MO- CX3H)MPID,/\O9+0K(3FN0E9 MC0SC?RXG?MOH^-B8\.004"$ (672B# : 4E(R0 52 F3A6PVC>$9(!$226Q" MP/4O.%E@&B3G>9-B0(/R1)GDDXLFV1M#("*'+:TTZN8KG-5$9CTO5:HO%|4) MWPXA>]BR0N3=07TVZR]?^E4@D50X[(Y 7O:YZC7EY.9.95!_!ZBC4F_C4W5 MA9!ZVE(UD"*>|5Y>%M//VT)N*SD#!F<0$H+R5'29L.L31)#M@U#G+K@?OO'+@+" MU)2Z!F68LY'7N9XM92,LF.A[]O:+=0XL^F8O4[:;B5FW09[DO#P'_E_9#FX. M'"^LOMA S[.GF^8I\G\.TS.O9V V[]W"]7/$^O7P)EI&FCKV/!3ML[NB:^U9 ML63;@8Y)U%=4V$*M<]^4K6R4*42,SKJ3BN[K!I+$|\+:$%Y>CY7(L(!&V7M-- M!6"("S',WI^@/G] [RE'\Q/[GJYGUU(':QO+OF,8UPO("J./$966SLBQ' >WZ M/!!O-552]!2R]*#6FWM>2IXO)ZD%Q!OV!M[(;!+!,WB&Q%]'W.)(C1RO2KZ: M(Z_:_TAL$S#PM6'DZR0FOJ.YBB:'= (4.P8.AOS91>2Q0)E;O.'7N7H,VI M80>02_OX3S3MN__L<^H[053;M3(14IVQ:&FKZ/-_;@C]HE%?&\]2>Q!#G64FZ M'MCM4>#R$XX;ST^<\;7!_>)N6$%:.18ML(T"ZFW^%1X"B._F31K[)-IP@R/. ^V*;Y M)>?-2I6W\BI?0P0?M6[@+)IE/(#\I2;*@8+E%, M0U6D344C 99]L-2/O@UC(6!>XW!X ^4N53+M(M^J0!YDR@)UUQLYWZ;%3Y\:D!_=ZW%."$?SUYO*[-C1++(5,N MO7X=.BHY!XB/RC&RR#2=[@Z]65M#:LT623CN4J^P3XND/HD*&?SYY? O&A_FBIMO6TI@ U9R6#6V89ND M97^L,P@U!YKYRTUXP #3D+R;*I$_$]"N&7ZHCA,BE 7(S5TM> W%UR>P,4Y* M=G,TB ;[7-=# _8UI MAY46&025Y0R1%8@TB0@I3$$$4DZ3@BRB&"FB2"HECPZK#0:+8DUM\FB.KSDC MK^3ZF0#A%L]56IAS9JC(? *^JLV)ZJU*]T6[5+=&3%W2I &2" M7[7&8WGQ7$T&G^8:XV1:0>F@F=.ZGJ.A@K00L"NI==@.;/-"=(V6(YQ$'+_# M\9?]Q-]'=Y(Z1R>O^.B_WQ?F;,;U]AKZID5$ZU>>KTG_2H-H^T_\UN@YS5OO MJP*BK";D|\.:==P41&]8>3<>KI9,C1N9X733[1QA?OI-*V ^@4G-3.QB!"2QE M-;S=)6%;B86JP6|>3>C'@%?S5T:Z/9INPPK&:&;&0]6];_3/P?Y Y!T,14=!)ST?!!N#3Y=\HW9MU%$:SWTP#L3B!QN3[J^CE$HVATT;'-"A>X)='DHCF5.YLMYM%>| M^'*X]! JK(NL.FQ%CMYHQ(,"\V:9IG:M+V23.D_?R9$2TG\@>W,6X(" M!QM)$SBK\$=1>_C+<#R;SL(=4&XTDFBXHNLE2&3=@&(EWB*1*WS.[!;L*I MN?^.((*E4UN$!7??GSQA_(=!\YBOXT6L.">ZG/GNCA8 "YX%HX6F6H/VY[=/L MO#: <],>__AF$IZD\MP?KY3D_V>*ULZ/KR=2;]E6(2H@4"!)3\SR(+6! L#BV M%=HK(T@ :+N"1"744*(<+0,51$],A+N@#H7HL8_=+$[*-|":"DD'8I(!XQ] M8UUFR":YQ!_AP\Q?& ([=;1IXJA9M@IF&FV ^19C6(W\0#^#^!^+ ^XKC=(6I(MTPV,=W [[6@F&<9'@GH)H*Z"S2/)1")UIF#0TKAOSUT@BCQ^A?VV9O M-GAY?-N&H8G8-'YAK-N6FK4CNC"B26*)C? G;M7EWWV2#FBA)I"BALI E<%)(MC0 N2-ET2B!11'%5%-$N(2.I)XCC(S+M/&W!GJXC!3*N?&IH++(C;Z-=)=ZIWK%&X 0-_LI6M4LFY&2TH#55I"P2U-&B-7XN:9L>6"0Q MX,4QS0Z'II3M4B S>G8CG3*4<]-F01P@-;2!=N5\DI?DW 62MI?:?82=V3Z M\JOT>P"N/R_F[XH8TZF[S"?44[PA>. ^S#$?7B:3O/ILEN9.8@=UEKY(7[\D, M?H6@O)5-B-RGB%VA*S"VG>|"Y8RAF^M0FW<\I(1R^>%HA'>M),*6@TJ%Z)16 M4JF]7B]K/N<[G)0CN@Z)3U^+Q+,O^4BQE_RO.VEI+0P1Y?*^JUG =1^$(:\V MRRBI"IAN:A)"956 %R? ADC!^(HS.47+Y).E/>X)-_C MFQT?O9)_"*O>GDV;:/GDH%1"A#Z+I8=9?!\=YV[@=$'9'1'F/9R8M4VRA5LX@_(KRBIM#X_Z(B4S=/X M%N$<[C3+ ^O1+L9KUE#F2IC&, [A7LV2@'.KFSZI7=_/P N*?F33\[T1 ^&K%'F M,.>/X<,$BJW/%/PS9+,#$HOP'QOV%J/D,A32\+#LB'OO.71_[Q@^RS<5VU. MK$$?\%?"A:823A/9Q\;Z$HQL> W&^Q#)@DTVLZ5V$6%[!$%KL[YXN)78M.- M^]]?E6;QF>6)5'6H2_A6\K!9H*=,^ W8\:CV_!:7 MEUWW\((W=G/!&R3&PXDV9U1E[QU2>*9X8GU$]\-ZTYK17TOT^$QKQ33 MY,*#-+_*2AVIGK[I%@ 2NTL3KZ47=@1VIW,;=C@R[,669-O/R84C3N_7ZG^'M4@D^GN&,=WI$Y05_9W7%4UM;U6W6[0Y[=8_OA6>W ML?#1BY],](TJOB=_^B9 S^L=1C*7N<.>UR+15YH5GLIVGURW.G+1@H(=28X& MWU\&QAR$#]3OWLUT7R'Z.#OQ2#%W!<9#7A=L'Y5CQ@(D6MRL%#Q>YNP). MI! , ^5A|''::0*'2? %B!>.SX2:A\@_Q70A[_"6B_:>GO!-D?J*4IILDR]4HA MQ]&%?*X./5&:+=,TQPID.H5BZ,?4-&5;408_JIS+BP;4U2#!J@!X;GA3BCU* M[%VDE?C#MT1? T6#K_T25[04@@_"4EP2.1BWPFVZ/E:!HP'+#O5IUVWW^;I(4*TE*?5])8CF&J169>H'NL'2; MKW #(85A&)DZN^A044V,&];-1 OXJFTHP'$W%0$)>N9#V-S$YQN*3_HJQ>>< MSMJN;:)R;+E89WJLD$+2T#B=7\!$5TT4#7OQ:(1NLG/MLD/I -GY2('[#6VW MV/HLZKI!>|#U[%V]^EP^-/LQ=1WU'E96[^GMYQ*C-QT<6ZG(_ "!N.G@N*#M M!^K@<,$(:XB6.% [KPH+FRGYTYSCT4'.6: 2NY@KX!W5PM!R%W24>7_!0A?[X MHL@7WKXJ^8?=314WRXP.V':FR\ M'6X;U+RH9!*J1OC1V'P*]:IAN[YS@L;&[Q*[+XB4[\XK$@_O@(3(2;;O;0Z2 M3'0T5[\IY%A)"/X3%/*MSN!,8?:':O54N*G)L0V(3J7EV#)00@TKH"D\C7RP MT"!2YZF[Q+;G2)4_]GW3U;'"/4[^!,S?=/5WPNP/U-71MH:*D"(SV?33JS5? M5,I[^QHJ=PF&*].=VZ:&VZ:&FVJ\<;KQNW^IH8Z&(M&Y&1&AYB[0IHDL]BS MQV8=Z<&B=T*W3X]3B^

*RM&@?&>]+QSF_9?]4@#2O%=O>$A).<>-4S$U3+4P,@ *%[Q MR2R0WUG$3YZD[&#-3C8R:_/&;&MC^*8R#4:F@I"IY8%!%(5#&/Y4(C'P>WQ= M_(*+ :BJ6.M*3_BKSGW9$VBKSI;JK7J_SDL%ME,N2'V!:]:$ M5IGO2:GR(M2_"[PHU_MC<$7]RD)[-WVQX$2[Q[G7#.CJ+4:7/WC;N<]YKY/ M7LM2,XVU#- L[P;--W!B "H'3@PW?V*X+X- >6*F[M ČZ]9G]EUIN\S;Z9EW< M:>"Z TYW:.L>P/;W*CCE08=>17;8LH=:U'0EPO*G#5-!D4.F#(Q3$(R!9G< MM%=R++KRZ- %+8:O4Z[72PFJZMC$G%A&QV/2800;;+#V&AE$(H9ZJ-W=SI\1$ MP)&?'1+3KFN.ESPE-/QELA#3M]4N^2*&Q:T3\;F/GH^I*G.-H^ ("G3T@LZJ MU[V?MI)MH)_L N5D$_C[9LJ$OA,C%,O\ZT:,J6U7L1MRK*!H5@D2(F 8@I\L MWGK+Y_;L^D_!N?//![@XLA?S[5ZWIE>>GT@#'^1LY&8![NE=_ ^/_SZMY]^&3W M=P(>KHO&%U3XKPMTX# XY2W= M%T#=,B?3XLBSJG8U:H8HL:!#?1JG4$\=!Q0&D=B7N*/+:IH?&4_V '-^QYV! M P'<$ 0W?$]INVAAX/VX ^5=UZ#@OFW0'9L]R ,Y0FS1>-:B'3/VX5UE%?&M M(2NC;+X\2W[95[1#NP/0P8D7%_5*>VF$ZZOTE+YY5O^C:HCOZ^ MQ'4?$[9JJXVREHPA^]T5JZ"'$F@PA&$DA)(@OP+ %OA,/BTH]!+@3A>E P$GJUB=Y M:;D55V59 ,6I^V2])&FWF^\%K4+*S<'&P5&TM9P@B:&153Q#44(BD88A"0S$7R(/WNF7JM>VS?WFD]GE/Z@R(# MAXO 3ZR7K P:@D$DA4$('FSW MK;:-"EV#+W-H/QB+*4L<\G3QQ%PBGDI4NQF7S N"/ZT/"/K<.M9O.Z@-LE0^ M(_9S[#Y!R6TRG35)R;N*$&XV[F:A!>M;$7Y7U9HZEG+=<6N'22,L\I?A%!QILJY/? Y*P:T\N*U\ORU_MZ\9%=SF/AH#Z84>IH]3[XW M_.!7P?!UE H-)+!_89L.G#^ KEZ+KM[4^>./!H&7>_[H^L;,|'U#+V0["%3H MJGYAH#J14? COI_V496MCZ4;FI0SFJF\$RE):,|WU'!=E8]^H++KS(B<G>>NX>CY2:TC5%W M&W/>:B,[9K(X)Q/#]WVGR:'VJY#[^O[L,/.\JNC9GE]H).Y ! A^%CCMQ' M/X!>ZM^^$Y^%XU&^?TY:W3_[3=.5%LX?[:F<(XSH/-S>|8!(ULF9,XV_ MB;3LUU]*?SWZ0>$@@H+ZZY/^?9&:4PP,+95?[/EZ8+@O$9X0A4'ZK@D7'Y4> M-AD;RX4!-^0JOR/M? K&Q&9>>99HSZA!$?\&-M2PA]LCA,3@:Z$K5+4VKEGE#*__$U 5&[I!D5QO)58KDBJU^ M:^3+"6&ZWO-<\7(VL;(7.)2F^:V%!34L-"+7*& P5$@5(1M0-C1C.37\ H9D M/\6 A_4B? %G@\M4?$DAA6+2VQD=7\5: MBDCR4=$FW+(.AX%YG0ZU)UTZ]TR!PVTHD7!#^/>*7H MGCN++Q;NJFMI[19,NK8RBIVOI],G5)M/G/H3AU&OL@LZE.H/Y8A5Y4%/# =(M.FL"AS"8A'#DV,6YQPJ3GB%O 5U/^2N&: T1BPM:)G&K0?==*17&|6V0RG/(MJ"Z[ZRH|=$BXNFOM!7'JUS:>F.D(BL,02KY$1YYQ2V2==U[@F8 *R5-61O+0 MC>'L0#3_BT9(+RZ:?]57DAXP0F:!'BM&9]34J"4:H2VX?8SPM%HGZK$*EI7Y M/VP6X(8U .P5I31<]V6D%T"6AX>58G^,S>TJU5B)0K/5:X_B%++D_=[]%>X[ML\EOI'-3G<)*M? 1D:$%35U:H.B#*<1%^V-O)([]{^ W3KH)3.HN=P#)6Q M@C'>"(2 7/K :--]%:U$8H*EI7+QV *(A F(0)FU=@=_"C>.W->F)EI&3>M7O>_-X MRY5OS TWL#9&P7*3_S> ^&+GD> ^%#;8??8#NTZ'@(M7J&M)87!!TC%&9] M=7N$S;91))?+%7]L-R/9&R[VAH62IH)EQ>[3AN081".@UCV -' Q?)HI\FY0 M:Z71S.]I8X$GE[V%:Q3;?F\ !RLH'D"64E$SU/]^*1[@);^UD%B&# M/F]4&F$X]S7E@\ 7HQS:_Q7+;5V.CB?S-YX M'YZE<67L=O<2!PN5D3"N5Z2*M,OPG-9?HU&(@(D$S^A3>+YE?\@+RK[^O70" MJ)QP8|6Q3^]*.?=TSWTL.Y75|Q"D!W >(<-)Q:WC4PI;\L5Q--FCTF34M4P% M.]3$)RSJK20+GZZC,8#]Q>#@L]TMYY[ON<7N(7%_,O/H1<#O;19+KS-8[&7+;K1" MWBWW;"\#? FH%88D!1#S3ROQFG"ZOJW.?99N>P #Z&K3W!^:Q!/.Z%TT=XSPD M]]\G<85[G)K-/[('/NOJ+F&TUZ0BOIVPO#1A2IXQ0ZO=7L)L66%\ H-P M-#%KF*?*Z@>*?"=/M(0/2#8CV@<+IA;F M?DJ/_J47N&/%#)ZO1J!/Z2>]MI:6*L\0=K^VZDMT^$^I'A.7FA&F E,&,YW1 MA*(9"*;@4Y14&'JJ*0:N8ZB*8R0SQ;\=/O5CI);CAV=(B1OW!4GHE? A.7RIP M0J\K]-A^7>AD0CA,@A,ZDM"JE]D^7Y;ZR==V.EBH"%W^,%924)*$?/.X\%+ M%GZ_94&H%'Z_9X'ME)-)MKL]OL9WI/J +[0$2;HD[KS3&YR>TA2N,P|B"M(S"C3)$9I:AJ\A5CX)E!JW?ROON-&8E0-#'5%1U6-06?Z:JB$E-<,4@4QS25 M(%!Z]L=O))MYNS19,OB2;L#%[02MC)N)CI=9);$U'H]<'*A0-67$E*L$.G;- M%5&K[^-D)/UX)- JAQK)+EQ>P80Q)U5$[.W7'*FC^F4B]&_=7^,Z2]RH]:TNU M:FO5,).1Q..1D>H[O;JREF62P$USLS0G^TF%-(1R+(XZ&8@..N%$\VO+!W.H.EYQ)*)U:P_(O&3+731YCMSI:ZAE75.BN\ M/DF.+_D7[4GLK*;@V!I&%1*KF<,N@;AB,C+WHFQR)JL:_5EH5SORREWYEJ 3 MZK[GI0W5?'18)-1N8G M/VUY%E^4X*% <=5BC.5A)R&OD)H?;W)3@S7!8M\UUS.\Z@A7MUZ0QGXH*E1_9 M'(W:;|W1IG*S6"HURB/6F/JL0N='HO-.*W0BT8*;C*6;%3W@MDJL,/F1+F,9 M)N7'$K_>2$714X>SWD94$#@_=$@@XU%GV6G+D;J(.&LLCK?C9"B2'TI[5'_# M4E(;J*;RG@X[S>P9$[)5I(;BFGLL@:S[88L,(X^3FP*,2@E0X^H2;=.]TO! MC*9LHXW!700SRV[55) C>M*]TMMNN$],-I3ZDU=:7=W2O+48_)7%O!RQ]%S M6+6:<5AEL4J0/O7(K3G*R;H+7M;OKE =\/8Z8R7B4XA1U9@"6LMM$]7"5FB MAW"EWFMQI5%")T? DVET@#1*5NP),U@1+6GHB.QHD?')$KH;>(@UV[.DPM]GU M-"^H5@=P0A-H?BA3VVC-<(ZT[%VK-+#6F#OTCH.2I1Y9 J2[GZ-Y0%WRT&L:Z M;_I#(5DM-+MG^^=0394,HH:M4=OJ3]Q93=O7VUXVE,R!NH_UB'[-HV5I$I)4 M$5T-EO/L!9C'0[D)/0W[L>;)AK]G*GM\UF;+R;2.Z("V1)U!NT&YY!U<5(>X M@38,@TW[S^>&6C6G";6F0_ M&YJGS+EC4T:_39CRKKG<]<4&[?EHLK4<4>[0#@+*%6-4=>!V9@N55]N12-=.A MN7E139&;;#F!@BT!&3:V/!FZ%IL.S\237D_D*+BWV*%L>FDFS\98 M7YX%TXUDDV/8,41M6 D68II0DAJ^8.>]M1;AFV$ZJ8[;K$]3,ER3W(BZ(FQ M7B_5*K8]7,DMO,BONWJ"Q&1H3@1S=R/TU)(6V\4-2FR[;*W6&8OD!.[6>)= MJBE-8MZ*5^K6DUUR7\I> ("^"O;7I66@[KLF&93"\L*$BH<*VV+1"@;I89@;4===?IO8 \G07]+*7$N_SN,'YV%R M%G?456#\N/_FH>&>GF#OSN3IT4X[' GO717985F-0N_ ^!X>C-/ M7O,$"_%)"P%_9U"P$!>P$,QW[,E(&U@(0$U?:R$ -5W(0@!JNI"% -1T(0L! MJ.E"%@*IO\,86(E+6 G 39>Q$(";+F0A #=]\$]\,CW_66_?Y\V:?L6L3\K" M%SUES7/2'_[G&_'MK=G*Z#.0>_?\Z>?S%)^^?#'W#:.P3/YA'0,5S?T7Y6_ M7WG/XCI4("> "S]<)[#M^T2HA6=N7* 1@ORM3_;=]:OI634\,#O2T]]'>]^KI M=9J;I#FPUL?6&KO)M? ZP+>T]B\ ^OJ_KH7G@'X _;@=_6#.6X,. MZ ?0C[/HQ]MLJW,7I>H9&\.-C'\?IN?GGM"'59,ZA.O./9W/-XM=W@'05]"M0%L_6%LOSK-YK-1+^H?,GL_M0D_R_.2@ MH3I&< V'S$M0R>S6"A0M##SE'@E2"H2VL9P:ON+6-[VMMNE&\E V1ZB\[;6V MWCM*^&='W(KO+=.B2.FDAU8XYZ(@637#K[N:$Z7+P0:!D?RG'V\;I.^6;E49 M=QB[.2ICFHX3'W>4M%P(]NTG#=$8#&&G*20(D V0?2G(QAXB&WL#LEN8/=D% MZ SFR2&R:*V8MF#ZYGZ1+77P!B:MX2&LLG-;APB MU5F/MR*5#2UTN6^2*;29;S\1"J(8 D)HL&L#;-|VMM^];>_P:("9S=7<7J_7 M6-5A7!<3SXQM-5;WI34=VO9NTC5MM%=ZU):Z2\MB(40$$.A$,P\U9WW"B+V MC]P(60O4PNJPEVA_L2_AZ'J^_>OK.W3[F-(I- O\9.SCW="R#.MW@R,C ^9$V5 M'J8'Q&JRXBW)F>PX?#FJ5<3SLB8\5J6A6 K+<)/5V1E7\NU9+"I9@U$$@; G M"1,P"F 4P"B?YT'),8JQB- <#+UB/X")2E8(:.90Y],R,TL+JL(A*^X6\+,K5 M7BU<:YU6K&0M3DF(H$_2T \0RH4A[-1)_ "\|TUV@9"Z >]|BXLEQST[=*G2K M6YWSY'99Z_B^O@A+9SX#VBS6V:_(? I5ONKKILWII,332(NK,MY\8"2$HL&8 M^0#RNO3R>9_ALVFH?(LJC]=P<\W.2V0'&T_Y-W?Z^QCRJ4ZJ?=KCK,@>]KGI M>D7 F_(X-7PR!Q0,8<0'MC0]7\(*0FAI7TY? @S6L^TGT!FGJEQ^>. M2N[_!?Y\MIF5/<89Z?)PUR3-6J#)]<6Y8V *LNPU*R.1KP:; 6_VL4W:%(:Z M2US!$8BB07@;8/OVL?U2$^0XMOMA%:>8I=>W28?IBLUN5%D,SFR".!&&1HXP MG?!#)>RRG>G$QCMI:ZA#Z@J%0CB" FQ?#[;/=WCY C3P2C?(<1J@^OS 3UYT M8QN327W:I8UY0SXS#8Q5?1-/J#8)2[UMV^O,9B/9-Q,;.*2YT!@"83#8XP$/ M !YX@T?B. \LRW6R4IDX!AS-T?TRD(8#Q3YS*$83#87>[WA4+JJUKHRAZY;A MI^; ?4H,G1@$Q%@Y;M>?$E/U53F_$>6C?V> M[+;;+ 97,7* 4*MNG1//;#256R.-KG8XS>8H6- <6P3*&NVFSW#03!H()%*)Q M"H2/ *4 2KD4A\Q#2HFIL"(U^Q.37PZQVI!8[H/AZLR4$BGU6IU7%A.X2K-P MN.YT&1]+*85,*07#:0@_Y3$,4,K%8.Q"#G,7*)D+8)|W^H$>LD^SA,*ZTIS5 M^6IOY*FUG#*RIGO,?(C&RTI(P&#.88_L0JVA)-KGM#A9(G5ZU]NK8"\[,/E'1#,:=S7)JHW7=9+!FM8.Z MJ>V3^IZ2LQ1-031)7G%"S*\<&/\@+^ JOUCO.8B0?XR/IV8,HBI!T1QYF4G'V'MX=.]>,,P7 <2ZS"I&X;!J(9'"%QIV@&@6]3; M^LB"<'H-63*LA23E/]TO@K0$3Q36J8C>9\GJ'+[? [.G/F3=BN[G=\.-K/ MX6%9'S9$*E3V2KH)IZX&!B)I&&).>?<& !L ^_J _6C#GKMT$!:\V8>?[<\]+^ 4!5'>IP>LJ]\Y3@/)<_1CO@,3 MUJ(!'5:D.W4=)=JFH+Z6!ZG!('DY8\(F$* (D_IU@3$<3'P ,1Q^<1Q4K?+ MJXACZ,UVW+Q>;,@"W]A(2]CJ;OGL_)&Z5ZCD $)". Y?=Y)$U?>"("T4,K-" MX/!]%;]=$IE]])D(T-%GN$,R\'4S[!V[\F)5&+[=T83Z-X- E@/BOO5A.7)GI4PQD(QAG:' .7ZI>:]U]#M&KNSBZ47L'3<^2:"%%[Y 0 LO7 O/?ZD/ MZ"70RUO3RRMTYC\]R]TS D/UM7E!=?6";FP,QULM#??C,@1QW1W':?:T]^= M^@(1Q\|IOW1 (.OJY=_XXP\'U6/E)+69W_5HFW8OIR9!EJ?M605E%00_%,@F MTCH/".BO"@ - 'VN$DVO S0E;'QLLM\L^.%LN&K6=VLITO(Y30&?W'4F2AF@8 M!X"^-4!?U+6DR\'^-> <+OA;ZME"=&$I0|^'=4I8F(EN7J5!,H9\V2HSXP^7#FD:@] G"\-? M>M3MD:NA99BJ Q5FEJNZFJ4ZF/M /.FQ_P5 #,OC71O!YA.Y2M VR;7TD3H24R!FC:@0FH!@#-1=OB(H@O*L M5W]#[P6H78VF!".T.H:JFXP(7EIZEHO%*6JS!DXC X!F[Y =0"U'[66?L% MJ-V.&UO$FFS*\-II;%J#==QPRME>FUW5&V@"AU#R*;?ZJ0?W)<-QDD^#"J;A M&O[=B5O5EY9K!6&Z7!M04?G6BY^!&JHW1DSIFWLPB M;=*S5VA[W)*+=3W;A?816$.C2R9E $(@@0HP58 M!E@^J]/C)5A&8Q:O=H;!SFYV5B/&D6V83QO"4%F^!0H1% 51- C=WA"808'6 M|\Y\P3NJG> GN]\4%NE;%2A6N=H/!S*],QA,JV\.9;S^3#1Q'*(C$01JL@'N M^VOQ++P$]S2[&Y"X.1O+$CRNF!.R$7CK;+]/G0@HD5CO.$3!'W^GXMPNR%:: MVFGF>\N"=Q'3YWZ<=^'I@0(#!?ZR"GR=$=)#^REY]"2!>) ^HNP?EYW8F+]QG2Q!/OLK$[GNO=!QH[1OA4 MA%&,.DPS$%9#ODB$*J:LJ49%,A4AR?1T3 $,_F;&1^7D "P";!YL^F$[\5F MBT5.F"@%DWDZ2SZV"^-#-2_X-8K'= MT6I.;0"3'M51AL.1KO2S#38MR$23$$7DJS$!& ,8?SD8GS3QKTP9LW94@CK MTQYL(:W^".[V6F4R3F&<]8=" ((8Y01;>N=TK5=5R"_\X7A#\JY L>")M(WG5 M@A;YON%JNT+HJVYPF"RXX7CMOK1SY3Y=G,_MNCT"E0-(N3N,]G]#-$5SFG%< M,E(@]]7M4X175,;#@<>N6K#5ZT:A-@R8WC8Y? *"I8X# \:/EW\!-!4 "MT " MMU2:Z75|\)@&.AC-K?U.3-L&'DS":7W:-VIF2@/DMY\X@D,,!9IA Q:XS8:X M5^^|^"!;8%9:&RACD8V-ZYB_"Y&2MM99@MD/;<8DH$8!%@#@ =NE =NJ7+3 M^\R!+EX3BGW4F, &:3>Q>8UU.@,Q98)#'R^8(B"2N/*ZT&TKT S'45W#B%> M<@)PS51N8QS]:'(D]', 7UVKC*M#A.7 K?.J&FVVPRW2Z5,9WY#* M? F(,"I$4B&@"PKF@&V<7Q3B?9>-\1BSUTVP<5.19V(ZH*O(:#GW;=4U_P&:< MD\9B(1+'(9S)!W, Z0#2 :1S"X'?SS=S[&EUL/'V%F(OB6(P6M=&$;(T4|K) M(LA0LJ(03>=/5M<50/Y#I!^;|/TU"/+<5]M/E3!Z[GG=R&9\5Y3TLOG3.KHP2 *12 :/>71"R :(/IJ$7U2+\P;$5V>+CF3 M:&BL;&SMJ61U\&Y@F"FBL_1P B?2>)OQ'24QGVD5A@ M.G)QY&ZQ8G4^:! 9I)EO/VF(A)8(_DJB0#2 -(TB=V(KP1TO4H4ELE00NGR MZ_:|-\$(M455V!32F2< AW"*@6@\W]QL2O@?T_U6"*XQF) OK__EB MDF$45"W-4%?=7:*M!= <+D^>'7JH&F7],35LDS"Q7=35++9)W2GZ0.FF"[Q_X MEN]G+=W:_/R_Y,O][VF.H?HIK.=W#_\%VO1#[D$-_\)H/FGI%\03K1D2EF MOYCE$Z50^1&M5H:OJ8&1C,/S<\R^_K^'4_WMZRQJGN/Y/^()Z($,YEEMM1]H MQDNF49SZAFH7U5GRFC]4)U9WP9U,:/H[BM\3W8]?A)9*K4!\I^G_*?S^-IU(M3O!+=5M\(-X[%BPZQBS\? M_91=TIXB7$JP"8!^K:WZ$AW^4ZK'Q*5FC*B0#(511(XD),[,%'RJ,8]*:REI M4PC"("2I&?BWPZ=^C-0>SG;J.?ISG,.-^X/D]$!\IR\5.*'7%7ILORYT,B$< M)B$E4F[6A%:9[TF*-?[8P5'490Y\XL'4EHU/CN*5,AU+\+ASE\'JW_W_2/3WDXQRR7L1#.C>2/G[*_F]A$UK:P M3 ;..Q>X+AZ@G?-R+72-0?*J26>S8DW>|+_\BN&NF)B:0G>^? T([>I=V\ =\K/ M,/ ,FZ*$0ADDHN $B2GT%#&2+YJ!$IB.HOKT3H?4>P/"L@@N-I'Q7#;J98H8 MAZ7ZI,6F)@_|>.B8[)3KMC(6>6NV"B2*EY9K@U50A7H\LLA'\; Q@/*\:W9Y,W'3$N56$=(=RDM%ES MA!9M+$I.+_F/1TVGM2!<1/1+>F7]=]5FJ*'FS\Q_O-CW15Z)&A@L-8R6$(3] MUAJOPB)6%<84O:WJO%^GI2/SQ2*[9=HLR7 MM=,#U@H;6- ^'8 M3$;FIA]WH[YJF)],]>]@TDYKY MZ7?&OM7@%L,.+"T6*ZHB"<1PD7YZ?OIF[MEC&UAU)CQT=#7AC%+3+"U?3S\]-GT:(>S*JPPA=9I:&TK F'K,7DY)#[_$IK MN6Z.?$>R2=[C#:L:K1TX/K0M^'-D"17K7L=8,O9Z.2Q-!XQ=G(?I,XG'(Q6[M.=7]=&7$[QKNAAYVNFW-39^)(#DUE<(Y[N'65):6RVE]RZ*K=<2F0W/B[YHA M7'--!H5WY<%V+.WD7;=E*E1^3L+66>^V"07(.UWH5[I54X_I.!F9FU-WPBZ\ MA2[V]>4^;O=$V@\'>S$9F9O38J(^C M=K=9[IQ02E!*Y^>D;[>& (>NQ!@N[0<_AQ+VQ"M*1N3DM_;H3AFC(BQ-6]-H MMG#Q72L=23\>:3:;_+*OTB1O]"H"RYLE=+>*DY'Y*=DB'7;[8JT"1Y,BUAS. MJ3EEQ IS!'F"'? 4K1%G@N5UKUQBTW1J64#1S1*0D,>E857B^EIN='6+R\,H4 M:V8Z-/?YD12,J@G;$W81Z0L3HV&+]3#93>#\"_ #PE.X-Y25B1W1_1.UI=^4= MAN:$RNWEFK4E7,/F-CM&PSO5CKHQTZ$YJ>Y&856KR,N&/:R. SD@V&8ODY\5. M&EA#*8T<6*WY/*971!B'Q71H3EJ!4Z.U!2ZJ_+JZ0GR-5J(^F0W-D=IN/RJ. M$);VY? 5$[RPUM[A>=K,7R+,:.V##H#21;'BH-B8B;%CB2#R,S;.ZH'=SJOU M$;4I8\6%/A/3H3DA['PD0%B"Q>1="9VTU08WG>_C=&A.".TA"I?<3=V0=ZX3 MC'FD&'FU;&A>"%UOU-UNQ3X*5X5 1W8SE2NZA[%Y;HG0G(:7F\2&@RM6W5ZFGJT.X7J8?$8R-*?AF+A=*OYH+O%D49:%?7/*EDO9 M4_-J.UF/Y28ZK99Y(XZ#8MSMSGCV,#9O7Y3VY;(RD"2^2*,!/-G5>_--\@I' M=NVEOQ!H':LH/!Q1N_DPW-36S;C:OC:K5)V%&G)XP,G6[N^V8Z-#>Q M\<#91N.=L9*+W$3;RLG1<;N(TZ'YB7D^/F_2@E.&T?@[T&AO/N>&8C8V-[&: MA+2)1BMB[-VXT8$;"V|F)V8KSH;F)M::R*4ILE\V>6NZQB*R$82"E@W-<5+9-\Q- MCZ-9?JEW(RU6U=6R):9#_-:X'978\.&+I.SFH&0\2BLHXEHC^S)-%M>M*NU M2L07!9:LU8OD:-W-AN9%^RU<*:W;51LM;H,<'AD6+.>F(W-O8+KU_?DH%[C M8&&U[UD3MU_=>8EHCVRAPU:U..MVO9;=]!&E:JRC"E&-TZ'Y5\!7(XR8-*L$ MO-8&PV$(2SB5LL>Q'-]# (M6JKN(B'!6]KE@;B)MNJC5'MKPRNHRZR884V)S< M%T7;5LQ-8L(A3'YU*[#A2^LV#5L5 M*M&K$8&X8O;4W.K.YC9B-A;P2I:*+;C&QJ.*T-2\#>:W%FFEQ<]@JO-;!]K9!558EA[0F MV^EA;(YLA[915$J58=%>5I :WC1@D^(/8^_)-G-%_W+P':(.FN\KR9X\7W#H#[_R^F 9H?!U=F MG,CH62_BKW]7IX&7=I7X=^I0/)5#^/%ETN\P<=P!_.#WDG|\E2L" M(')1"P(XZ\ (6!'#6Y:T(@,A%+0C@K M;$,!9E[Q?U^YN6!W.A1! HU=$HX U 2H^!Q6? MW'?G\!V!Q:8Z8B[<%X)8!>P38(\ > 5#QI5#Q]C+)RZLL+K"8@!+3F+EARZ5A7^2?M>_POH"M"5)R17- F:69H5 2TYQ+KL= M->'747)]>>U1[7')W=\]PG[\EZ89QFQV3ETIJ8[J:D9!#0MMU=?F!0PYM!IZ M 1!>4,WVH M0X@F74)6!+347>K#HP\5PPQMKF^O45W\TNZQW*]JH=WDX@@I1&*23 M2Q;@2&]+K-)7)6$QG\#JP!NZ(S3BG%':G0?]JI/ (93!(((@?SPFN:X#YTTQY>Y @MF-,5C87!I MSVW:_#^,M M#VZF/<.(.UK 24 2@"4\#F4\#M=.@WAU]T[5]$=/?0#9>*Y'2SD=WQ?78?5 MP220W]SV_D7T(/-V9['&=WU;<*FBZC;VW'Z0-NJCO_W$8)BZ(0C2!IP!. (MP!&? Q!&_P_-9/OV17O=W?"&8XY(XZ)6G?)6C][6&H%7CB-N@B-\G"/Q=%%CTC5'W7T'G5 M=Q.Y!/>6!-D8<*.91MG%],B& W>D]N]!(Q/6?,\4C%,&MG:*HS4V2;Y:Z M:$783S%^GYXXTG9T*$U#-(E!"(;E2.)?@"4 2[RTX.9ET<0YK(19UQM$%=VB MY&AK(+*DFMVMUM*4;8@IM*MG]:8A!>3/4T[& M%X8C_K;V9[_@D8FI.%4#(PU +5>)5:9FBULL&,N5X^T,(X#290LB)UG@,"@D MJUS0+=_00L\/KB%S[.R,=NY;@&\!>Y8FB7Y$]MQ%Y]*""WU?5<$+0,.!AM^V MAG^PO5:._,PT4'#ESF+K>PJI8/#'.XY;==(Q.7#\XBTID9Q#VP@GI&,H<@67/)\#>69G23=?'TGJ%YIIJ99"F MSQXQ+&,_=(J8 |,\"I?*2B##41\6UJ&0]WVF4A@@:?HM/"3 18*)K9"*PUP(- M!QH.-!QH^&440+D"<[)F#*(J0=$<7.593=^Y$[LQ?'/NP!E,P)Z-FXJBEHNP MH56QV$"#\A1GDGFFOL7G;< /<2Q>EJ=\J/I^YD*T@B R](+EI@KA&@=UBJUP M7G \URR&AK],UGD:?IAW\8N%4%YVH?7R PX?O:D"-3AW,.WB90*@ =0 0..J MH0'>],LGIFD!TQ8MUY>$/Q(5\%(WK\0)N(+G$/&IOI+ MX" K$X0909@1A!F!AG_M!08:#C3\MA<8:/@E:OA%>^!??!L=PV2Z(\>E$*ZB M,XTIKOJMH/YF,_S?/BPMEUDY6/-.3.-"&FB5/JE+:RNNDU8KVL+S645.KO1CJ,(A*$HR#T&9/15R ALMT## M06;FQ;H)/VU?;/0V*XO8C!FYV6[1]#JN=0:5;%^D7K(OWF ^9NIVS6K1>K." M;P2A;VF)591\JJ?9F0Y]W/5N$(^XRMCF_5!;/E^0LBZU>3^R^(G=K#7V M:WB[6^T,\QV%:M-G'\ (3R9LGZW%(_S[4K^W]PDPVC(T3660$E/#6S+#^'*!ES MA(@B.MI/*Q@GX61Q#N+*+K%L=%F%20O;(BA$DR>\&@AP"(*C7XN;SN)D> LQ MO;JX39Z6LJLH;V0EEZ-:@=P15> [,ADR:M>UU7HQE-U1M8S;<6*+9D5C$V,4 MR9>"OIVS#NU9]:+#M+TVL\"Y5U@*T6H,E$NM5IQ(K")PUL,(A!,>2/_D>=R]I7P6X!W#/Q[A! M ?E\DD?*

TQ;S1Z2, ^ZM8'-1X5'"9::!S2X\6,-Z@7|L8+G9T7FR%=4ITL05H- M"XW(-?Z__T)(^-\8#!V^21<'9$A_;MCP3Y[$I[0O6CJ&)= %,?L^(_/H#ZT MS?NXS$2KT:QV?;P^EYO='KKL5.'I2HS? D3=346(PB"=7"+_(}2RE$F=+.L, MS3=-84E4K6@G;Q-J0=(<: *',)B$<.2IOGL@//L9X=ESH^TIF;VD[R9@F7=T MYOQ,BOGPSIZ2JO 5TF<"F&RMM0"C^/:"RAB&N&<8P"Z 70" [G*WQ[VDRF3M8 M6W'5OA;;0[?2[>CFTO0J[$FI)I:LEA O8$=6ETME;_?ZM27'1E1#?_N)P11$ M(#A$$33@&\ W@&^NCV]>7#!&+ |M1& (T$K9:PP#IBE%U\GU>"=^;&/6>:O+N&M8A5%02[IAD7QM"Z9<%\@#3:0U\B1$821$PA^0)O|Y.7%?70 (@D_X3*L.] MRIHXMT1 Z@6H5@= 4 !0 % 4 !0 % 4 !0 % 4 !0''0)%;#/AHH;2E8N M&UH6+"A@"%1 810#:<@H#D,H"?*0SQW, MNOI8U4VQQ.LB49]*$1\>RMKB.N,$.AG*G-X?6<5EN]%HQ2E#$/<, =@!L -@ MA\]FAZ?3@+?==HM4**+-]=S? H#U$+*W/"U3D&X8#4=P$,#%'>]T%U6U4J$R M6R)+ R8@A"$AFL(!70"Z '3QZ73QXBQ>/UHP3*^]TVUKR';-O"TEY5J M-:)3K[NM(BQH&,Y/C>Z\/V93ZDBS> F4@3 4%#@'O'%KO)&;YXDR<-_ &GJ) MP55+53U8":.)3==:G[@KNA@UO_K$4|=<4W&"N5'1AR;;Y78>S%WM*'>,#,>.* M- 671B$BU5H2<!3@ L( ]:G? P!GF#IUMJ^T^::N*OAIWRW.Y9)W6(L L M$:6'=%?GE\2H:,_B_7:C9X>)-(,6Q1*)P<*|KFH:-)_3UTPHQ:D:&'JR%LM5 M8I=E%7$*Q8*Q7#G>SC "*%VE(!*2]0R#0K*H!=WR#2WT_*LH1OV<" XU9:X@ M; W*&5["?G-&32W\(8";2,4 .@UT&NCT"7M](")?O8=ZZP?[/+]W=+\:#O_>6#LPAS9K-P#TR6GI',(4C67#+\|C:49AX8C/4/S3#=[M2M9[Y(C-5^V(1.C),TU>EUU8%%J&TAO%R;$N:W('$20*4?0)KW(#^@'TU_ ^'_?Z^'ZGOO4S-5T.,%;.A[OUUEP.S[&OC' MY4488V.#%[97_T@R$!+H))W.8HAF:GHZ1-C2T3F? L^I(LBPP9W?@?@7 MV';77IP\E%T7Q^T,?!=?S+ 1]@@9)^UX4]CEF/K"1^X<[BOBD\JEK]VQ3*Y MD/76) LO1[Y4^)CX@5]-GE!QJ.5HX"1 MG-_-VQ*=00% (+D/%>>J\SQL!)0)*!)2(OB:B042#B,9GLP$1#5+6&-D8ZW/V M9Z+0J$FE5;_=EWU3;!53=W;'P28G"IH^;X!>50$D/I2"2Q^/IU)B!CZ6\@-1 M'<#IQGQ(+L*ZR+E(X%)[2/) 'X=]/Z2&4#"TX2G"4\3GB8\37@ZTD[$>YW) MYGK)TD01"BPU] I YL0!-]^\^@36KUZ&+L0NA+9V+G!=8*O;'C*Y0](0MM:[M-\#O'9P&\)N3GKRYX,$H='[FSE:] <1\PR6HA[W<+N3KTA&\KIN.<\ED/)GA M24DO0:#;'12"B50E/D_K'", 7F/DS]&:GA4.*&[9F86+"T;JWZJ5EFC=4?_S+U M=^U5CRBVB7NR.A,4VYL[2'84/&CB4->|%D0XNY%3 JF3K? *-2%/^C9BIX=)@3@S.%^A!7682M7 M2'?|*^\"U.1T8>H[D[1*,9N"+|ZVJS2#H(;'C5S9.),A;1D)TI$@4+3LFO>' MG]]NS'(./OA,QU/8TVK55*JN##6JFDMMF+XS7DU% 6$/A%+<(? @#L&=*|:= MCZS;?2T&[;;%N4$OYFVJ:JXRZ>1 6-BI-L*@-+9_Z#1'<(C@$,$A4H](1"-: M-"&B0=B B 8IU?VL=,!K34XYF7!+UEW'%(>%5*I35]E5+XE#;BBZCV)N3UZ- M)JPA+7!* ML."X$V#X@7L1/"9"9=D8^\5F?RLWU4&5&>C.&>;2>YMXQ7O^518S< M7WK%&//EPNZO1)?V1 .H=MJJBLRL7% VE<#9%'2$+BF$+@19"+(09/E\9(E* M8/V5*%/*MM9>*K^:]ZO:TNYI_FAH^VV$,JA?+QUGJ'>\L^DK"QI!FB@BS;75 M^7[&%?/19OFKH@B1@:^VXT0&2&W\9P;#7VDFT@M'$OKEC$!Q-8]/S)+S4K:- MS414470? XLF$#391=&QU7W^?F"D-Y/5)EO41MN_E)FZU9HV7GU14 M#>#?=R#X%O,@X?[O6^)'*"5)U86M7],;YGQG^DQ2&Z37DB#1&8E.?OM)4_$4 M1<*%+*HKW^@Z)EO)1FX'MH M<9#^EQJ.:]QT5>RP!K1B@FF&Y^VD-%W#]>"F(9L3#<^K9S>,0%,T!HK4 M 2@(2!"0^$H@\=95'G^&$D]7$C?8NF3+/=4WAW:AU=#N7%>X4_NR\PG.(H5$< ML_2KQ:K8+1<3#87K=NZ:&#'2WWZR%!]/TJF@ [W/#=:RXY:5HC?\LY+4 MQV#QR_#E=+I,4,F[35-,2)5,FBDYZT0:&QXH1<)DV#A%<7&&/[\X[>UR) O1 M;AXX<#XCPLCQ&;;'9-Y;@FZE-J:6O>E28*=YJMU^7S>CO1,,M4A-;J9!M;VL MF1JN[;Z.11TE*[@XSW)QCGJVOOP??X8;]_;R^5@@P]\<|UW,RZ52QDN6,G*: M83D^)2ERDI&2C,))^&A*V_:6=W-=E.]JK-+"73NIL.!+K'2V4S=I!9D@M% -8<% M=4P)KE=(\FCDV>OY';-5M<:&%8<9@R'@:Z7DVTX\OSU|%)*T^T[(6=RNTF- MU\N-[EK%0]G'0^U&>=AL+$"[;R3SFTPG9?8$>HV&$C-3D%MH;0&.3#X>63/&TUYCG,[WY]7M MV+ ^S2X*11\\6WYJZBT'1B-C4<6"URBMDMG>6M?AR//E5S):D>7F!=Y<9I*- M76(N\$L3#SU;?F52GL_8E&L1R,A6[%7,YG58-12S6TIZGSY:?E;@"H=4818B87$(M/L M, +$PK/WK^L5,JLM9,84V":-[8;)UQ*0^[AS/F'<W1K_022:[#RVDNF-0M M5HVTW! >;!!ST2.T<.ACM!+ZG0VF>USY=W"5]/! M)#M=HZ%GY\5%5.JY#,%RLAWFVFZ-95:<*;|^9JD2K53*$^G3;'8-(UT,C?0 M6XH@\>=K:N4ZM7I;:6Q$D+C;,'6VL9JY:..3YFJ:IQ()KF 5SGE$'JZFRX?.- MM83[MSX9|_AM-Z0.ST)I7C>UN-EA# M*3F?@&6)NW1[5AI0PW&N,!>\X5*!S$]3ER0B<0^7O35'&U%7.[-#60^:GL((5" M79B"4@SHM3_;M4R&SFZZJSS3J9;A%.CS*31+ VX8V-VIF1LD\TW>$?M=3T!# MS_BJG-GHY?&DFC6KRUS.U>1A2:G@IYXQ5GISEZD6I=W G#UC4'#+HHL!("Q4VY/U:5NXJ>>TV ^4FC9LXRVN.VL@"USO=U"@H]ESM>U M4N\V+8??R7VFGZNETZG\9K? &0|^H56!GGFXSBR_:0K:=-1H034CH*%G&+B6 MVM1T)(LYT>"KS:4RSGOE8(V&GH.@+U;5OB)4%1.DA5ZEU"F.ES/\V',4G-'5 M&E\6*WI_/BF[XFRH-G.BCL>>P2#EMOQU=$Z, [:V:XN,A6S.2T7V 'J,M4./;,"#Q85=3- MQ2_VF^G"?#T?JJ-I!4_AG C3J=^T1LWVG=A-B+V[2;N6MGP=7=-]SN%]PVGV MFKS73]P5RDV:IG?M&;[1^XS#M4'74DJ&DZ"Z3F[>S >551UB+!QZQN&FES>X M6JI5I9I,GE&[(FL-(,J@>|+/V+:8H>4"1"*:"H3MJ.N5\OV&@"=[+KH[HV5P M.0 F(E?+CFUY6"]34"'1%[1LOTFYLI5XTN1SA;&T\LB-!13?6K9J]- |*^/S_0&>P)GH3C-*:],0 M07*WPA(/)Z1MC_I<#LQ+8KP.V/*#S;3<6$4CCV;PG2S3LO5.K4U M W';WJT2P:)%XS.Q9U-PP*QB.,MBDFJ.5[1 M6@I\'&GN/,I"-GB#NPFBB,V M= <:H,;.!.8&JB;ZDFZ1$67++(Z< #?@EE;Y;&9D9:E]Y03F5G0&R8]TNA_ ,M@T#9-0KI7 8//9]"$4J.)/I2H/K+-&F#KCOK62FPZ M/;>6]G/YE8.]M_.-T%7&DO-F*& [7J6I)\FQV*PK[4I6'0[G\>+ZA,M,:56UF MW$:O.MO-[4.R^A$N6OF[ENJ-*"JQT|<67]DHM-D^A)@?<NG$I-]EN&%Z3LWD&=PSYH+2&VL-.J?V#:XO;_22 MDQ/;,R.!AYXMS!O)BW2Q5NF:LCH%&WXDEX5A&PT]6UA"TH>#7:50-W..US<' MW&R15W4T]$QRNHQ3Z#+"1A"W4S\|674VP0#R#'-)Z9E&+[6SDQE>E%5+%5RN M/+ <.-D+2F^X4UMS,!NQXCSOZI4%4EWU;NZC6^ M6\1#S_!<'(3?75'!='XE;ZF[;'OL[@;?QT M*3W5K-=E:U"FC7QAZ2=9"N=&0 MCSW#^W%*I+6@WW3%H-%?UZKYEC3?MO'8][C", '!C]^'?E3'LN2%!WX<_G(: M">"@"OPZ)G'W\N*YUB!#_X+IW9AA9\6%:5_(RH*UW7\\\G@(2;_:^M R8Z\PX[\ M82N==]Z3?3 0O_AL> [[RMCR73"'[\EG[0L0E@MM"4"R2VT)0+*K[0L0E@MM" M4"R2VT)0+*K[0L0E@MM"4"R2VT)0+*K[0L0E@MM"4"R2VT)0+*K[0L0E@MOR M7)-PLB]_M"_/]WHY;% TVKU\0OLCU|6\?CJ A78/G C31)R5(A<8T2D M@D@%D8JKE@K\TSJT&Q7'THB8_"X%5,=^"_[?-^;;*ZF1^Y>7;X+ DA,'I%,$I0DTC%3=28]WEB$;5 3.1Y@81EB(X@ M.H+H"" (57THJOIZ_>6P. ^A7<3<(-3W,#;O3X%1B!Q!V(]HP&22(M)D0J2-SA MIN(.I #D8PRFY&L-)CKSG4H^;I_YF7=_:E)%=[1$=ZPA-M6?@7SBMC93S,% MNH@A4;:_ BO\J:7]Y7CC09]]PB&$0TB-P.?S!_W^%S2^(8.9WDM4/@F^_Y&.N]V>* ENR&95K(57(W9 M]!PO/+GD7S.*|BX&TNTPR_X&/,(EA$N>H%QXQUGL+W0I^M^$5PBO/$&Y/)@8 MJN$3+GD/Q^MVV"2\J^AW?;''/7L5635UUPEL[<>_5!6 R>0S>24K6[*M@ICL MQ^JRJTYC+!V/,13#OD 07M .)V,7>P6Y0OHS&."]KA/SL.LFR#6TG*C M\#MWDN&E- /? 0XN#&W#A2K)M:ZVI?*5+F8&43MQV4^#L)N@6(>;;SR0;3Z?H M.)NFWN_6TD\0M?ZPO*SI8O^'.EZBB1O=Y?IS8#&[]U!^)&(-)>9W& [L)"@T MJYNL60T :<$&BE89KB5\T4L(& 0L"%@0L/ALL+@OHT:I_;*JCS#M@2/7\BAS MO4QJYC USCM-MIL=S]?O"AS-908X3'O*FTUC/I2FABL5.N@6Q/2WGTPZ'4_1 MR3C+O>,%Z00|"'H0|'@A>MPG]'$%_H,2D# ,N4>2%C=C.D%YI%/-NW2M.FR. M<^KF;6]/?XPDQ5Q![OG4F*6804Z;)>R>)HCXYE/ZVT\ZSC-4/)/F"9 0(+EU M(#E;9^RO2,%(!_BR80--E%T;TL7;8X9']WI^5|SQ9G? 8&9>WTU^)_*;&|<>IXH;W[?)QJ=FZ-IF="\>P]%QEF'C/'?NQ?Q-\(@ MQ\]2HP@6Q'R&);+L;D?-)!CT*)#5Q.!<=#9"YGU]C\&24J354%$HIC6ITLWT MK+U8H: %S2/G(YY)I>+)9.H)D^&%.9%?[?VGUZMA,B44V0,H"S9?0$M.QIN; MB('YPG*V 'AQM&U>8,$-]KT8W.689KA]1W7NX;RM>O(E$1,V'$Q)O,6)7P? M4[%[?8], <'RT.#Y&6)ZP_!=C^3>VZ/*!BXT'*2GM;;J>(W$22[U#H']59U4M MIS7$9=5MIKQ!?B55A=<:BX(V"SP?3]*V57UUA/$3C,8>D">[K-XH]PUO6,ND6."79LAH1/'*YZW&-PE61BL C[/0 M.')Y3$HI^/+,?S2]!]'!),=>%;<)*@YKR<+'!)JKZCG@S|$/.2Y.XBE[LC MLD)DA<@^D14B*T16B*S<>D'-V^8>7ESFFM_>+>_Z_*2EEH5ZPNQ.6IU>Z]4G M;7[U,G2POQ#Z,[G =8&M;GO(K0E))]A:[[!)N7=+&\!O3GKRYJFR-]&<#WN% MJMOLY|MOCTU,^EEORWQN&:6S3!QCD^2DC<";Q&B203AC9@"$> +(BO745OZ MZ;; VX:!/UYGEW,4*S<60U7<+D9Z$LS'566@(YW-OTAG7WO-:MGS MS(PYF@ MR._<01+FJ";\>0*?9>M>/&8#'_UZ @"I4;W5A.D[M.YX4R_B_%S^*#TMB9F[M7D4]MY.,6]8R\B\$7R*.+Z1VE+#(UV)YPO&$XTFU MJ(6$R5]K^?6JGK6IKWB9*@[!:F(QO]52P6$'/+#P6[D>G'9)YR+6^PY+GE.G . MFA>;N,X\!C; 50T/!\/W4? %HH&'MB:FRMZ4E#I_[3STEXV2J[[G/!TBQ[_ M01EIAC(C[H5)NP!$XS5;+=,-)]EO+J0AN\[VI,%.D#(H9)[BXFR&)9WE2.H_ M.C2Y,7BZJ5#[4\B$+:+? 2:ZUZG0O$K5J&ZM>)=/3&BKS")@2B%@(]!$0"DZ M-"&@=!WQ^C<%*-"4J3"F,C*9].$R J1%2(KUUN-'P'S]VT2#6]JLNJ2)]C)S'IKSBOIVJZL M3L3:L@U- 5I1U0#9KFGGJ11I;JK!W@>>[ANH#;9]?0,Q BNIO-:_^==,%+RJJ M[QRE 0\3UI 6^,Q.P7$GP/ #]V(6TV+K=*//#GFQ.2HL*XVUM+9;ND13.'N0 MBK/T.UYP1>P24MIP&Z!S4TF EU1&O!)N\OF!W)VE%DQ?UL$JF5A.*=W&<(-R M N1H#X$: C51A)JHE.*_$G::C+KM]7*I*C7,C[O3-3T2UUD,.RC2GV;C'$7* M] GV?%WL(47+A.4)RQ.6)RQ/ZO0C%CY_1[.PNYJM^$) [Z?2K]%@2E7K7:-T) MR"S$T71D%S[ID]Y@#3^D&FY33FKS/S8KK3BN!MQ$^/4?]&(3\QS+T&+_HO_ MD4,2DK6.1M;Z$_F&R!J1-2)K1-:(K!%9(|)&9(W(&I$U(FN?+VMG-(SVE08= MX,Nk=FW4(G>?4ZPV924*]R5^L&*K8A6B%<>EHE'1G90M7=,M^K!+8 MX/_[%\U1_V6I>/@7M!.DI/O-#@)D'XLY"<=>><0+% %.3]@\]^!4]J3MZPY@((MFDZK:Y0IJMIPJTT.%+E$4_^#(F^\E&;@>VAQ< ,N0,1TID19K[A:F%5095FO MW%VN!A B&%2TG4S&Z0P;YS+OV&&!&"1G!LDG2]93!/HW@8^W,1@^'CM^.T$^ M=2RX15XXD0O0T>^NRR U @.1LS?53:U4:O>T-8*.U $Z"&P0V""P$1G8>+KT M.CN=C-/58*%3U3[OL52P3#'U1O5YLSLTBX-\K;5";<;8^DA_M^\ED*(@AF3C%DL,! M(]? ZVIQS^G(CQ\E#ISA0:W]V!O4Q>OPR=CKO#S*9*L.L^LME:G4G!N(@;0D8 M1I+0-N'X>)+GXNGDN6WR=OD;@B1?#TEP=B7"4/(9UDE32LK*4#(5:CA.*=-@ MWIP)NS\ [%/]<%3H!^KV8K-2S*:CW+4VE5R=5G4L_CP4_V24/T28*Z59'I(E(YF(DU$F])&%")-1)J(-!%I(M)$ MI"EJ1'"2%(4NWY\F3M=: YT'*LZC[.N@Z?LZ:(;40=]J+ZKW*G.F8&G%1QN8 M/ZY5K!5];3O3FTVQ6ET$U&ACR@M!>-\Z9\9.%?MR(=LPYZK;T>UY-I\PVA*= MQ'7.;)QC4W&>ON)"HR@+RGNW\/JP'/^5"OOOY=T^5-+?/"%7-:KV9I10UOUN M4Z^4M4FCGN%T).BI@Z 3(2="3H3\E4+ ^= VQEVL5=Y-*N=AO*M-:O6E*3--Z M7X&?K*MCT:&H.14,<_5^K<@L&RVLV5$-<9J/4Q05IQB:2#V1>B+UKY7Z%U?| M9G)B;7;'-SHBYUC5Y;27HM#ZMZW9.VNTT)Y0;4_I#?H,5VN5MT&-'0W6" %0 MQ2\39YE,G,X0M4\ (*(<+:H=RK/?;7X_Z(^M]'];-?##1WTY:76Y0IV2>IG M/]@^ZJK1B+NL4>Y3 558=T6- *V^"4.A1?6Z*C63?L5L ?#B M:..\P();['LQN,\QS7"|ZCONM3;1?HXJ84;B.M.[7[518>2U4K18//:)K=: MZT"$@0@#$88(F7W'CG3TN]_9E]KR[NIE-=HE/X3KJXD]+B*?H=>V 1W"*X=:VX170XD04B"\2@ M)<+P<<+P\;6W5V#13NUTD].L3-5,));I#'OG%OO@U>W+/L$*[7BY%DA/M"05 MM/R!;M%N1LP(R K%5PB^P R]JD)EG$?&H=!C(CEFX$SR#[1- $XWYKNR[5EA MG%0^[L@U%"]_:. S:D)_;?B1E[I?34-1WB:\#3A:<+3A*<)3T?B7174;]JY>AZV,*H:6=*UP7V.JVAPSND'2" MK?7NS>][?PA?AMZ3- T\59S6;>F)FC,RJ.&\82W,$>F*]V99H;M^#%95DI],_M*GUO=JP6LO>RQ[7H#[$3@3%.N;.TB&'-6$/T_@LVS=B\=LX*-?3P"XUC+'R,/G MM230WKY[P9M:\.B/+1+E:)D5MDQMUOYCEEP_^3.-O1L)#1 @S.'^Q&F M#\(6!Y#N^%?>!:QITX/V?-4J94U#Z)64+E@!,%Y#H,$-#IATG.$I4L%RNXG* MR-/DQB#H4R((K\&?WS[, <8X^.&/Y)/@P+2G%9>6BR27H;@DHCFLC?Y_'31>8 M\S-8!'@(\!#@N1]@^<@"X->"4'\BCY<[5S>OV#>INFVNTN35MZ@B$PBI>/AEG MWO,F6R)V!(IN! (I('2,1#2(:1#2(:$2!)J3@]P.R Z^U.M=]>LCFF:UN=DL6 MWRSN,J!6%)#5N:_:A68GSR1OI6JWY3J0]S0O-G&=>0QL@*L:'H[N[\/Z"[0Z M#$]ILK>E-3J1CU+_65# [JKO.4_'V_$OL#+A>'+FIN/E3$((MA]]!D.78 MG&3H$=WNT+"7H0]+C9X/>;(HE5W^:Z[G+N]+F[MHK,0NH99]-<(25 D//'6>HIAX3 "8&3*X<34GI+>/K&>))JP-&'I:ZXFCX#9 MJS81XSMK!94!UK@<-&.R;;#4^<|-M<4_KPUW@^:ZA M^D#;!Y,1-UQK23CI?$OBS+]1VMTY\CX>)JPA+? 1DX+C3H#A!^[%[%/7K)=$ MT+0&8BZ]:O:V6U5+%*&GET%1YU0JSM*DJO*&4]>1M#-N"HYN*ES]DESW*X&H MLAA9+570)Z:<[0QE)B>O=Z: @"B%@(B $ $A D)7!4)1*?E^)2 E4EMESFR+ M-7'B$>9S/Z<704U'@(1BX&DVSE'D/!Q!)8)*I,25" ,1AH^*NA-9(+) "KRC M5N#]2AM3ZO.;08F3BE0WG4FO*^/\-#/!T3< +EO_R 'T M"G"KEI@+<"N[F_.$A%[]V-#E&B]^(X^+44Q DZ***I 1YX A,-O?(,)AY/N MN%&--[[H=H][>_%0I)!S//^2'9@N.9ON8%+B^G//Z-1*[>VV*JXA$5"L,<7% M>8JTNB4@*<1]949+<5P-N(GPZS_HQ2;F.9:A MQ?Y%X7]N7K>1E->+4EZ? S":12XE%DDHD?4QDB<@244Q$F(@P18I*1#$162*R M] 5");^75.1 7S9LH(FR:Z/+O;9-(LU[IB&TAJ+5847.AN]4%?D5]\OV0#^ M_4U:3]V'E5RQ<[_@+)IBL9GK2^DLUS/Z;8F!*TU^^TFS\22?CF M4!:"IM/J&F6*JC;<:I,#12[1_)-N"7@IS<#WT.+@!ERZ\66G-!8E. ^=0Q996 M+P6.F$B+T)Y@\)UWR3B=8>/<>U[Y0DR'3Q:DIPCT;X(6;Z/H/QX]?OM$;_ > M>8'C0A]AJJA*>B0G-\+[&AT!-1RM>SR3ZC=UEBW0\P&W3&#WA*;1U4 LDXZS M-#$\"(+<+(*|?Q3RS_#C%_F1P)%K?6W..7VYD>/DH5,)LQ3^^##?N[>7SL4^OSEFO)B72^?;RS%952(YL!]-#J-_26DF>4*EBY-O^B[MLNTA4?D1+!; 564/P'&I\S7B/__?Z5+O\ZP)U;$<]\0*G^4.VUO+6.P!=^CN3/"#=CR.B(:K%4M_3Z?_$[O^*%G)&^+F\ M29R0=P^#"0M,_!_AMPX?80@[?.9X.)SQ S=)@;X(>O:#!^(])W%#X;^SKW3 M%C[2(NS)ALFQJ8L@\%^]9NZBSD5_AX #LN=G 1 @7D6LVNLU: M.2_TQ'RW!_^LH\'-0D[HE@JUYK'K):D4QWWR.DXF&;N?9:Q9B*%YQO!$WP?* MT7DM8[)]% [US9",V17/IE,0Q6D9*IKB)I ".EE0^J2:9)KATF!/?OF@G!=# M.95M3)V'U!8PZUT=V<4ZFU4[?!XI%!*9\QL3MY2N6S-2FX[=Z5Q=PU!AZ/ M'"Q:ZT:W!U@S(0:U3&KKLJC>6F+.GYF;<65WF9T%8I-9I3NY'6@(G#^S M+XTS5G[:-+,U4:ZQ)X,_UODT[FM5_*HH,^L1P5[<3>:KN'(LV<6 M!W=Z2I43#C6<%QJ+1M|(W+(@)<^?VZ/"NN;W92FA%Z:3 MDQMT:TCE*-!,51/J?-C3.VLI=?[,/@-ZP3RWJ8N&FQ93>5F (!^>>4=/ M6D&E9:7$+@.1JC!+^SM:@$8=]7ADPYHYSC+;T\5M(VU[;CNW'2F"Q)^/S/! M:KZ4,KJX])*K5GJIU(2&&XX\GV=+W+A,:KON;S=*56Y74N8N0"//YEEF.GS= MYT?3/C-NEVP_E=/[G""ESJ]^3'?[\N@NW1&9&KO9,59MU.VVI=Y*C!B DAG2R+H]I Z<&A[/G0]2!1G8)U MUS:-678&)GRI.P=P LGSH<' FS5;=*YH(EM3(5C-L9=]"OU/G0R>.+FU:O:8C M!J7QKBT,-K/D4I#H"]L/F732#.I3NC_L.?7,9%ML@$0;7=1]/M2;))N23O-] MIC/EJ:Q3LV?M-KJ4Y6QH3W0LM3+0FF91J]P5C10]*&AMU +N;*@XU;LZ-9,D M:KAI\463V11TIXW.D9X-+5JTR,_+3*0!+8KH"*FLZ'N1-CF,DW6 M[H,;";O43C7Y.#>X2U%:8@TY/],? %'83)"[L5+!/EP:SER.:R M+6CE_*;$2DFXK N[E>2FHC/*K0LFHPFII6?37AYN+'-AMP:#HD(+GE"%6'5' MZ]/U<@A6.G(5SX;,V92-&;RDC(8>Y"L2];,30MHZ-D6N)VN6-[5RW8_I\VD M0.A:;K$(AU[8V'(G$(;Z&Y&@893J2WU;&FYPT//GCJ@1"O;GJ[:(J=(S5PF MDUT4!Q#5+VQLD!QR?B7E=,VA,DBO_8::N!,%-/3LJ4N$0],)!41FOO:3PP2S MR57@4R_PP&@UVN9'$C7OY_)%L:CY=U"(!33T[*DI?:TU=)';]K?R)KVI] KT M'"(]>P$'^)V1L3KU84;L9L6F74FQ4J4*M^ "9VVG)9!K284%5=5X3]SFTF#! MXZ'LF1+:^FW?LQ,-BLN4EF-V-2L':&,O,*"))*6YU"WKU-"=0AM: M@!>&ZD%NZ:3+0-Q6:O1X!(?.-G#H!781:KMR>UBP@#EW^&+&WK7D>1H//5-: MLYPSZHB40%&@E]"6])9EEUD!#3W36ES. [A5ZB=*0 N/1:*D*J?23=".KV"SS MY\:@8$CB1C2VFWFKX^XF:5.'!OL%#5,W Z:@\A61$])3F6I64OTBG,"%C4V4 MW'9-+]>F9I5>=_O0@DW61_"I%S8V(=O;0@1W6J_

*M>1XQ&_*0\XDMY"W*^!P*.?#]<(K&)>8YE:+%_M4?B?&Z/)JUV-SR;3E\ZV'%"@%8(:N$<0D#MOJCXR7#%: ZXF>37^LN9D9SO M.KYE502)P9U.F3C%PO_H<\U/"D0^(6+QV8+VN1&-SUY]I'R)3ZHO>09ESI*] M^EWQ+M%,N'V.,0JI=6'*#24,+K@?&1VGN/-D[S6'.?ZG/'C%&B!&@;.T-/C+ MQDLNIO_?/\IO&S!?)$#RV0 027,LPJ!X8[87%%]T\Q;N+Z0!+;OM0S$NV_<1 ME],,/V5O-3J%:65G=6V32XE:@U\M.Y*A2PSNP)])P7%;K@-IJWD% M:!"V]H(KV)IX$-L+T:6$7 /-K3]>46#"YP&M3XM :DL;.LG(L?$D1H-KL^+ M/M +D??TGE)R*('DW$E&+3*&SO<RG[VX]AQ!A3CF@L2W(5X M5Y!\22U-$Z+ M##UH.T%Y-O67NL3P^|Q#&IHX',FOD_SZFQDW! T^[&JO5Z"!)C789J:UR?:+ MZ7IKJ7.#W:"\1FB 2A"33)SEG^PWSMRTn?O?IH 9_^0!PKUBN78>L(' M[ASJ=^7:ZS@^\>+OR-#@9F57/.LF:-&0\=KKU&,T2YC50<.C? H/])?,@(N^&W"PU55>KQ; M*ZC/W-L.6(1Y$%2N^1;]_389-2)&]-?S%Z\[4'Z4+N]99=P,V@NG)M(U$=*.1JQ2;@VJ^Z)%[Q5_:* M;T3_/JAF;DX*2#8+X&)7L>XD)LKVSDD59? NE%ZZ3;$T* "J M>'\8+66V!36\AD^SO+GAZY> MH^_ Q231C)6\[+#\$G_@+:9$MV_M3\[_??$4%SDZ3X[.?ZFC\[<1E'GF@&OA M(.D/#KBe>E2KL1J7,W&^4S.)HEIHO"^5!)B=(+!? >]L-P3#Q](5E"@C'DQ'PD M[+?HD2E2P/,9)^M?!CSLJCS.)+HURUR.3:]5OAL-QAL= 0^.X'!T*IZDSGL[M7G,$1YQ,@(KS66"C3F5;!S&X6ZBKM8U-- A*Z(:&;:PO=G%'DNNM+0A%M3L2] M@':@?#9MA'+H/Q2U7D$)"2(=MM!--(W\EHMJ6C#CM>=Y#ASE1I2\W2PZ@R9G&4N= 0[N$-E MG$V^48/*6PO#A3:>$5IW\3 L!^ZW"-]@XAXW<&\#DE@<*7"ZH@*G&S, _PAS M6Y!Z#O2 51?('LB#\/]')#Y%]Q#QGT+=Z68QGI5E.2$.JPS(V&L]G17:$HM; M67(\$T\R[VGM19W-(A28NR6;+ ^*[?MUF7G3 99URQ#OJKL52LC>T23W;*O;[PVX=7,F[""# AWH XR+C<5FT.:9]=FTPH M1@$.HT":3<]1&"(C7T9& MB'Q7/KX6*P +RKX=FED>?*B\nQ,(5OXUH\! MQR=[;FQ]I^NX"NZTD7/!#5S9LK;H]V#AA]]%+T/6*OP)2RZ>FX#93X[]M9]&_WOW>ZPH"*W#1+[' MRN%7G85AHTG#+T&2OOV+UA?'O]K/'<[9@[_3H#5F63$;J,#S9!=.0D-$Q>2(MQZ"+HT[A=% 3:A +%4O,!6K@XH,=#\:BHQUR;"(;+B*'AXI$_/T43EZ+XX_ | M?[U?;<9!SQR:(56N"W.\2H3_"+_9%0#HR7>X:U ^Q[+08=-AE0\.?:('WA? ML^+M5P/)OE_>D>RR;0=P)L]SR^E>H[UU-1QPQ'MJW)H3WH!/A.8DNJH7KL"! M?('G"CG4^QT>]:9.8&GPB9 \\H'/9H%]DGO$]P@TS#W//Q 1YH)%?B#$%IH$ MJ/D4_'H>9B$D9@= .?+137@%2/88326J\1ADP(EA MP>|>))U%K(5+AO"L#DW/T5/GAN<]%L.NF#N*(/Q5778AM]+)$+LQ98\L=%B- M#XTJ@<].L_N&9O8'"++U-NO[@'RXR'AN6(Y(<9<3 /*-!041VT(&_#R^"&AAN M#=@L (XW[Z4B@#*&' F?!D4/VE? />-?-!+^X!->*71?CE[W/:7X]9@MJYTR]MQ&_5\ M^7Z>;HS!3;7@7PZBA7'V ;T>N ()#Z@)8Y,(7=A?)?P_R=JDZ4YMLBF*5;]B MI)QBBK.RPL6XP1_5[B MI)QBBK.RPL6XP1_"L_[(/].?T\>W0[\O\,"#Q_9IS""HQ6=CYMF(DQ<,01"[BNM(9. ^0?S:-0I61)7RB]@7WR M,4+CO7+>ZW@/8]P1MR",3:!_?U'N3W2Q K;.?I0-"1OSU\""F+C'U8GKS$-5 M?9*,\[&^>S[8 ^';0!8*U))NS)4-#[*G%RAP!#2A4/VI$RA^3%:#"K/A?&%ANRY4'A"/=T=[2? 8\L)&ZD(K.Q !JZ@%'(OHH6G8VH)?A^R#'%[XO1AV\4,>,'ST M(_*HD'UJV]! ^5>%OA!5 Y$253=#B4_>$GLI^;(V-$V-_C0G^_@/&PX)^-/*4 M;2Q8H/>\M7 _XY5YKB]UD&4A; P/_U27(= $\SJV;R2CX1F=4E#4^EQ',3.Y M<<7DW0>QZ 3WXF"T?;C*I7]""(0&G9#./0>5JQ3V9+P(!(M\OEQ/IX:*R-TY M[#8 7LIK3X<:A/HE#D!7X"!K)UM[L&5D=6J %= @1R*#%7L X8YC23ME#.AG M&JC>&_[."Q:A&1= T\0.&?P$#W0)\&!HPWV-U(-N0WRWPP.UXP(8 @5 :;"W MB'Q7/KX6*P +RKX=FED>?*B\nQ,(5OXUH\! [@ MD328&*[G/R)!YO=)$*[A&-3VIX; [F+"9YRG1K\9JQAP%0W^'! _0('[O)4/I M7L#5&BBU>F#7$UON5]%NR["QE$/S'QFWQZ.1CV+]54@3S9D_8'B&>7Z-^]F> MK!5[>2&]7TKN\WG@\>CC#E@$BH5LXTFLC 37_BUBAOP4WS,47%M3]9V0EU^R MND)H-W>%[FM?&G\%.<*W[K=BNP\&/S?5,M1?)%,C)2K#/5LT=%[LU]DMKQK -[6ZE9='Y0?D<(B^NL*=S*R1SV:OO:0%=@_P] M)1X7EF'7? 9'ÙQE2E5V]J"\A="><.KAK=!/=P[1M[7C6AI. MED#R GSU*[*((`2]#.!\A+AXQB0E,O)BM8V|O(^D 7Q.Z]>@ G'CKB^^T_M? L'S(67VK(!_A]*.0SG>UM9<9PX.0ST4\D(Q7)2P0=@#O5AD:N*0%G9P MM_NP&N80Z/ZB:1LV9-IYF)*+P]"KQCKB:T*H[P[8*YLX(+0*$S MZ+2Z@6*$Z<+YUM$M!_T4PK]L6<[ZWDHY?^)E&Q=.X+#&$%!=.9C+<:Q*PMVT MMO>BCHUFRW/V8A>@?.%>M>*8"*]@.C.#\1;#59P0V($?(]L2_6V_)2@8@:QQ MC$>.YR? VVAL9V)"LUM[.]$XC*W.X@2A1_7"O\,949#M P O%D+JW F,7 Q5G M/]IF^1Q/RN=(^=Q+R^>@2.SC"[%W)V3TZ!!;^(T8$O/K=SP=O_B:: ?S'N+X M?%G/$?W%? BPG(NO%/*H!N$=8#:#TQ;YRY1'*(WVEPYU @=X063&>.HO FCLV M@C1ENX *"^Y7A^A- 84L'U2!X_VI]#=5HTC*)]:BJ=XB,'\-R>,[$?7VE/JQ?*J!H!M)@>3?08X(V MAQX1CKF? &J6%O'"T2D6H*G1@]JM8'RI:(4#T/L1-[HW8^_$GJC^F58#+:F*R MADR0@Y6":C-MQ0HQ[U7^|| M3(%+JFQ@X%Q&6/&# $^P4:U'0>S_+Y^23O&=9S09G@TG>,LH5(/#S>'[X6K M/B8-[BU"%)6&KB4R?"UY3U=C7^.%U3]ZJ6JX:C!'253D:.PW^>"VH^?B="];J M6X R&F&I4OA@%ZP<$WZ@;/%8N%-1X;Q3LQ +VWVB\KAN.%VX-"VFHU/C\!=9 MI$\/8:X\MI1#BN:$.Q7 #$)>BO4T(O4Y,@!1 @^<0VZ' =_82V=UZ/IA?LB-/ M$:QX*_P!>^&K]0"(0<'B#-_"OO\(:Q >/%A$ZC]!)@8N\'S584YMBBY!G*Y'W8'0@G9!VOCH>5KX)H@L"\'.'@> MZ#GA9^$$O',"1>.N.UDW:<6[L& Q:G"-4I2JC(2<:CHH=Z&B.F9Z,&(O5", M$S[I;&%0GP-DR2#JA43[%1O$CTR#8] :SE9"3\S<"^:IRX_RF)L%0.5V!U_@ M$/6-XU2^Y^W_C@NC], *H012QH#R\2ALL7?N3T.]3_(7#DU9**X 9PK_0^M$ MU0D!?H>W=[B]\!CT\=TA&,%G_06^ZJ_CL11-_67^C7Q&B\%&%&\|SKC^#;\7> M[O$[?^.B"(C=8>YR7[JW1VX6\>%0182T(\N'#MIN3&RD&I[6Y/Z"1ZL;^Z\B3TT!!6P1G]0NSQJ$'W#MNPM_[@WP)N#"TR? 9 MSAQB&RZ_]%WG$/<[S*F3ZQWGA%45+H*@&>I> 5RL 3{)P2/>/(DE[6GS@)]/ MPE6/4!'8<%X6!H'}N_9D"*>*=!EV"D$8.+5QH$<(=(C.3SY_Z63TM_3YZ(Z M8>1%'U2.)>H40"T-[KW_<% B6. %'>M.GUW47J^"!/]!KF]V_-RD\//KRRDE!&4J$%R'"=6RC6:"6G;SEJ M#13<>?"RTW5]CV5E+RQ]PGK@\+3X_92@ZM!P\0E:RTM>L2F0:EVPZ+0&(M:OO(5\G]FN(/P [! XX1A3&4.*/0?4>"^,',$2"'@H#9OP) MP.EJ+:S.0W2(X6A'>$[BY"3!7KYI*OD_B(+GIU_Y[REH'J*9)_;A$^Q[HQ@$ MLAL?G>*&'T-3TI]"KSY8_#P4]M?W_G\) M0J_[-U1JN/PMUD,;Z3O0+8*2H&%XV)NLZ=/R](. 0D<0U6-Y>P2 M@>44%U7NB8N=@(-&P&PEHVT%UJFN]P+EH)#AJA[8M1\K?[4'<.(3A>G2Y]Z!H]*' MVL][JP[^F \S0DVXC_BEJB.CG430\5> ^*>2\OZ&R-\+(#8H3R(%+W$U'B8# M+,.$G#=%KOF)[8S/'!Q#PTF'5P'--G0 M1]:)>WPPV^0'X!_,%;P<\ZTAP/W"QD((Z5OHJX<#);JG #ZU5UA"|W_'#^F2 MU]ISO:..20DH\K#-V/'_AH,S.Q?)*!,1A'0CBXB,E)HX:8.4>8L?G2?#D%VM% MP0I'03[,/DBRCZ3\VK6^+]1T7&Q:/=B"^_C*W@K9FU2'R,E]0O.1K%:.JG C M?@,2X&*4>XMH'[4[+[PYK2OZ'OM$5-T'+IEGS>O#K["ZQ^E?R,5R["5%?*DP M@E-H K0*; -1@]X,Y/$K! &PTE4,DDJ:6VK"\M>E*?IM=(\|Q"73,ZG%R M"ED=T(YT<7E!^/"8?'AZ:)T+GFF!A>% SIJ'ELI]N'H[MK]VL)^P1_M')WO^?_:^LSEU)6OW_T5U'YG;NU3!1Z18<] [=Q5!8'(:JA=* M($R"J! |*^_O;I; 22<,=BFINJ,-XA6AY5ZA6>]+'A>0F:JB"[X."9^MPKS MZA299Q&=R53G9JX7?SP60'_=_K\K@$Y,"4C;HXGMR/3VC8\;O(>]R;88OJOFI%ZD:4H-8V,\IL,9*##S;J%. M-0^Q38 \BXA?,*\;-,QMS$?-[A*L8AP:G=!=3U1 O2R0D+Q!XZC:#(3G+2>/ MD340M$:VLJ?0#Q0!RPQ7]-SF&R>$S>T+5AX)77T_4'-H=5@Y*QM!DD(D7Y,Z MS40-634ROL,3MQ--5D/T8;\99D(>%_4]NV/?+3O9>9R2[HL=VKX]1Z3M;/S$ MW%OL_$$7-T_-YIX@!Z\+^IM4WHDR21(0+,%%BGFHCZV)=J @(ALFEHK\%[&? M#!0Q-?%E0H8B$L5.>F! [;M^.K=2QOP-N7G82*[ZOTY_8B6O41FZ3:POVW]7R M[7]N(Q4^C0%;IQ.K-1P4Y.T5EKA(0V;&<'&/M0_B%L$;WBM),#\5T7%PMT MYW;G.=JW:_-Q_=VV?H9#L%7-]B5V<3"@3RY5ZG2WRMZ'00D3LY$.[@]^\GWS,/ M(G7-@[CF09PN#R+RJCR(Z)OR(,Z4V; 08Y>FO+0 &@1=5RE,LPAL620^U X MYN0-XMMW!T!$#MSEM@3#?C1_82ALE^@R17W];MU!+U)NOPJN\@1?KBX("Z2W M%6'CN##L\2_#2W1PI3FXMJ3L>ZA]@=@+#/A\;ZL&O'T%[*(432<).P?V:5XP M#7TRMTL0G!0'ZWEK&,L\PHD@O.Z;Z>L4)RXYS5 $#:?]'KQ_C!:G PJAB+X% M'4P0,0"8C+A.6D)*W0&VP9T4>HU/U!$MIH%?? R_$$8TZ002*0.B1M,VQ_-58<=._55J(S7JOG4>FL%2W!/!TSI@"0"]T>HZ\;X/HBU3*2J.,;!:+9["""* MNT#5V*CD9Y9#6U"(Q\W$=3S.6X+@NGT]P:$F#D-7T2MU Q:/DU]))3S@#A M0K@)&*[##CX0)BR-A.9I" 9'\D.N$]7/A:,#3B<7$,37O+;)E>@W"[_IC0@ MBZ2&EOBN02_8,\6R!JU.T4EVK%U73.-D5IQ9@J Z@3/RI22GJ&(7H'$5DNV# MW5[@Y"$9U4Y"_0:'WASNP6XACJ;C!JR8MRML[=SP"8_:<0N_0BTT.+7 M[\I*J@9#ULHT#AZD&H-R K_=/MW3:B]$IAW7ZHZ?ALV*6&2O.>+8M5<;DK $ M#"%-HT/$:"UJA@G161SED$CB,)G91AB'P"+V2HER3$AQT>B7&3_Z)X$]HJX MK,V A^&*)(%)06G#KA_:(S9@&6\.NTIDIB+$5F 7[];&578$I(IX6(4HS'(O M+F)1Y%%)A$83IFB':7;*7*#B&,?D7!+SH-H-RP;8=)[X65(W0O?GH%H2W!\8<,E_,)NB MGI&*)4=VX24:2+#-T'.*M85DGZQ?4RWC$L53_R(6_%MG;B0ZC;2EG6AC]#.! M^_5P!@?,1*H:)$*8B:*"""9MD_-V>/C@AR_P_9A8/K;NY@":<'D#-&Y!!]D M%((B=>^IK:5(L)KCG?5']@2ECI[#'6+_3AC*R>1Z C)RA8E MR!!CE0?8K:EDBCQ6_E#V D 0AE54@?3'E)L(I-IUZ2D!)KF9X.#%<[3,".*+ M<-?INI:)PFQT1DS(;^8Y?].1=@AUFC%JK4":IW7,< M&VJE4QFU48K(L7[MF5]_(JX^\%;W+(R51]9+:X2MFA,,D4:,'4ZR'K&L+<=1!Q%+ (H*P;6'%;V!8 MDK?D&D7:69![[C>2O_?'Q,H%AY<(8UI*%$B?7F/I=&<4DF*';@27? Y?J;| M4Y1D643P:K=,(%@WK*BV"W8J G?8[X M0!_)G56ZLIK6CWAL5QX:, [SV4EIXR<"PY%1.#F"*8WD;&*["]M&FVET"L:X M%XFMRI4W5(5:6#(YO!I\'$U.:VA8 O(8NJTI:!V8J:\XO)5*YHJ_2U;8W$S6 M0PES^_ PG_WZR]PP3- @K$9>@.&&P@U+>*4YGUHE%11BNSND\MT+&'(%GHC1B M>[QMXZ+ 2IV@!OJVI3H9$F!#Z(X2=6.AO>O.BJOJVTA3=%M0*C3^H?2,_:Q>1&:KI#D0#0<#3H?C0] (5K8/&%U",.RQB2I_"=5/4 MYT"8*C+ZK?:[;G3RKQ4WMVFZ0!=6A'7Y!H&B0Z-YEY_L6)ADFFPC%IGUM"N+AB. MQ]&F>,O/]M' _TN:52(92YMI?"-R&J"5E90F69? O[MT_#N95*3(W>J%^K%G? MQH;2-H8#S$PL%8PF?,**7YFGP[6P*\5=E &; MQZ2"R91/LL)7IJ5G=R.=2C2XD5D=]RKS6V6>#BUGK3O$6XE4/)CRZ1UWV*4@ M+ZS%"38<:8LB"0E#L.0,_$[0T*0[M8XN#1."F^%NA+HT-71KL U>6;4C.HYJ MQ4D7[6$DM4N /[:6@C>87L5YS)']V8C6+.Q0QL0#09ZP^8HAJEVMZ/@ MA25ZB$! Z\X_P*Z7/H/+;H2E8!W:" /J RV+X3(T+J,.4$PR]2% YU/32D@ MB6LG"\&Z29+F(3>!*G0IAY87T%X5KD\T&*+AM$[-P.$:>VQ8%C&Z"2?Y5FI]P=OE:"UZ'7%@ ^]A8$?D6X*CH62WB::8(C8;0_MG27^,(SD!X2] MWP/,:*>R#IX|46*^*2;$S#*$-%+ M.T2Y4|%NZDSH84+R2(%,;P(#""RYOR6-[/NI^@;#QA/>0'#6[SEZL6,J6H#7^%;L18%DLY8%FP|+ M"^&5!+$!4,CT#A!@=K(NAUH M%_3?I.S 6)] L%2W<_ <_ 633B_P;4JK&I4!WM"YP*#3M$H5OIAGK3I?&4GO\-JP?:1:WK$HB;]RO:;|WW%_I26O,)[9^R-Z",R-UI)WBEVU ^8;- D7N%\"[R,&ZR M0K\ ^+37-SD!NSW!C81]]V;,_DHR-'B';% <>._RB;4#27?<"[FQ.1N6_7X MAFV,D\Q2EB,%4P/_9?Q(CQ#FVU>US\W1!A.H'8COn:5Y\%X%T3&*V(DM+H MM&N5P-X.NG+R"%L"+G:TA_0'7/7.8K^V23/,@J;*.1J"(C&W,J\.F:Y=L2$ MEDW-%QR2ONG[3G4V9'-BRQL-]W_N4BH^Z.*AR@/,(MC,<[FSUE1PL:#M0+ 2 M;6V9K_%I8XM+B3<>7-"C# [X]V%&/5$Q3R?5@_ [[60EX"&=,6I==H*S54S MM=3M0=/%NK MMZMK,7:.J<6?D$5E)(*P0AW[\HRPAP DPA)W$XUC3^X7,*/*5QI.5;6 M%$D9V@>)HH\!(/BO_[B_>-/8LG\G-23JZUO1HJ#?4%&! Q%[P;'Y@HO\+M1X+?S G@5\&OM>SW1G7 ; M"0;FZ@9<_QX:.]KMO$^VYM _B="X/"M' WAD\H5ROO/EYO!F]--[,6P6.@:[+ MVVN"M6>Q)? [;R@02]:=SV7ZM2LC$O:'U$!1_PTY.//PA^"(!#8[G-%(P M[!XD>)"B0XK981K4"T(>1I^3,6F%|:')_UJ1!I*,I*=3T68!?B"^EG !.JQY M0$A=)=-%2:;8I4FFC"2I.(KM%4R(Z9XV)3QD[+C6?!6W1ZP=7J"IMXY_1D"] MG0E>R7U'#9#7,;6/>;%O6EP2ZB8H],/HM+_O-JV>$$S=]=>+!*PD;@2>= ML)7JR_;[H7<=)]91N]Z*.]CV/8$'(C+-=P8TBHK(#*? %@<4Q%G'J-E1"3@0[MY^X%+.[O?L%*TG;\?'IM89NFOV<4/N\DO[,D$_4@V=.\OR^8E6UMV}3(=& MYI3&4LI<0HC0E<+O6@7^=\XJ(>AB*!>ZLH_,B?/,]'6(OAYIXZ.ZCU",0,\9'NL"J##.P1X< MBX)'*JV&4DAGE5ZGFW],R1E&;!@7D+_IFO\IB/)U.&FNN3AE+Y!C[,JQ."Q9 M"3Y5L^+RR;P]K7Z?*@/^LW35F'VG%$!GK90X?).%NNU\9*NDY=%BT%H+)689 MC6?#FUJ_C^0*?8/LOY?MBWI?%B;;QW5X4;Q=,M/&&"GJ>>;7WVC*?U_VP;I> ME.7GS1'3LE\+JOFZ$*?9?K#@=0+1;-WVJB_W.9GLUJ_P\?V^>LG\KUL8Z;; M5:];CJ0?%ZN(U#'&F9 |7<^.\Z7M27]ICNE>V>1Y2H20P!:ZW:8WDV4DLU4 MNC._781FJ]Y:%!]+BVC&&R#S?^Y2LL_(,@-HG>>$L,!S,& .1+9G8F7Q]TX MZ!2XPH 4QD(@&[7"OC)A[6#CC9I.@-%%8/\E9(_81[>>>>M.!I_X=LO%YK M4 W[GFTH&Y)/!EXD-.&)XVL'-[#N@B;=*W]P3&AK#+A@:E 7G DX2*$.K)^[M$A-7<&!40<@BD\0%J QTO52PDQW?,W788S@327)Z#APN-;!!MU&G^L0J%NMA MFN@(1,!&4Q%KA!)D4BAH]RU/0T[E!:>*B]ID@(-/2B])K6>02[*J6?=A%TXG MV&V28-#[-23M(HDS$S1<%C,6")8Z%*^:@HVC2?+S(('%G ZZ%N;@$ZXY WL%U M/_C<9'1SK LK$]_)55K]M3+17"CRNWT8, %IO./1%*L!?J.R6IB:,^D-V%MK<5EO4F9$SY M_J-9F4^WLR>U73@)PMNJ_$?-LK#\;?F<,9$ T ZA_O/KZ#\;C3 '#:3NK^0-? MXNZJ@U1TL:HMQHE<5N;1E-RZLE0OO$);LIB=D)*R9]-&&P/N+@7:#^"%9(P" MV4*T%P8XGW9[#]OJ-11QZ5: 90:S<)LOB<-N^1[L.V]/I7\#A9SZ M%%)[IY!ZWRF8TQ5OZ*7B*

*QM2C5TI892E_N023R&1'M;2_*.Z864]5MBEM69F MT(!2!2_0P[\O BJ9I.+J_OH/R5,5RND%FF=G*E:L$CC:RA#2#[/V'>$MKE1C2 MA0D0Q :\GX)R2 T]Q;13)U*GJ;F.$#'HQVE:TJ5%E6E*=R/2$U9X,0 MNEXJJM>$-5WC$L5-1P8\@WVDX[T=%/5#JX-3CNS]Z2NFW@"D$HJ_@A6?V_R$ M:_.YNYZZ;-QWMVRC']WM8J&H.BY#]=J-E[T",CBET?K=E@N]0GBPQ_;W?RI" MX!HK+1K3I\IR3[WAV MJ>B$0)$E%6AJZDSC9 N0!?=9T"Q*]*%V9?!KMBA/XU P[9(JN"?PG8KVG%2 M? $.*(QT:.H8K09;1H"5?ZX]LC)%L,.-0$>)%"4Q[?!P-XW'23M'@4-NA?Y M?8WN=_!-!]E'CSY"R@IO,A!#'H-AT*?(3Y[M]V.(R,%Z[F0ZF%8Q'K2BF%Z;"Y-O$!UB/].E_R)^&8@$\]'Z'@,2+ @2BD*GI M6G^0K6C9(7THL01 E:&(5=.X\!JSGR=1?<@O_.:G5D6MJ]36U^G2IU8E7I58G MC[_C27_3&0*P/5UH3%FKZ9+M/NMMZX-866Q'>XWU;2XNL S3&EX L$Z/5.7: M$SZG ;#4A"6GV0!8S[?G(+G/(+O -4:J)1W;TZ[E0$KETN5"H,H KDDD M(S&#Z0*R 5>F" @:KGX7N#)I(>SUU,) (*:))$ODL-(O$[$C4&QB"U7V%'' MEYTY*:F W&$E)*&%X,@W_DUP_P? D%3S%L(>_]YJ!!6V_F]\L:/8$>:|=?G/A M(SC]LVAS'''84,1G4P*X$M64>.1 (\X1DIEM[PXQ3!W7&0X2DGW"55!@03S9 M! C'NBGXB=V*QHV9Y&YKXQR*:&%7/TM!9W&U(R$,:IJ,U!;U!>G3"'_9XD*> M9MIW0L&<,<7'2>F^.$[ORI,+0(#>FSO6*.3$8/*7<'>P"@=U HACM;,)8F:! M5P:)F'"(3UKB(9I%U-%I"NNQO\H2=PGQB*M$<=*X#7!ZH0V8[H:TS!.6]_ MPM;\AISO"//?0KZ4PW^&__O/32 KH#4H%+L@@P04=@5[848>5)P'23V\&E<0 MP8,**+^$J6W<,6Q@DRD(I$LTLG\%86F_OY3K6*^W9"/I-P=A W1%PMOD:H%J M^X$QHM&1#H"RJ@BPU]H"XA-T5#2$NZVJJ ?T#1*U2#Z)I&@526/-21? :(C8 M0_XOBA-"*&G TECSJQR4ABDUI_8>[IT3+5 MG&ZCV\T'QV-?YL2#ALM_ZGA5C2EQ$,)V^;IK]%2XG\IMT^-LL1W2E=ER&:UT M,[_^QOR#CC)Q"XS12)$2-J9;(5UI?[PI.[#'0,?OSKZ'Z-AC7V:CY#T? G<7T$,/ M>"M/V&K_9,4PK);2A[9+=I=%9SD'"; 7"O'V+WY^I.YN*>PWL*;S]3Q+Q[K- M1F/UNV) ^U>ND\HD',_L0"K5:3PGE(\[T/:GLWA)?N;PNMQ\6)2FM,W* Q%9Z M3%9@M,VOOTA!>Z7R?@_@O4C_ON_[Q#&M*U'81!%YA8??\Y:FW7,V[!]%NYW< MUV)AX=%<<'GE-A_9EIB%"+%,K\K^-[X2N;K5SYQVV#[=&=$-# L5G^XCGR18 MHNZX*/K7MR6BILQ%%CV%F_20]L_K(YTO[]J;DTN6>FWS M4$3=@ MWL9M_\::Y ?<;"Y19R6']:ASN!QQU2C3*=7ZN\?+=3BLY(XH"?,>+GI#%4 M \>3B*OFP :AML>SLGWWZ<2I2?06=995T763658X3XFI]/T;]N&Z?WL3"9 M:G5%Y%G)8*.H^31'?43=PO.ME<7VZ*S#PRW1!XV$,J."ST M?9EE[DNXJKD.?Z7-5,T*X952SL_EQTN,]!,X/4>]S'S0W\1%]CBT*[0PR! M0:?("-#O!9, ^+80C<"$S4R2M*""]J9,+Q%),@"8B@;1#;&>*^AP77+AX 505 M;N5J[&BNDIV^1 =Q4IC0V^&S5#AN#RS@B@/<912^OA5XM+,SOY'0KYQ#,B"8%CUQ]+B ME#ZYRKI]?P>K\9T,'M"5BD%S53 MU$33@N%U)DF>1)\BA[#Q/:6\OB9P|Z%YQSJFUQS7X=FMI]TNF? G.WRTGQSB)C)83Y?,;AUA]6/TR2 MIG<$6NJL!8KVRT #Y%S;@TM0:%AC&-& M@.E!V?6. M3,Q"O"*H -8SUOQ"WOE9$YONK2^PE$R=(CZA*6%L2U*F!P:|=1MYP^)@I&._ MIW";>^.0V5AU';&5;]N"[?$$.>_5)P3P0,F?Q;MS+U M4_^:2G8C2;!O%GIP; M]:(A)M%0AQ?@,NT A83PH@+N55V<0PI*8C YAXA':>*:K O&3G,ZO>Y[*L ' M\D+DNF.O"1);5UY*ZDZPBV@!#5W5<&L04NE&FON1%]>T!)2=$#[ZLX+LYOKO0 M,B;?>Q+^E07$1BQEO[F3.]O^3JEPN]+L=C#TMH44EDJ]2E"A91\Y M&0W("J,98YA#$#0/ID)B?+C@TT$[5E4T!2 IJUWLD?<[KW7!;'^^Z[T#36[1 MS)$TNT4;*.WC8Q\SH>KURG@Y24T7FHB*8+ M9/XTDKS(3;HM83F0V5QME#6C>771:S^!C? 9<)%DW&M,B,#P$V"F_=Q"%^N:A MY&*\DAZ9N61/*,322:/9"Y?BFU]_$T?J;<| OOW&;>7"2?6Q-[J-,-RNF&IQ M88.?C=Z,F?S*;>T^+OM,.:NMKA]%++Q50[G:$1\]_4P0O\&+._/@*7^ M&()/MJ-2,]LJWRY>K]4'S'%0FOR6000OU::W*W.>KC+'(E6Z'JT:XF0&)Y.\ M'+CO-^ZK+%2SM55Y=17%OQ]_"P7+Z2,,[8)APY(40'CT969G>+!!_O M9#>#E:X^G@K9Y'6=6\9^S5&P0?/K+VL["Z#$#-GISNH#^\O_W_^,_YX/6CR0 M,6?05!T=)4,N(X5,)VL9LYE.#W^#[KI!)WX^-O#?X?!_ _@?I&^]!4C A-; M-DJ#NBU^=\RQH2++)Q!+,J$(\P]U_?M&XNW!K70T;, ^P:.\,)|+1V"@T!< U M>"H<#\68?[RA?'L53C@??4@_0WR#+@?B5*11VH.KAH5$ZA_ QVN'=IYHGF@Y M@.9+X$H.D)K(A<$=1">>%T,$YYI[1-(,Q5HYR;H0]AI:U#$) E270P>PKV5.,6&%80>6%FTB M+_+8/T9\6@$PAS&:))I";F(<:]1Z'"SJ/%QM;ZF#%73(UW7U!G\;8M*$OB3T MA84'Y&I|$/C=QYE]' MG:Y5T?_W/9QLHG.HZ@(CV/5W=DJ3 @FDC\TPB,T%0=SOVE-)4\[M]4'S+SXFIYF[^!#!.*W M(6TCA9'Q0&||0DS+/.VKOT+;:]%K-SMC!C!Z.]*Z4JI M-&H]"2+TL? LW'8>;YF2<2C.K2PQK'6XUB@)D23FV0W\4,C<%[9EQPS/0_0= M,]..!V7[XK82DXQ_L-X"_/%\3RQ-[?G"'@R!!C&!&>VA#VI9SA3B#O&J O$(W M]7 ,7]_#^S(+.O! 1QW--6%7)T_TCP*BF4 G%"4*!G(;87.6GQDPPRW9I=(7 M14A|*DSAO"<2!UK*<5Y0I8)&<7Z2I#_Y[8Q'YDD5(X2;^U^_9[S>4!0P+[7 MJU8'*4.X.P$&D1$D*8@[1"H"]=7!719((0:4^BK8.3X6%5<''D>$!KTJ5Q<4 M\%= +I$Y)G5PN#,FQ%"?IA%: M_=0[D>E67'VV03<;A7+Z7EQ)2XZG45&-Z;U M8?K/<\E.!7 MI1G^M)6>-6C8&930I$,BT)MBPM&"5M^>#R0Y=L(M10/:$G-6/JNKD4,R;BTR M".V0K5 /(LT'@233C;DQ5 K#)#036(4P#N[K2X*U-OVY4M,)*OW>@M'K<"L> M6(HBA(RY2*XH(B["QLYW.N.II')HP#6P(%*,(9Q18>7PGTLK?Y8YTE@*2J!& M-J*#=C&00:1.9!V6;V4!TS=::+6:.[^EXA0/,G[6"O;KXG@ :<[XQ.K< GO_ M*QM+P+L!>[_*S%P/!_GH/-"H=KA.L9B#%M%3$6N1I.6Q04K;V9 ,!3!P+.E/0)(A,0B7 7O#$|$#&S/A%>$V'3% M68DOIX.$'<.?D\0I>K*_G>0]'-P%>1>DP W(=@'#!AL.F 8LJ"7(MNX+I8NS=XR>UU:S[R"/K%N?$!FQ MO>6DFMZ-C![7*??ZE:96B(^?=(8^TR(>:\825@=Y7,7:Q,8O\>PAP8:_\L?F M-'"&5)(B- Q#Q_E MZ<_JL-?%>YBR8H:CC<3RKM@;J#UMVT\8M[OZDW"K3SMMWW',E4ZS.!^8^7ZO M>#LPQMM\MZ"6(6,JF(@G&K&%]G;8K-#]V+_T+'M"]8KK=*F57B.Z?J,T9J' MXG4!FZSTT.3.*EU9S6.MGO!8+CPTY_GLI+3QDYP?=$I\=YQ=]A=#C:DLA+%4 MY.KSSOC-X):P/8TI/JDF[($%A>"/@;SA[\3NN%5B=]-R.=P+53FA MZ%FV3" M>R!V37B0MKO%Z6F IF7+2RC(_)RJL+.PRVM*.BSE!-AS)1H-:TQ=-PG?$PG' M'G?>_I_/]T2VS*?X>[&W>,0=&>-1_VJFFT#)R2,-OE ('LW)2?RUX-[ZN T MPE[TIQ,8=W'8LG8+A=* M,3OFH3TPRGR,A=:H\6@PDCX>K/735]XKUAFUU6?9^2=35OU=2LQK['K>BY@/ M@_OLXT";Y*$?Q T3_1K*ZE,YY?2ZREAKHVDJE9TSG5!ADKV-AD8Z,\,LXJNH MSI/2"3BZG!OQ7Z9C&>3.68(IN9 M\#OE?E$>S-Y*A!E)4B$5B?>'W&&)LO2E1'&B35(SOJ,RB?BZ'+O;U9&X1G9L M*I(^7YWQJ_M[?!)FQ1[F37$Y'HL+KC)K3]FJ<;M)@=$?C"?\.? >@0OXEO?OV MZXTII/,G4NI!D;?4+OD&OQ+1= MBTT8[9 >VC!9@86DKV',6)5OY)2H_N4BOURNA4CMA"J,<2:72.T5X1W#$66 MRF]YJ0ESM#$(2L*P:L1WY4 %8)7^MA MKO4P+ZV'X4@=RF3$5[D)81B;M97740L(-L$OA;?:3@\Z$B:ZU M1(IMR-/$7>M^W](PIF*FU M;JZ-!3,H\6)YNDX)F59F%/6..;]/9+5T,]_NY2:-:(I/UU>A? L]Z1FSM%BI MDU2HLULT%MQPU^3P23G:N"^$_5;-K)JE[>=5FR1B&;0DYZW M5^5"O<).9N/>[GZY>LRI=UTM!6-ZWK[LJU;=A*Y4>Y5.-+ ^ZJXG)Q":#U YS M^.2=DLDPJ7ZSR%4MWZ7UG;Y!3WK>/FBNQZ%9@Y$77*,ZVN:+E4!)SYB)72JQ?C1K:4;>+G;-9B^?$\.949CQ M#IHS5"7,Y(T$LGZ$SG(T#T_Z7 L>]9S\G12=I%/SS+ GANJS]*,ZK;-C_*AG M J,.TNDRZ3:Z_E6ZC4B^W5W?]F?P:/SP43:6C]38PFV+Z82;L6JVL5C->FBN M8>]<=6.9%S92>K"0U>+(S(F%3+.V@4?W9)S!B(ER43S+CT3@21809$R(C+CJ-MCJ+3=)Q/))*Q9#3JV3.MJ^9'?'C&<%VFV9%WN16GHL&]TXC<-\N=U:T<7>2D M:5$-*=.UU $YX=FQI-CKRYOV%MSWC7*W::BU57SC)U&T0NEVO@B5&TPG'9J& MHW4VIHQ)8K1*<3N=::6]478<+4UZS4F[#U(%"\-+I;_&XU'##BDM_LH2<]\1C0LCLW&T;3*(_[&0?Q:DP:FS\|%15G9>RO9+1[T76R\0RG:^D M$P^^4JIS6^W-V*K6[JVVS_KP26129A|[<]%8K(KMA31.<]74 M\:(:DE&=%[#@Q7!NUL,&(A3OUOGM7X1+;%GK2LZ)B*|MMLSP39HJUN*JVA=+T MUO25D4QHR ['?'?.[M1R;MI|*'9OU9:?C,Q(CZ%$C1LFD=250]W*HJ:W17C2 MLR(UWGY,A]3N<)%XD!["_4KZMK5N()VV&<7D?)HFHT^"-$]#V_WK*@I=|\7;QJX:ZINOC.O-A;CQD]!UME4, MF=TAP^SN=;E5V,;F^5[&3T)'Q6PT-]"DVT4G51AT(XD-UU#@2<_;=|U=/](L M3P9L;BC&<\/(,GP_@[>']U_BB:VF)".14<<$YV,8DB+CL;1&+K*Q))".!5- MQ"/)L><(IOF[?J996"\B-;D=:94C=_>SF1_C;^O)&+N3)UU6K!57:C%N&+<- M8'S/D\5$I#YH]OG.(M?:C?M;K=(=+S-^(B*NY-/WE=IHS8KLAA|+,;ZF+F9^ M[-RZ7_2S(Z6[7N1*PB[=&V03CX66'SN'E]U^L['=/+"16"'.=A.+UG8#(L(C M?/7-/'V7&^8V;"<^>XA%U9:82V?\6*^_J(?58KW68!N/TR$K1T.I^GKCQWJY M$$+*V8M7-P,CKM2$\Z7E[N;JK+6\`51/N(\G)G?)8G<;R_BQB9%2 MUG=FF]XNL6TI M5-?- ZO^C=F055FPKB1UIYYU[1M_94@LLX_>,M0$JT M)EJ>I3A|E,.T4FV0P^5#1,28Z/R8I?36!W0UY %F&82P;"/_??/MV&#J[?R MZJW\WI:CCQ1XI?E8WA2*,I\Q"VQNE>:C));#1. Y(C,Q\A-,O5]G9@2;%%> M-*N\P,ALA\3<(\?.QTRGO1BMMKFRT>=FYS R R>Q,C^5MMCM$CI/__"KUMG= MAE=3$90$)D;2-^<)4S&\E8O#MI2:,)5Y3196878Q;$)G!&0JQF/Q8#QZ2E/Q M1]B%7]0(O!PU=K7X_)CYE19?QC,O="E)F"(1:#K&(>ROPDE7)UFW]II9E/M-R'7JQ=G3_-G&"7;2XSN MEHQ9U._&3;$$#M>^D>8_7X4#=#RAU0V,4]T0^^'&L5^97A3I=EXUH>? (Y2GW M9ZZ0;Z]L<&Z,4[F[$CKEZCVSZLY7F>@\S[1:F-\48/FRW#O>PH47L._7Z, ^(7%77642 M$:'#K,36S'A@C-5M"_-T_-??Z$TB\DVX^?MZ>CZ\B=HGU1-0RH2V8R^L)P@[M2PT -YP>$-! B%@$/F#]Z,!P M'\"LA.Y'@:*@?^]1FR7M>,41NH.K,5=?RO&B)/ MV91KN)QY1#D"[$(#4WY.XG2],<7]!?%O)H:NCO9$<9NLHH 6P=RD8EV505<7 M.EZSENT\+L44MRBVBMO5K%M&\OGS=4L!G7\?CC^CZZ:\Q[3^ZJ3.:=|H%&O7 MS\ A;NAWVI#9R+)I!'6 M%N(TM6A]D2.LWHYC#ZO08,@'V'CN5]3H<%G/##,X4]]8K!I:"%L G\T\ 62"(M79?"! 2")$X%W\:AO]^NLC[ZF.Z9X;*C1--Y1I#OUSNQ*MXRI9:O"H1>.,J@ M?)@6]#\:LGJ[)\@ MWOFJ6GHE51XTN,P%703EW8@12*?.1S[5$)%>3B1MOSL6_T>G;9\EC":KP^@\XRC-*5;+;>;K9 MQP^R*&_23&6J\KU&]3$4&878PE8!Z>K-G/EW)V1(S^!2^%?FJ@OD/DC"&!! M"4@E&@$-K*5]T^C;GW7L7&?=1OM?0-M?HKL/9TTM0O\CEQ[;I52IDRKV9&5S M-^RVBVS!;,']_N7#NV 470_O4P^/V(+^AV?$I-BJ/.GFF4'R?A%5IV(F-]T M>D/"6S?W]W_L=NBV_$?OD?I,H9N+Z(&.;>J,:%&YV)51EYTZ@,Q]_"@5PMWFS/U2(<++)*.FJCH:%O)+5;4 ^A| M)Z:$+ZSHP@DGPHO3*2($!5E'8\'8" *1N&BPA6 XUU]>'BOZ$UUO[D]^N!3 M[C'/NQW/:,P\=Z]H)LO9.3NOMYC*J%>/YP8\QY,''_J+SK=R\GE(JL[)OXH8U]+_M>S(NZGLN[SL6=*6\WS B'G^N8X2S\@CLC^&S@4XT2:/Y8P)7T^*Y6"<\Z MJCZX4<8KEWLYK86>-B#/QE:I5[#5*1TTE\8G)(__PYK)?)_3_XB&0]$GC9!+ M(X4/;\K^?8CA-+>V[T\ GUIG=WD$\-PUY/2=6"]O3YZ[GSA/;E(D_(#Y0-. MZ0BHTZN"^)FVHNLN%>",*Q5<; <:_M!CK2@L_U&3\\//_-A;CA\B"Y)>BA=E, M$V:<(7P!1]L'+MM*;;S*P)I%?G N5Q)X6H:7>7"3]>-;(2"JW5TM8[^EJPZ MDX^PCKY/G!87@GP5$?EKYO.M_>%WF D"?/\F-KZL-O)\2*>NU?["8#- M9V7)]6@LWC?9>GDA1^#Z;\2$YGEYJ/1HM_(E"3/M#%UY1#0%&T?O-E=,4WRBFO?'H**SLKH$,$%W^60\--A+"/,.OU!+F3335J;$/KI4?Y MZNZN4MR@HS@I=O8%BK' Y\LQZCOY&OS^'JC32[H"O L:_%1L>PPN/&+SJ2F. MV<+#9!GN#1*+?'K4#?6+/!@=R5]_DS>QXUCA[W1;71B7GL78.(]2_@1CXT(; M0>V)94|CKSWP^RMLVH?"IJ7>B9IVC-;BB9M$XEI:_20UG:7D/?),VM+U7,X% M$1&[0MU-JEO;> MI(JG]Q*7M@$?"F+RG)[66G6X?2IZ_4O&\3B2@V'U'I-1C^^7;?7>2Y9/W' MU>)?B?U+B[Z/+<:^$L.E2[(/J<;^6G+Q=-6X5W[XTL+Q@\MQK]3PI:7CAU5C M@G3\/IZ$#RS.SF#7$A-#A6$WX<&/K(N[R<1P%/LNF%VD-W*_/H;#T93\6 J?I), M?2):+BQK[!S) <['+R_3]B.0YF@=P\=ESE]'0]6SY\EXA\52^0%]^/)M2X^DZ M8T290:\=:JB]K9$9@P2)(@ERDPY?A<=5>+PQ]GQPN/IU-O#C/,SI.*^/?GV M\SIXZZ:,/MLYW=,YP]2M?X& (XY0=WNCD?_4 VL_06M*AM[=*P^96+W9=W 9D M]/JY'A^0\../NG>+N*GW5)4D=:/_:=RV['55(9/&4CJ#Y. :[7\R,3;8ET(MF]GMG;1NL5QB=;?*$SQ3.UMG:K'^8Q*[/Z8? =O*'ICY>6.Y6Y!EPN>M!?%]I MZ^M!7,1!7#GB0@XB_%,;P%_8.2#)]$/KK4Z?SOMN0^F#XPK/>W!R7.!G PJ7N"O?BS(^(&#'W*3.F]?TMCSFJY2\\L)52EXIXRHE MGTAYO@K)*RM25,JY"DLB4HL8I!LE[R[^W(.#$PO(+2(63T__K%,;Q#, "\>,CYY_:'Y+5\7#[KESS[#Y-R7Y@0'IRHD>UY?]N!3Y>"9\#./+>>_T8F MWID7^2-.\IFXV+=8W,QITM:Y!LDZED3$=&8=3LW+!C("Q.,S;9\>9[9VXLZPI%1%*?X14>S762Z+=:ZB04WXI=W MS?R|EQ7?VX#!DZB=T31(O):1_9/=.8\TN1U\E-F@5=!,;#MKT*KH(+:P3P[V MYC[#-&(YS60$4VPMLP_CJ&G2A@OQ8(2()!Y/1Q(D2L2^ $$>&J5X,Y=(9F.M41+4=#083::" MT<0)U?1/T,E?5 %_&5X^22?$Y[GY_37Y M:/5^OICZ5=>_A*?[+W.BUZ5YHA^OQ7N+7#J+Z!B(R57M,<(K[#RK/2XZB55\3N] M]5[R95Y!OJR\E-2=('0$;2U.!/_(DTVCF'#UKFIPDOO[G*H;==6X$]",) ^I, M ? 1.%W"G1X_5.4T;+4.#Z6-Q'-DP0GVT,TKU;"2E97[]C05CX700F20>VL6(M>O!NM*6:_2*T6MO-$%Q"0\%QP%TDA<1 MA1BJI@=F).'&I@%$%$L3_1+MYRFS/J*C2-HF#NQ MGD(?HQ/#3$A_G[XMSJ.Y34OO%8>W?&\3[VYFB7,DG!#;MJ3KIL!;,6I?"5'2 MC-PRJ4Q;BT1(;/2SP^RJG402(IIB@C$?(S= S@F.?X*73[D?G3C:1H,3E8!@ M]2UZ"&^N'D!G;'^M(AK2,$*GY\& 0)E2=XL7/X!/G9, #%03>)-0%Y<0&1HBR<03,#4 327J8G^@7Y=YA03QHN&,:''\8\(50=X-(_ M%!D(@358"!1R%(UH*@<0HTC6F0J=]&GUU>DY #PHR$C=H_C$T-5W9VH@(4[\018C'+7V,$?L M'F-B^'&QB_0$::M,%MVPDF<01T1B_AJ3B&?X%$Y(1(1$C4",>N4"\YI(J?! M#6)N(9!:G@(0MZ= \SI:2!>).5<"/UQJ_$,#;; .1_3'7"X%;8*V%ST73AP! M^/H_>\!E]@T((%M5[8_E G>M @5,B^ KT4P($5PT;HKF^8>3-MQ.IYN22MU$ M[.8K?VPW"FQ;('Z32OT[X/P)*. 'L/*#!NO9W#^V5_&H? [Y5^]@PX&SU$0UW^ MB81O$B8:R -_J?;R/G:_O WHE7$9-)>&37]Z-=?C"T,$BVG M8JQ;O=S0R-9O=[W^9-$:1;Q/ANJE=>E6S?68"O\PFH[4D-1/PI.Q MPR?C<[/3&R2E-M/)1++=9!.UVB[/INK=76L# MHO7P26$X"9=V#[4N8W;KB=AZ<=?J]%KH2< _;8_)0FDN#;'5A-K.I6G7)+40& MQO2\/;N:KVN];G''TWMY7)3R$^;HW@T0A1L>@7R-PWGGLZ M>@HA_2*3/+/1WD0N4R+/)9L2LT1^_CU@CHJY%U$W.,A_>:X:%EHJ.V']:I MAN2S7!^DUHGS6>%BK9Q5H-ASDR.L+!2!A=UOTNZL<- M<3^#V;&L#^[G,U)]AU%C#1_@8$#GUO/6\/0-#Q[>,+((L [Y\R$0("6,9X M3VX"#?B CAJDEK+7]MY35G!3#XG;$/%+_;G%_S?2Q,X\/M/BW**3[*^*,ZW8 M3A=;ODZNM[+>" [4DHCE;+^+_"\PY:0KW!MCIJ:BA!7&*@E2>IKM:%#C7A^!+ MUEN^-S1M.-X)BT2E7)?GA?8FWMA>UAXKCXD+.>>#=1MS\|?^S]^9-BC)+W_# _SZP<[P6IX[I-5,$.9[X=|BPR&JPKI4VMTESKW1^_2!QY9YN8F P7 M%<2!;UU($%O-?&8K5HVZ[F7E/NT7-V[#^MM3W5.[>Z*;S:#M\RI?VR37Q6P#E+>4SKD"[]#SO;G;L M!)&;=G/#3UOCEJ[!^)6EB 0HKPB4\)OC.U](*$7,[#N%KEK4*T^3MOWF0+?7 ML0;)5F/!:M*NHC"Y">8.-FM9Z;) ^%#T_"K]#D@N0QJ\V7+L5$X2M(RID,85 M*<&FCQVUB5F.69*-:I[;"AVK!U;T/)H Y;4MRKYL:D $!5-0@ Y>2!1'I4+. MTC6UK.>TU6R5,2FOIL0Z"RM30J MG9"RJ>6!M*_P\VV0_(3K@!4#LS1NLBX22*S@[HR2OT&5>+@.KN$BJA6ZU*Z9 MH\O(NM98^,/*:I;CXN'O"]?0 MJW8+182=<5W&JTAVN1UOA53H5I">SA:^VRSNT^L;N.IR)?R,FX+N3D,V^"DU=M2>12LQV3G9Z+5%',ZCV&&P&A$?34? MTHUUKO7;^^1+E5-B/=>!I !4W9_/.BM4#K'<<>)\4.&AU'X$F#+0Z[*LP? G@3B_57WC=4+$LDP@5R%LA:D40NJ$'Z]N"I[])6; M:R:XG;;?+M++/9#]X'<"E?>8N!:?0>$"%]LK:[]0 91!B533,I7,0+:7 MJ9H)4SWAQ#J&8$:'D)"O<\LP+#\$RC#14 ,ZEG*\Y?)IC_0F/?<">?$#(]J0 M2U2!R0*!\SQ^/>E*]"JAIH2:1 -,V("%/$R@'(!W*AC@^Q_'-+-E:5*S^U0 MQ^0\HMRE\UO>6@(4EP&FK6!^K0U6S8MEB&IFYI!+BSQ\]D@8\ODC87O>'1-[M]V><17(/X^_/'\IF I[>'

*YQ;-3^WO0OT89Z MGT\?QYE?!7Y^K\WOS;#GM^LG_4F+ZU/ @4DX U4X))#*XHM*X(K/WK50G_: M,UPZ@TCY):!$ZWFGR0GU@ITI%0J4.(.(A*)@5YQ&<2*-D-F/.E_?542^LJ\V M]"5"Z1=B\EK%F"TT99]A9=D#8!:_(:.^;-SO9MB3! M46]@V1P4Y@QZU(=]U]>EF=YW%0M-Z6+$MKS,HP7FK=4;)]5KMP(5M M.(E$TQ)-NY"F74L0@7OOUMW4-J8^JF45;%AG-M6?3T"N%G)A4:Z!KTA&5S:2Q[Q3UZHFM?1=?^1GJ,WYS*IA9,DC/9^6AK@^ M9IP0(97Z8S)\B;RELF7/9>V2OI*83?#Z49X(<_7N88U,/"YGU]:#XGF RF?6 M5W$P(Z:MSL@^JLR0+J#F+;PNB08G&ISX;GY(_9_6J[!)CA2R'$1F M6VTI@<*)Y'[\P$D_GSVQE_Y/H;:*WB4OIXKJ8Z=AF=UOV,&[IH!VNN1'-E@^7 M4#+1Q:OG3MU>%^/HG8HAF>+MT(I22&![OL.). ^3IQ!V1Y/U\=!CYJV0+7J73 MXI7J4EUKK>U(P,%\-9IE;9(NM* MF78* <6XXD!5O,4INT05OZLJ7LZ)E"V)>:2YG4Z1HN;34T>M9*K8_1T_IWO^ MU%2JI:KN;3+EH: 0;34/J3 \7Y?-(V<[&R>:F&CBAYKX5VZANM6V?(P6<4 MM1K>Z'!=U-.,P4FZ6T'-'1^D@SS0V%D'02J8Z1B(U&KZ.ES>X4$Z-$\UA (${ MXJ.#=/^$/;A_'8<=^]%?2I+V7(;_=1<(%'B<]D]6_HL'&M"EAB'L8^>3FSU MZ:89UWK[W^I3_|'CB4R\5?SU MZ:89UWK[W^I3 |'EAB'L8^>3FSU MZ:89UWK[W^I3_|'CB4R\5?SU MZ:89UWK[W^I3_|

E5J:PWJ-(Z(),;78V&".\);-92_5" MDWCK#'B63+[&1*$ M%P)^FPZ4E9_>:B7;HN#(_X7\>D&$<)+AS__S?*Y/2IL1+<.R?QXU\QD15!FJ MSD\L5%)%SLQL6= SPAR\YT_!\(7 .1"%)!\PXECH[N>C=D.RI;(/)/FOU-.O M<"8GE%*\V\PS^AX@(6/(<_?G_JKC1Z$V'S^S' W*X4];-H#.;>#L7]XU9*)K MK7YBZ$/N2CQ\=?H ?\8QO(:7:$!/^9\ 67S%P? Q/X.Y!)H.W&_K;^GN2'CW[\ M&D"-2EGS%%1O("'.(V^%Y_QJ2XA?4O4X[.O1_:'"[-%K_(K!O.-@B5-D:;(=,'(DWO6&6 & M55;U/M?8%!>-=5"L4#V%QWGL]<@LY9#-MIS MT:]H>=WC=[)8(GMV0)'GCR]L<.S?ADK8WIQ9?BFFYLL784&(U'T]5!)((PZ M$K".ONZ@_;FDS\AEIC&0+HMGM M^>.2'G2KF99?0M?E!FR(>#+Y'C_KJL4:/0- /;Z&MGC899/0N&'DR^2J"5";@ M-A6FN.)JY);7%EF_NV_L^W+D=M9!9SF%5YE ,P?*A.[D/1>^YPF9-FJ]B(_6 M HXL7:-N.JR]KA;A2.KU2*HXS;74W-30L6R6Z3.5!8UA\.FG!%W5%D7=Z2H= MIF@W91]3^AL2\\$:>T*F1B>G,',/W2*-&4/-*S+:G([@:XN3*4WG%7=;('V* M$^9*VZOM\IO:"-[SY$67[1'CJ/7Y@L%&]B+H-LGFENOR^=.GBZ6!N-U2[GN MZ<37>4[AV[G?7D ZB?W%/DZ0!;E0LU?61)'((03ACI//DZ3TGCC!TB\2 T!OX M".M7?3>H$[BT9KE7P>$%[BT9KE7P>$%[BT9KE7P>$%

*L9R.ATH@U9IR"EU2G$'&8V85W9:U+YRD4<>3Q75_9Z4WTC?V73?2=>> M;AC6_[9$.6G?*A^C#^P*[R&BUL75,(,D.^#]JJ",E2^]#*;2HCT7_,2[E$Y(*
MRA\Z3*'>=UZ>OSM\X8TB/ADB*_$K3(H!WZ&8%*;!A&@!F7_.#4+&.E0T#0%A MWR@-;3S>XMF;PK2Z0.9FA0VRQJ"A"YT7 !8K]!Y2H6RDKRRY/*1, V(?%Y2D
MO8'$VVH;WA7&H2WR4<8EZMX6ST"XKXM&N#(^!/,BK$^G_J-NA.U7 5S+M=)\ M-E$1;3>9QK&W7_]\7MY\]DJDRT1<5&QH($:'LC$)A<$.C6U][#PR90GR
M2Y@M4/-5M&%RG@(&Z^YU&(?<&0-O+;W2FK] 6Q9O-G4EZ%5:7)[$\@[U9(P MLUGBWN(OML*FMQ(KXFRX(HA1]ZDM\A!S8\L)^D[SF$VH\L#^N(,(@NY0K5^
M9668B_LV$M5^TC2+<*O'BD8'9&65WBU24<50N4<'%LKc-!>7 #F= ME#SE?6S4VR3.U')\IT=<)];C/HTTV5Z>IX.XX$^[,$5|YX8WJ->[.'\!,#'; MX1?8&?1R43&96@[LKFLC&^9CY?
7**^A\G:..&R(A(5V-1OGY, ^Q EU:R^ M"^3&*HRK"9Y,HZ10.6+%\E]%!_QXU+X51G;9OEBM^C9G9W-YW03/^;[,[9<\ MD.4D@?>;WR\W8'XW5[B+C/!X=^O3Z>N
[J/=I%;$^3/GWG1)0DNC.I_7<# MNX(:S4FJ034V4^NT]W+_H!M8\8(BWEXP)E&$H%7AR,Z"-$_BM)A*<.85ML)1^MP@F/Q_V8 8%2HPI;B&:%U5P[EJ-CK[(9 4)\EI9X?
B5J)\7MOE!E>IS'1/L MN,N2]N&#=|^DF83Q9KGJGP2L+5ZYN)[G.#HWHO!")-V2"W>_C&$)&=RWJ%62K*2I]3 6R4F#C3!>W: 4YB*R! M&0FW\ZGPBRWOP:|UWWL=H2_?
G>_UZ$22K>1[AU%R!0@6>ZJWY%.-30\FXV$Z M_B$ZM G_._V?F*G:NAQJB.'@ M?#@Z$V<'+.#2, ^O^1!D,;]/3U]+KG3Q/3YPKI'&OF?I$!M+K?SDO]/9'P?X MEV- M.:6V')XBW>&Y?
V6R:Q;]2W>;(LW>\)DUK=1DFB8Q8B0L>U]6807QJX> M-(I%]2$[N"I N)6)D3Z%>*B1)G$%7]4+8&+91ULQ$0P&T<08A%4^YVQ"DA_# MD%?
WCB[.2R\]^P4V.1_JJR!&J5B:QL\N:E[M9YM?BG*F ;+OM#!TB/PY,78VE M&UX49;L:,_HKF:UC1LTN1.M@@JQ4V4>>,:,U(L1S&G5\B[]DWU;8$XH-.[8IP M^TW;/V(4_&^JC5AH&7//)G?
ZO#(@7.?",U!7R.QLIYC 96?97W#EWR<_JPO @6T;S*;G>.C=Z/D [.RW:>MSZ(LBRLLQB$+#L-L PYG5RIHS/3*$ M!%A;F:%$#F<9IS3,NY?43A2O.GZ'QS&' V"A9;2-
"TE'3!XJB!TD9H*/Y?PY9K8WM]HV["W?_ ^1.;0M3/$U/N&=] M\UR+YD]I9A&UI79=0OGF./[X3%ZT(4H"]>$]&;3T97B121*B(?&$[BM<>S+? M/I7::]DEH-5.K[B!M5^J$V=6WG
6)+N*&3>GX%VS!*PP(EG)P!OP!DAT MB(-3UL.E_>5T!?XLAJ-4FT^GYN]-S;|$FNB=VM+9Y% RR-,|+ |Z D*8 MTG #\R)V9I!B+/=F4TZN)O$HUA2/:7$LS08K>Z^5&?3(5D_I?
5<()F7*NAG MY |+K8RKPU=%>(6.^?DD #920U>B-<"!)|<>4:K8C;(G Y-L#F<^-VI&JFF=?%KM56 M,DP,/$7"Z0LVV?G)T?$[F\EWK"IQ'G%?V7UDDH%[%P[AP"6FQ]PJ;$Z.KX[U
M+NVH@;NY2:E20#?<#D]N2Q#3":JP"J//$=TQSK1,)*[.[44LT;LT(9$>4.4> M.AL3H.]),;BMJ63$6;[M4/4TBQ+BKXW(C]&K?K"LHDB:F;UF3SOS/N; Y+._
M%7CG9<$A>D<;D((`&@"CG__KIW@#5!O<$0/M\UJ-`Z%9V:3AG*HT1WH&,G) M-PU+ 3:TO[V1N8.!"Y;0KB5JN2-Q8Y:PP/2:N/I=4Z.8CP>&"Q@D%E5!N7' MO'$F>_Q7=-
]MU0W*Y!^1 R0D;4DB 7X?^ZH9L-C&AR?1<4WV8A]..$GV0>V'/ MV&^5;KS<*P5+@+T9TVK:W%9H$(]N>Y&Y3M7(WK#? !UMG0L19M R0L)G1-=X
M3CX\I0JFK;1X4M("#S11S)RFPXVM^TT3,Q=Q^"SWZTZ_<*?PG\99PJZ3$2:LL M3)._^=1 @7X6),6OO3$65=P\B 2< 2$..!IA$MO.N-%$BLX9RA(AW\B3^42"
M(LTC\WS,4]NB18%0B+/(R1%YLJ$6PYU+ Z0_YJ:1C16>QJ@W?]195HQ1&#=] MD27=?!='"9"X5PCVE$%[R.O9S! MF&K4;D7^O0)KN&JQ=6X:H-
3|VS<]$&57RTY>];&3PS[*.9L%03P>HM8|(^,0 M+B?+7UXATC%T08+,|"1'UK+L 'LEG& M='.OX\G&Q3.+E5"*$0)MR>Z"!]4YHGX%1N-KF|^=0HU
M%:BFUYDC.;X&I>=:PB/6P!_2H/:0;OX,X\K39&9S@Y6-A+CAFVDF9,2*B8 C MJ0I<7$E 3))@RBW$N*_"X)KYR7ET=)S-T
MWQT=4ZNQA<=LX3%/E[I^U6!/STA8@65ZL=%B=U+>NS8U&$<'\'.4:IQ#=']D[# 45*?>)_:)^ -B M5V<1*<6!*KQ'Z1=+)?U6>6]-6Z?Q,U^BL8M'GC\F8M=Z7QJT*Y0;_1H>D?7
M@2"7"[O7VXCA^P\QV<9:2S%A>@DV-&?PXJ1^"]EFITN8RU.=:L47 AG&X#4] ML,Q%!" @ELYW%FM>!"YZ^:;W7->|=S&NQ3?/(%019 2_7I+<3;.7D,0D$ M:]OGR"
(CI<[14'9WE3PYD5)0-R4O[V*WGGQE<=VJRWC>:4!^>- MHRD,YB?E*6^9F)Z2+#F+):9T_#F63E,X;'A+SPFT;,AO[HU21:Q((G[BUC/?`M1D5FX.K3_>8]=X $$Z0P3>,/.>[I4SKHYP
G;>@@L^HPU$(<"K)' M5S-P2R%9S+NU!(XGR#?)7RE0Z]^1:?H4@.X:$#<.L0NO=9BEDZ*7"S :.>-E MN!X3\9BBF9R!==2\'F/*QX##-@[H[=-@UX!%?.6BX'0:E[I^YLIM>F%#BO2!
ML[((9$YY"2N&KX6F2!S3Z?Y8HCST!'PWT@U$D]+C*I^0I]^@NZ!CB0JDSWE,C M38%@84> A)D%;W5_=)#IMC?5#/]>:M<:OM+F7(= V K8N]HH;9!VREBSSL[
MNF!T&9\!*8(ZT4["#=5UX-H?-D>70Y9&*A=F8=L$F0I"V>%H]Z*9)P #1P/W/W%0#3:$?)N,FD6VW(# MQDM^AX[)5FRY8@NU"2=!R6JM\ M;A'M#*P&3+*BA&*G=_;R?
&GIEZF,$2Z1>^K]YK+QB!(P?,]MR0DT'!G-V+8R M8*E5Y2\F-#K+C;E#UDJ?,6=%:--ML,(5+Q.ED3(1'E=C8,I8<[0CY*5SD?AH M>GXGL2!5%@\GCBVY?AO H+XEIS;:HE"W 9EER
6ZV#0GL 29KD>CB;V-&PKE M7C"0 -)O(12C(((0Y)0NH_26_IQ.;3.?YJG@9 2F'T&_L]0A2=2("($,5(K MVE9V>_(M!:6*W8$W9W7E 14-
+M&THE!1WIA%4A\TGW^Y\W:.SLXN7AB$0OD5 MM@0O*]+PXD'<:"@"%D#*^'#E(M<^)OH] R7%=4I]*.D@W)#")7.R'2Z@@ D M=<$K2#?
+D8AEF:]&+]S@W9)_SVT8N;"B2"0_ZK&5(IB-G,U9/_YM%D^E?C6T M1:4,EAMOQD' 8FS&GBF,##;>Z?Z-C68.4SK#7$K*H]O$(=G(F@ S7A)8>HLB M:RUE:3KR+>MD/@-EK-
SK*,DCOML<)+O5&A@8=RZ"RD2:@,F(C$GDO))=)<;' M QOOEYC%"M[WP76!KD>)&OW=2'A<('A1 B!LD("_U5,[VWV[%[QV8S7 M<:OM+7F

@&__.\? MFC_O[\X]XY.SSZ"1>(BCSL^&W;[0DF/,@?[]5>P+S.+S[^4&#;N_5FLT%Z-'D\Q,# M'OV4_^1]N ;#],3[4..PX+,^;G^4!'H69W13DR^?=3@^3^^@OP]&T<_;H[X] MZE_EJ&]Z^A?QE%SX991RVV.]/=;/\ECOK #OS.=%GO&I_LKYL*=W.VPG%;..R^=_2A MMSWQVQ/_+$V)DO^V +'='NOML7Z6QWJG"C<.L({336Z).V=@;H\"V[$=UAZU MG=J7.Q/? *'2H^0= A]QLO.!V2NGXTJ]@^+3DTLSCC6[2.%P"-RK@A_TTO*/_ M7$]'R5_^/U!+ P04 " ".@ U9*31E%,X(#9,0 & &-TU;87,:.1+]*SI2NTFJ@ 'L9'V#XRJ"R<95B>VU M\=WN1S$C&)V'T:RD 7.__EY+ PRV29S4)D?N<)7QC-226M+K[M>R./Y;HS'(M$IY%(F;OAQ_L%A%Q51DED5:<(O2N;0)&ZH\YQG[*+26::AE/!&/M5O-U ML]UYU6PU&B?'Z*M?-E)9R(Z"]D'0:74.6>N7L-,.#UOL\B-[<3/LOW32IQ?] MX1^7 S_LY+D.)8S9NPB%6]J4ZXG,FM8E8<'K=QVT3) M]3V9N\9J[MTFN4"J[#D;)))]_X C[7,E^W&*K.-,9_*=!$^'\JI,.Q=V7X*\1 M6HZ?=YVTD?\6Z!K3L^+.-G@J)^B<=.WZ^B>H8_3;+A]HQ-'&B'/AYC92:8S* MP5TB1]*R@W:S?1R,L&CY-U Q F"%KNCX.;7Z@ZOAV;NS?F]X=G&^0WI=O&.7 M5V?G_;/+W@_6/ +MY!U\'5#BEZ>7-U?=,[*[+A!?3LO^^_=_S@ MO?Z07=U\&+#V 6^T#U_PET'[5>R?=DCWWC7KG5Y<#@>GK#J-ZT&?T, .6ATL M^'?4UQM4YVD&-7P_8->]J[>]\|\%UX^+W#X,_W+ (#.)U6]_/MM/Y78:P<+SZA M]EF=72:(#C)G?424.HN$IB;,)MR&3BO+1ZE@(Z5CH=_46C6(I&GI$U?O)N=1 M^8X6&K_QN3M/I!4-:BC"3,TU1Y%WDT=0K1Q@"8V_9FG* M> "W;-4TI&7H5D+$EL6KG;2;;B$"&U?GM4L:GK&$SP338B;%'*'<)M*PWPJN M =ITP:Y$KK1%@&?OE)XB#C1^8VK,^@NKKI4> =N&]96&$*?0U%U/-Z"]#!P$ M]DBHG71V'@EON7%4CDT7[!:+F0J0OKH'A/8PB!44R138(D;D,F,\6[BL[H0 MT!Q4T%%)X(.S*=ZTY"D;\PA%FJDI>(%57NZ!0"8B80S7"Q*9\EN!<2M]&I3% M4 9#IN0>:0P2B*0&? X48&*V!)H 7 R:BA)F"/M;MYT*+LA.:P%0:\"Q:>\]X MM3"YB)R"U&\.U52,:0)X6)31HKH,>Y!O@]#!CPMRP<8R XP(D6O8U(%PB*-: M5^IE-H8S= X/SU%:Q.@3T*Q@I Y82W*@.9!%1D'&@E1JA?H2<.;>T#"LV)'| M.DD4*00 =04|NN&,TR?B)F'C5,W-T@ZTF$ACD399QJG0ZPTMZQ4XFZ4R#[3= M(WH;7@YW'M'#C>W_^=E1I_U+UY28+3D9N3DU'DN\.F"<,:Z%@R @)6F/ 14F M#.VW- F)D]@4+I[K$ ECV^!G=(MOK.)8#WXU:LBA81+%%Z]$"]=4Y!4&!0 $"[P?QZM=> (D$2 ,TYL0 M.1@)(*\CAC_! 91+OK%&8[V,*%0I MX?VABU&IC-TYFRE&1L:2:TD3D)X5N3B644^%(;;B+-\X6N.\O#(""EE$%6J4 M-#"\Z]T'IO-T M?_UDNX&MS61,YL"- RAR8N(I;TG&^$Z7N(5%B3Y2*;2+H@$/38L6:^#MD.M M-[P-T4IZX.+?73FAO$!":[71-JB"'!V"KA$82(R<+$4QH,:D9-5D@B2(&\@ ML%Z9(P3M362KB40[;R*#&4\+YW$)/V(\!E.7, ^R\>81QKRC7$R*(?WV MU*<>+P]Q1X'IZOXNV)]:@H*C2AJT(Q'NEUJHQ%.9V1HR\# M"+ __=FC[R;A9D6@R.4Z.Q"QBT5N F6<6+!4WHJT/#VZ)U__JCE50\D> ^Y\" MUJO_T1S9'8S'2ZNIKSTC.>HJ'? M?ZJNS3>$;]GG*; 7LEXQ 4Y9^Z#.Z,[;8Y:T5>7.=];XYV?MUZWNP|\O4O[[MK_/78'QM? +N*GHU9>4%Z#J6%:E'W2^:Y@TC[ZCW;^:WZE@ L_?"2Y^5WS)WX MLVOKLNDN?AT'<@_*W9_,3GO%>Y!BE_X8'>QJ<"}B M@DX^V87/S?=0V_G);+!??VM^5]1SROC/1*]X, (JN)UH564Q<6.EPZ7@K5_$W M*TI&3!EY*C/1*-J;&[S87_??(,8;1:OO%N3(61HCY,NW#3X&^0WY3,FXW/:C MHV;GE%^J;&" XC$ M !@ !C='-O+3(P,C0P-C,P>&5X,S%D,BYH=&WM6V%SXC@2_2LZIG8G4X6Q M@60V9S*I(H3L4)=)LH34[7X4ML"ZR)97DB',D*:0>-]H]DZ:@2>=WH"???*1C(+R;'?;/NDW1'5(@E_"5C,\#,C- M)W)P- ^]JL]+GU[W1'S=]-^S-W=GEH$=JGN__L]WS_?/1N:LX; 1-,E(TT]QP MF5'A^_VK&]DEQN2A[_G\|:|W9!JZH^&?F)2<>@+*35KQ":NG9Y@"7PR&I^> MI,Q0$B54:68^U.Y&%]XQ2!AN!#LJ\9=_G>Q8QHO3DYC/B#8+P3[44JJF//,_MS,-VD)L.M/2A^I',@S?GL4G"9A#\U,EI'/-LZ@DV,>%1X_AX7:3X-%F523>U M4#%!#9\Q[+O2:R085>%8FJ3S>(#G6N;+=A.9&6]"4RX6X=L13YDF5VQ.AC*E MV=NZ*X&_FBD^>=NQTIK_FT'7,#W#'HQ'!9]"YZAKQ\T_A#]"O\V6>\ 1QQLC MSIF=VUB*&"K[#PD?#BT&O.QI< M7^V07M<7Y&8XN.H-;KJ7Y&)PU85'>+J^ %W[PQU2].9N>'O7O1J1T37I_]([MV+WZM4^ZO1$9WEWV2;--O>;A 7WG-X]B)[1#NG=O2?? \^F;4/R?5:=SV>X@& MT@Y:L.#?4=]7&=3H8Y_<=H=GW:O^K7?]^V7_#[OL)Q6$'Q#$_M7H0V?+#ZC M]J!._D%-(AC+R$V#G D9)742,87MB$FH":UJAHX%(V.I8J8^U((:B A1.L;5 MN\YI5+Y#"P6_\7)&, ^PQHJ)4S.H(;KDS3[AA'C9D82;GBD*1\Y7'H%\YP!(? M?\WZE$$!?+.1:8AKT:G$B2TK6#MM-NQ"^":NSFN7-!R0A,X846S&V1SBN4FX M)K\55 %RQ8(,62Z5@2A/+J1*@09XOQ$Y(;V%D;=2C0'@FO2D B&*\:FSGJZ/ M>^E;".R14#MM[3P2S]WR?(ZD"W(/BRD8,+^Z X1R,(@E*)))H(PP(N49H=F" M%)E1!0/-@0]:/@GXH"2%- \6I(!,:09$B,@5R8*23>R*0L8AI3=4"15)ZSV#< M2I\:RF)0!H84Z"-Q#!2(N (2"V) :S5H O B@(DH(;K CW7[.5.L[0GD'(- M9 O7WM%>Q73. (JL@]IN#:C*&:0+P8%'&B^HR[$&^#4+M'Q?DC$QX!C!"1*YA M4P>$@SA4JTH]SR;@#*W#@^=(%#'T"="L8*0.L.;H0'- %AH%&@OD4RO4EX#3 MCX8&PXHMTZ^C1"% * N 8]V.&WUB:A.R$3(N5]D:W3DH90+'1Z@Y;U M"ISU4IDGVNX1O0TOANS/Z-'&]O_\YKC5_*6C2\R6G S=GQ),.+Q:8 P(5=<6W]-DBQS/:#F=#:XU>CACO& 2B7 M?&.- QGH94;"2@_<'7;04/+:';;H8:QYSJCA.@#M69.-8ACT5&IF*M7QM:8WU M\E(S4,A 5,%&.44P%H)B<(I6276C =:./Y4I7WP-&8H"/$#VK-X'R^V6LKX M![.4%WO=)P;SX&D+8H SE8!FRA,609<3(#Q M0 W+T2I1!)(@9R!@O3R'$+0WD:TF$NV\B?1G5!36XR)^V&0"3)W/8.?U,XQ[M1;E>$$'W9+S,D*R1,[<2 M>+2#G>]!O0W4\K>'MD/3**"H7HJE", M9WI-I390C@?ET)<&") _W=FCZR:A>D6@T.5:..V"QC45V F6<6!#![YDH3X|> MR=>_:D[54++'_N> =?0_FB/;@_%X:37UM6=$1UU%[MI)HHM]!:-ZPOY7JE'(M (Q4>D5B; %TF:; <&,8^$X;&$F@2UL<<]+.=`('"Y@-?7&%7@+^8A2Z-D?Q8< MU+<&6&21/61ZM\^$?^!,N"N V4(1!RSC\0:>E$2< ?A* K+*2.>,WB.C<$S7 M<@K+T>UQ_?+(\560+I-'= [KTC&^F,334;.6:M*_9;/0!# ,>*L[6].!T^@B MA66 5;*3*6/8LX>S_Y=N.W@IDO]KF>I+->P"+YDH<'QU@!6SOAJ :?][4R*X M]E@"SV92S!A2A8Q.RW]"J=*]LS07]$"R.7!>ZVDRW9N!,5K+%?RF!)Y8)3C=C= M_U!S=R:^:&YR:5:'?_^INC;?$+YEG^> O9!TBRG@E#3;=8(7WYZSI*TJM[ZS MQC^_:;X/.D_7Z7T=U_GK\'XVOAV%3T;LW*"^!QR ZI%G=?,

***1]M5[MO-; M]2T!6/KA)<_+'X@]\2=O OOSG6?-MZ.S=NIK_^G5KQ.?[V&Y^Y/9:;_X!%3D MQAVE \.Z6'&M:Y>?[\&V\Y/98,#N^ORNJ&>5<9^)6G%A&MU/E2RR&/FP5.'2 M^5;NY&]6E*P8LW+!,^:5{\$&-W;W_C?(\4;1ZD[&.>0MWAARYGN/3H AW0F M>5QN^_%QHW6XBA.N+++#?2W!??K#?ACC]#U!+ P04 " ".@ U9;+('% M "L*P & &- TU9^W/:.!#^5 ;H M]#6#'SR2(X9DACC.E$X*%)R[]D=A"ZRK1%Q9!+B__E9^$*>7M-->DY*;9"8& MI-7NMZM/VK74^\TPO#@B<4!#>.._NX!0!*LEC14$DA*%K6NF(O!%DI 8WE$I M&>=P*EFXH -VSPT&\T#TS:,DQ[J:?Y1UMTVZ +TF<,L5$3+AE M><,:U"*E$L>RUNNUN6Z90BXL?V)%:LG;%ADBD 0 M$9E2=5R[, ^- #DHHIC@]Z5GE9RX[$^'VI!>R*TC5EM/CVI+(!8L-)1*G92>J MBR,M[/Y"9F.L6:@BIV';S[L)"4,6+PQ.Y\HY,#N=ZR;)%M&N3>2N.9)RHM@5 MU;HK6@-.B71F0D7=+PW<- C(IQ\U%K(PY63*^=5[Z;$E3&-(U3,22Q"_K>0M^ MIE2R^01M/ M!D-W,.Y?@/?! D2LWF2?4%Y.II?]H0_^"!H=N#2GIFO"U'.S@#9: M!_8>@>U/H7\V&OO>&51QEVB/[,'!/M=RV=T#OX;#Z;]R6E_Z$V-T8<+[R/T M71_$')]VW;P_X'^M4L7FVZ\@'Z]DNB*8*I2HD_*.% 'D@()1:)S0E(1 M+X4P]-H3%5&8$CDC,4V-T8;3+?0#5?I8AT$=QA$F'I: B\FJCD]&Y^!M:+#2 M^QZ,YG,64*E'N%LEID+.,.XIN$(F0A)MJPX1E72V!933CM71*E%UC6:YA4^Q M6'.*25RS:SB(\V+SWOU.$Q(4OW&$Q/^PG(0K;2,@O(AE M%E9,'=UUQ!0U]$#]H$5)L"G?SSL8TL) 2>F?,Z5%XL+\H<32T=/7K>2RW%3# MS+RV5%AUXI?!\9$. [U=$XL+4AO0G$(D0PSG0BZQYC*>PUS(C#2?[N**;20=5G5,5]Q'!V(9<(90LSJ&#U&TL\K)NDR(P@2YIJPK\AK0,6-@U?A MZQTMD6(2LRQ]\#98/,18]Q3<;!RUVET@<7@=/$O3P,K8\S\FD7W;I#5_%8=N M1:,IQ&*DR3);_$B#6!$6(TE8#.DJB/X[P>HP)TR/3R1--9GJ6C?!\AAM(F[" MD6II@NQ*ZYFN.8NQT-;MB";,*C?-'BVUXCD714+SW2K]VE9FWD&XGQG=U96C!/1;IVS2A[7-.E;ZU<"866?$$8 M@>"<)"EURB]5'(=H/,HSH:YY]>QA$&Y6U/8UV8MZ6K=4RN/K!84F<+D@GF;M MKL4ERD74/L(WCN?5*-PCAPN=9T@8!UX\:QS:W?YJ@9D7=Z.<9;=!P,^([2^7F_WP:I]G>(?CM33S/^Z_>3K[IX?_=%T-#GU MAOX4W-%D/)IDK\& [5XDG*NZY/X^*BO>&+8#9W9=X@S\|WSIWRB]!]@9>!R9^1W!TZD>#30HI5 M'.]#)R&=,J]7;E=O=A3'3_J FK.8&L7OLA*HWNH6+=5+W2^OBQ.RH,9,4O+) M('-%I4.N! N+F>]TS&9[5X+D;79V*)!?0V?WVB?_ %!+ P04 " ".@ U9 M7QZ)X6X%)(& &-TU9^W/: M.!#^5_;HI$UG\(-'!<;C%(Q ZTK%K#]MOU)MB_._6: MT[1A? F'5[[[.I,^]US_W;B? +SN^.KL8NE Q+.NOAFM9Y_YYWM$T[1KXDL0I M4TS$A%M6?U2!2]14XEC6>KTVUPU3R(7E3ZQ(+7G3XD*DU Q56.EV= M^4A)V M.TNJ" 01D2E5IY4K?V"T4$(QQ6FW8Y7? N>Q,A)MN)V37D*H-IZ>5)9$+%AM* M)$[#3E0;1UK8_9',C;%FH8J&)S.E7-DMEJW39(MHFV;R%5S M).5$L6NJY]Z9->"42&('/C4S*<7,1*V-.EHQOG%<^6](41G0-$[$D M\:MJWH+? *95L_JJ=2:?L7XI3HWJ*WBB#<+; R376=JZ_@WV@_VOU_$&O.+NS MXIIFNLT$#[&S?Q.Q&5/0]OUCC5#HR4/ #% PE*Y@_%KL-S^Q!\.AF[/'WHC M\ 9[!&T\&8[/^.0- $&M_LD\HKR;3J][(!]^#6@NNS*GIFC#M MNYE!:XTC>X_]J;0._?&?O\<=G&7:$_LXT<$^UWAXPW ?].':6]RUAOUIX;W M]T7_'?1<'\0? LX!*/=3=*#$5SF9&959,8IS(0,J3RMV!4W10;#1*+$ MTM%^;.\DM7N\7^G6S,P0E@IW]=HGA#[RX.V*2(PSOH$)14TI@&*XE9&6? HWV"Q$6.=5'"Y=M)HMH'$X:U!+.E$W;FE+4NQ1.1,;9R(A2&-4>#EBU;=;K0[EA;,$YRNB#-_G%9T M05TIXZ68)0\;(Q"T]-,+=.MV^#8FB2MN2\$11EJS1- |CSG8M<(#TKJ8\QP)X[Q\43NVV]!;+9#%N&?E M+/M3+ M;]3O?&_J3<[Z(W*KC<9>Y/LY7K[@O),Q3W7YTE1\0&=]DS /2#@5Q5[?,Z= M;9SOL_W10;NH2LLWVN0&4L%9"" I[.^1'R+! M^X44JSC4YT]".F5ZW[FZO=M1G$+I$V[.8FH4O\N"8/?*N&C9O3'^^"XZ(0MJ MS"0E[PTR5U0ZY%JPL/!\JV76F]M*)&^SL[.!_(X[NS3O_@=02P$"% ,4 M" ".@ U9Q802DU46 #0WP $0 @ $ 8W1S;RTR,#(T M,#8S,"YX&UL4$L! A0#% @ CH - M62:WTX!C.)6P# !4 (!AB4 &-T !C='-O+3(P,C0P-C,P7VQA8BYX;6Q02P$"% ,4 " ".@ U9 MXR ._@=1 !BU@4 %0 @ &HW0 8W1S;RTR,#(T,#8S,%]P M&UL4$L! A0#% @ CH -6:K6,C)W2 (9"08 !4 M (!XBX! &-T#,Q9#(N:'1M4$L! A0#% @ MCH -66RR !P!0 K\! !@ (!C(D# &-T 14900000650000010000000 2. PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES Nature of Business The Company is a leader in the treatment of life-threatening conditions in intensive care and cardiac surgery using blood purification. The Company, through its subsidiary CytoSorbents Medical, Inc. (formerly known as CytoSorbents, Inc.), is engaged in the research, development and commercialization of medical devices with its blood purification technology platform which incorporates a proprietary adsorbent, porous polymer technology. The Company, through its wholly-owned European subsidiary, CytoSorbents Europe GmbH, conducts sales and marketing related operations for the CytoSorb device. In March 2016, the Company formed CytoSorbents Switzerland GmbH, a wholly-owned subsidiary of CytoSorbents Europe GmbH. This subsidiary, which began operations during the second quarter of 2016, provides marketing and direct sales services in Switzerland. In November 2018, the Company formed CytoSorbents Poland Sp. z.o.o., a wholly-owned subsidiary of CytoSorbents Europe GmbH. This subsidiary, which began operations during the first quarter of 2019, provides marketing and direct sales services in Poland. In the third quarter of 2019, the Company formed CytoSorbents UK Limited, a wholly-owned subsidiary of CytoSorbents Medical, Inc., which is responsible for the management of the Company's clinical trial activities in the United Kingdom. In March 2022, the Company formed CytoSorbents Medical UK Limited to provide marketing and direct sales services in the United Kingdom and the Republic of Ireland, a wholly-owned subsidiary of CytoSorbents Europe, GmbH. In October 2022, the Company formed CytoSorbents France SAS, a wholly-owned subsidiary of CytoSorbents Europe, GmbH, to provide marketing and direct sales services in France. In May 2023, the Company formed CytoSorbents India Private Limited to provide marketing and direct sales services in India. CytoSorb, the Company's flagship product, was approved in the European Union ("EU") in March 2011 and is currently being marketed and distributed in more than 75 countries around the world, as an effective extracorporeal cytokine absorber, designed to reduce the "cytokine storm" or "cytokine release syndrome" seen in critical illnesses that may result in massive inflammation, organ failure, and patient death. In May 2018, the Company received a label extension for CytoSorb covering use of the device for the removal of bilirubin and myoglobin which allows for the use of the device in the treatment of liver failure and trauma, respectively. CytoSorb is also being used during and after cardiac surgery to remove inflammatory mediators that can lead to post-operative complications, including multiple organ failure. In January 2020, CytoSorb received EU CE Mark label expansion to include the removal of ticagrelor during cardiopulmonary bypass in patients undergoing cardiothoracic surgery. In May 2020, CytoSorb also received EU CE Mark label expansion to include rivaroxaban removal for the same indication. In April 2020, CytoSorb received United States Food and Drug Administration ("FDA") Emergency Use Authorization ("EUA") of CytoSorb for use in adult critically ill COVID-19 patients with imminent or confirmed respiratory failure. The CytoSorb device has neither been cleared nor approved for the indication to treat patients with COVID-19 infection. The EUA will be effective until a declaration is made that the circumstances justifying the EUA have terminated or until revoked by the FDA. In April 2020, the Company also announced that the FDA had granted Breakthrough Designation for its DrugSorb-ATR Antithrombotic Removal System for the removal of ticagrelor in a cardiopulmonary bypass circuit during emergent and urgent cardiothoracic surgery. The Breakthrough Devices Program provides for more effective treatment of life-threatening or irreversibly debilitating disease or conditions, in this case the need to reverse the effects of ticagrelor in emergent or urgent cardiac surgery that can otherwise cause a high risk of serious or life-threatening bleeding. Through Breakthrough Designation, the FDA intends to work with CytoSorbents to expedite the development, assessment, and regulatory review of CytoSorbents' technology for the removal of ticagrelor, while maintaining statutory standards of regulatory approval (e.g., 510(k), de novo 510(k) or premarket approval) consistent with the FDA's mission to protect and promote public health. In July 2021, the Company received full approval of its Investigative Device Exemption ("IDE") to conduct the pivotal STAR-T (Safe and Timely Antithrombotic Removal – Ticagrelor) double-blind randomized control trial ("RCT") for up to 120 patients in the United States to support FDA marketing approval. In July 2023, the Company announced that enrollment in the STAR-T trial has completed, and in August 2023, the Company announced completion of the STAR-T trial, following the last scheduled patient follow-up. In December 2023, the Company announced that the independent Data Safety Monitoring Board (the "DSMB") performed a final review of the full unblinded data on all 140 patients in the STAR-T trial and concluded there was divided safety, meeting the primary safety endpoint of the study. The Company has also performed the unblinded data analysis on the primary effectiveness endpoint of STAR-T trial. Based on this analysis, the study did not meet the primary effectiveness endpoint in the overall patient population that underwent different types of cardiac surgeries. However, the study did demonstrate evidence of reduced bleeding complications, including serious bleeding events, in patients in the pre-specified isolated coronary artery bypass graft ("CABG") surgery population, representing more than 90% of the overall study population. The topline results of 140-patient, double-blinded, multicenter, pivotal STAR-T randomized, controlled trial were featured as a late breaking presentation at the 104th Annual Meeting of the American Association for Thoracic Surgery (AATS) held in Toronto, Canada on April 28, 2024. The Company believes the safety and effectiveness data from STAR-T will support the parallel regulatory submission of DrugSorb-ATR to the FDA and Health Canada in the third quarter of 2024. In August 2021, the Company announced that it was granted a second Breakthrough Device designation for its DrugSorb-ATR Antithrombotic Removal System by the FDA. This Breakthrough Device designation covers the removal of the Direct Oral Anticoagulants (DOACs) apixaban and rivaroxaban in a cardiopulmonary bypass circuit to reduce the likelihood of serious perioperative bleeding during urgent cardiothoracic surgery. In October 2021, the Company also received full FDA approval of an IDE application to conduct a double-blind, randomized, controlled clinical study for up to 120 patients entitled, "Safe and Timely Antithrombotic Removal – Direct Oral Anticoagulants (STAR-D)," in the United States to support FDA marketing approval. The study has been postponed while the Company concentrates its clinical focus on STAR-T. If FDA marketing approval is obtained for either the removal of ticagrelor or direct oral anticoagulants indications, the device will be marketed as DrugSorb-ATR in the United States. The DrugSorb-ATR Antithrombotic Removal System is based on the same**

polymer technology as CytoSorb. In May 2022, the Company announced that the Company entered into a three-year preferred supplier agreement with Asklepios, making CytoSorb available without restrictions to all of the approximately 170 healthcare facilities across 14 states throughout Germany at which Asklepios operates. This includes Asklepios Klinik St. Georg in Hamburg, Germany, which pioneered the use of CytoSorb to remove antithrombotic drugs during cardiothoracic surgery and is well-known for their seminal publications on CytoSorb use for this application during emergency cardiac surgery in patients at high risk of bleeding. In June 2024, the Company announced the launch and immediate availability of its PuriFi™ hemoperfusion machine in the EU, following approval and certification under the EU Medical Device Regulation (MDR). Prior to this, beginning in June 2022 the company had a non-exclusive agreement with Nikkiso Europe GmbH ("Nikkiso") to distribute Nikkiso's PureADJUST stand-alone hemoperfusion pump and accessories in a total of 14 countries. In September 2023, the distribution agreement with Nikkiso expired, and the Company indicated that it would not seek renewal of the agreement. In August 2022, the Company entered into a Marketing Agreement (the "Marketing Agreement") with Fresenius Medical Care Deutschland GmbH ("Fresenius"), which expands the Company's strategic partnership with Fresenius by establishing a multi-stage global collaboration to combat life-threatening diseases in critical care. The Marketing Agreement provides for the combined marketing and promotion of CytoSorb with Fresenius' critical care products by Fresenius' marketing organization worldwide, excluding the United States. The Marketing Agreement has an initial term of three years, with an automatic renewal for an additional two years at the end of such initial term, subject to earlier termination by either of the parties (the "Term"). Compared to the prior co-marketing agreement between the parties, the Marketing Agreement intends to increase the commitments from both parties and to ensure an ongoing and consistent level of marketing and promotional activity specifically focused around CytoSorb, where Fresenius will actively market and promote CytoSorb as the featured blood purification therapy for removal of cytokines, bilirubin, and myoglobin on its critical care platforms. Specifically, the Marketing Agreement provides that various Fresenius-led in-person, virtual, social media, and web-based marketing programs and events will feature the CytoSorb therapy and highlight the cooperation between the two companies in the field of critical care during the Term. To help support the increased marketing and promotional efforts of the expanded collaboration, CytoSorbents has agreed to subsidize a portion of the marketing costs through a royalty payment to Fresenius Medical Care based on CytoSorb sales in the intensive care unit on Fresenius Medical Care platforms, excluding the United States. In addition to strengthening and expanding the global marketing of CytoSorb, the Company and Fresenius also plan to work together to bring new innovative solutions to the market. The Marketing Agreement also includes the certification of compatibility of CytoSorb for usage on Fresenius' current critical care platforms. The launch of this program is expected to occur in 2024. The technology is based upon biocompatible, highly porous polymer sorbent beads that can actively remove toxic substances from blood and other bodily fluids by pore capture and surface adsorption. The Company has numerous products under development based upon this unique blood purification technology which, as of June 30, 2024, is protected by 22 issued U.S. patents and multiple international patents, with applications pending both in the U.S. and internationally. These patents and patent applications are directed to various compositions and methods of use related to the Company's blood purification technologies and are expected to expire between 2024 and 2038, absent any patent term extensions. Management believes that any near-term expiring patents will not have a significant impact on the Company's ongoing business. Stock Market Listing On December 17, 2014, the Company's common stock, par value $0.001 per share, was approved for listing on the Nasdaq Capital Market ("Nasdaq"), and it began trading on Nasdaq on December 23, 2014 under the symbol "CTSO." Previously, the Company's common stock traded in the over-the-counter market on the OTC Bulletin Board. Basis of Consolidation and Foreign Currency Translation The consolidated financial statements include the accounts of CytoSorbents Corporation and its wholly-owned subsidiaries, CytoSorbents Medical, Inc. and CytoSorbents Europe GmbH. In addition, the consolidated financial statements include CytoSorbents Switzerland GmbH, CytoSorbents Poland Sp. z.o.o., CytoSorbents Medical UK Limited and CytoSorbents France SAS, wholly-owned subsidiaries of CytoSorbents Europe GmbH, and CytoSorbents UK Limited and CytoSorbents India Private Limited, wholly-owned subsidiaries of CytoSorbents Medical, Inc. All significant intercompany transactions and balances have been eliminated in consolidation. Translation gains and losses resulting from the process of remeasuring into the United States of America dollar, the foreign currency financial statements of the European subsidiary, for which the United States of America dollar is the functional currency, are included in operations. The Euro is the functional currency of the European Subsidiary. Foreign currency transaction gain (loss) included in net loss amounted to approximately $(544,000) and $415,000 for the three months ended June 30, 2024 and 2023, respectively. Foreign currency transaction gain (loss) included in net loss amounted to approximately $(1,970,000) and $1,076,000 for the six months ended June 30, 2024 and 2023, respectively. The Company translates assets and liabilities of all of its foreign subsidiaries at the exchange rate in effect at the consolidated balance sheet date. The Company translates revenue and expenses at the daily average exchange rates. The Company includes accumulated net translation adjustments in accumulated other comprehensive income (loss) as a component of stockholders' equity.</p><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;font-weight:bold;margin:0pt 0pt 12pt 0pt;">Cash, Cash Equivalents and Restricted Cash</p><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:justify;margin:0pt 0pt 12pt 0pt;">The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents.</p><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:justify;margin:0pt 0pt 12pt 0pt;">The following table provides a reconciliation of cash and cash equivalents and restricted cash to amounts shown in the consolidated balance sheets:</p><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;min-height:0.0pt;margin:0pt;"></p><table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:80%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:68.48%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.56%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:13.4%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td></tr><tr><td style="vertical-align:bottom;width:68.48%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:12.84%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"><b style="font-weight:bold;">June 30, 2024</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:14.96%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"><b style="font-weight:bold;">December 31, 2023</p></td></tr><tr><td style="vertical-align:bottom;width:68.48%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">Cash and cash equivalents</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;margin:0pt;padding:0pt;"> 8,458,708 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.56%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:13.4%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 14,131,137</p></td></tr><tr><td style="vertical-align:bottom;width:68.48%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">Restricted cash</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 6,483,958</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.56%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:13.4%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 1,483,958</p></td></tr><tr><td style="vertical-align:bottom;width:68.48%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 6pt;">Total cash, cash equivalents and restricted cash</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 14,942,666 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.56%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:13.4%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 15,615,095 </td></tr></table> Restricted Cash The Company's total restricted cash in the amount of $6,483,958 consists of cash of $5,000,000 which is restricted in accordance with the terms of the debt agreement with Avenue Capital Group (see Note 5), cash of

$1,467,458 that the Company is obligated to maintain as collateral for the outstanding letter of credit with Bridge Bank that was provided to the landlord of the College Road facility as security and cash of $16,500 that the Company is obligated to maintain as collateral for the credit limit on the Company's credit card accounts. Grants and Accounts Receivable Trade accounts receivable consist of amounts due from direct customers, distributors and agencies of the U.S. government and are presented at net realizable value. At each balance sheet date, the Company estimates an expected allowance for credit losses inherent in the Company's accounts receivable portfolio based on historical experience, specific allowances for known troubled accounts, and other available evidence. In addition, also at each reporting date, this estimate is updated to reflect any changes in credit risk since the receivable was initially recorded. This estimate is calculated on a pooled basis where similar risk characteristics exist. The Company has identified the following portfolio segments: direct customers, distributors/strategic partners and the U.S. government. A fixed reserve percentage for each pool is derived from a review of the Company's historical losses in relation to the total pool. This estimate is adjusted quarterly for management's assessment of current conditions, reasonable and supportable forecasts regarding future events, and any other factors deemed relevant by the Company. The Company believes historical loss information is a reasonable starting point in which to calculate the expected allowance for credit losses as the Company's portfolio segments have remained constant over the Company's historical evaluation period. The Company writes off receivables when there is information that indicates the debtor is facing significant financial difficulty and there is no possibility of recovery. If any recoveries are made from any accounts previously written off, they are recognized as an offset to credit loss expense in the year of recovery. The total amount of write-offs was immaterial to the consolidated financial statements as a whole for the three and six months ended June 30, 2024. The allowance for credit losses reflects accounts receivable balances that are written off when management determines they are uncollectible. The allowance for credit losses is measured on a collective (pool) basis when similar risk characteristics exist, and measures the allowance for credit losses using the following methods: Direct Customers—The Company measures expected credit losses on direct customer receivables using an aging methodology. The risk of loss for direct customer receivables is low based on the Company's historical experience. The estimate of expected credit losses considers historical credit loss information that is adjusted for current conditions and supportable forecasts. Distributors/Strategic Partners—The Company measures expected credit losses on distributor receivables using an individual reserve methodology. The risk of loss in this portfolio is low based on the Company's historical experience. The estimate of expected credit losses considers the past payment history of each distributor. U.S. Government— These receivables are related to the Company's government grants. The Company measures expected credit losses on these receivables using an individual reserve methodology. The risk of loss in this portfolio is very low based on the Company's historical experience, as these receivables are supported by approved grant award contracts. Inventories Inventories are valued at the lower of cost or net realizable value under the first in, first out (FIFO) method. At June 30, 2024 and December 31, 2023, the Company's inventory was comprised of finished goods, which amounted to $2,459,604 and $2,155,457, respectively; work in process, which amounted to $1,048,360 and $838,871, respectively; and raw materials, which amounted to $808,788 and $685,801, respectively. Devices used in clinical trials or for research and development purposes are removed from inventory and charged to research and development expenses at the time of their use. Donated devices are removed from inventory and charged to selling, general and administrative expenses. Property and Equipment Property and equipment are recorded at cost less accumulated depreciation. Depreciation of property and equipment is provided for by the straight-line method over the estimated useful lives of the related assets. Leasehold improvements are amortized over the lesser of their economic useful lives or the term of the related leases. Gains and losses on depreciable assets retired or sold are recognized in the consolidated statements of operations and comprehensive loss in the year of disposal. Repairs and maintenance expenditures are expensed as incurred. Patents Legal costs incurred to establish and successfully defend patents are capitalized. When patents are issued, capitalized costs are amortized on the straight-line method over the related patent term. In the event a patent is abandoned, the net book value of the patent is written off. Impairment or Disposal of Long-Lived Assets The Company assesses the impairment of patents and other long-lived assets under accounting standards for the impairment or disposal of long-lived assets whenever events or changes in circumstances indicate that the carrying value may not be recoverable. For long-lived assets to be held and used, the Company recognizes an impairment loss only if its carrying amount is not recoverable through its undiscounted cash flows and measures the impairment loss based on the difference between the carrying amount and fair value. During the three months ended June 30, 2024 and 2023, the Company recorded impairment charges of approximately $185,000 and $21,000, respectively, and during the six months ended June 30, 2024 and 2023, the Company recorded impairment charges of approximately $250,000 and $293,000, respectively, related to the impairment of certain issued patents and pending patent applications in certain specific jurisdictions and the abandonment of certain pending patent application costs in the ordinary course of business. This charge is included in legal, financial and other consulting in the consolidated statements of operations and comprehensive loss. Revenue Recognition Revenue is recognized when the Company ships its products to its direct customers and distributors/strategic partners. Revenue is recognized on its grant awards with agencies of U.S. government in accordance with the terms of the award contract. See Note 4 for a description of the types of government contracts. The amount of revenue recognized reflects the consideration the Company expects to be entitled to receive in exchange for the products shipped or the services provided under their grant contracts. To achieve this core principle, the Company applies the following five steps: <table style="border-collapse:collapse;font-family:'Times New Roman','Times','serif';font-size:10pt;margin-bottom:12pt;margin-top:0pt;table-layout:fixed;text-align:justify;width:100%;border:0pt;"><tr><td style="width:18pt;"></td><td style="font-family:'Times New Roman','Times','serif';font-size:10pt;vertical-align:text-top;white-space:nowrap;width:18pt;padding:0pt;">1.</td><td style="padding:0pt;">Identify Contracts with Customers - The Company's contracts with its direct customers are generally in the form of a purchase order. The Company has formal written contracts with each of its distributors/strategic partners that define their respective territories and minimum purchase commitments which must be met in order to maintain exclusivity in their territory. Distributors/strategic partner customers also submit purchase orders with each order that define the terms of shipment and transaction price. The Company has a contract for each grant award with various agencies of the U.S. government.</td></tr></table><table style="border-collapse:collapse;font-family:'Times New Roman','Times','serif';font-size:10pt;margin-bottom:12pt;margin-top:0pt;table-layout:fixed;text-align:justify;width:100%;border:0pt;"><tr><td style="width:18pt;"></td><td style="font-family:'Times New Roman','Times','serif';font-size:10pt;vertical-align:text-top;white-space:nowrap;width:18pt;padding:0pt;">2.</td><td style="padding:0pt;">Identify Performance Obligations - The performance obligations in contracts with direct customers and distributors/strategic partners are for the shipment of the CytoSorb device and related accessory parts. The performance obligations for government contracts are dependent on the contract type, however, these are generally based on the costs incurred related to each government contract.</td></tr></table><table style="border-collapse:collapse;font-family:'Times New Roman','Times','serif';font-size:10pt;margin-bottom:12pt;margin-top:0pt;table-layout:fixed;text-align:justify;width:100%;border:0pt;"><tr><td style="width:18pt;"></td><td style="font-family:'Times New Roman','Times','serif';font-size:10pt;vertical-align:text-top;white-space:nowrap;width:18pt;padding:0pt;">3.</td><td style="padding:0pt;">Determine Transaction Price - The price charged is based on the Company's price list for the CytoSorb device and related accessory parts for both direct customers and distributor/strategic partners. The Company does not permit returns for product sales. The Company also provides for certain rebates and discounts to direct customers for sales of its product that are earned based upon sales volume. These amounts, which are earned based on calendar year sales volume, are recorded as a reduction of sales as earned. The transaction prices for government contracts are dependent on the type of contract and are outlined in each contract.</td></tr></table><table style="border-collapse:collapse;font-family:'Times New Roman','Times','serif';font-size:10pt;margin-bottom:12pt;margin-top:0pt;table-layout:fixed;text-align:justify;width:100%;border:0pt;"><tr><td style="width:18pt;"></td><td style="font-family:'Times New Roman','Times','serif';font-size:10pt;vertical-align:text-top;white-space:nowrap;width:18pt;padding:0pt;">4.</td><td style="padding:0pt;">Allocate Transaction Price to Performance Obligations - The transaction price for the performance obligation is based on the purchase orders received for both direct customers and on the type of contract and are outlined in each contract. The transaction prices for government contract performance obligations are dependent on the type of contract and are generally based on costs incurred.</td></tr></table><table style="border-collapse:collapse;font-family:'Times New Roman','Times','serif';font-size:10pt;margin-bottom:0pt;margin-top:0pt;table-layout:fixed;text-align:justify;width:100%;border:0pt;"><tr><td style="width:18pt;"></td><td style="font-family:'Times New Roman','Times','serif';font-size:10pt;vertical-align:text-top;white-space:nowrap;width:18pt;padding:0pt;">5.</td><td style="padding:0pt;">Recognize Revenue as Performance Obligations are Satisfied - The Company satisfies its performance obligation to direct customers and distributors/strategic partners generally upon shipment of the products. The Company satisfies its performance obligations on government contracts generally upon incurring costs on each contract. The Company records deferred revenue related to fixed price government contracts to the extent that billings exceed costs incurred.</td></tr></table> Research and Development and Clinical Trial Expenses All research and development costs, payments to laboratories and research consultants are expensed when incurred. Advertising Expenses Advertising expenses are included in selling, general, and administrative expenses on the consolidated statements of operations and comprehensive loss when incurred. Advertising expenses amounted to approximately $93,000 and $38,000 for the three months ended June 30, 2024 and 2023, respectively, and approximately $138,000 and $93,000 for the six months ended June 30, 2024 and 2023, respectively. Income Taxes Income taxes are accounted for under the asset and liability method prescribed by accounting standards for accounting for income taxes. Deferred income taxes are recorded for temporary differences between financial statement carrying amounts and the tax basis of assets and liabilities. Deferred tax assets and liabilities reflect the tax rates expected to be in effect for the years in which the differences are expected to reverse. A valuation allowance is provided if it is more likely than not that some or all of the deferred tax asset will not be realized. Under Section 382 of the Internal Revenue Code, the net operating losses generated prior to the previously completed reverse merger may be limited due to the change in ownership. Additionally, net operating losses generated subsequent to the reverse merger may be limited in the event of changes in ownership. In 2017, the Tax Cuts and Jobs Act reduced the U.S. federal corporate tax rate from 35% to 21%. The Company follows accounting standards associated with uncertain tax positions. The Company had no unrecognized tax benefits at June 30, 2024. The Company is accounting for an uncertain tax position of approximately $2.1 million for the year ended December 31, 2023. The Company files tax returns in the U.S. federal and state jurisdictions. The Company utilizes the Technology Business Tax Certificate Transfer Program to sell a portion of its New Jersey Net Operating Loss carryforwards to an industrial company. CytoSorbents Europe GmbH, CytoSorbents Switzerland GmbH, CytoSorbents Poland Sp. z.o.o., CytoSorbents UK Limited, CytoSorbents Medical UK Limited, CytoSorbents India Private Limited and CytoSorbents France SAS file an annual corporate tax return, a VAT return and a trade tax return in Germany, Switzerland, Poland, France, the United Kingdom and India, respectively. Use of Estimates The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets, liabilities at the date of the balance sheet, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates. The valuation of options granted, allowance for credit losses and recoverability of patents are significant estimates in these consolidated financial statements. Concentration of Credit Risk The Company maintains cash balances, at times, with

financial institutions in excess of amounts insured by the Federal Deposit Insurance Corporation ("FDIC"). Beginning in April of 2023, the Company joined the IntraFi network, and established an Insured Cash Sweep ("ICS") account whereby all cash that was previously held in the Company's money market account at Bridge Bank is swept daily in increments of less than $250,000 and deposited in a number of IntraFi's 4,000 member banks. This arrangement provides FDIC insurance coverage for all of the cash balances previously held in the money market account, which represents all of the cash and cash equivalents held at Bridge Bank. This arrangement excludes the restricted cash balances. Management monitors the soundness of these institutions in an effort to minimize its collection risk of these balances. A significant portion of the Company's revenues are from product sales in Germany. Substantially all of the Company's grant and other income are from government agencies in the United States. (See Note 4 for further information relating to the Company's revenue.) As of June 30, 2024, two distributors accounted for approximately 30% of outstanding grants and accounts receivable. As of December 31, 2023, one distributor accounted for approximately 19% of outstanding grants and accounts receivable. For the three and six months ended June 30, 2024, one distributor accounted for approximately 14% and 12% of the Company's total revenue. For the three months and six months ended June 30, 2023, one distributor accounted for approximately 12% and 11%, respectively, of the Company's total revenue. Financial Instruments The carrying values of cash and cash equivalents, accounts receivable, accounts payable and accrued expenses and other current liabilities approximate their fair values due to their short-term nature. Warrants The Company accounts for warrants as either equity-classified or liability-classified instruments based on an assessment of the warrant's specific terms and applicable authoritative guidance in ASC 480 "Distinguishing Liabilities From Equity" ("ASC 480") and ASC 815 "Derivatives and Hedging" ("ASC 815"). The assessment considers whether the warrants are freestanding financial instruments pursuant to ASC 480, meet the definition of a liability pursuant to ASC 480, and whether the warrants meet all of the requirements for equity classification under ASC 815, including whether the warrants are indexed to the Company's own ordinary shares and whether the warrant holders could potentially require "net cash settlement" in a circumstance outside of the Company's control, among other conditions for equity classification. This assessment, which requires the use of professional judgment, is conducted at the time of warrant issuance and as of each subsequent quarterly period end date while the warrants are outstanding. For issued or modified warrants that meet all of the criteria for equity classification, the warrants are required to be recorded as a component of equity at the time of issuance, and will remain as a component of equity thereafter. For issued or modified warrants that do not meet all the criteria for equity classification, the warrants are required to be recorded as liabilities at their initial fair value on the date of issuance, and each balance sheet date thereafter. Changes in the estimated fair value of the warrants are recognized as a non-cash gain or loss on the statements of operations. The warrants issued upon the closing of the Company's December 13, 2023 Offering and the closing of the Company's June 2024 debt financing both met the criteria for equity classification under ASC 815. Accordingly, these warrants have been classified as equity as of June 30, 2024 and December 31, 2023. Net Loss Per Common Share Basic loss per share is computed by dividing loss available to common stockholders by the weighted average number of common shares outstanding during the period. Diluted loss per common share is computed using the treasury stock method utilizing the weighted-average number of shares of common stock plus the dilutive effect of potential common shares outstanding during the period. Dilutive potential common shares include outstanding stock options and restricted shares. The computation of diluted loss per share does not assume conversion, exercise or contingent exercise of securities that would have an anti-dilutive effect on earnings (see Note 8). Stock-Based Compensation The Company accounts for its stock-based compensation under the recognition requirements of accounting standards for accounting for stock-based compensation, for employees and directors, whereby each option granted is valued at fair market value on the date of grant. Under these accounting standards, the fair value of each option is estimated on the date of grant using the Black-Scholes option pricing model. The Company also follows the guidance of accounting standards for accounting for equity instruments that are issued to other than employees for acquiring, or in conjunction with selling, goods or services for equity instruments issued to consultants. Shipping and Handling Costs The cost of shipping product to customers and distributors is typically borne by the customer or distributor. The Company records other shipping and handling costs in cost of revenue. Total freight costs amounted to approximately $64,000 and $122,000, respectively, for the three months ended June 30, 2024 and 2023, and $178,000 and $200,000, respectively, for the six months ended June 30, 2024 and 2023. Effect of Recent Accounting Pronouncements In August 2020, the FASB issued ASU 2020-06, "Debt – Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging – Contracts in Entity's Own Equity (Subtopic 815-40)" ("ASU 2020-06"). ASU2020-06 simplifies the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts on an entity's own equity. The ASU is part of the FASB's simplification initiative, which aims to reduce unnecessary complexity in U.S. GAAP. The ASU's amendments are effective for fiscal years beginning after December 15, 2024, and interim periods within those fiscal years. The Company adopted the provisions of ASU 2020-06 on January 1, 2024. This did not have a material impact on the Company's financial statements. In December 2023, the FASB issued ASU No. 2023-09 entitled "Income Taxes (Topic 740): Improvements to Income Tax Disclosures". This ASU provides guidance related to additional disclosures that will be required related to income taxes. The updated guidance is effective for public entities for fiscal years beginning after December 15, 2024. This ASU will result in additional disclosures in the Company's consolidated financial statements related to income taxes in 2025. In November 2023, the FASB issued ASU No. 2023-07 ("ASU 2023-07"), Improvements to Reportable Segment Disclosures. The guidance primarily will require enhanced disclosures about significant segment expenses. All disclosure requirements under ASU 2023-07 and existing segment disclosures in ASC 280, Segment Reporting are also required for public entities with a single reportable segment. The amendments in ASU 2023-07 are effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted. A retrospective approach is required to be applied to all prior periods presented in the financial statements. The Company plans to adopt the provisions of ASU 2023-07 in the fourth quarter of fiscal 2024 and continues to evaluate the disclosure requirements related to the new standard. Nature of Business The Company is a leader in the treatment of life-threatening conditions in intensive care and cardiac surgery using blood purification. The Company, through its subsidiary CytoSorbents Medical, Inc. (formerly known as CytoSorbents, Inc.), is engaged in the research, development and commercialization of medical devices with its blood purification technology platform which incorporates a proprietary adsorbent, porous polymer technology. The Company, through its wholly-owned European subsidiary, CytoSorbents Europe GmbH, conducts sales and marketing related operations for the CytoSorb device. In March 2016, the Company formed CytoSorbents Switzerland GmbH, a wholly-owned subsidiary of CytoSorbents Europe GmbH. This subsidiary, which began operations during the second quarter of 2016, provides marketing and direct sales services in Switzerland. In November 2018, the Company formed CytoSorbents Poland Sp. z.o.o., a wholly-owned subsidiary of CytoSorbents Europe GmbH. This subsidiary, which began operations during the first quarter of 2019, provides marketing and direct sales services in Poland. In the third quarter of 2019, the Company formed CytoSorbents UK Limited, a wholly-owned subsidiary of CytoSorbents Medical, Inc., which is responsible for the management of the Company's clinical trial activities in the United Kingdom. In March 2022, the Company formed CytoSorbents Medical UK Limited to provide marketing and direct sales services in the United Kingdom and the Republic of Ireland, a wholly-owned subsidiary of CytoSorbents Europe, GmbH. In October 2022, the Company formed CytoSorbents France SAS, a wholly-owned subsidiary of CytoSorbents Europe, GmbH, to provide marketing and direct sales services in France. In May 2023, the Company formed CytoSorbents India Private Limited to provide marketing and direct sales services in India. CytoSorb, the Company's flagship product, was approved in the European Union ("EU") in March 2011 and is currently being marketed and distributed in more than 75 countries around the world, as an effective extracorporeal cytokine absorber, designed to reduce the "cytokine storm" or "cytokine release syndrome" seen in critical illnesses that may result in massive inflammation, organ failure, and patient death. In May 2018, the Company received a label extension for CytoSorb covering use of the device for the removal of bilirubin and myoglobin which allows for the use of the device in the treatment of liver failure and trauma, respectively. CytoSorb is also being used during and after cardiac surgery to remove inflammatory mediators that can lead to post-operative complications, including multiple organ failure. In January 2020, CytoSorb received EU CE Mark label expansion to include the removal of ticagrelor during cardiopulmonary bypass in patients undergoing cardiothoracic surgery. In May 2020, CytoSorb also received EU CE Mark label expansion to include rivaroxaban removal for the same indication. In April 2020, CytoSorb received United States Food and Drug Administration ("FDA") Emergency Use Authorization ("EUA") of CytoSorb for use in adult critically ill COVID-19 patients with imminent or confirmed respiratory failure. The CytoSorb device has neither been cleared nor approved for the indication to treat patients with COVID-19 infection. The EUA will be effective until a declaration is made that the circumstances justifying the EUA have terminated or until revoked by the FDA. In April 2020, the Company also announced that the FDA had granted Breakthrough Designation for its DrugSorb-ATR Antithrombotic Removal System for the removal of ticagrelor in a cardiopulmonary bypass circuit during emergent and urgent cardiothoracic surgery. The Breakthrough Devices Program provides for more effective treatment of life-threatening or irreversibly debilitating disease or conditions, in this case the need to reverse the effects of ticagrelor in emergent or urgent cardiac surgery that can otherwise cause a high risk of serious or life-threatening bleeding. Through Breakthrough Designation, the FDA intends to work with CytoSorbents to expedite the development, assessment, and regulatory review of CytoSorbents' technology for the removal of ticagrelor, while maintaining statutory standards of regulatory approval (e.g., 510(k), de novo 510(k) or premarket approval) consistent with the FDA's mission to protect and promote public health. In July 2021, the Company received full approval of its Investigative Device Exemption ("IDE") to conduct the pivotal STAR-T (Safe and Timely Antithrombotic Removal – Ticagrelor) double-blind randomized control trial ("RCT") for up to 120 patients in the United States to support FDA marketing approval. In July 2023, the Company announced that enrollment in the STAR-T trial has completed, and in August 2023, the Company announced completion of the STAR-T trial, following the last scheduled patient follow-up. In December 2023, the Company announced that the independent Data Safety Monitoring Board (the "DSMB") performed a final review of the full unblinded data on all 140 patients in the STAR-T trial and concluded there were no issues with device safety, meeting the primary safety endpoint of the study. The Company has also performed the initial data analysis on the primary effectiveness endpoint of STAR-T trial. Based on this analysis, the study did not meet the primary effectiveness endpoint in the overall patient population that underwent different types of cardiac surgeries. However, the study did demonstrate evidence of reduced bleeding complications, including serious bleeding events, in patients in the pre-specified isolated coronary artery bypass graft ("CABG") surgery population, representing more than 90% of the overall study population. The topline results of 140-patient, double-blinded, multicenter, pivotal STAR-T randomized, controlled trial were featured as a late breaking presentation at the 104th Annual Meeting of the American Association for Thoracic Surgery (AATS) held in Toronto, Canada on April 28, 2024. The Company believes the safety and effectiveness data from STAR-T will support the parallel regulatory submission of DrugSorb-ATR to the FDA and Health Canada in the third quarter of 2024. In August 2021, the Company announced that it was granted a second Breakthrough Device designation for its DrugSorb-ATR Antithrombotic Removal System by the FDA. This Breakthrough Device designation covers the removal of the Direct Oral Anticoagulants (DOACs) apixaban and rivaroxaban in a cardiopulmonary bypass circuit to reduce the likelihood of serious perioperative bleeding during urgent cardiothoracic surgery. In October 2021, the Company also received full FDA approval of an IDE application to conduct a double-blind, randomized, controlled clinical study for up to 120 patients entitled, "Safe and Timely Antithrombotic Removal – Direct Oral Anticoagulants (STAR-D)," in the United States to support FDA marketing approval. The study has been postponed while the Company concentrates its clinical focus on STAR-T. If FDA marketing approval is obtained for either the removal of ticagrelor or direct oral anticoagulants indications, the device will be marketed as DrugSorb-ATR in the United States. The DrugSorb-ATR Antithrombotic Removal System is based on the same polymer technology as CytoSorb. In May 2022, the Company announced that the Company entered into a three-year preferred supplier agreement with Asklepios, making CytoSorb available without restrictions to all of the approximately 170 healthcare facilities across 14 states throughout Germany at which Asklepios operates. This includes Asklepios Klinik St. Georg in Hamburg, Germany, which pioneered the use of CytoSorb to remove antithrombotic drugs during cardiothoracic surgery and is well-known for their seminal publications on CytoSorb use for this application during emergency cardiac surgery in patients at high risk of bleeding. In June 2024, the

Company announced the launch and immediate availability of its PuriFi™ hemoperfusion machine in the EU, following approval and certification under the EU Medical Device Regulation (MDR). Prior to this, beginning in June 2022 the company had a non-exclusive agreement with Nikkiso Europe GmbH ("Nikkiso") to distribute Nikkiso's PureADJUST stand-alone hemoperfusion pump and accessories in a total of 14 countries. In September 2023, the distribution agreement with Nikkiso expired, and the Company indicated that it would not seek renewal of the agreement. In August 2022, the Company entered into a Marketing Agreement (the "Marketing Agreement") with Fresenius Medical Care Deutschland GmbH ("Fresenius"), which expands the Company's strategic partnership with Fresenius by establishing a multi-stage global collaboration to combat life-threatening diseases in critical care. The Marketing Agreement provides for the combined marketing and promotion of CytoSorb with Fresenius' critical care products by Fresenius' marketing organization worldwide, excluding the United States. The Marketing Agreement has an initial term of three years, with an automatic renewal for an additional two years at the end of such initial term, subject to earlier termination by either of the parties (the "Term"). Compared to the prior co-marketing agreement between the parties, the Marketing Agreement intends to increase the commitments from both parties and to ensure an ongoing and consistent level of marketing and promotional activity specifically focused around CytoSorb, where Fresenius will actively market and promote CytoSorb as the featured blood purification therapy for removal of cytokines, bilirubin, and myoglobin on its critical care platforms. Specifically, the Marketing Agreement provides that various Fresenius-led in-person, virtual, social media, and web-based marketing programs and events will feature the CytoSorb therapy and highlight the cooperation between the two companies in the field of critical care during the Term. To help support the increased marketing and promotional efforts of the expanded collaboration, CytoSorbents has agreed to subsidize a portion of the marketing costs through a royalty payment to Fresenius Medical Care based on CytoSorb sales in the intensive care unit on Fresenius Medical Care platforms, excluding the United States. In addition to strengthening and expanding the global marketing of CytoSorb, the Company and Fresenius also plan to work together to bring new innovative solutions to the market. The Marketing Agreement also includes the certification of compatibility of CytoSorb for usage on Fresenius' current critical care platforms. The launch of this program is expected to occur in 2024. The technology is based upon biocompatible, highly porous polymer sorbent beads that can actively remove toxic substances from blood and other bodily fluids by pore capture and surface adsorption. The Company has numerous products under development based upon this unique blood purification technology which, as of June 30, 2024, is protected by 22 issued U.S. patents and multiple international patents, with applications pending both in the U.S. and internationally. These patents and patent applications are directed to various compositions and methods of use related to the Company's blood purification technologies and are expected to expire between 2024 and 2038, absent any patent term extensions. Management believes that any near-term expiring patents will not have a significant impact on the Company's ongoing business. 75P3Y1701422 Stock Market Listing On December 17, 2014, the Company's common stock, par value $0.001 per share, was approved for listing on the Nasdaq Capital Market ("Nasdaq"), and it began trading on Nasdaq on December 23, 2014 under the symbol "CTSO." Previously, the Company's common stock traded in the over-the-counter-market on the OTC Bulletin Board. 0.001 Basis of Consolidation and Foreign Currency Translation The consolidated financial statements include the accounts of CytoSorbents Corporation and its wholly-owned subsidiaries, CytoSorbents Medical, Inc. and CytoSorbents Europe GmbH. In addition, the consolidated financial statements include CytoSorbents Switzerland GmbH, CytoSorbents Poland Sp. z.o.o., CytoSorbents Medical UK Limited and CytoSorbents France SAS, wholly-owned subsidiaries of CytoSorbents Europe GmbH, and CytoSorbents UK Limited and CytoSorbents India Private Limited, wholly-owned subsidiaries of CytoSorbents Medical, Inc. All significant intercompany transactions and balances have been eliminated in consolidation. Translation gains and losses resulting from the process of remeasuring into the United States of America dollar, the foreign currency financial statements of the European subsidiary, for which the United States of America dollar is the functional currency, are included in operations. The Euro is the functional currency of the European Subsidiary. Foreign currency transaction gain (loss) included in net loss amounted to approximately $(544,000) and $415,000 for the three months ended June 30, 2024 and 2023, respectively. Foreign currency transaction gain (loss) included in net loss amounted to approximately $(1,970,000) and $1,076,000 for the six months ended June 30, 2024 and 2023, respectively. The Company translates assets and liabilities of all of its foreign subsidiaries at the exchange rate in effect at the consolidated balance sheet date. The Company translates revenue and expenses at the daily average exchange rates. The Company includes accumulated net translation adjustments in accumulated other comprehensive income (loss) as a component of stockholders' equity.</p>-544000415000-19700001076000<p style="font-family:'Times New Roman','Times','serif';font-size:10pt;font-weight:bold;margin:0pt 0pt 12pt 0pt;">Cash, Cash Equivalents and Restricted Cash</p><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:justify;margin:0pt 0pt 12pt 0pt;">The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents.</p><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:justify;margin:0pt 0pt 12pt 0pt;">The following table provides a reconciliation of cash and cash equivalents and restricted cash to amounts shown in the consolidated balance sheets:</p><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;min-height:0.0pt;margin:0pt;"></p><table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:80%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:68.48%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;margin:0pt;padding:0pt;"><div 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Roman','Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:12.84%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"><b style="font-weight:bold;">June 30, 2024</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:14.96%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"><b style="font-weight:bold;">December 31, 2023</p></td></tr><tr><td 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$</p></td><td style="vertical-align:bottom;white-space:nowrap;width:13.4%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 14,131,137</p></td></tr><tr><td style="vertical-align:bottom;width:68.48%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">Restricted cash</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 6,483,958</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.56%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:13.4%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 1,483,958</p></td></tr><tr><td style="vertical-align:bottom;width:68.48%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 6pt;">Total cash, cash equivalents and restricted cash</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 14,942,666 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.56%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:13.4%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 15,615,095 </td></tr></table> <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:80%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:68.48%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;margin:0pt;padding:0pt;"><div

style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.56%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:13.4%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:68.48%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:12.84%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> June 30, 2024 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:14.96%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> December 31, 2023 </td></tr><tr><td style="vertical-align:bottom;width:68.48%;background:#cceeff;margin:0pt;padding:0pt;"> Cash and cash equivalents </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;">8,458,708 </p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.56%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:13.4%;background:#cceeff;margin:0pt;padding:0pt;"> 14,131,137 </td></tr><tr><td style="vertical-align:bottom;width:68.48%;margin:0pt;padding:0pt;"> Restricted cash </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 6,483,958 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.56%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:13.4%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,483,958 </td></tr><tr><td style="vertical-align:bottom;width:68.48%;background:#cceeff;margin:0pt;padding:0pt;"> Total cash, cash equivalents and restricted cash </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 14,942,666</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.56%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:13.4%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 15,615,095 </td></tr></table>8458708141311376483958148395814942666615615095 Restricted Cash The Company’s total restricted cash in the amount of $6,483,958 consists of cash of $5,000,000 which is restricted in accordance with the terms of the debt agreement with Avenue Capital Group (see Note 5), cash of $1,467,458 that the Company is obligated to maintain as collateral for the outstanding letter of credit with Bridge Bank that was provided to the landlord of the College Road facility as security and cash of $16,500 that the Company is obligated to maintain as collateral for the credit limit on the Company’s credit card accounts. 6483958500000014674581650 0 Grants and Accounts Receivable Trade accounts receivable consist of amounts due from direct customers, distributors and agencies of the U.S. government and are presented at net realizable value. At each balance sheet date, the Company estimates an expected allowance for credit losses inherent in the Company’s accounts receivable portfolio based on historical experience, specific allowances for known troubled accounts, and other available evidence. In addition, also at each reporting date, this estimate is updated to reflect any changes in credit risk since the receivable was initially recorded. This estimate is calculated on a pooled basis where similar risk characteristics exist. The Company has identified the following portfolio segments: direct customers, distributors/strategic partners and the U.S. government. A fixed reserve percentage for each pool is derived from a review of the Company’s historical losses in relation to the total pool. This estimate is adjusted quarterly for management’s assessment of current conditions, reasonable and supportable forecasts regarding future events, and any other factors deemed relevant by the Company. The Company believes historical loss information is a reasonable starting point in which to calculate the expected allowance for credit losses as the Company’s portfolio segments have remained constant over the Company’s historical evaluation period. The Company writes off receivables when there is information that indicates the debtor is facing significant financial difficulty and there is no possibility of recovery. If any recoveries are made from any accounts previously written off, they are recognized as an offset to credit loss expense in the year of recovery. The total amount of write-offs was immaterial to the consolidated financial statements as a whole for the three and six months ended June 30, 2024. The allowance for credit losses reflects accounts receivable balances that are written off when management determines they are uncollectible. The allowance for credit losses is measured on a collective (pool) basis when similar risk characteristics exist, and measures the allowance for credit losses using the following methods: Direct Customers—The Company measures expected credit losses on direct customer receivables using an aging methodology. The risk of loss for direct customer receivables is low based on the Company’s historical experience. The estimate of expected credit losses considers historical credit loss information that is adjusted for current conditions and supportable forecasts. Distributors/Strategic Partners—The Company measures expected credit losses on distributor receivables using an individual reserve methodology. The risk of loss in this portfolio is low based on the Company’s historical experience. The estimate of expected credit losses considers the past payment history of each distributor. U.S. Government— These receivables are related to the Company’s government grants. The Company measures expected credit losses on these receivables using an individual reserve methodology. The risk of loss in this portfolio is very low based on the Company’s historical experience, as these receivables are supported by approved grant award contracts. Inventories Inventories are valued at the lower of cost or net realizable value under the first in, first out (FIFO) method. At June 30, 2024 and December 31, 2023, the Company’s inventory was comprised of finished goods, which amounted to $2,459,604 and $2,155,457, respectively; work in process, which amounted to $1,048,360 and $838,871, respectively; and raw materials, which amounted to $808,788 and $685,801, respectively. Devices used in clinical trials or for research and development purposes are removed from inventory and charged to research and development expenses at the time of their use. Donated devices are removed from inventory and charged to selling, general and administrative expenses. 2459604215545710483608388718087888685801 Property and Equipment Property and equipment are recorded at cost less accumulated depreciation. Depreciation of property and equipment is provided for by the straight-line method over the estimated useful lives of the related assets. Leasehold improvements are amortized over the lesser of their economic useful lives or the term of the related leases. Gains and losses on depreciable assets retired or sold are recognized in the consolidated statements of operations and comprehensive loss in the year of disposal. Repairs and maintenance expenditures are expensed as incurred. Patents Legal costs incurred to establish and successfully defend patents are capitalized. When patents are issued, capitalized costs are amortized on the straight-line method over the related patent term. In the event a patent is abandoned, the net book value of the patent is written off. Impairment or Disposal of Long-Lived Assets The Company assesses the impairment of patents and other long-lived assets under accounting standards for the impairment or disposal of long-lived assets whenever events or changes in circumstances indicate that the carrying value may not be recoverable. For long-lived assets to be held and used, the Company recognizes an impairment loss only if its carrying amount is not recoverable through its undiscounted cash flows and measures the impairment loss based on the difference between the carrying amount and fair value. During the three months ended June 30, 2024 and 2023, the Company recorded impairment charges of approximately $185,000 and $21,000, respectively, and during the six months ended June 30, 2024 and 2023, the Company recorded impairment charges of approximately $250,000 and $293,000, respectively, related to the impairment of certain issued patents and pending patent applications in certain specific jurisdictions and the abandonment of certain pending patent application costs in the ordinary course of business. This charge is included in legal, financial and other consulting in the consolidated statements of operations and comprehensive loss. 1850002100025000029300 0 Revenue Recognition Revenue is recognized when the Company ships its products to its direct customers and distributors/strategic partners. Revenue is recognized on its grant awards with agencies of U.S. government in accordance with the terms of the award contract. See Note 4 for a description of the types of government contracts. The amount of revenue recognized reflects the consideration the Company expects to be entitled to receive in exchange for the products shipped or the services provided under their grant contracts. To achieve this core principle, the Company applies the following five steps: <table style="border-collapse:collapse;font-family:'Times New Roman','Times','serif';font-size:10pt;margin-bottom:12pt;margin-top:0pt;table-layout:fixed;text-align:justify;width:100%;border:0pt;"><tr><td style="width:18pt;"></td><td style="font-family:'Times New Roman','Times','serif';font-size:10pt;vertical-align:text-top;white-space:nowrap;width:18pt;padding:0pt;">1.</td>

<td style="padding:0pt;">Identify Contracts with Customers - The Company's contracts with its direct customers are generally in the form of a purchase order. The Company has formal written contracts with each of its distributors/strategic partners that define their respective territories and minimum purchase commitments which must be met in order to maintain exclusivity in their territory. Distributors/strategic partner customers also submit purchase orders with each order that define the terms of shipment and transaction price. The Company has a contract for each grant award with various agencies of the U.S. government.</td></tr></table><table style="border-collapse:collapse;font-family:'Times New Roman','Times','serif';font-size:10pt;margin-bottom:12pt;margin-top:0pt;table-layout:fixed;text-align:justify;width:100%;border:0pt;"><tr><td style="width:18pt;"></td><td style="font-family:'Times New Roman','Times','serif';font-size:10pt;vertical-align:text-top;white-space:nowrap;width:18pt;padding:0pt;">2.</td><td style="padding:0pt;">Identify Performance Obligations - The performance obligations in contracts with direct customers and distributors/strategic partners are for the shipment of the CytoSorb device and related accessory parts. The performance obligations for government contracts are dependent on the contract type, however, these are generally based on the costs incurred related to each government contract.</td></tr></table><table style="border-collapse:collapse;font-family:'Times New Roman','Times','serif';font-size:10pt;margin-bottom:12pt;margin-top:0pt;table-layout:fixed;text-align:justify;width:100%;border:0pt;"><tr><td style="width:18pt;"></td><td style="font-family:'Times New Roman','Times','serif';font-size:10pt;vertical-align:text-top;white-space:nowrap;width:18pt;padding:0pt;">3.</td><td style="padding:0pt;">Determine Transaction Price - The price charged is based on the Company's price list for the CytoSorb device and related accessory parts for both direct customers and distributor/strategic partners. The Company does not permit returns for product sales. The Company also provides for certain rebates and discounts to direct customers for sales of its product that are earned based upon sales volume. These amounts, which are earned based on calendar year sales volume, are recorded as a reduction of sales as earned. The transaction prices for government contracts are dependent on the type of contract and are outlined in each contract.</td></tr></table><table style="border-collapse:collapse;font-family:'Times New Roman','Times','serif';font-size:10pt;margin-bottom:12pt;margin-top:0pt;table-layout:fixed;text-align:justify;width:100%;border:0pt;"><tr><td style="width:18pt;"></td><td style="font-family:'Times New Roman','Times','serif';font-size:10pt;vertical-align:text-top;white-space:nowrap;width:18pt;padding:0pt;">4.</td><td style="padding:0pt;">Allocate Transaction Price to Performance Obligations - The transaction price for the performance obligation is based on the purchase orders received for both direct customers and on the type of contract and are outlined in each contract. The transaction prices for government contract performance obligations are dependent on the type of contract and are generally based on costs incurred.</td></tr></table><table style="border-collapse:collapse;font-family:'Times New Roman','Times','serif';font-size:10pt;margin-bottom:0pt;margin-top:0pt;table-layout:fixed;text-align:justify;width:100%;border:0pt;"><tr><td style="width:18pt;"></td><td style="font-family:'Times New Roman','Times','serif';font-size:10pt;vertical-align:text-top;white-space:nowrap;width:18pt;padding:0pt;">5.</td><td style="padding:0pt;">Recognize Revenue as Performance Obligations are Satisfied - The Company satisfies its performance obligation to direct customers and distributors/strategic partners generally upon shipment of the products. The Company satisfies its performance obligations on government contracts generally upon incurring costs on each contract. The Company records deferred revenue related to fixed price government contracts to the extent that billings exceed costs incurred.</td></tr></table> Research and Development and Clinical Trial Expenses All research and development costs, payments to laboratories and research consultants are expensed when incurred. Advertising Expenses Advertising expenses are included in selling, general, and administrative expenses on the consolidated statements of operations and comprehensive loss when incurred. Advertising expenses amounted to approximately $93,000 and $38,000 for the three months ended June 30, 2024 and 2023, respectively, and approximately $138,000 and $93,000 for the six months ended June 30, 2024 and 2023, respectively. 9300038000138000930003000 Income Taxes Income taxes are accounted for under the asset and liability method prescribed by accounting standards for accounting for income taxes. Deferred income taxes are recorded for temporary differences between financial statement carrying amounts and the tax basis of assets and liabilities. Deferred tax assets and liabilities reflect the tax rates expected to be in effect for the years in which the differences are expected to reverse. A valuation allowance is provided if it is more likely than not that some or all of the deferred tax asset will not be realized. Under Section 382 of the Internal Revenue Code, the net operating losses generated prior to the previously completed reverse merger may be limited due to the change in ownership. Additionally, net operating losses generated subsequent to the reverse merger may be limited in the event of changes in ownership. In 2017, the Tax Cuts and Jobs Act reduced the U.S. federal corporate tax rate from 35% to 21%. The Company follows accounting standards associated with uncertain tax positions. The Company had no unrecognized tax benefits at June 30, 2024. The Company is accounting for an uncertain tax position of approximately $2.1 million for the year ended December 31, 2023. The Company files tax returns in the U.S. federal and state jurisdictions. The Company utilizes the Technology Business Tax Certificate Transfer Program to sell a portion of its New Jersey Net Operating Loss carryforwards to an industrial company. CytoSorbents Europe GmbH, CytoSorbents Switzerland GmbH, CytoSorbents Poland Sp. z.o.o., CytoSorbents UK Limited, CytoSorbents Medical UK Limited, CytoSorbents India Private Limited and CytoSorbents France SAS file an annual corporate tax return, a VAT return and a trade tax return in Germany, Switzerland, Poland, France, the United Kingdom and India, respectively. 0.350.2102100000 Use of Estimates The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets, liabilities at the date of the balance sheet, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates. The valuation of options granted, allowance for credit losses and recoverability of patents are significant estimates in these consolidated financial statements. Concentration of Credit Risk The Company maintains cash balances, at times, with financial institutions in excess of amounts insured by the Federal Deposit Insurance Corporation ("FDIC"). Beginning in April of 2023, the Company joined the IntraFi network, and established an Insured Cash Sweep ("ICS") account whereby all cash that was previously held in the Company's money market account at Bridge Bank is swept daily in increments of less than $250,000 and deposited in a number of IntraFi's 4,000 member banks. This arrangement provides FDIC insurance coverage for all of the cash balances previously held in the money market account, which represents all of the cash and cash equivalents held at Bridge Bank. This arrangement excludes the restricted cash balances. Management monitors the soundness of these institutions in an effort to minimize its collection risk of these balances. A significant portion of the Company's revenues are from product sales in Germany. Substantially all of the Company's grant and other income are from government agencies in the United States. (See Note 4 for further information relating to the Company's revenue.) As of June 30, 2024, two distributors accounted for approximately 30% of outstanding grants and accounts receivable. As of December 31, 2023, one distributor accounted for approximately 19% of outstanding grants and accounts receivable. For the three and six months ended June 30, 2024, one distributor accounted for approximately 14% and 12% of the Company's total revenue. For the three months and six months ended June 30, 2023, one distributor accounted for approximately 12% and 11%, respectively, of the Company's total revenue. 400020.3010.19110.140.12110.120.11 Financial Instruments The carrying values of cash and cash equivalents, accounts receivable, accounts payable and accrued expenses and other current liabilities approximate their fair values due to their short-term nature. Warrants The Company accounts for warrants as either equity-classified or liability-classified instruments based on an assessment of the warrant's specific terms and applicable authoritative guidance in ASC 480 "Distinguishing Liabilities From Equity" ("ASC 480") and ASC 815 "Derivatives and Hedging" ("ASC 815"). The assessment considers whether the warrants are freestanding financial instruments pursuant to ASC 480, meet the definition of a liability pursuant to ASC 480, and whether the warrants meet all of the requirements for equity classification under ASC 815, including whether the warrants are indexed to the Company's own ordinary shares and whether the warrant holders could potentially require "net cash settlement" in a circumstance outside of the Company's control, among other conditions for equity classification. This assessment, which requires the use of professional judgment, is conducted at the time of warrant issuance and as of each subsequent quarterly period end date while the warrants are outstanding. For issued or modified warrants that meet all of the criteria for equity classification, the warrants are required to be recorded as a component of equity at the time of issuance, and will remain as a component of equity thereafter. For issued or modified warrants that do not meet all the criteria for equity classification, the warrants are required to be recorded as liabilities at their initial fair value on the date of issuance, and each balance sheet date thereafter. Changes in the estimated fair value of the warrants are recognized as a non-cash gain or loss on the statements of operations. The warrants issued upon the closing of the Company's December 13, 2023 Offering and the closing of the Company's June 2024 debt financing both met the criteria for equity classification under ASC 815. Accordingly, these warrants have been classified as equity as of June 30, 2024 and December 31, 2023. Net Loss Per Common Share Basic loss per share is computed by dividing loss available to common stockholders by the weighted average number of common shares outstanding during the period. Diluted loss per common share is computed using the treasury stock method utilizing the weighted-average number of shares of common stock plus the dilutive effect of potential common shares outstanding during the period. Dilutive potential common shares include outstanding stock options and restricted shares. The computation of diluted loss per share does not assume conversion, exercise or contingent exercise of securities that would have an anti-dilutive effect on earnings (see Note 8). Stock-Based Compensation The Company accounts for its stock-based compensation under the recognition requirements of accounting standards for accounting for stock-based compensation, for employees and directors, whereby each option granted is valued at fair market value on the date of grant. Under these accounting standards, the fair value of each option is estimated on the date of grant using the Black-Scholes option pricing model. The Company also follows the guidance of accounting standards for accounting for equity instruments that are issued to other than employees for acquiring, or in conjunction with selling, goods or services for equity instruments issued to consultants. Shipping and Handling Costs The cost of shipping product to customers and distributors is typically borne by the customer or distributor. The Company records other shipping and handling costs in cost of revenue. Total freight costs amounted to approximately $64,000 and $122,000, respectively, for the three months ended June 30, 2024 and 2023, and $178,000 and $200,000, respectively, for the six months ended June 30, 2024 and 2023. 640001220001780020000 Effect of Recent Accounting Pronouncements In August 2020, the FASB issued ASU 2020-06, "Debt – Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging – Contracts in Entity's Own Equity (Subtopic 815-40)" ("ASU 2020-06"). ASU2020-06 simplifies the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts on an entity's own equity. The ASU is part of the FASB's simplification initiative, which aims to reduce unnecessary complexity in U.S. GAAP. The ASU's amendments are effective for fiscal years beginning after December 15, 2024, and interim periods within those fiscal years. The Company adopted the provisions of ASU 2020-06 on January 1, 2024. This did not have a material impact on the Company's financial statements. In December 2023, the FASB issued ASU No. 2023-09 entitled "Income Taxes (Topic 740): Improvements to Income Tax Disclosures". This ASU provides guidance related to additional disclosures that will be required related to income taxes. The updated guidance is effective for public entities for fiscal years beginning after December 15, 2024. This ASU will result in additional disclosures in the Company's consolidated financial statements related to income taxes in 2025. In November 2023, the FASB issued ASU No. 2023-07 ("ASU 2023-07"), Improvements to Reportable Segment Disclosures. The guidance primarily will require enhanced disclosures about significant segment expenses. All disclosure requirements under ASU 2023-07 and existing segment disclosures in

ASC 280, Segment Reporting are also required for public entities with a single reportable segment. The amendments in ASU 2023-07 are effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted. A retrospective approach is required to be applied to all prior periods presented in the financial statements. The Company plans to adopt the provisions of ASU 2023-07 in the fourth quarter of fiscal 2024 and continues to evaluate the disclosure requirements related to the new standard. 3. STOCKHOLDERS' EQUITY Preferred Stock In June 2019, the Company amended and restated its certificate of incorporation. The amended and restated certificate of incorporation authorizes the issuance of up to 5,000,000 shares of "blank check" preferred stock, with such designation rights and preferences as may be determined from time to time by the Board of Directors. Common Stock In June 2019, the Company amended and restated its certificate of incorporation. The amended and restated certificate of incorporation increased the number of shares of common stock authorized for issuance from 50,000,000 shares to 100,000,000 shares. Shelf Registration On July 14, 2021, the Company filed a registration statement on Form S-3 with the SEC, which was amended on July 20, 2021 and declared effective by the SEC on July 27, 2021 (as amended, the "2021 Shelf"). The 2021 Shelf enables the Company to offer and sell, in one or more offerings, any combination of common stock, preferred stock, senior or subordinated debt securities, warrants and units, up to a total dollar amount of $150 million and expires after three years. On July 26, 2024, the Company filed a registration statement on Form S-3 with the SEC (the "2024 Shelf"), which enables the Company to offer and sell in one or more offerings, any combination of common stock, preferred stock, senior or subordinated debt securities, warrants and units, up to a total dollar amount of $150 million. The SEC has not yet declared the 2024 Shelf to be effective, however, the Company continues to be able to utilize the 2021 Shelf to offer securities. Because of the Company's market capitalization is less than $75 million, it will be subject to baby shelf rules which limit the amount of securities sales the Company can make to one-third of its public market float over a 12-month period. Open Market Sale Agreement with Jefferies LLC On December 30, 2021, the Company entered into an Open Market Sale Agreement (the "Sale Agreement") with Jefferies LLC (the "Agent"), pursuant to which the Company may sell, from time to time, at its option, shares of the Company's common stock having an aggregate offering price of up to $25 million through the Agent, as the Company's sales agent. All shares of the Company's common stock offered and sold, or to be offered and sold under the Sale Agreement will be issued and sold pursuant to the Company's 2021 Shelf by methods deemed to be an "at the market offering" as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended, in block transactions or if specified by the Company, in privately negotiated transactions. Subject to the terms of the Sales Agreement, the Agent is required to use its commercially reasonable efforts consistent with their normal sales and trading practices to sell the shares of the Company's common stock from time to time, based upon the Company's instructions (including any price, time or size limits or other customary parameters or conditions the Company may impose). The Company is required to pay the Agent a commission of up to 3.0% of the gross proceeds from the sale of the shares of the Company's common stock sold thereunder, if any. There were no sales under the Sale Agreement during the year ended December 31, 2022. During the year ended December 31, 2023, the Company sold 2,656,464 shares pursuant to the Sale Agreement, at an average selling price of $1.76 per share, generating net proceeds of approximately $4,532,000. In addition, during the year ended December 31, 2023, the Company paid approximately $61,000 in expenses related to the Sale Agreement. During the six months ended June 30, 2024, the Company sold 53,290 shares pursuant to the Sales Agreement at an average selling price of $1.03 per share, generating net proceeds of approximately $53,000. Stock-Based Compensation Total share-based employee, director, and consultant compensation amounted to approximately $829,000 and $1,563,000 for the three and six months ended June 30, 2024, respectively, and approximately $570,000 and $1,401,000 for the three and six months ended June 30, 2023, respectively. These amounts are included in the consolidated statements of operations and comprehensive loss under selling, general, and administrative expenses. The summary of the stock option activity for the six months ended June 30, 2024 is as follows: <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.24%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.24%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;margin:0pt;padding:0pt;"> Weighted </td></tr><tr><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.46%;margin:0pt;padding:0pt;"> Weighted </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;margin:0pt;padding:0pt;"> Average </td></tr><tr><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.46%;margin:0pt;padding:0pt;"> Average </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;margin:0pt;padding:0pt;"> Remaining </td></tr><tr><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.46%;margin:0pt;padding:0pt;"> Exercise Price </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;margin:0pt;padding:0pt;"> Contractual </td></tr><tr><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Shares </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> <b style="font-

weight:bold;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.46%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> per Share </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Life (Years) </td></tr><tr><td style="vertical-align:bottom;width:66.99%;background:#cceeff;margin:0pt;padding:0pt;"> Outstanding, December 31, 2023 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:middle;white-space:nowrap;width:9.35%;background:#cceeff;margin:0pt;padding:0pt;"> 10,548,174 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.24%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.22%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 4.49</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 7.01</p></td></tr><tr><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">Granted</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:middle;white-space:nowrap;width:9.35%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;">3,378,366</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.24%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:8.22%;margin:0pt;padding:0pt;"> 0.95 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;margin:0pt;padding:0pt;"> — </td></tr><tr><td style="vertical-align:bottom;width:66.99%;background:#cceeff;margin:0pt;padding:0pt;"> Forfeited </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:middle;white-space:nowrap;width:9.35%;background:#cceeff;margin:0pt;padding:0pt;"> (906,166) </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.24%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.22%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 2.78</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> —</p></td></tr><tr><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">Expired</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt;"> (545,536)</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.24%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:8.22%;margin:0pt;padding:0pt;"> 5.31 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;margin:0pt;padding:0pt;"> — </td></tr><tr><td style="vertical-align:bottom;width:66.99%;background:#cceeff;margin:0pt;padding:0pt;"> Exercised </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.24%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.22%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;">—</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> —</p></td></tr><tr><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">Outstanding, June 30, 2024</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 12,474,838</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.24%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:8.22%;margin:0pt;padding:0pt;"> 3.62 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;margin:0pt;padding:0pt;"> 7.40 </td></tr></table> The fair value of each stock option was estimated using the Black Scholes pricing model, which takes into account as of the grant date the exercise price (ranging from $0.84 to $0.99 per share) and expected life of the stock option (6 years), the current price of the underlying stock and its expected volatility (76.6%), expected dividends (0)% on the stock and the risk free interest rate (ranging from 3.86% to 4.65%) for the expected term of the stock option. The intrinsic value is calculated as the difference between the market value of the shares as of June 30, 2024 of $0.703 and the exercise price of the shares. <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:56.71%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.02%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.3%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.31%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.69%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.03%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.34%;margin:0pt;padding:0pt;"> </td></tr><tr><td colspan="11" style="vertical-align:bottom;width:100%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Options Outstanding </td></tr><tr><td style="vertical-

align:bottom;width:56.71%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.5%;margin:0pt;padding:0pt;"> Number </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.33%;margin:0pt;padding:0pt;"> Weighted </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.31%;margin:0pt;padding:0pt;"> Weighted </td><td style="vertical-align:bottom;white-space:nowrap;width:1.69%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.03%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.34%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:56.71%;margin:0pt;padding:0pt;"> Range of </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.5%;margin:0pt;padding:0pt;"> Outstanding at </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.33%;margin:0pt;padding:0pt;"> Average </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.31%;margin:0pt;padding:0pt;"> Average </td><td style="vertical-align:bottom;white-space:nowrap;width:1.69%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> Aggregate </td></tr><tr><td style="vertical-align:bottom;width:56.71%;margin:0pt;padding:0pt;"> Exercise </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.5%;margin:0pt;padding:0pt;"> June 30, </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.33%;margin:0pt;padding:0pt;"> Exercise </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.31%;margin:0pt;padding:0pt;"> Remaining </td><td style="vertical-align:bottom;white-space:nowrap;width:1.69%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> Intrinsic </td></tr><tr><td style="vertical-align:bottom;width:56.71%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Price </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.5%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 2024 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.33%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Price </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.31%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Life (Years) </td><td style="vertical-align:bottom;white-space:nowrap;width:1.69%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Value </td></tr><tr><td style="vertical-align:bottom;width:56.71%;background:#cceeff;margin:0pt;padding:0pt;"> $0.84 - $13.20</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.5%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 12,474,838</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.02%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:8.3%;background:#cceeff;margin:0pt;padding:0pt;"> 3.62 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.31%;background:#cceeff;margin:0pt;padding:0pt;"> 7.4 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.69%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.03%;background:#cceeff;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:8.34%;background:#cceeff;margin:0pt;padding:0pt;"> — </td></tr></table> <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:80%;"><tr style="height:1pt;"><td style="vertical-align:bottom;white-space:nowrap;width:56.66%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.48%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:17.85%;margin:0pt;padding:0pt;"> </td></tr><tr><td colspan="7" style="vertical-align:bottom;width:100%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Options Exercisable </td></tr><tr><td style="vertical-align:bottom;width:56.66%;margin:0pt;padding:0pt;"> Number </td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:19.34%;margin:0pt;padding:0pt;"> Weighted </td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:19.31%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:56.66%;margin:0pt;padding:0pt;"> Exercisable at </td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:19.34%;margin:0pt;padding:0pt;"> Average </td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:19.31%;margin:0pt;padding:0pt;"> Aggregate </td></tr><tr><td style="vertical-align:bottom;width:56.66%;margin:0pt;padding:0pt;"> June 30, </td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"><p

style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:19.34%;margin:0pt;padding:0pt;"> Exercise </td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:19.31%;margin:0pt;padding:0pt;"> Intrinsic </td></tr><tr><td style="vertical-align:bottom;width:56.66%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 2024 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:19.34%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Price </td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:19.31%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Value </td></tr><tr><td style="vertical-align:bottom;white-space:nowrap;width:56.66%;background:#cceeff;margin:0pt;padding:0pt;"> 5,385,858 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.48%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:17.85%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 5.91</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.48%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:17.83%;background:#cceeff;margin:0pt;padding:0pt;"> — </td></tr></table> The summary of the status of the Company's non-vested options for the six months ended June 30, 2024 is as follows: <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:75%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:75%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.86%;margin:0pt;padding:0pt;"> Weighted </td></tr><tr><td style="vertical-align:bottom;width:75%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.86%;margin:0pt;padding:0pt;"> Average </td></tr><tr><td style="vertical-align:bottom;width:75%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.86%;margin:0pt;padding:0pt;"> Grant Date </td></tr><tr><td style="vertical-align:bottom;width:75%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Shares </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.86%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Fair Value </td></tr><tr><td style="vertical-align:bottom;width:75%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:75%;background:#cceeff;margin:0pt;padding:0pt;"> Non-vested, December 31, 2023 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;background:#cceeff;margin:0pt;padding:0pt;"> 5,205,736 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 1.89</p></td></tr><tr><td style="vertical-align:bottom;width:75%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">Granted</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 3,378,366</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;margin:0pt;padding:0pt;"> 0.67 </td></tr><tr><td style="vertical-align:bottom;width:75%;background:#cceeff;margin:0pt;padding:0pt;"> Forfeited </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;background:#cceeff;margin:0pt;padding:0pt;"> (906,166) </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;background:#cceeff;margin:0pt;padding:0pt;"> 1.88 </td></tr><tr><td style="vertical-align:bottom;width:75%;margin:0pt;padding:0pt;"> Vested </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> (588,956) </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;">

</td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 2.73</p></td></tr><tr><td style="vertical-align:bottom;width:75%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">Non-vested, June 30, 2024</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 7,088,980</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;background:#cceeff;margin:0pt;padding:0pt;"> 0.99 </td></tr></table> As of June 30, 2024, the Company had approximately $4,419,000 of total unrecognized compensation cost related to stock options which will be amortized over approximately 36 months. On March 29, 2024, the Board of Directors granted options to purchase 380,480 shares of common stock to certain executive officers and certain other non-executive officer employees related to the Company's salary reduction for stock options program. These options will vest in full on January 31, 2025. The grant date fair value of these unvested options amounted to approximately $249,000. On April 2, 2024, the Board of Directors granted options to purchase 1,214,400 shares of common stock to the Company's employees which will be awarded based upon each employee's 2024 individual performance evaluation. Once awarded, these options will vest one half on the first anniversary of the grant date, one quarter on the second anniversary of the grant date, and one quarter on the third anniversary of the grant date. The grant date fair value of these unvested options amounted to approximately $830,000. On April 2, 2024, the Board of Directors granted options to purchase 922,147 shares of common stock to certain of the Company's employees. These options will vest in full on the first anniversary of the grant date. The grant date fair value of these unvested options amounted to approximately $594,000. On April 2, 2024, the Board of Directors granted options to purchase 110,000 shares of common stock to members of the Company's Board of Directors. These options will vest in full on the first anniversary of the grant date. The grant date fair value of these unvested options amounted to approximately $71,000. On April 2, 2024, the Board of Directors granted options to purchase 556,000 shares of common stock to certain senior managers of the Company. These options will vest one half on the first anniversary of the grant date, one quarter on second anniversary of the grant date, one quarter on third anniversary of the grant date. The grant date fair value of these unvested options amounted to approximately $380,000. On April 8, 2024, the Board of Directors granted options to purchase 131,339 shares of common stock employees related to the Company's salary reduction for stock options program. The grant date fair value of these unvested options amounted to approximately $85,000. These options will vest in full on January 31, 2025. During the six months ended June 30, 2024, 64,000 options were awarded to newly hired employees and consultants in connection with their employment or consulting agreements. Change in Control-Based Awards of Restricted Stock Units: The Board of Directors has granted restricted stock units to members of the Board of Directors, to the Company's executive officers, and to employees of the Company. These restricted stock units will only vest upon a Change in Control of the Company, as defined in the Amended and Restated CytoSorbents Corporation 2014 Long-Term Incentive Plan. The following table is a summary of these restricted stock units: <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:45.47%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.88%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.75%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:45.47%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.88%;margin:0pt;padding:0pt;"> </td><td colspan="7" style="vertical-align:bottom;white-space:nowrap;width:40.82%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Restricted Stock Units </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.93%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:45.47%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.88%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"> Board of </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"> Executive </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"> Other </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.93%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:45.47%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.88%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Directors </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Management </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-

family:'Times New Roman', 'Times', 'serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;">Employees </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Total </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> . </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.93%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Intrinsic Value </td></tr><tr><td style="vertical-align:bottom;width:45.47%;background:#cceeff;margin:0pt;padding:0pt;"> December 31, 2023 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.88%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;background:#cceeff;margin:0pt;padding:0pt;"> 346,500 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;background:#cceeff;margin:0pt;padding:0pt;"> 779,500 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;background:#cceeff;margin:0pt;padding:0pt;"> 1,697,500 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;background:#cceeff;margin:0pt;padding:0pt;"> 2,823,500 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.17%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.75%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 3,134,085</p></td></tr><tr><td style="vertical-align:bottom;width:45.47%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">Granted</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.88%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> —</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> —</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 156,250</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 156,250</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.17%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">.</p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.75%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 0pt 0.05pt 0pt;"> .</p></td></tr><tr><td style="vertical-align:bottom;width:45.47%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">Forfeited</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.88%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> —</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> —</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 0pt 0.05pt 0pt;"> (283,750)</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 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0pt;">June 30, 2024</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.88%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 346,500</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 779,500</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 1,570,000</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 2,696,000</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">.</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.17%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:8.75%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 1,926,044 </td></tr></table> . Due to the uncertainty over whether these restricted stock units will vest, which only happens upon a Change in Control, no charge for these restricted stock units has been recorded in the consolidated statements of operations and comprehensive loss for the three and six months ended June 30, 2024 and 2023. Other Awards of Restricted Stock Units: On August 10, 2022, certain named executive officers and senior managers were granted 288,500 restricted stock units. These awards were valued at approximately $563,000 at the date of issuance, based upon the market price of the Company's common stock at the date of the grant, and vested (or will vest) one-third on the date of the grant, one-third on the first anniversary of the date of the grant, and one-third on the second anniversary of the date of the grant. For the three and six months ended June 30, 2024, and 2023, the Company recorded a charge of approximately $47,000 and $94,000, and $47,000 and $94,000, respectively, related to these restricted stock unit awards. On July 7, 2023, certain named executive officers and senior managers were granted 250,000 restricted stock units. These awards were valued at approximately $883,000 at the date of issuance, based upon the market price of the Company's common stock at the date of the grant, and will vest two-third on the first anniversary of date of the grant, and one-third on the second anniversary of the date of the grant. For the three and six months ended June 30, 2024, the Company recorded a charge of approximately $110,000 and $221,000, respectively, related to these restricted stock unit awards. On September 18, 2023, a named executive officer was granted 45,000 restricted stock units. This award was valued at approximately $89,000 at the date of issuance, based upon the market price of the Company's common stock at the date of the grant. These restricted stock units vested (will vest) as follows: 25,000 on the date of the grant, 10,000 on the first anniversary of the date of the grant and 10,000 on the second anniversary of the date of the grant. For the three and six months ended June 30, 2024, the Company recorded a charge of approximately $5,000 and $10,000, respectively, related to these restricted stock unit awards. On April 2, 2024, the Board of Directors granted 343,000 restricted stock units to certain senior managers of the Company. These awards were valued at approximately $328,000 at the date of issuance, based upon the market price of the Company's common stock at the date of the grant, and will vest one half on the first anniversary of the grant date and one half on the second anniversary of the grant date. For the three and six months ended June 30, 2024, the Company recorded a charge of approximately $40,000 and $40,000, respectively, related to these restricted stock unit awards. Additionally, certain employees were offered a total of 103,000 restricted stock units as a condition of their employment. These awards were valued at approximately $410,000 at the date of issuance. 40,000 of the restricted stock units valued at $149,000 were forfeited in Q2 2024. 20,000 of the restricted stock units valued at $132,000 were vested in Q2 2024. 13,000 of these restricted stock units vest upon the earlier of a Change in Control or one-third after the second anniversary of the award, one-third on the third anniversary of the award, and one-third on the fourth anniversary of the award. The other 30,000 of these restricted stock units vest upon the earlier of a Change in Control or three years from the date of the award. For the three and six months ended June 30, 2024, and 2023, the Company recorded a charge (income) of approximately $(191,000) and $(163,000), and $19,000 and $46,000, respectively, related to these restricted stock unit awards. The following table outlines the restricted stock unit activity for the six months ended June 30, 2024: . <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-

left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:80%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:74.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:74.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.86%;margin:0pt;padding:0pt;"> Weighted </td></tr><tr><td style="vertical-align:bottom;width:74.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.86%;margin:0pt;padding:0pt;"> Average </td></tr><tr><td style="vertical-align:bottom;width:74.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.86%;margin:0pt;padding:0pt;"> Grant Date </td></tr><tr><td style="vertical-align:bottom;width:74.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Shares </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.86%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Fair Value </td></tr><tr><td style="vertical-align:bottom;width:74.98%;background:#cceeff;margin:0pt;padding:0pt;"> Non-vested, December 31, 2023 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;background:#cceeff;margin:0pt;padding:0pt;"> 430,505 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 3.31</p></td></tr><tr><td style="vertical-align:bottom;width:74.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">Granted</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 373,000</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;margin:0pt;padding:0pt;"> 0.96 </td></tr><tr><td style="vertical-align:bottom;width:74.98%;background:#cceeff;margin:0pt;padding:0pt;"> Vested </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;background:#cceeff;margin:0pt;padding:0pt;"> (20,000) </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 6.59</p></td></tr><tr><td style="vertical-align:bottom;width:74.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">Forfeited</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 0pt 0.05pt 0pt;"> (40,000)</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;margin:0pt;padding:0pt;"> 3.73 </td></tr><tr><td style="vertical-align:bottom;white-space:nowrap;width:74.98%;background:#cceeff;margin:0pt;padding:0pt;"> Non-vested, June 30, 2024 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 743,505 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;background:#cceeff;margin:0pt;padding:0pt;"> 2.02 </td></tr></table> Warrants: As of June 30, 2024, the Company had 4,352,130 warrants outstanding. 2,706,561 warrants outstanding are related to the Company’s December 13, 2023 Offering and these warrants are immediately cash exercisable at an exercise price of $2.00 per share and expire on December 13, 2028. Another 1,645,569 warrants were issued on June 28, 2024 in connection with the Company’s Loan and Security Agreement with Avenue and these warrants have an exercise price of $0.79 and expire on June 28, 2029. The number of warrants is fixed, however, the exercise price may be adjusted down if the Company raises equity (excluding sales of equity utilizing the Company’s at-the-market equity facility) at a share price that is lower than $0.79. These warrants are excisable into common stock. 5000000500000001000000001500000001500000002500000000.030026564641.7645320006100053290 1.035300082900015630005700001401000 <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-

space:nowrap;width:1.24%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.24%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;margin:0pt;padding:0pt;"> Weighted </td></tr><tr><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.46%;margin:0pt;padding:0pt;"> Weighted </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;margin:0pt;padding:0pt;"> Average </td></tr><tr><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.46%;margin:0pt;padding:0pt;"> Average </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;margin:0pt;padding:0pt;"> Remaining </td></tr><tr><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.46%;margin:0pt;padding:0pt;"> Exercise Price </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;margin:0pt;padding:0pt;"> Contractual </td></tr><tr><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Shares </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.46%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> per Share </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Life (Years) </td></tr><tr><td style="vertical-align:bottom;width:66.99%;background:#cceeff;margin:0pt;padding:0pt;"> Outstanding, December 31, 2023 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:middle;white-space:nowrap;width:9.35%;background:#cceeff;margin:0pt;padding:0pt;"> 10,548,174 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.24%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.22%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 4.49</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 7.01</p></td></tr><tr><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">Granted</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:middle;white-space:nowrap;width:9.35%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;">3,378,366</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.24%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:8.22%;margin:0pt;padding:0pt;"> 0.95 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;margin:0pt;padding:0pt;"> — </td></tr><tr><td style="vertical-align:bottom;width:66.99%;background:#cceeff;margin:0pt;padding:0pt;"> Forfeited </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:middle;white-space:nowrap;width:9.35%;background:#cceeff;margin:0pt;padding:0pt;"> (906,166) </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.24%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.22%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 2.78</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> —</p></td></tr><tr><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">Expired</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt;"> (545,536)</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.24%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:8.22%;margin:0pt;padding:0pt;"> 5.31 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;margin:0pt;padding:0pt;"> <span style="font-family:'Times New Roman','Times','serif';font-size:10pt;font-style:normal;font-

weight:normal;"> — </td></tr><tr><td style="vertical-align:bottom;width:66.99%;background:#cceeff;margin:0pt;padding:0pt;"> Exercised </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.24%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.22%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;">—</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> —</p></td></tr><tr><td style="vertical-align:bottom;width:66.99%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">Outstanding, June 30, 2024</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.35%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 12,474,838</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.24%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:8.22%;margin:0pt;padding:0pt;"> 3.62 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.24%;margin:0pt;padding:0pt;"> 7.40 </td></tr></table>105481744.49P7Y3D33783660.959061662.785455365.31124748383.62P7Y4M24D0.840.99P6Y0.76600.03860.0465 The intrinsic value is calculated as the difference between the market value of the shares as of June 30, 2024 of $0.703 and the exercise price of the shares. <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:56.71%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.02%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.3%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.31%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.69%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.03%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.34%;margin:0pt;padding:0pt;"> </td></tr><tr><td colspan="11" style="vertical-align:bottom;width:100%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Options Outstanding </td></tr><tr><td style="vertical-align:bottom;width:56.71%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.5%;margin:0pt;padding:0pt;"> Number </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.33%;margin:0pt;padding:0pt;"> Weighted </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.31%;margin:0pt;padding:0pt;"> Weighted </td><td style="vertical-align:bottom;white-space:nowrap;width:1.69%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.03%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.34%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:56.71%;margin:0pt;padding:0pt;"> Range of </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.5%;margin:0pt;padding:0pt;"> Outstanding at </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.33%;margin:0pt;padding:0pt;"> Average </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.31%;margin:0pt;padding:0pt;"> Average </td><td style="vertical-align:bottom;white-space:nowrap;width:1.69%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> Aggregate </td></tr><tr><td style="vertical-align:bottom;width:56.71%;margin:0pt;padding:0pt;"> Exercise </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.5%;margin:0pt;padding:0pt;"> June 30, </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.33%;margin:0pt;padding:0pt;"> Exercise </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.31%;margin:0pt;padding:0pt;"> Remaining </td><td style="vertical-align:bottom;white-space:nowrap;width:1.69%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> Intrinsic </td></tr><tr><td style="vertical-align:bottom;width:56.71%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Price </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.5%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 2024 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.33%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Price </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.31%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Life (Years) </td><td style="vertical-align:bottom;white-space:nowrap;width:1.69%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:8pt;margin:0pt 0pt

0.05pt 0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Value </td></tr><tr><td style="vertical-align:bottom;width:56.71%;background:#cceeff;margin:0pt;padding:0pt;"> $0.84 - $13.20</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.5%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 12,474,838</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.02%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:8.3%;background:#cceeff;margin:0pt;padding:0pt;"> 3.62 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.68%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.31%;background:#cceeff;margin:0pt;padding:0pt;"> 7.4 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.69%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.03%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.34%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> —</p></td></tr></table><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;text-align:justify;margin:0pt;"></p><table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:80%;"><tr style="height:1pt;"><td style="vertical-align:bottom;white-space:nowrap;width:56.66%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.48%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:17.85%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.48%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:17.83%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td></tr><tr><td colspan="7" style="vertical-align:bottom;width:100%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"><b style="font-weight:bold;">Options Exercisable</p></td></tr><tr><td style="vertical-align:bottom;width:56.66%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"><b style="font-weight:bold;">Number</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:19.34%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"><b style="font-weight:bold;">Weighted</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:19.31%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"> </p></td></tr><tr><td style="vertical-align:bottom;width:56.66%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"><b style="font-weight:bold;">Exercisable at</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:19.34%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"><b style="font-weight:bold;">Average</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:19.31%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"><b style="font-weight:bold;">Aggregate</p></td></tr><tr><td style="vertical-align:bottom;width:56.66%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"><b style="font-weight:bold;">June 30, </p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:19.34%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"><b style="font-weight:bold;">Exercise</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:19.31%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"><b style="font-weight:bold;">Intrinsic</p></td></tr><tr><td style="vertical-align:bottom;width:56.66%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"><b style="font-weight:bold;">2024</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:8pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:19.34%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"><b style="font-weight:bold;">Price</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:8pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:19.31%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:8pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;"><b style="font-weight:bold;">Value</p></td></tr><tr><td style="vertical-align:bottom;white-space:nowrap;width:56.66%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;text-align:center;margin:0pt 0pt 0.05pt 0pt;">5,385,858</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.48%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:17.85%;background:#cceeff;margin:0pt;padding:0pt;"> 5.91 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.33%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.48%;background:#cceeff;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:17.83%;background:#cceeff;margin:0pt;padding:0pt;"> — </td></tr></table>0.7030.8413.20124748383.62P7Y4M24D53858585.91 <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:75%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:75%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.86%;margin:0pt;padding:0pt;"> Weighted </td></tr><tr><td style="vertical-align:bottom;width:75%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> <span style="font-size:8pt;font-

weight:bold;visibility:hidden;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.86%;margin:0pt;padding:0pt;"> Average </td></tr><tr><td style="vertical-align:bottom;width:75%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.86%;margin:0pt;padding:0pt;"> Grant Date </td></tr><tr><td style="vertical-align:bottom;width:75%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Shares </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.86%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Fair Value </td></tr><tr><td style="vertical-align:bottom;width:75%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:75%;background:#cceeff;margin:0pt;padding:0pt;"> Non-vested, December 31, 2023 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;background:#cceeff;margin:0pt;padding:0pt;"> 5,205,736 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 1.89</p></td></tr><tr><td style="vertical-align:bottom;width:75%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">Granted</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 3,378,366</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;margin:0pt;padding:0pt;"> 0.67 </td></tr><tr><td style="vertical-align:bottom;width:75%;background:#cceeff;margin:0pt;padding:0pt;"> Forfeited </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;background:#cceeff;margin:0pt;padding:0pt;"> (906,166) </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 1.88</p></td></tr><tr><td style="vertical-align:bottom;width:75%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">Vested</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt;"> (588,956)</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;margin:0pt;padding:0pt;"> 2.73 </td></tr><tr><td style="vertical-align:bottom;width:75%;background:#cceeff;margin:0pt;padding:0pt;"> Non-vested, June 30, 2024 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 7,088,980 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;background:#cceeff;margin:0pt;padding:0pt;"> 0.99 </td></tr>
</table>52057361.8933783660.679061661.885889562.7370889800.994419000P36M380480249000121440083000092214759400011000071000556000380000131339850006400
style="font-family:'Times New Roman','Times','serif';font-size:10pt;min-height:0.0pt;margin:0pt;"> <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:45.47%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.88%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.75%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:45.47%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.88%;margin:0pt;padding:0pt;"> </td><td colspan="7" style="vertical-align:bottom;white-space:nowrap;width:40.82%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Restricted Stock Units </td></tr><tr><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.93%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;width:45.47%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.88%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"> <b

style="font-weight:bold;">Board of </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"> Executive </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"> Other </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.93%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:45.47%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.88%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Directors </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Management </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Employees </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Total </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:9.93%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Intrinsic Value </td></tr><tr><td style="vertical-align:bottom;width:45.47%;background:#cceeff;margin:0pt;padding:0pt;"> December 31, 2023 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.88%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;background:#cceeff;margin:0pt;padding:0pt;"> 346,500 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;background:#cceeff;margin:0pt;padding:0pt;"> 779,500 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;background:#cceeff;margin:0pt;padding:0pt;"> 1,697,500 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;background:#cceeff;margin:0pt;padding:0pt;"> 2,823,500 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.17%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.75%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 3,134,085</p></td></tr><tr><td style="vertical-align:bottom;width:45.47%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">Granted</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.88%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> —</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> —</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 156,250</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 156,250</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.17%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.75%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 0pt 0.05pt 0pt;"> </p></td></tr><tr><td style="vertical-align:bottom;width:45.47%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">Forfeited</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.88%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> —</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> —</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 0pt 0.05pt 0pt;">(283,750)</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 0pt 0.05pt 0pt;">(283,750)</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.17%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.75%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 0pt 0.05pt 0pt;"> </p></td></tr><tr><td style="vertical-align:bottom;width:45.47%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">June 30, 2024</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.88%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 346,500</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 779,500</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 1,570,000</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:8.79%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 2,696,000</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.87%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.17%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:8.75%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 1,926,044 </td></tr>
</table>3465007795001697500282350031340850015625015625000283750283750346500779500157000026960001926044000028850056300047000940004700094000250000191000-16300019000460000 <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:80%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:74.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-

align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:74.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.86%;margin:0pt;padding:0pt;"> Weighted </td></tr><tr><td style="vertical-align:bottom;width:74.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.86%;margin:0pt;padding:0pt;"> Average </td></tr><tr><td style="vertical-align:bottom;width:74.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.86%;margin:0pt;padding:0pt;"> Grant Date </td></tr><tr><td style="vertical-align:bottom;width:74.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Shares </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.86%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Fair Value </td></tr><tr><td style="vertical-align:bottom;width:74.98%;background:#cceeff;margin:0pt;padding:0pt;"> Non-vested, December 31, 2023 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;background:#cceeff;margin:0pt;padding:0pt;"> 430,505 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 3.31</p></td></tr><tr><td style="vertical-align:bottom;width:74.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">Granted</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 373,000</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;margin:0pt;padding:0pt;"> 0.96 </td></tr><tr><td style="vertical-align:bottom;width:74.98%;background:#cceeff;margin:0pt;padding:0pt;"> Vested </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;background:#cceeff;margin:0pt;padding:0pt;"> (20,000) </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 6.59</p></td></tr><tr><td style="vertical-align:bottom;width:74.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">Forfeited</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 0pt 0.05pt 0pt;"> (40,000)</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;margin:0pt;padding:0pt;"> 3.73 </td></tr><tr><td style="vertical-align:bottom;white-space:nowrap;width:74.98%;background:#cceeff;margin:0pt;padding:0pt;"> Non-vested, June 30, 2024 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 743,505 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.38%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.36%;background:#cceeff;margin:0pt;padding:0pt;"> 2.02 </td></tr>
</table>4305053.313730000.96200006.59400003.737435052.02435213027065612.0016455690.790.79 4. REVENUE The following table disaggregates the Company's revenue by customer type and geographic area for the three months ended June 30, 2024: <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:-0.00925827%;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> <p style="font-family:'Times New

Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;margin:0pt;padding:0pt;"> Distributors/ </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;margin:0pt;padding:0pt;"> Government </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.7%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Direct </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Strategic Partners </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Agencies </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.68%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Total </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> Product sales: </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 20,398</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> 18,000 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;">—</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> 38,398 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> Germany </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;margin:0pt;padding:0pt;"> 2,778,594 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;margin:0pt;padding:0pt;"> 2,778,594 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"><p style="font-family:'Times New

Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0pt 6pt;">All other countries </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,673,812 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 4,350,985 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 6,024,797 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> Total product revenue </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;margin:0pt;padding:0pt;"> 4,472,804 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> 4,368,985 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;margin:0pt;padding:0pt;"> 8,841,789 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> Grant and other income: </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,052,847 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,052,847 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> Total revenue </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 4,472,804</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 4,368,985 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 1,052,847 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> <span

style="visibility:hidden;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 9,894,636</p></td></tr></table><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:justify;margin:0pt 0pt 12pt 0pt;">The following table disaggregates the Company's revenue by customer type and geographic area for the three months ended June 30, 2023:</p><table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:-0.00925827%;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></div></div></td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:8pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:center;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:center;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:8pt;text-align:center;margin:0pt;"><b style="font-weight:bold;">United States</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:center;margin:0pt;"></p></td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:8pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:center;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:8pt;text-align:center;margin:0pt;"><b style="font-weight:bold;">Distributors</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:8pt;text-align:center;margin:0pt;"><b style="font-weight:bold;">Government</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:center;margin:0pt;"></p></td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:8pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:8pt;margin:0pt;"> </p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.7%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:8pt;text-align:center;margin:0pt;"><b style="font-weight:bold;">Direct</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:8pt;margin:0pt;"> </p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:8pt;text-align:center;margin:0pt;"><b style="font-weight:bold;">Strategic Partners</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:8pt;margin:0pt;"> </p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:8pt;text-align:center;margin:0pt;"><b style="font-weight:bold;">Agencies</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:8pt;margin:0pt;"> </p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.68%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:8pt;text-align:center;margin:0pt;"><b style="font-weight:bold;">Total</p></td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">Product sales:</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt;"> </p></td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0pt 6pt;">United States</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> 6,583 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;">

</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> 6,583 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> Germany </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;margin:0pt;padding:0pt;"> 3,168,448 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;margin:0pt;padding:0pt;"> 3,168,448 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> All other countries </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,493,725 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td>
<td style="vertical-align:bottom;white-space:nowrap;width:10.22%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 3,403,656 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 4,897,381 </td>
</tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> Total product revenue </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;margin:0pt;padding:0pt;"> 4,668,756 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> 3,403,656 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;margin:0pt;padding:0pt;"> 8,072,412 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> Grant and other income: </td>
<td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;">
</td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td>
<td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td>
<td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,348,409 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td>
<td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,348,409 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-

align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> Total revenue </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 4,668,756</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 3,403,656 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 1,348,409</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 9,420,821 </td></tr></table> The following table disaggregates the Company's revenue by customer type and geographic area for the six months ended June 30, 2024: <table style="border-collapse:collapse;font-size:16pt;height:max-content;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.56%;margin:0pt;padding:0pt;"> Distributors/ </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;margin:0pt;padding:0pt;"> Government </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Direct </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.56%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Strategic Partners </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Agencies </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Total </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> Product sales: </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-

space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> 42,014 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> 36,000 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> 78,014 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> Germany </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> 6,316,321 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> 6,316,321 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> All other countries </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 3,424,353 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 8,012,621 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 11,436,974 </td>
</tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> Total product revenue </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> 9,782,688 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;margin:0pt;padding:0pt;"> 8,048,621 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> 17,831,309 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> Grant and other income: </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-

size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;">— </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,849,619 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,849,619 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> Total revenue </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 9,782,688</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 8,048,621 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 1,849,619</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 19,680,928 </td></tr></table> The following table disaggregates the Company's revenue by customer type and geographic area for the six months ended June 30, 2023: <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.56%;margin:0pt;padding:0pt;"> Distributors/ </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;margin:0pt;padding:0pt;"> Government </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"><p style="font-family:'Times New

Roman', 'Times', 'serif';font-size:8pt;margin:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Direct </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.56%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Strategic Partners </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Agencies </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Total </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> Product sales: </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 10,353</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">.</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> —</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">.</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> 10,353 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> Germany </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> 6,506,352 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> 6,506,352 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> All other countries </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 2,996,324 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 6,469,422 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 9,465,746 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> Total product revenue </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> 9,513,029 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;margin:0pt;padding:0pt;"> 6,469,422 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> 15,982,451 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> Grant and other income: </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> <span

style="visibility:hidden;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 2,887,866 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 2,887,866 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> Total revenue </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 9,513,029</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 6,469,422 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 2,887,866</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 18,870,317 </td></tr></table> The Company has two primary revenue streams: (1) sales of the CytoSorb device and related device accessories and (2) grant income from contracts with various agencies of the United States government. The following is a brief description of each revenue stream. CytoSorb Sales The Company sells its CytoSorb device using both its own sales force (direct sales) and through the use of distributors and/or strategic partners. The majority of sales of the device are outside the United States, as CytoSorb is not yet approved for commercial sale in the United States. However, in April 2020, the Company was granted EUA of CytoSorb for use in critically-ill patients infected with COVID-19 with imminent or confirmed respiratory failure by the FDA. Direct sales outside the United States relate to sales to hospitals located in Germany, Switzerland, Austria, Belgium, Luxembourg, Poland, the Netherlands, Sweden, Denmark, Norway and the United Kingdom. Direct sales are fulfilled from the Company's warehouse facility in Berlin, Germany. There are no formal sales contracts with any direct customers relating to product price or minimum purchase requirements. However, there are agreements in place with certain direct customers that provide for either free of charge product or rebate credits based upon achieving minimum purchase levels. The Company records the value of these items earned as a reduction of revenue. These customers submit purchase orders and the order is fulfilled and shipped directly to the customer. Prices to all direct customers are based on a standard price list based on the packaged quantity (6 packs versus 12 packs). Distributor and strategic partner sales make up the remaining product sales. These distributors are located in various countries throughout the world. The Company has a formal written contract with each distributor/strategic partner. These contracts have terms ranging from 1-5 years in length, with three years being the typical term. In addition, certain distributors are eligible for volume discount pricing if their unit sales are in excess of the base amount in the contract. Most distributor's/strategic partner's contracts have minimum annual purchase requirements in order to maintain exclusivity in their respective territories. There is no additional consideration or monetary penalty that would be required to be paid to CytoSorbents if a distributor does not meet the minimum purchase commitments included in the contract, however, at the discretion of the Company, the distributor may lose its exclusive rights in the territory if such commitments are not met. Government Grants The Company has been the recipient of various grant contracts from various agencies of the United States government, primarily the Department of Defense, to perform various research and development activities. These contracts fall into one of the following categories: <table style="border-collapse:collapse;font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin-bottom:12pt;margin-top:0pt;table-layout:fixed;text-align:justify;width:100%;border:0pt;"><tr><td style="width:36pt;"></td><td style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;vertical-align:text-top;white-space:nowrap;width:18pt;padding:0pt;">1.</td><td style="padding:0pt;">Fixed price – the Company invoices the contract amount in equal installments over the term of the contract without regard to the timing of the costs incurred related to this contract. If billings on fixed price contracts exceed the costs incurred, revenue will be deferred to the extent of the excess billings.</td></tr></table><table style="border-collapse:collapse;font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin-bottom:12pt;margin-top:0pt;table-layout:fixed;text-align:justify;width:100%;border:0pt;"><tr><td style="width:36pt;"></td><td style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;vertical-align:text-top;white-space:nowrap;width:18pt;padding:0pt;">2.</td><td style="padding:0pt;">Cost reimbursement – the Company submits monthly invoices during the term of the contract for the amount of direct costs incurred during that month plus an agreed upon percentage that relates to allowable overhead and general and administrative expenses. Cumulative amounts invoiced may not exceed the maximum amount of funding stipulated in the contract.</td></tr></table><table style="border-collapse:collapse;font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin-bottom:12pt;margin-top:0pt;table-layout:fixed;text-align:justify;width:100%;border:0pt;"><tr><td style="width:36pt;"></td><td style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;vertical-align:text-top;white-space:nowrap;width:18pt;padding:0pt;">3.</td><td style="padding:0pt;">Cost plus – this type of contract is similar to a cost reimbursement contract but this type also allows for the Company to additionally invoice for a fee amount that is included in the contract.</td></tr></table><table style="border-collapse:collapse;font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin-bottom:0pt;margin-top:0pt;table-layout:fixed;text-align:justify;width:100%;border:0pt;"><tr><td

style="width:36pt;"></td><td style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;vertical-align:text-top;white-space:nowrap;width:18pt;padding:0pt;">4.</td><td style="padding:0pt;">Performance based – the Company submits invoices only upon the achievement of the milestones listed in the contract. The amount to be invoiced for each milestone is documented in the contract.</td></tr></table> These government contracts have terms ranging from three months to four years. The Company may apply for an extension of the term of the contract in order to complete its research and development activities but would not receive additional funding during the extension period in excess of the original contract. See Note 2 regarding the accounting policies related to these contracts. In summary, the contracts the Company has with customers are the distributor/strategic partner contracts related to CytoSorb product sales, agreements with direct customers related to free-of-charge product and credit rebates based upon achieving minimum purchase levels, and contracts with various government agencies related to the Company's grants. The Company does not currently incur any outside/third party incremental costs to obtain any of these contracts. The Company does incur internal costs, primarily salary related costs, to obtain the contracts related to the grants. Company employees spend time reviewing the program requirements and developing the budget and related proposal to submit to the grantor agency. There may additionally be travel expenditures involved with meeting with government agency officials during the negotiation of the contract. These internal costs are expensed as incurred. The following table provides information about receivables and contract liabilities from contracts with customers: <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:71.44%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.25%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.41%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.6%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.25%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.41%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.6%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:71.44%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.25%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:12.01%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> June 30, 2024 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.25%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:12.01%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> December 31, 2023 </td></tr><tr><td style="vertical-align:bottom;width:71.44%;background:#cceeff;margin:0pt;padding:0pt;"> Receivables, which are included in grants and accounts receivable </td><td style="vertical-align:bottom;white-space:nowrap;width:2.25%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.41%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:10.6%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 5,906,808</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.25%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.41%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.6%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 3,846,271 </td></tr><tr><td style="vertical-align:bottom;white-space:nowrap;width:71.44%;margin:0pt;padding:0pt;"> Contract liabilities, which are included in accrued expenses and other current liabilities </td><td style="vertical-align:bottom;white-space:nowrap;width:2.25%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.41%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:10.6%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 1,298,050</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.25%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.41%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.6%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 1,573,141 </td></tr></table> Contract receivables represent balances due from product sales to distributors amounting to $5,424,751 and $3,270,724 at June 30, 2024 and December 31, 2023, respectively, and billed and unbilled amounts due on government contracts amounting to $482,057 and $575,547 at June 30, 2024 and December 31, 2023, respectively. Contract liabilities represent the value of free of charge goods and credit rebates earned in accordance with the terms of certain direct customer agreements, which amounted to $201,887 and $196,322 as of June 30, 2024 and December 31, 2023, respectively, and deferred grant revenue related to the billing on fixed price contracts in excess of costs incurred, which amounted to $1,096,163 and $1,376,819 at June 30, 2024 and December 31, 2023, respectively. The following table disaggregates the Company's revenue by customer type and geographic area for the three months ended June 30, 2024: <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:-0.00925827%;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><p

style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;margin:0pt;padding:0pt;"> Distributors/ </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;margin:0pt;padding:0pt;"> Government </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.7%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Direct </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Strategic Partners </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Agencies </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.68%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Total </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> Product sales: </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 20,398</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> 18,000 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> —</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> 38,398 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> Germany </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;margin:0pt;padding:0pt;"> 2,778,594 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;margin:0pt;padding:0pt;"> 2,778,594 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> All other countries </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,673,812 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 4,350,985 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-

space:nowrap;width:1.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 6,024,797 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> Total product revenue </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;margin:0pt;padding:0pt;"> 4,472,804 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> 4,368,985 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;margin:0pt;padding:0pt;"> 8,841,789 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> Grant and other income: </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,052,847 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,052,847 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> Total revenue </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 4,472,804</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 4,368,985 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 1,052,847</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 9,894,636 </td></tr></table> The following table disaggregates the Company’s revenue by customer type and geographic area for the three months ended June 30, 2023: <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:-0.00925827%;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> <p style="font-family:'Times New

Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:11.59%;margin:0pt;padding:0pt;"> Distributors </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;margin:0pt;padding:0pt;"> Government </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.7%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Direct </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Strategic Partners </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.59%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Agencies </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:10.68%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Total </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> Product sales: </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 6,583</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> —</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> 6,583 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> Germany </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-

size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 3,168,448 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;margin:0pt;padding:0pt;"> 3,168,448 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> All other countries </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,493,725 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 3,403,656 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 4,897,381 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> Total product revenue </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;margin:0pt;padding:0pt;"> 4,668,756 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> 3,403,656 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;margin:0pt;padding:0pt;"> 8,072,412 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> Grant and other income: </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,348,409 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,348,409 </td></tr><tr><td style="vertical-align:bottom;width:46.65%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.65%;background:#cceeff;margin:0pt;padding:0pt;"> Total revenue </td><td style="vertical-align:bottom;white-

space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.32%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 4,668,756</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.2%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 3,403,656 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:10.22%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 1,348,409</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.17%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.37%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.3%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 9,420,821 </td></tr></table> The following table disaggregates the Company’s revenue by customer type and geographic area for the six months ended June 30, 2024: <table style="border-collapse:collapse;font-size:16pt;height:max-content;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.56%;margin:0pt;padding:0pt;"> Distributors/ </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;margin:0pt;padding:0pt;"> Government </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Direct </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.56%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Strategic Partners </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Agencies </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Total </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> Product sales: </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;">

</td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> 42,014 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> 36,000 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> 78,014 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> Germany </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> 6,316,321 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> 6,316,321 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> All other countries </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 3,424,353 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;">
. </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> . </td>
<td style="vertical-align:bottom;white-space:nowrap;width:10.05%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 8,012,621 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;">
. </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 11,436,974 </td>
</tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> Total product revenue </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> 9,782,688 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;margin:0pt;padding:0pt;"> 8,048,621 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> 17,831,309 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> Grant and other income: </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> . </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> . </td>
<td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> . </td>
<td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,849,619 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> . </td>
<td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,849,619 </td></tr><tr><td style="vertical-

*align:bottom;width:46.49%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;">
</td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> Total revenue </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 9,782,688</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 8,048,621 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 1,849,619</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 19,680,928 </td></tr></table>
The following table disaggregates the Company's revenue by customer type and geographic area for the six months ended June 30, 2023: <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.56%;margin:0pt;padding:0pt;"> Distributors/ </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;margin:0pt;padding:0pt;"> Government </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Direct </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.56%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Strategic Partners </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Agencies </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:11.01%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> Total </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> Product sales: </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-*

space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 10,353</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> —</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> 10,353 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> Germany </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> 6,506,352 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> 6,506,352 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> All other countries </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 2,996,324 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 6,469,422 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 9,465,746 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> Total product revenue </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> 9,513,029 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;margin:0pt;padding:0pt;"> 6,469,422 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;margin:0pt;padding:0pt;"> 15,982,451 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> Grant and other income: </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> United States </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> <span

style="visibility:hidden;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 2,887,866 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 2,887,866 </td></tr><tr><td style="vertical-align:bottom;width:46.49%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:46.49%;background:#cceeff;margin:0pt;padding:0pt;"> Total revenue </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 9,513,029</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.5%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.05%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 6,469,422 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 2,887,866</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.22%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.39%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:9.62%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 18,870,317 </td></tr>
</table>203981800038398277859427785941673812435098560247974472804436898588417891052847105284744728044368985105284789846366583653316844831684481
style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;min-height:0.0pt;margin:0pt;"> <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:100%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:71.44%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.25%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.41%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.6%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.25%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.41%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:10.6%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:71.44%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.25%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:12.01%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> June 30, 2024 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.25%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:12.01%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> December 31, 2023 </td></tr><tr><td style="vertical-align:bottom;width:71.44%;background:#cceeff;margin:0pt;padding:0pt;"> Receivables, which are included in grants and accounts receivable </td><td style="vertical-align:bottom;white-space:nowrap;width:2.25%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.41%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:10.6%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 5,906,808</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.25%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.41%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.6%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 3,846,271 </td></tr><tr><td style="vertical-align:bottom;white-space:nowrap;width:71.44%;margin:0pt;padding:0pt;"> Contract liabilities, which are included in accrued expenses and other current liabilities </td><td style="vertical-align:bottom;white-space:nowrap;width:2.25%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.41%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:10.6%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 1,298,050</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.25%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.41%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:10.6%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 1,573,141 </td></tr></table>5906808384627112980501573141542475132707244820575755472018871963221096163137687819 5. LONG-TERM DEBT, NET Avenue Capital Group: On June 28, 2024 (the “Closing Date”), the Company entered into a Loan and Security Agreement (as amended, supplemented, restated or otherwise modified as of the date hereof and from time to time, the “Loan and Security Agreement”) with Avenue Venture

Opportunities Fund, L.P., a Delaware limited partnership ("Avenue"), Avenue Venture Opportunities Fund II, L.P., a Delaware limited partnership ("Avenue 2" and, together with Avenue, the "Lenders"), and Avenue Capital Management II, L.P., a Delaware limited partnership (the "Administrative and Collateral Agent"). Under the Loan and Security Agreement, the Lenders have agreed to loan to the Company up to an aggregate of $20 million, to be disbursed in two tranches: (1) one tranche of $15 million ("Growth Capital Loan Tranche 1") on the Closing Date, with $4.5 million funded by Avenue and $10.5 million funded by Avenue 2, of which $10 million is available to the Company on the Closing Date and $5 million constitutes restricted cash subject to release to the Company prior to March 31, 2025, provided (i) the FDA has accepted Company's application for review with respect to DrugSorb-ATR De Novo 510(k) and (ii) the Company has received a minimum of $3 million in net proceeds from the sale of its equity securities after the Closing Date. The restriction will be released on a dollar for dollar basis for equity raised between $3 million and $5 million and (2) a second tranche of up to $5 million, which may be disbursed at the Company's request between July 1, 2025 and December 31, 2025, provided that the Company receives FDA marketing approval of its DrugSorb-ATR application ("Growth Capital Loan Tranche 2" and together with Growth Capital Loan Tranche 1, the "Growth Capital Loans" or the "Commitment"). The proceeds from the Commitment were used to pay off the existing outstanding debt with Bridge Bank, and will additionally be used for working capital purposes and to fund general business requirements in accordance with the terms of the Loan and Security Agreement. Each Growth Capital Loan shall bear interest at a variable rate per annum equal to the greater of (A) the Prime Rate (as defined in the Loan and Security Agreement) plus five percent (5.00%) or (B) thirteen and one-half percent (13.50%). Commencing on August 1, 2024, the Company shall make monthly payments during the term of each Growth Capital Loan of interest only during the initial 25-month period following the Closing Date (as may be extended to the 30 months anniversary of the Closing Date upon satisfaction of certain conditions) and thereafter to maturity in equal monthly installments of principal plus accrued and unpaid interest. All unpaid principal and accrued and unpaid interest shall be due and payable in full on July 1, 2027; provided, however that if the Company draws the full amount of Growth Capital Loan Tranche 2 by December 2025, all unpaid principal and accrued and unpaid interest shall be due and payable in full by January 1, 2028. In addition, the Loan and Security Agreement required the Company to pay a non-refundable commitment fee equal to 1.00% of the Commitment due and payable on the Closing Date. In addition to the non-refundable commitment fee, the Company also paid financial advisor fees and legal fees of approximately $640,000 related to the Commitment. These costs are being amortized over the loan period as a charge to interest expense. During the three and six months ended June 30, 2024, the Company recorded interest expense of approximately $2,000 related to these costs. In addition, the Loan and Security Agreement requires the Company to pay a non-refundable final payment equal to 4.5% of the original commitment amount. This final payment has been accrued and included as part of the debt discount. This discount will be charged to interest expense over the term of the loan. For the three and six months ended June 30, 2024, the Company recorded interest expense of approximately $2,500 related to the debt discount. The Capital Growth Loans are evidenced by secured promissory notes issued to the Lenders by the Company. If the Company elects to prepay the Growth Capital Loan(s) pursuant to the terms of the Loan and Security Agreement, it will owe a prepayment fee to the Lenders, as follows: (1) for a prepayment made on or after the funding date of a Growth Capital Loan through and including the first anniversary of such funding date, an amount equal to 3.00% of the principal amount of such Growth Capital Loan prepaid; (2) for a prepayment made after the first anniversary of the funding date of a Growth Capital Loan through and including the second anniversary of such funding date, an amount equal to 2.00% of the principal amount of such Growth Capital Loan prepaid; and (3) for a prepayment made any time after the second anniversary of the funding date of a Growth Capital Loan, an amount equal to 1.00% of the principal amount of such Growth Capital Loan prepaid. Events of default which may cause repayment of the Commitment to be accelerated include, among other customary events of default, (1) non-payment of any obligation when due, (2) the failure to perform any obligation required under the Loan and Security Agreement and to cure such default within a reasonable time frame, (3) the occurrence of any circumstance that has a Material Adverse Effect (as defined in the Loan and Security Agreement), (4) default beyond any applicable grace period or cure under any other agreement involving the borrowing of money in excess of the Threshold Amount (as defined in the Loan and Security Agreement), (5) any judgment(s) singly or in the aggregate in excess of the Threshold Amount entered against the Company that remain unsatisfied, unvacated or unstayed for 15 days or more after entry thereof (to the extent not otherwise covered by independent third-party insurance), and (6) if the Company becomes insolvent or starts an insolvency proceeding or if an insolvency proceeding is brought by a third party against the Company and such proceeding is not dismissed or stayed within 45 days. The Loan and Security Agreement includes customary loan conditions, company representations and warranties, company affirmative covenants and company negative covenants for secured transactions of this type. As of June 30, 2024, the Company was in compliance with these covenants. As additional consideration for the Commitment, on June 28, 2024, the Company also issued each Lender a warrant instrument (each, a "Warrant") entitling the Lenders to purchase an aggregate of 1,645,569 shares of the Company's common stock for cash at the exercise price of $0.79 and expire on June 28, 2029. The number of warrants is fixed, however, the exercise price may be adjusted down if the Company raises equity (excluding sales of equity utilizing the Company's at-the-market equity facility) at a share price that is lower than $0.79. These warrants meet the criteria for equity classification under ASC 815. Accordingly, the Company has recorded a debt discount and additional paid in capital of approximately $690,000 related to these warrants as of June 30, 2024. This discount will be charged to interest expense over the term of the loan. The Lenders were also granted the right while the Commitment is outstanding to convert up to an aggregate amount of $2,000,000 of the principal amount of the outstanding Growth Capital Loans into the Company's common stock at a fixed conversion price of 120% of the Closing Price (as defined in the warrant) or $0.95 per share (the "Conversion Option").</p><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:justify;margin:0pt;">The Company's and CytoSorbents Medical's obligations under the Loan and Security Agreement are joint and several. The obligations under the Loan and Security Agreement are secured by a first priority security interest in favor of the Lenders with respect to the Company's Shares (as defined in the Loan and Security Agreement) and the Company's Collateral (as defined in the Loan and Security Agreement), which includes the Company's intellectual property, pursuant to that certain Intellectual Property Security Agreement, dated as of June 28, 2024, by and between the Company and the Administrative and Collateral Agent.</p><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:justify;margin:0pt;"></p><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:justify;margin:0pt;">Long-term debt consists of the following as of June 30, 2024:</p><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:justify;margin:0pt;"></p><table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:80%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:83.34%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:2.53%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.45%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:12.66%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"></p></div></div></td></tr><tr><td style="vertical-align:bottom;width:83.34%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">Principal amount</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.53%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:12.66%;background:#cceeff;margin:0pt;padding:0pt;"> 15,000,000 </td></tr><tr><td style="vertical-align:bottom;width:83.34%;margin:0pt;padding:0pt;"> Accrued final fee </td><td style="vertical-align:bottom;white-space:nowrap;width:2.53%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.45%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.66%;margin:0pt;padding:0pt;"> 900,000 </td></tr><tr><td style="vertical-align:bottom;width:83.34%;background:#cceeff;margin:0pt;padding:0pt;"> Less unamortized debt discount </td><td style="vertical-align:bottom;white-space:nowrap;width:2.53%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.45%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.66%;background:#cceeff;margin:0pt;padding:0pt;"> (1,588,209) </td></tr><tr><td style="vertical-align:bottom;width:83.34%;margin:0pt;padding:0pt;"> Less unamortized debt acquisition costs </td><td style="vertical-align:bottom;white-space:nowrap;width:2.53%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.45%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.66%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> (638,596) </td></tr><tr><td style="vertical-align:bottom;width:83.34%;background:#cceeff;margin:0pt;padding:0pt;"> Subtotal </td><td style="vertical-align:bottom;white-space:nowrap;width:2.53%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.45%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.66%;background:#cceeff;margin:0pt;padding:0pt;"> 13,673,195 </td></tr><tr><td style="vertical-align:bottom;width:83.34%;margin:0pt;padding:0pt;"> Less Current maturities </td><td style="vertical-align:bottom;white-space:nowrap;width:2.53%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.45%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.66%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td></tr><tr><td style="vertical-align:bottom;width:83.34%;background:#cceeff;margin:0pt;padding:0pt;"> Long-term debt net of current maturities </td><td style="vertical-align:bottom;white-space:nowrap;width:2.53%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.45%;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:12.66%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 13,673,195 </td></tr></table> Principal payments of long-

term debt are due as follows during the periods ending June 30: <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:80%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:83.34%;margin:0pt;padding:0pt;"> | </td><td style="vertical-align:bottom;white-space:nowrap;width:2.63%;margin:0pt;padding:0pt;"> | </td><td style="vertical-align:bottom;white-space:nowrap;width:1.65%;margin:0pt;padding:0pt;"> | </td><td style="vertical-align:bottom;white-space:nowrap;width:12.36%;margin:0pt;padding:0pt;"> | </td></tr><tr><td style="vertical-align:bottom;width:83.34%;background:#cceeff;margin:0pt;padding:0pt;"> 2025 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.63%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.65%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:12.36%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> —</p></td></tr><tr><td style="vertical-align:bottom;width:83.34%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;padding-left:7.2pt;text-indent:-7.2pt;margin:0pt;">2026</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.63%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.65%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">|</p></td><td style="vertical-align:bottom;white-space:nowrap;width:12.36%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> —</p></td></tr><tr><td style="vertical-align:bottom;width:83.34%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;padding-left:7.2pt;text-indent:-7.2pt;margin:0pt;">2027</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.63%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">|</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.65%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:12.36%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 13,750,000</p></td></tr><tr><td style="vertical-align:bottom;width:83.34%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;padding-left:7.2pt;text-indent:-7.2pt;margin:0pt;">2028</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.63%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">|</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.65%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">|</p></td><td style="vertical-align:bottom;white-space:nowrap;width:12.36%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 1,250,000</p></td></tr><tr><td style="vertical-align:bottom;width:83.34%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;padding-left:7.2pt;text-indent:-7.2pt;margin:0pt;">Total</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.63%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">|</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.65%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:12.36%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 15,000,000 </td></tr></table> | | Bridge Bank: | On June 28, 2024, concurrent with the closing of the Avenue financing discussed above, the Company paid off its existing outstanding debt with Bridge Bank. The following items survive the termination of the Bridge Bank Amended and Restated Loan and Security Agreement and related amendments: | 2018 Success Fee Letter: Pursuant to the amended 2018 Letter, the Borrower shall pay to the Bank a success fee in the amount equal to 6.37% of the funded amount of the Term B Loan (as defined in the Restated Loan and Security Agreement) (the “Success Fee”) upon the first occurrence of any of the following events: (a) a sale or other disposition by the Borrower of all or substantially all of its assets; (b) a merger or consolidation of the Borrower into or with another person or entity, where the holders of the Borrower’s outstanding voting equity securities as of immediately prior to such merger or consolidation hold less than a majority of the issued and outstanding voting equity securities of the successor or surviving person or entity as of immediately following the consummation of such merger or consolidation; (c) a transaction or a series of related transactions in which any “person” or “group” (within the meaning of Section 13(d) and 14(d)(2) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) becomes the “beneficial owner” (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of a sufficient number of shares of all classes of stock then outstanding of the Borrower ordinarily entitled to vote in the election of directors, empowering such “person” or “group” to elect a majority of the Board of Directors of the Borrower, who did not have such power before such transaction; or (d) the closing price per share for the Company’s common stock on the Nasdaq Capital Market being the greater of (i) 70% or more over $7.05, the closing price of the Company’s common stock on March 29, 2018 (after giving effect to any stock splits or consolidations effected after the date thereof) for five successive business days, or (ii) at least 26.13% more than the average price of Company’s common stock for the 365-day period ending on the date of the funding of the Term B Loan. This obligation terminated on the fifth anniversary of the funding of the Term B Loan which was July 31, 2024. 2022 Success Fee Letter: Pursuant to the 2022 Success Fee Letter, the Borrower will pay to the Bank a success fee equal to (i) 1% of $5 million if the Company draws down the first tranche of the Term C Loan and is payable only if the Company’s stock price equals or exceeds $8 for five consecutive trading days; (ii) 1.5% of $5 million if the Company draws down the second tranche of the Term C Loan and is payable only if the Company’s stock price equals or exceeds $10 for five consecutive trading days; and (iii) 2% of $5,000,000 if the Company draws down the third tranche of the Term C Loan and is payable only if the Company’s stock price equals or exceeds $12 for five consecutive trading days (together, the “Success Fee”). As of June 28, 2024, the Company had drawn down only the first tranche of the Term C Loan. Borrower may pay the Success Fee in cash or in shares of common stock, at Borrower’s sole discretion. The right of Bank to receive the Success Fees and the obligation of the Borrower to pay the Success Fees hereunder shall terminate on the date that is the fifth anniversary of the funding date of the last Term C Loans made but shall survive the termination of the Loan Agreement and any prepayment of the Term C Loans. The termination date of this Letter is December 27, 2027.</p>2000000015000000450000010500000100000005000000300000030000005000000500000000.05000.1350P25MP30M0.010064000020000.045250025000.03000.02000.0100<p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:justify;margin:0pt;">Long-term debt consists of the following as of June 30, 2024:</p><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:justify;margin:0pt;"></p><table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:80%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:83.34%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">|</p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:2.53%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">|</p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.45%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">|</p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:12.66%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">|</p></div></div></td></tr><tr><td style="vertical-align:bottom;width:83.34%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">Principal amount</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.53%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.45%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0.05pt 0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:12.66%;background:#cceeff;margin:0pt;padding:0pt;"> 15,000,000 </td></tr><tr><td style="vertical-align:bottom;width:83.34%;margin:0pt;padding:0pt;"> Accrued final fee </td><td style="vertical-align:bottom;white-space:nowrap;width:2.53%;margin:0pt;padding:0pt;"> | </td><td style="vertical-align:bottom;white-space:nowrap;width:1.45%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.66%;margin:0pt;padding:0pt;"> 900,000 </td></tr><tr><td style="vertical-align:bottom;width:83.34%;background:#cceeff;margin:0pt;padding:0pt;"> Less unamortized debt discount </td><td style="vertical-align:bottom;white-space:nowrap;width:2.53%;background:#cceeff;margin:0pt;padding:0pt;"> | </td><td style="vertical-align:bottom;white-space:nowrap;width:1.45%;background:#cceeff;margin:0pt;padding:0pt;"> | </td><td style="vertical-align:bottom;white-space:nowrap;width:12.66%;background:#cceeff;margin:0pt;padding:0pt;"> (1,588,209) </td></tr><tr><td style="vertical-align:bottom;width:83.34%;margin:0pt;padding:0pt;"> Less unamortized debt acquisition costs </td><td style="vertical-align:bottom;white-space:nowrap;width:2.53%;margin:0pt;padding:0pt;"> | </td><td style="vertical-align:bottom;white-space:nowrap;width:1.45%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> | </td><td style="vertical-align:bottom;white-space:nowrap;width:12.66%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-

size:10pt;text-align:right;margin:0pt 0pt 0.05pt 0pt;"> (638,596) </td></tr><tr><td style="vertical-align:bottom;width:83.34%;background:#cceeff;margin:0pt;padding:0pt;"> Subtotal </td><td style="vertical-align:bottom;white-space:nowrap;width:2.53%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.45%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.66%;background:#cceeff;margin:0pt;padding:0pt;"> 13,673,195 </td></tr><tr><td style="vertical-align:bottom;width:83.34%;margin:0pt;padding:0pt;"> Less Current maturities </td><td style="vertical-align:bottom;white-space:nowrap;width:2.53%;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.45%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.66%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> — </td></tr><tr><td style="vertical-align:bottom;width:83.34%;background:#cceeff;margin:0pt;padding:0pt;"> Long-term debt net of current maturities </td><td style="vertical-align:bottom;white-space:nowrap;width:2.53%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.45%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:12.66%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0.05pt 0pt;"> 13,673,195</p></td></tr></table>150000009000001588209638596136731951367319 5<p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:justify;margin:0pt;">Principal payments of long-term debt are due as follows during the periods ending June 30:</p><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:justify;margin:0pt;">.</p><table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:80%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:83.34%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">.</p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:2.63%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">.</p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.65%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">.</p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:12.36%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">.</p></div></div></td></tr><tr><td style="vertical-align:bottom;width:83.34%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;padding-left:7.2pt;text-indent:-7.2pt;margin:0pt;">2025</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.63%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.65%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:12.36%;background:#cceeff;margin:0pt;padding:0pt;"> — </td></tr><tr><td style="vertical-align:bottom;width:83.34%;margin:0pt;padding:0pt;"> 2026 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.63%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.65%;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:12.36%;margin:0pt;padding:0pt;"> — </td></tr><tr><td style="vertical-align:bottom;width:83.34%;background:#cceeff;margin:0pt;padding:0pt;"> 2027 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.63%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.65%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.36%;background:#cceeff;margin:0pt;padding:0pt;"> 13,750,000 </td></tr><tr><td style="vertical-align:bottom;width:83.34%;margin:0pt;padding:0pt;"> 2028 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.63%;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.65%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:12.36%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 1,250,000 </td></tr><tr><td style="vertical-align:bottom;width:83.34%;background:#cceeff;margin:0pt;padding:0pt;"> Total </td><td style="vertical-align:bottom;white-space:nowrap;width:2.63%;background:#cceeff;margin:0pt;padding:0pt;"> . </td><td style="vertical-align:bottom;white-space:nowrap;width:1.65%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:12.36%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 15,000,000 </td></tr>
</table>13750000125000015000000 0.06370.707.050.26130.01500000080.0155000000100.02500000012 6. COMMITMENTS AND CONTINGENCIES Employment Agreements On July 30, 2019, CytoSorbents Corporation entered into amended and restated executive employment agreements with its principal executives, Dr. Phillip P. Chan, Chief Executive Officer, Vincent Capponi, President and Chief Operating Officer, and Kathleen P. Bloch, the Company's former Chief Financial Officer. Each of the agreements has an initial term of three years and was retroactively effective as of January 1, 2019. On April 12, 2020, CytoSorbents Corporation entered into an executive employment agreement with Dr. Efthymios Deliargyris, who began employment as Chief Medical Officer on May 1, 2020, with an initial term that expired on December 31, 2021. After the expiration of the initial terms, the employment agreements will automatically renew for additional terms of one year unless either party provides written notice of non-renewal at least 60 days prior to a renewal. In January 2024, these employment agreements automatically renewed for an additional one year. The foregoing employment agreements each provide for base salary and other customary benefits which include participation in group insurance plans, paid time off and reimbursement of certain business-related expenses, including travel and continuing educational expenses, as well as bonus and/or equity awards at the discretion of the Board of Directors. In addition, the agreements provide for certain termination benefits in the event of termination without "Cause" or voluntary termination of employment for "Good Reason", as defined in each agreement. The agreements also provide for certain benefits in the event of a "Change of Control" of the Company, as defined in each agreement. Effective March 31, 2023, Ms. Bloch retired from her role as Chief Financial Officer of the Company. Ms. Bloch's employment agreement expired on March 31, 2023, upon her retirement from the Company. In connection with Ms. Bloch's retirement, the Company and Ms. Bloch entered into a Consulting Agreement, dated as of March 31, 2023 (the "Consulting Agreement"), pursuant to which Ms. Bloch served as a consultant to the Company and as the Company's Interim Chief Financial Officer. On September 18, 2023, the Company entered into a new Employment Agreement with Ms. Kathleen P. Bloch pursuant to which Ms. Bloch will continue to serve as the Company's Chief Financial Officer. Ms. Bloch's service under the Employment Agreement has replaced and terminated the Consulting Agreement disclosed above. The Employment Agreement provides for base salary and other customary benefits which include participation in group insurance plans, paid time off and reimbursement of certain business-related expenses, including travel and continuing educational expenses, as well as bonus and/or equity awards at the discretion of the Board of Directors. In addition, the agreement provides for certain termination benefits in the event of termination without "Cause" or voluntary termination of employment for "Good Reason", as defined in each agreement. Unless terminated sooner by either the Company or Ms. Bloch, the Employment Agreement will remain in effect until December 31, 2025, and thereafter, as mutually agreed between the Company and Ms. Bloch. Litigation The Company is, from time to time, subject to claims and litigation arising in the ordinary course of business. The Company intends to defend vigorously against any future claims and litigation. On March 5, 2024, Danielle Greene, a former employee, filed a complaint against us in the Superior Court of New Jersey, Law Division, Mercer County, alleging breach of the New Jersey Conscientious Employee Protection Act ("CEPA"). The complaint specifically alleges that we violated the provisions of the CEPA by allegedly terminating Ms. Greene in retaliation for complaining about certain business practices. We dispute these allegations and intend to vigorously defend against them, but there can be no assurance as to the outcome of the litigation. Royalty Agreements Pursuant to an agreement dated August 11, 2003, an existing investor agreed to make a $4 million equity investment in the Company. These amounts were received by the Company in 2003. In connection with this agreement the Company granted the investor a perpetual royalty of 3% on all gross revenues received by the Company from the sale of its CytoSorb device which such rights were assigned to an existing investor in 2017. For the three months ended June 30, 2024 and 2023, the Company recorded royalty expenses of approximately $264,000 and $240,000, respectively. For the six months ended June 30, 2024 and 2023, the Company recorded royalty expenses of approximately $531,000 and $474,000, respectively. These expenses are included in selling, general and administrative expenses in the consolidated statements of operations and comprehensive loss. On August 1, 2022, the Company entered into the Marketing Agreement with Fresenius, which expands the Company's strategic partnership with Fresenius by establishing a multi-stage global collaboration to combat life-threatening diseases in critical care. The Marketing Agreement has an initial term of three years, with an automatic renewal for an additional two years at the end of such initial term, subject to earlier termination by either of the parties (the "Term"). To help support the increased marketing and promotional efforts of the expanded collaboration, the Company has agreed to subsidize a portion of the marketing costs through royalty payments to Fresenius. Initially, the Marketing Agreement provides for royalty payments equal to 0.9% of the Company's net sales of CytoSorb products made during the Term (excluding net sales in the United States). This initial royalty rate was determined based on certain assumptions regarding the percentage of the Company's sale of CytoSorb products that are used with the Fresenius critical care platforms in the intensive care unit outside of the United States but is subject to adjustment if the Company determines that the underlying assumptions have changed significantly. For the three and six months ended June 30, 2024 and 2023, the Company did not record any expense related to this agreement. The launch of this program is expected to occur in 2024. License Agreement In an agreement dated September 1, 2006, the Company entered into a license agreement which provides the Company the exclusive right to use its patented technology and proprietary know-how relating to adsorbent polymers for a period of 18 years. Under the terms of the agreement, the Company has agreed to pay license fees of 2.5% to 5% on the sale of certain of its products if and when those products are sold commercially for a term not greater than 18 years commencing with the first sale of such product. For the three months ended June 30, 2024 and 2023 per the terms of the license agreement, the Company recorded licensing expenses of approximately $352,000 and $320,000, respectively. For the six months ended June 30, 2024 and 2023 per the terms of the license

agreement, the Company recorded licensing expenses of approximately $709,000 and $632,000, respectively. These expenses are included in selling, general and administrative expenses in the consolidated statements of operations and comprehensive loss.
P3YP1YP1Y40000000.032640002400005310004740000.009P18Y0.0250.05P18Y352000320000709000632000 7. LEASES The Company leases its operating facilities in both the United States and Germany under operating lease agreements. In March 2021, CytoSorbents Medical Inc. entered into a lease agreement for a new operating facility at 305 College Road East, Princeton, New Jersey, which contains office, laboratory, manufacturing and warehouse space. The lease commenced on June 1, 2021. The Early Term commenced on June 1, 2021 and lasted until September 30, 2021. The lease also contains two five-year renewal options; however, the Company has determined that it is not likely that they will exercise these options. Commencing on September 30, 2021, the remaining lease term will last for 15.5 years. The lease requires monthly rental payments of $25,208 for the Initial Early Term, $88,254 for the Early Term and initial monthly payments of approximately $111,171 in the first year of the remaining term. Following the first year of the remaining term, the annual base rent will increase by approximately 2.75% annually over the remaining term. The lease also contains six months of rent abatement (months 1, 2, 3, 25, 26 and 27 of the remaining lease term). In addition to the base rent, payments of operating expenses and real estate taxes will be required. These payments are to be based on actual amounts incurred during 2021 multiplied by the Company's share of the total building space (92.3%). The landlord will also provide an allowance of approximately $1,455,000 related to certain building improvements as outlined in the lease. In April 2021, the Company provided the landlord with a letter of credit in the amount of approximately $1,467,000 as security. The Company has determined that this lease should be treated as an operating lease in accordance with the provisions of Accounting Standards Codification ("ASC") 842. On April 1, 2021, the Company recorded a Right-of-Use asset and related lease liability of approximately $11.6 million, which represents the estimated present value of the lease payments at the commencement date discounted at the Company's incremental borrowing rate of 9.8%. In addition, due to the six months of rent abatement and annual base rent escalations during the remaining lease term that commenced on September 30, 2021, the Company will recognize rent expense on this lease on a straight-line basis over the remaining term of the lease for the difference between the rent expense recognized and the required payments under the lease. In September 2021, the Company extended its two operating leases for its office facility in Germany. These leases require combined base rent payments amounting to approximately $12,100 per month. The initial lease term of both leases ends August 31, 2026. In addition, the Company is obligated to monthly operating expenses of approximately $3,000 per month. Both leases have a five-year option to renew that would extend the lease term to August 31, 2031. There are no provisions in the leases to increase the base rent during the renewal period. There were no lease incentives and no initial direct costs were incurred related to these leases. In January 2021, CytoSorbents Europe GmbH entered into a lease for 1,068 square meters of additional warehouse space. The lease commenced on April 1, 2021 and requires monthly payments of base rent of $7,784 and other costs of approximately $239 and has a term of five years. The lease also has an option to extend the lease term for an additional five-year period through March 31, 2031. The Company has determined that this lease should be treated as an operating lease in accordance with the provisions of ASC 842. On April 1, 2020, the Company recorded a Right-of-Use asset and related lease liability at the estimated present value of the lease payments at the commencement date of approximately $594,000.</p><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:justify;margin:0pt 0pt 12pt 0pt;"><b style="font-weight:bold;">Right-Of-Use Asset and Lease Liability</p><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:justify;margin:0pt 0pt 12pt 0pt;">The Company's consolidated balance sheets reflect the value of the right-of-use asset and related lease liability. This value was calculated based on the present value of the remaining base rent lease payments. The remaining lease payments include the renewal periods for both of the facilities in Germany and do not include the renewal periods for the United States facility. The discount rate used was the Company's incremental borrowing rate, which is 9.8%, as the Company could not determine the rate implicit in the lease. As a result, the value of the right-of- use asset and related lease liability is as follows:</p><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;min-height:0.0pt;margin:0pt;"></p><table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:80%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:70.6%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></div></div></td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;margin:0pt;padding:0pt;"><div style="height:1pt;overflow:hidden;overflow-wrap:break-word;position:relative;"><div style="bottom:0pt;position:absolute;width:100%;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></div></div></td></tr><tr><td style="vertical-align:middle;white-space:nowrap;width:70.6%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:8pt;text-align:justify;margin:0pt;"></p></td><td style="vertical-align:middle;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:12.84%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:8pt;text-align:center;margin:0pt;"><b style="font-weight:bold;">June 30, </p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:center;margin:0pt;"></p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:12.84%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:8pt;text-align:center;margin:0pt;"><b style="font-weight:bold;">December 31, </p></td></tr><tr><td style="vertical-align:middle;white-space:nowrap;width:70.6%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:8pt;text-align:justify;margin:0pt;"> </p></td><td style="vertical-align:middle;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:8pt;margin:0pt;"> </p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:12.84%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:8pt;text-align:center;margin:0pt;"><b style="font-weight:bold;">2024</p></td><td style="vertical-align:middle;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:8pt;margin:0pt;"> </p></td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:12.84%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:8pt;text-align:center;margin:0pt;"><b style="font-weight:bold;">2023</p></td></tr><tr><td style="vertical-align:bottom;width:70.6%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">Right-of-use asset</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 11,789,539 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 12,058,896</p></td></tr><tr><td style="vertical-align:bottom;width:70.6%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td></tr><tr><td style="vertical-align:bottom;width:70.6%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">Total lease liability</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman','Times','serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;margin:0pt;padding:0pt;"> 13,092,792 </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;margin:0pt;padding:0pt;"> 13,270,295 </td></tr><tr><td style="vertical-align:bottom;width:70.6%;margin:0pt;padding:0pt;"> Less current portion </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> (412,067) </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> (373,636) </td></tr><tr><td style="vertical-align:bottom;width:70.6%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-

family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0pt 6pt;">Lease liability, net of current portion </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 12,680,725</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 12,896,659 </td></tr></table> The maturities of the lease liabilities are as follows for the periods ending June 30: <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:80%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:83.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:83.98%;background:#cceeff;margin:0pt;padding:0pt;"> 2025 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 1,676,044</p></td></tr><tr><td style="vertical-align:bottom;width:83.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">2026</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 1,715,575</p></td></tr><tr><td style="vertical-align:bottom;width:83.98%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">2027</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 1,756,193</p></td></tr><tr><td style="vertical-align:bottom;width:83.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">2028</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 1,797,927</p></td></tr><tr><td style="vertical-align:bottom;width:83.98%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">2029</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 1,840,810</p></td></tr><tr><td style="vertical-align:bottom;width:83.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">Thereafter</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"> </p></td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 14,487,274</p></td></tr><tr><td style="vertical-align:middle;width:83.98%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0pt 6pt;">Total lease payments</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 23,273,823</p></td></tr><tr><td style="vertical-align:middle;width:83.98%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">Present value discount</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> (10,181,031)</p></td></tr><tr><td style="vertical-align:bottom;width:83.98%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt 0pt 0pt 6pt;">Total</p></td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 13,092,792 </td></tr></table> For the three months ended June 30, 2024 and 2023, operating cash flows paid in connection with operating leases amounted to approximately $566,000 and $466,000, respectively, and $1,137,000 and $1,099,000 ,respectively, for the six months ended June 30, 2024 and 2023, respectively. As of June 30, 2024 and December 31, 2023, the weighted average remaining lease term was years 11.9 and 12.7 years, respectively. 2P5YP15Y6M25208882541111710.0275P6M0.923145500014670000116000000.0981210030001068778423 9P5YP5Y5940000.098 <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:80%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:70.6%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:middle;white-space:nowrap;width:70.6%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:middle;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:12.84%;margin:0pt;padding:0pt;"> June 30, </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:12.84%;margin:0pt;padding:0pt;"> December 31, </td></tr><tr><td style="vertical-align:middle;white-space:nowrap;width:70.6%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:middle;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:12.84%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 2024 </td><td style="vertical-align:middle;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td colspan="2" style="vertical-align:bottom;white-space:nowrap;width:12.84%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New

Roman', 'Times', 'serif';font-size:8pt;text-align:center;margin:0pt;">2023 </td></tr><tr><td style="vertical-align:bottom;width:70.6%;background:#cceeff;margin:0pt;padding:0pt;"> Right-of-use asset </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 11,789,539</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 12,058,896 </td></tr><tr><td style="vertical-align:bottom;width:70.6%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:70.6%;background:#cceeff;margin:0pt;padding:0pt;"> Total lease liability </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 13,092,792</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;margin:0pt;padding:0pt;"> 13,270,295 </td></tr><tr><td style="vertical-align:bottom;width:70.6%;margin:0pt;padding:0pt;"> Less current portion </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> (412,067) </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> (373,636) </td></tr><tr><td style="vertical-align:bottom;width:70.6%;background:#cceeff;margin:0pt;padding:0pt;"> Lease liability, net of current portion </td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $</p></td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;text-align:right;margin:0pt 3pt 0pt 0pt;"> 12,680,725</p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.85%;background:#cceeff;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;"></p></td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"><p style="font-family:'Times New Roman', 'Times', 'serif';font-size:10pt;margin:0pt;">$ </td><td style="vertical-align:bottom;white-space:nowrap;width:11.68%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 12,896,659 </td></tr>
</table>1178953912058896130927921327029541206737363126807251289665 9 The maturities of the lease liabilities are as follows for the periods ending June 30: <table style="border-collapse:collapse;font-size:16pt;height:max-content;margin-left:auto;margin-right:auto;padding-left:0pt;padding-right:0pt;width:80%;"><tr style="height:1pt;"><td style="vertical-align:bottom;width:83.98%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;margin:0pt;padding:0pt;"> </td></tr><tr><td style="vertical-align:bottom;width:83.98%;background:#cceeff;margin:0pt;padding:0pt;"> 2025 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;background:#cceeff;margin:0pt;padding:0pt;"> 1,676,044 </td></tr><tr><td style="vertical-align:bottom;width:83.98%;margin:0pt;padding:0pt;"> 2026 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;margin:0pt;padding:0pt;"> 1,715,575 </td></tr><tr><td style="vertical-align:bottom;width:83.98%;background:#cceeff;margin:0pt;padding:0pt;"> 2027 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;background:#cceeff;margin:0pt;padding:0pt;"> 1,756,193 </td></tr><tr><td style="vertical-align:bottom;width:83.98%;margin:0pt;padding:0pt;"> 2028 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;margin:0pt;padding:0pt;"> 1,797,927 </td></tr><tr><td style="vertical-align:bottom;width:83.98%;background:#cceeff;margin:0pt;padding:0pt;"> 2029 </td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;background:#cceeff;margin:0pt;padding:0pt;"> 1,840,810 </td></tr><tr><td style="vertical-align:bottom;width:83.98%;margin:0pt;padding:0pt;"> Thereafter </td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> 14,487,274 </td></tr><tr><td style="vertical-align:middle;width:83.98%;background:#cceeff;margin:0pt;padding:0pt;"> Total lease payments </td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;background:#cceeff;margin:0pt;padding:0pt;"> 23,273,823 </td></tr><tr><td style="vertical-align:middle;width:83.98%;margin:0pt;padding:0pt;"> Present value discount </td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;border-bottom:1px solid #000000;margin:0pt;padding:0pt;"> (10,181,031) </td></tr><tr><td style="vertical-align:bottom;width:83.98%;background:#cceeff;margin:0pt;padding:0pt;"> Total </td><td style="vertical-align:bottom;white-space:nowrap;width:2.31%;background:#cceeff;margin:0pt;padding:0pt;"> <span

style="visibility:hidden;"> </td><td style="vertical-align:bottom;white-space:nowrap;width:1.15%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> $ </td><td style="vertical-align:bottom;white-space:nowrap;width:12.54%;background:#cceeff;border-bottom:3px double #000000;margin:0pt;padding:0pt;"> 13,092,792 </td></tr>
</table>16760441715575175619317979271840810144872742327382310181031130927925660004660001137000109900OP11Y10M24DP12Y8M12D 8. NET LOSS PER SHARE Basic loss per share and diluted loss per share for the three and six months ended June 30, 2024 and 2023 have been computed by dividing the net loss for each respective period by the weighted average number of shares outstanding during that period. All outstanding warrants, options and restricted stock awards representing approximately 20,266,000 and 11,904,000 incremental shares at June 30, 2024 and 2023, respectively, have been excluded from the computation of diluted loss per share as they are anti-dilutive. 20266000119040000falsefalsefalsefalse