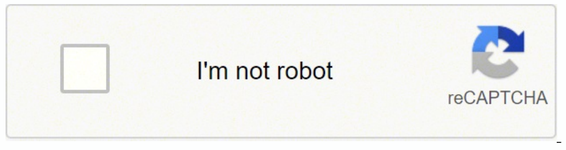
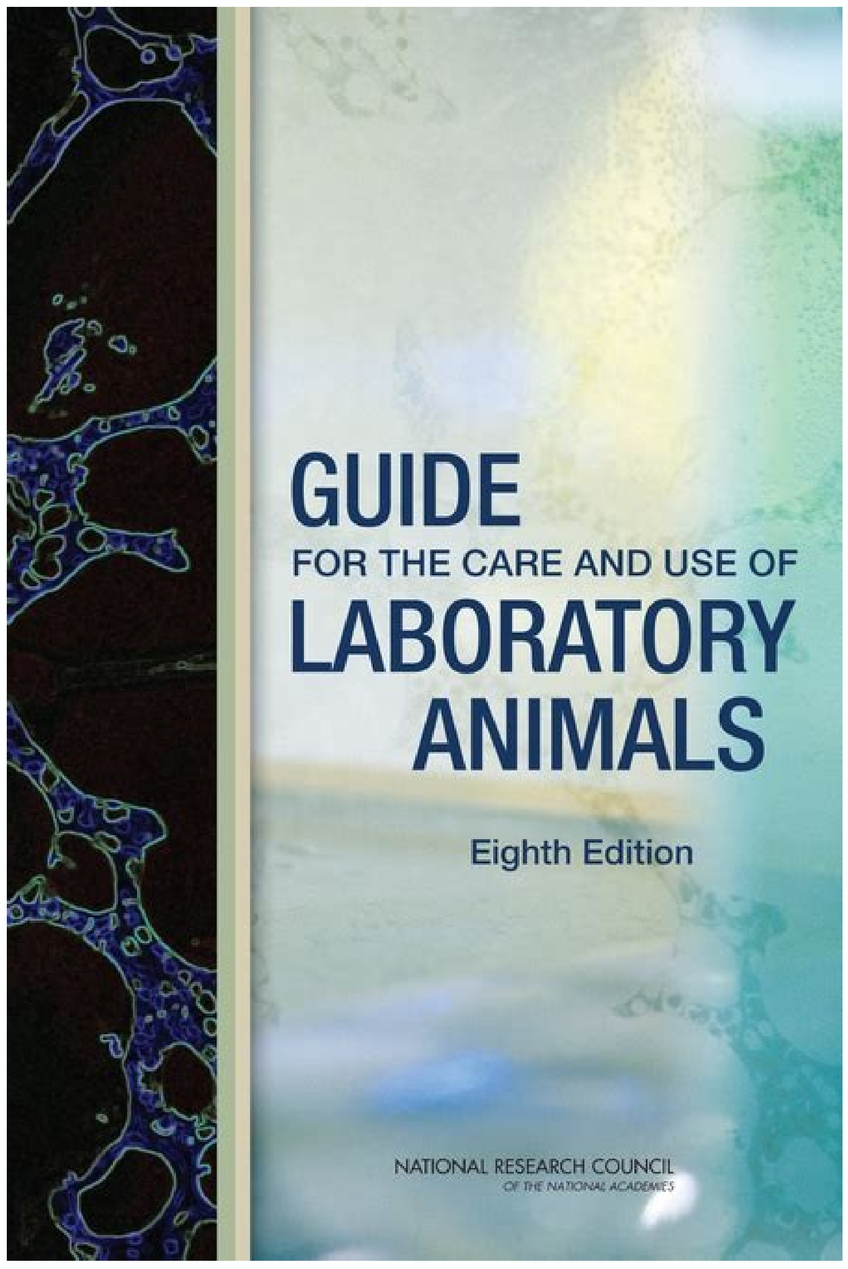


Open

Environmental engineering lab report



*Abstract:

Alkalinity is the ability of water to resist change in PH, which is due to presence of certain species such as hydroxide ions OH^{-1}, bicarbonate ions $HCO3^{-1}$ and carbonate ions $CO3^{-2}$,
In this experiment we will calculate

Total Alkalinity = $[HCO3^{-1}] + 2[CO3^{-2}] + [OH^{-1}] - [H^{+}]$

Carbonate ALK=$[CO^{-2}]+[OH^{-1}]-[H^{+}]-[H_2CO_3]$

Caustic ALK=$[OH^{-}]-[H^{+}]-[HCO^{-}]-2[H_2CO_3]$

The alkalinity of water can be determined by titrating the water sample with Sulphuric acid of known values of pH, volume and concentrations. Based on stoichiometry of the reaction and number of moles of Sulphuric acid needed to reach the end point, the concentration of alkalinity in water is calculated.

*Introduction:

Alkalinity is primarily a way of measuring the acid neutralizing capacity of water. In other words, its ability to maintain a relatively constant pH. The possibility to maintain constant pH is due to the hydroxyl, carbonate and bicarbonate ions present in water. The ability of natural water to act as a buffer is controlled in part by the amount of calcium and carbonate ions in solution. Carbonate ion and calcium ion both come from calcium carbonate or limestone. So water that comes in contact with limestone will contain high levels of both Ca^{++} and CO_3^{2-} ions and have elevated hardness and alkalinity. In the other hand the **ENVIRONMENTAL SIGNIFICANCE occur as following**

Alkalinity is important for fish and aquatic life because it protects or buffers against rapid pH changes. Higher alkalinity levels in surface waters will buffer acid rain and other acid wastes and prevent pH changes that are harmful to aquatic life.

Large amount of alkalinity imparts bitter taste in water.

The principal objection of alkaline water is the reactions that can occur

The company’s first quarter gross margin 2020 is primarily a function of continuous support of legacy TEN programmes, including equipment upgrades and additional travel and labour costs. To implement and demonstrate experimental procedures and software application for water supply network design. Determination of the optimal dosage of the

coagulant in the waste water sample by the jar tester. Determination of the pH of wastewater sample using the pH meter. Condensed balance sheets (unaudited) 31 March 2020 December 31, 2019 Active assets: Current assets: Money is 631.018 – 86.919 Accounts receivable, net – 119.425.540 Inventory 505.803,598.718 prepaid assets – 136.7 21 âðŸ˜ 940.904 Other assets: Ownership and equipment, net – 128,527 or 128,723 intangible assets, net – 602,054,569,341 joint venture investment 500 or up to 52,000 other assets total – 783,081 – 750.564 – total – 2,176,048 – 1,691,468 – total – ¬ Liabilities and shareholders, current liabilities: It is “account payable” 284.114 It is “accounted for” 727.114 Banknotes payable – 50,000 deferred revenue 94.118 It is “accounted for” 13.447 It is “accounted for” 165.040 It is “accounted for” 743.272 It’s – 1.039.219 last liabilities 743.272.039.219 commitments and contingencies only shareholders ’Equity ÅðŸ” Preferred stock, $ 0,001 pair; :gnidulcni ,ygolonhcet s'ynapmoc eht etadilav rehtruf ot sniw tcartnoc yek lareves decnuonnA sthgilhgiH lanoitarepO tneuqesbuS dna 0202 retrauQ tsriF yeK .cnI ,sbaL amgiS su.puorgzm.www su.puorgzm@BLGS 5328-194-949 aciremA htroN ZM - puorG ZM rotceriD gniganaM nosyT sirhC :tcatnoC rotsevnI .037,122$ delatot 0202 fo retrauq tsrif eht rof euneveR stluseR laicnaniF 0202 retrauQ tsriF .stset ytilauq egawes dna retaw fo sretemarap suoirav no troper ecudorp ot .reteM OD yb elpmaS retaW etsaW fo)OD(negyxO devlossiD noitanimreteD .379,22$ evitagen saw 0202 fo retrauq tsrif eht rof tiforp ssorG .vog.ces.www ta deweiv eb yam hcihw dna 0202 ,42 hcraM no CES eht htiw delif)niereht "srotcaF ksiR" rednu noissucsid eht ot detimil ton tub gnidulcni(K-01 mroF no tropeR launnA s'ynapmoC eht ees esaelp ,stnemetats gnikool-drawrof s'ynapmoC eht tcapmi dluoc taht seitniatrecnu dna sksir lanoitidda roF .reteM ytidibruT gnisu elpmaS retaW fo ytidibrut fo noitanimreteD .yllabolg srentrap 1-reit yb detadilav dna noitcudorp etaidemmi ni esu rof ydaer ,tcudorp denifer-llew a evah eW .9102 ,13 hcraM dedne retrauq tsrif eht ni noillim 1.1$ ot derapmoc ,noillim 5.1$ delatot 0202 ,13 hcraM dedne retrauq tsrif eht rof seitivitca gnitarepo ni desu hsaC .9102 ,13 hcraM ta noillim 9.1$ dna 9102 ,13 rebmeceD ta noillim 1.0$ ot derapmoc sa ,0202 ,13 hcraM ta noillim 6.0$ delatot hsaC .cnI ,sbaL amgiS Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã 864,196,1 Â Ã$ Â Ã Â Ã 840,671,2 Â Ã$ Â Ã YTIUQE 'SREDLOHKCOTS DNA SEITILIBAIL LATOT Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã 942,256 Â Ã Â Ã Â Ã 677,234,1 Â Ã Â Ã ytiuqE 'sredlohkcotS latoT) 495,590,62(Â Ã Â Ã) 624,499,72(Â Ã Â Ã ticifeD detalumuccA Â Ã 934,647,62 Â Ã Â Ã Â Ã 283,524,92 Â Ã Â Ã latipaC nI-diaP lanoitiddA Â Ã 404,1 Â Ã Â Ã Â Ã 818,1 Â Ã Â Ã ylevitcepser ,gnidnatstuo dna deussi 957,304,1 dna ,438,718,1 ;dezirohtua serahs 000,000,8 ;rap 100.0$,kcotS nommoC Â Ã - Â Ã Â Ã Â Ã 2 Â Ã Â Ã ylevitcepser ,gnidnatstuo dna deussi 0 dna 873,1 ;dezirohtua serahs ynapmoc eht .9102 fo retrauq tsrif eht rof 054,46 $ fo seunever ot serapmoc siht .seirtsudsudski ytilibo raluciheV decnavdA rof retneC ytisrevinU etats ippississiM ehv htiw tcartnoC .seigolonhcet gnirutcafunam decnavda D3 ROF Ã D3etiRtnirP with nwonk snoitulos) IAC (noitcepsni Dedie retupmoc emit fo-laer noitazilaicremmoc bottom tnempoleved eht taht no sezilaiceps ynapmoc erawtfos AMGIS a user, not dednuoF 0102 .trepuR dedulcnoc 'ygetarts gnirutcafunam rieht Othni gnitnirp D3 etaroprocni by snalp cigetarts rieht but drawrof gnivom bottom snoitaulave rieht gnitelpmoc but ytiroirp hgih a blunt sremotsuc taht bottom ygolonhcet ruo rof deen eht sees tekram eht taht noitadilav rehtruf you siht .noitarepO gnirutcafunaM evitiddA on gniruD Ygrena Lamreht Detaedar Gnirusaem Rof Sdohtem DNA Smjesys: DeltiT 400,282 / 61: .on noitacilppa DNA; Snoitarepo Gnirutcafunam EV ITIDDA ROF SDOHTEM DNA TASSYS: DELTIT 333,432 / 61: .on noitacilppa Etsaw fo ytidibrut fo noitanimreted .dnarb Â®Ã, zd3etirtnirp eht redni yrtsudni gnatnirp latem d3 laicremmoc eht ot erawtfos ecnarusa ytilauq fo redivorp gnidael a si) blgs: qadsan (.stset ytilauq eGawes DNA Retaw fo stluser Yfitsuj DNA TNESERP OT .SSECORP noitcudorp eht gnirud noitamrofni elbanoitca bottom thgisni, scirtem lacitirc htiw sreganam noitcudorp sedivorp bottom 'draobhsaD noitcudorPÂ Â Ã ¢ ehv secudortni taht seires noitcudorP Ã D3etirtnirP dehcnuaL.) DaMiHC (Ngised slairetaM lacihcrareiH rof retneC bottom) Ismini (noitavonnI bottom ecneicS gnirutcafunaM but Evitaitini NERRESEWHTRON, YTIsrevina NRETSEWHTRON EHT TA SRETNEC HCRAESER YTIPID HTIW NOITAROBALLOC NI D3ETIRTNIRP TNEMELPMI OT decnavda htiw seitisrevinU dna snoitazinagro D&R htiw sseccus deunitnoC dna ;noitadilav tekram dna egarevel selas edivorp taht seinapmoc erawtfos dna erawdrah gnirutcafunam evitiddA htob htiw stcartnoc MEO dna secnaillA cigetartS ;noitaulave yad-09 a rof swolla hcihw tcartnoc tnerruc ruo hguorht ro ,margorp ETR eht hguorht ygolonhcet ruo detadilav evah taht sresu dne yb seireS noitcudorP D3etiRtnirP fo selas tinu-itluM ;smaerts eunever tnednepedni elpitlum yb nevird eunever retrauq revo-retrauq gnisaercnI :era slaog 0202 ruof pot ym ,OEC detnioppa ylwen eht sA" .moc.cnisbalamgis.www tisiv esaelp ,noitamrofni erom roF .etisno secivres gnimrofrep dna gnilevart fo daetsni seussi niatrec sserdda ot sresu dne tcerid ot sreenigne amgiS gniwolla seigolonhcet decnavda fo esu yb ecnanetniam dna snoitallatsni ni seicneiciffe desaercnI .K kraM dias ",D3etiRtnirP fo noitazilaicremmoc eht ni raey gniticxe na rof su denoitisop ,sdniwdaeh detaler 91-DIVOC suoirav eht tsgnoma neve ,0202 fo retrauq tsrif ehT" yratnemmoC tnemeganaM .retrauq eht gnirud margorp)"ETR"(noitaulavE dna tseT dipaR ycagel eht rednu dezingocer eunever sa llew sa ,seitisrevinu hcraeser owt ot selas tinu Â®ÃD3etiRtnirP ot eud saw eunever ni esaercni ehT .sisirc ediwdlrow ot eud etarelecca sevitanretla gnitnirp D3 sa noitamrofni emit-laer lacitirc edivorp scirtem nevird IA dna draobhsad noitcudorp weN .noituac htiw serutidnepxe latipac hcaorppa dna noitautis s'yrtsudni rieht etaulave seinapmoc sa snalp gnisahcrup ot noitpursid mret-trohS :snoitarepO ot tcapmI 91-DIVOC .elpmaS retaW ni noitartnecnoC edirolhC fo noitanimreteD .drawrof gniog stcepxe tnemeganam tahw fo evitatneserper ton si dna gnicnanif ni yaled a ot eud 9102 morf revo deirrac selbayap stnuocca edart ot eud hgih yllausunu saw siht .esiwrehto ro ,tneve erutuf a ,noitamrofni wen fo tluser a sa rehtehw ,stnemetats gnikool-drawrof yna esiver ,ot noitagilbo on sekatrednu dna ,ot noitnetni yna Training the leaders of manufacturing of the future on the value of a quality assurance solution based on 3D print patterns. RUPORT as president and executive director, from its previous position as an executive president, to further boost the formation of strategic relationships, growth and strategies of sales as the company markets his Printrite3d proprietary technology. Study of the water supply system using Epanet software. An operator will register his name and organization. To access the call, please use the following information: Date: Date: Thursday, May 14, 2020 Time: 16:30 East Hour, 13:30 Pacific Hour Free Dial Number: 1-877-407 -9039 International dialing number: 1-201-689-8470 Conference ID: 13702566 Connect to the conference phone number 5-10 minutes before the beginning time. Total operating expenses for the first quarter of 2019 totaled US $ 1.5 million. Such changes are thought by many, to accelerate the adoption of 3D printing in order to introduce more flexibility in the manufacturing process, greatly improving the ability to react to any interruption Including pandemics, political stirring, natural disasters, etc. Determination of the chemical oxygen demand (CQO) of samples of residual water. These prospective declarations involve known and unknown risks, uncertainties and other factors, including, among others, the uncertain effect of the Covid-19 pandemic in the business, results of operations and financial conditions of the company, which can do With which actual results, performance or achievements of the company are materially different from any results, performance or anticipated achievements. In the long run, many believe that the crisis will cause companies to reassess their supply chains and approximate the manufacturing process from where the it will be necessary. “Overall, our level of engagement with customers and prospects has been high. Named Mark K. Sigma Sigma Â Ã Â Ã stessA diaperP) 587,65(Â Ã Â Ã Â Ã 519,29 Â Ã Â Ã yrotnevnI) 165,1(Â Ã Â Ã Â Ã - Â Ã Â Ã elbavieceR tseretnI) 051,33(Â Ã Â Ã) 588,36(Â Ã Â Ã elbavieceR stnuoccA Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã :seitilibail dna stessa ni egnahC Â Ã - Â Ã Â Ã Â Ã 816,93 Â Ã Â Ã secivreS ytraP drihT rof deussI seitiruceS Â Ã 602,452 Â Ã Â Ã Â Ã 071,451 Â Ã Â Ã noitasnepmoC desaB kcotS Â Ã 383,84 Â Ã Â Ã Â Ã 210,81 Â Ã Â Ã noitazitromA dna noitaicerpeD Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã :sesnepxE hsacnoN Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã :seitivitca gnitarepo ni desu hsaC teN ot ssoL teN elicnocer ot stnemtsujdA) 211,484,1(Â Ã$ Â Ã) 585,385,1(Â Ã$ Â Ã ssoL teN Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã SEITIVITCA GNITAREPO Â Ã 9102 ,13 hcraM Â Ã Â Ã 0202 ,13 hcraM Â Ã Â Ã dednE shtnoM eerhT Â Ã Â Ã Â Ã Â Ã Â Ã)detiduanU(swolF hsaC fo stnemetatS desnednoC .2 :OLC .ygolonhcet ruo rof dnamed dna ytinutroppo regral neve na pu nepo dna gnitnirp latem D3 fo htworg eht etarelecca lliw sniahc ylppus gnirutcafunam ni ytiliga erom rof dnamed desaercni eht dna tekram eht ni mutnemom eht taht citsimitpo ylsuoituac era ew ,hcraM ni ssenisub ruo no tcapmi mret-trohs emos dah ew hguohtlA" .dohtem)dica citeca artet enimaid enelyhte(atdc yb elpmaS retaW fo ssendraH latoT fo noitanimreteD .retaw etsaw dna retaw ot txetnoc ni ylralucitrap secruos sti dna noitanimatnoc ,noitullop latnemnorivne fo tpecnoc eht ecudortni oT Â¢ÂÃ¢ .retaW fo ytinilaklA fo noitanimreteD .gnitset ytilauq egawes dna retaw fo sretemarap suoirav gnidrager snoitcurtsni etartsnomed dna tnemelpmi ot .doirep rewsna dna noitseuq a yb dewollof ,llac ecnerefnoc eht tsoh lliw ikswohcezrO knarF OFC dna tropuR kraM OEC dna tnediserP sbaL amgiS llaC ecnerefnoC stluseR 0202 retrauQ tsriF .elpmaS retaW etsaW ni sdiloS dednepsuS latoT dna sdiloS latoT fo noitanimreteD .emit-laer ni detcerroc eb ot srorre gniwolla yleuqinu ,noitcudorp-dim ecnarussa ytilauq evitcurtsed-non gnilbane ,gnirutcafunam evitidda laicremmoc sezinoitulover tcudorp erawtfos dedia-retupmoc decnavda D3 o£Ãsserpmi e avitida o£Ã§Ãacirbaf ed erawtfos ed redÃl rodecenrof mu ,)SLTM :QADSAN(VN razilairetam moc satnujnoc sadnev ed otartnoc me adartnE . cnI ,sbaL amgiS :etnoF - $ - adneR sotsopmI ¬â Ã 820,1 ¬â 854,1 esseretnI :rop ogap oriehniD ed o£Ã§Ãagluvid - Ã 742.513 sodireferp sodnedivid rop saditime snumoc seµÃ§Ãca e opit-a-odnediviD ¬â ¢Ã 134,88 - SOPU ed oriehnid mes oibm¢Ãcretni rop oditimE ¬â Ã ¬â Ã ¬â Ã Ã ¬â Ã :otnemaicnanif ed sedadivita sad otnemaicnanif e otnemitsevnI ¬â Ã Ã ¬â Ã Ã :seratnemelpus seµÃ§ÃagluviD :seratnemelpus seµÃ§ÃagluviD ¬â 810.136 ¬â odoÃrep od lanif on oriehniD ¬â Ã 287.972.1 1 919.68 odoÃrep od oicÃni on oriehniD .9990.445 odoÃrep rop oriehnid me raduM teN 871 , 557,1 423.021.2 2 otnemaicnanif ed sedadivita salep odicenrof odiuqÃl axiaC 848.57 002.994 stnarraW ed oicÃcrexe od eugessorp -)000.05(ragap a aton ed otnemagaP)098.182( )678.824(sotsuc so odnecerefo sonem a Ã 022,169,1 ¬â 000,001,2 solutÃt ed solutÃt ed sadavirp e sacilbºÃp seµÃssime ed edecorp otarb Ã .otnemaicnanif ed sedadivitca)928.06( )925.05(otnemitsevni ed sedadivita me odasu teN teN u 000.51 - rebecer a saton ed odibecer otnemagaP)065.47(Ã)550.93(sievÃgnatni sovita ed arpmoC)962.1( )474.11(sotnemapiuqe e edadeirporp ed sarpmoc ed sedadivitca gnitsevnI)967.660,1(Ã)696.525.1(sianoicarepo sedadivitca san odazilitu oriehnid me)387.68(¬â ¢Ã 383.24 ¬â Ã 528.92)033.54(sadirefid satieceR 593.82)000.342(ragap a satnoc)781.52(To commercialize the quality assurance technology Printrite3D recently integrated with the control platform Materialize. Toll free number: 1-844-512-2921 International Replay Number: 1-412-317-6671 Replay ID: 13702566 About Sigma Labs Sigma Labs, Inc. (NASDAQ: SBLB) (“Sigma Labs”), developer of quality assurance software for the additive manufacturing industry, reported its financial and operational results for the first quarter ended March 31st, March 20th, 2020. John Rice remains the non-executive chairman of the Board and entered into a consultancy contract with the company. This will extend our money trail and demonstrate our team’s commitment to our shareholders. Managed to host a conference call today at 4:30pm ET Santa Fe, NM/AccessWire / May 14, 2020 / Sigma Labs, Inc. A replay of the conference call will be available after 7:30 pm. Eastern time until May 28th, May 20th. Condensed statements of transactions (unaudited) Three months ended March 31 of 20 of March of 31 of March of 31 of 2019, revenues are 221,730 Ã¨¨ 64,450, revenue cost 24,703 Ã¨¬ 9,555 Ã¨¨ (22.973) (32.105) ¢ â ¢ ¢ ¢ ¢ ¢ ¢ ¢ ¢ ¢ Salaries and benefits 652.197,312.560 Share-based compensation 154.171,254.206 Operating R & D costs – 53.689 to 25.272 to Investor and Public Relations 238.268 to 23.789 to 211.50 84.049 38,209 total operating expenditure 1,559,642 1.507.098 is the defeat of the OPE Races (1.582.615) (1,539,203) another income Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Interest Income Ã Â Ã Â 851 Ã Â Ã Â Ã Â 5,782 Ã Â State Incentives Ã Â Ã Â - Ã Â Ã Â Ã Â 51,877 Ã Â Exchange Rate Loss Ã Â Ã Â (1,391) Ã Â Ã Â (446) Interest Expense Ã Â Ã Â (431) Ã Â Ã Â (2,122) Total Other Income (Expense) Ã Â Ã Â (971) Ã Â Ã Â Ã Â 55,091 Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â LOSS BEFORE PROVISION FOR INCOME TAXES Ã Â Ã Â (1,583,585) Ã Â Ã Â Ã Â (1,484,112) Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Provision for Income Taxes Ã Â Ã Â - Ã Â Ã Â Ã Â - Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Net Loss Ã Â $Ã Â (1,583,585) Ã Â Ã Â $Ã Â (1,484,112) Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Preferred Dividends Ã Â Ã Â (315,247) Ã Â Ã Â - Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Net Loss Applicable to Common Stockholders Ã Â $Ã Â (1,898,832) Ã Â Ã Â $Ã Â (1,484,112) Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Net Loss per Common Share - Basic and Diluted Ã Â $Ã Â (1.30) Ã Â Ã Â $Ã Â (1.60) Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Weighted Average Number of Shares Outstanding - Basic and Diluted Ã Â Ã Â 1,463,627 Ã Â Ã Â Ã Â 933,476 Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Ã Â Sigma Labs, Inc. The conference call will be broadcast live and available for replay at and via the investor relations section of the Company's website at www.sigmalabsinc.com. Net loss for the first quarter of 2020 was $1.6 million, or $(1.30) per share, as compared to a net loss of $1.5 million, or $(1.60) per share, in the first quarter of 2019. View source version on accesswire.com: ¢ÃÂ¢Â To learn principles of environmental engineering applied to the design and implementation of water supply schemes. Raised $4.1 million in gross proceeds from both a January 2020 private placement of convertible preferred stock and warrants as well as an April 2020 offering of common stock and warrants. Determination Biochemical Oxygen Demand (BOD) of Waste Water Sample, using BOD Bottles, DO Meter. Determination of Dissolved Oxygen in Water Sample. es me edadlucifid amugla revit ªÃcov eS .sbaL amgiS ad ovitucexe roterid e etnediserp ,tropuR .)5991 ed sodavirP soir¡ÃiliboM serolaV ed osoicnetnoC ed amrofeR ed ieL ad etrap omoc sadatoda marof seµÃ§Ães siauq(adaretla emrofnoc ,4391 ed soir¡ÃiliboM serolaV ed egnahcxE ed ieL ad e12 o£Ã§ÃeS a e ,adaretla emrofnoc ,3391 ed soir¡ÃiliboM serolaV ed ieL ad A72 o£Ã§Ães ed oditnes on "savitcepsorp seµÃ§Ãaralced" m©Ãtnoc asnerpmi ed odacinumoc etsE savitcepsorp seµÃ§ÃaralceD .odnum od o£Ã§Ãacirbaf ed aimonoce roiam atniuq an sbaL amgiS od labolg adagep a odnidnapxe - aidnÃ an sbaL amgiS sotudorp ed sadnev arap odireferp odanoicida rolav ed rodednever ues omoc D3 o£Ã§Ãacirbaf ed erawtfos ed rodevorp mu ,seigolonhceT decnavdA D3lecxE odanoiceleS .noÃ ohniom 6,1 $ SU marof 0202 ed ertsemirt oriemirp o arap siatot sianoicarepo sasepseD .sotaf socir³Ãtsih o£Ãs o£Ãn e etnerf a arap etnemlareg o£Ãs" mairedop "e ," edop "" ,"" ":aireved ," lliW" "omoc ,sianoicidnoc uo sorutuf sobrev uo ,setnahlemes seµÃsserpxe uo sarvalap e" kooltuO "" ,savitcepsrep " ,"edneterp" ,"arepse" ,"rapicetna" "matiderca" sarvalap sa meulcni ,amrof artuo ed ,euq uo ed sadiuges ,por sadidecerp seµÃ§Ãaralced sA .lainomirtap o§Ãnalab ues o siam adnia recelatrof arap satrefo ed seµÃhlim 5,1 $ SU uiulcnoc aserpme a ,0202 ed ertsemirt oriemirp od otnemarrecne oa etneuqesbuS .3 :olC .o£Ã§Ãudorp ed rodaicnereg o racifiton e sadidem ramot oir¡Ãssecen odnauq e acirb¡Ãf an o£Ã§Ãurtsnoc ed ossecorp mu etnematomer merotinom setneilc so euq etimrep otomer otnemarotinom ed edadilanoicnuf avoN .1 :olC .seµÃ§Ãa sartuo ed m©Ãla ,sneganergne sosson odnaxiaba ,saicnªÃrefed e siairalas seµÃ§Ãuder ed s©Ãvarta sªÃm rop 000.001 $ SU ed siam me oriehnid me arudamieuq asson somizuder ,setnatluser sacim´Ãnoce sazetrecni sad e 91-divoC ad aimednap Ã atsopser me ,oriehnid me avitcepsrep uma eD" .Hp ed rodidem o odnasu aug¡Ã ed artsoma ad Hp od o£Ã§ÃanimreteD .edadivitudnoc ed rodidem on aug¡Ã ed artsoma ad edadivitudnoc ed .4 .4 .4 :olC .5328-194-949-1 me ZM opurG o moc otatnoc me ertne ,aicnªÃrefnoceleT a moc

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