

# **INFORMATION HANDOUT**

**For Contract No. 03-1F9904**

**At 03-But-32-9.5/10.2**

**Identified by**

**Project ID 0300020426**

## **MATERIALS INFORMATION**

Aerially Deposited Lead and Traffic Stripe Paint Site Investigation Report

# AERIALY DEPOSITED LEAD AND TRAFFIC STRIPE PAINT SITE INVESTIGATION REPORT



State Route 32  
Post Mile 9.54 to 10.22  
Butte County, California

**PREPARED FOR:**

**CALIFORNIA DEPARTMENT OF TRANSPORTATION – DISTRICT 3  
ENVIRONMENTAL ENGINEERING OFFICE  
703 B STREET  
MARYSVILLE, CALIFORNIA 95901**



**PREPARED BY:**

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**GEOCON PROJECT NO. S9805-01-54  
TASK ORDER NO. 54  
E-FIS 03-00020426-1 (EA 03-1F9901)  
CONTRACT NO. 03A2132**

**OCTOBER 2015**



Project No. S9805-01-54  
October 16, 2015

Alicia Beyer  
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Environmental Engineering Office  
703 B Street  
Marysville, California 95901

Subject:     **AERIALY DEPOSITED LEAD AND TRAFFIC STRIPE PAINT  
SITE INVESTIGATION REPORT  
STATE ROUTE 32 POST MILE 9.54 TO 10.22  
CHICO, BUTTE COUNTY, CALIFORNIA  
CONTRACT NO. 03A2132, TASK ORDER NO. 54  
EA 03-1F9901, E-FIS: 03 00020426-1**

Dear Ms. Beyer:

In accordance with California Department of Transportation (Caltrans) Contract No. 03A2132, Task Order No. 54, and Expense Authorization 03-1F9901, we have performed environmental engineering services at the project site. The Site consists of westbound and eastbound State Route 32 from Poplar Street to the State Route 99 Overcrossing (Post Mile 9.54 To 10.22) in Chico, Butte County, California. The accompanying report summarizes the services performed including the excavation of 41 hand-auger borings for the collection of soil samples for aerially deposited lead analysis and the collection of four yellow traffic stripe paint samples for lead and chromium analysis.

*The contents of this report reflect the views of the author, who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.*

Please contact us if you have any questions concerning the contents of this report or if we may be of further service.

Sincerely,

**GEOCON CONSULTANTS, INC.**

Rebecca L. Silva  
Project Manager

John E. Juhrend, PE, CEG  
Principal/Senior Engineer



(3 + 2 CD) Addressee

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# **AERIALY DEPOSITED LEAD AND TRAFFIC STRIPE PAINT SITE INVESTIGATION REPORT**

## **1.0 INTRODUCTION**

This Aerially Deposited Lead (ADL) and Traffic Stripe Paint Site Investigation Report for State Route 32 (SR-32) Post Mile (PM) 9.54 to 10.22 was prepared under California Department of Transportation (Caltrans) Contract No. 03A2132, Task Order (TO) No. 54, and Expense Authorization (EA) 03-1F9901.

### **1.1 Project Description and Proposed Improvements**

The project locations consist of Caltrans right-of-way (ROW) along the unpaved shoulder areas of westbound (WB) SR-32 (E 8<sup>th</sup> Street) and eastbound (EB) SR-32 (E 9<sup>th</sup> Street) from Poplar Street to the State Route 99 (SR-99) overcrossing (OC) in Chico, Butte County, California. Caltrans proposes to install sidewalks or remove/reconstruct existing sidewalks, install curb ramps and pedestrian accessible traffic signals, and flatten driveway approaches in order to comply with the American Disabilities Act. The approximate project locations are depicted on the attached Vicinity Map, Figure 1, and Site Plans, Figures 2-1 through 2-6 and 3-1 through 3-6.

### **1.2 General Objectives**

Construction of planned roadway improvements along SR-32 will require the disturbance of soil at the project locations and will generate excess soil. The purpose of the scope of services outlined in TO No. 54 was to evaluate each project location for potential impacts due to ADL from motor vehicle exhaust in the surface and near-surface soils, and to determine whether the yellow traffic stripe paint on the roadway contains lead or chromium at potentially regulated levels within the project limits. The investigative results will be used by Caltrans to inform the construction contractor if ADL-impacted soil and lead- or chromium-impacted traffic stripe paint are present within the project boundaries for construction worker health and safety, and soil management and disposal purposes.

## 2.0 BACKGROUND

Caltrans requested the site investigation to provide data regarding the potential presence of ADL within the proposed roadway improvement areas.

### 2.1 Potential Lead Soil Impacts

Ongoing testing by Caltrans has indicated that ADL exists along major freeway routes due to emissions from vehicles powered by leaded gasoline.

### 2.2 Hazardous Waste Determination Criteria

Regulatory criteria to classify a waste as “California hazardous” for handling and disposal purposes are contained in the California Code of Regulations (CCR), Title 22, Division 4.5, Chapter 11, Article 3, § 66261.24. Criteria to classify a waste as “Resource, Conservation, and Recovery Act (RCRA) hazardous” are contained in Chapter 40 of the Code of Federal Regulations (40 CFR), § 261.

For waste containing metals, the waste is classified as California hazardous when: 1) the representative total metal content equals or exceeds the respective Total Threshold Limit Concentration (TTLC); or 2) the representative soluble metal content equals or exceeds the respective Soluble Threshold Limit Concentration (STLC) based on the standard Waste Extraction Test (WET). A waste may have the potential of exceeding the STLC when the waste’s total metal content is greater than or equal to ten times the respective STLC value, since the WET uses a 1:10 dilution ratio. Hence, when a total metal is detected at a concentration greater than or equal to ten times the respective STLC, and assuming that 100 percent of the total metals are soluble, soluble metal analysis is required. A material is classified as RCRA hazardous, or Federal hazardous, when the representative soluble metal content equals or exceeds the Federal regulatory level based on the Toxicity Characteristic Leaching Procedure (TCLP).

The above regulatory criteria are based on chemical concentrations. Wastes may also be classified as hazardous based on other criteria such as ignitability and corrosivity; however, for the purposes of this investigation, toxicity (i.e., representative lead concentrations) is the primary factor considered for waste classification since waste generated during the construction activities would not likely warrant testing for ignitability or corrosivity. Waste that is classified as either California-hazardous or RCRA-hazardous requires management as a hazardous waste.

The Department of Toxic Substances Control (DTSC) regulates and interprets hazardous waste laws in California. DTSC generally considers excavated or transported materials that exhibit “hazardous waste” characteristics to be a ‘waste’ requiring proper management, treatment and disposal. Soil that contains lead above hazardous waste thresholds and is left in-place would not be necessarily classified by DTSC as a ‘waste.’ The DTSC has provided site-specific determinations that “movement of wastes within an area of contamination does not constitute ‘land disposal’ and, thus, does not trigger hazardous waste disposal requirements.” Therefore, lead-impacted soil that is scarified in-place, moisture-conditioned, and recompacted during roadway improvement activities might not be considered a ‘waste.’ DTSC should be consulted to confirm waste classification. It is noted that in addition to DTSC regulations, health and safety requirements and other local agency requirements may also apply to the handling and disposal of lead-impacted soil.

### **2.3 Potential Lead-based Traffic Stripe Paint Impacts**

Yellow traffic paint utilized for roadway striping may contain lead and chromium. The presence of elevated lead and chromium requires sampling and analytical testing of the paint stripe materials to determine appropriate health and safety procedures and proper management and disposal practices. Disposal of removed traffic stripe paint materials is dependent on the method utilized to remove these materials (i.e. focused stripe removal vs. pavement grinding).

## **3.0 SCOPE OF SERVICES**

The scope of services requested by Caltrans in TO No. 54 included the collection of soil samples and yellow traffic stripe paint samples for laboratory analysis to determine lead and chromium content, and the preparation of this report.

### **3.1 Pre-field Activities**

- Conducted a pre-work site meeting on August 20, 2015. Caltrans representative Alicia Beyer and Geocon representative Gemma Reblando attended the meeting. The purpose of the site visit was to observe the project boundaries and conditions. The project limits and boring locations were further marked out in white paint for subsequent utility clearance.
- Prepared a *Health and Safety Plan* dated September 2015 to provide guidelines on the use of personal protective equipment and the health and safety procedures implemented during the field activities.
- Provided at least a 48-hour notification to Underground Service Alert (USA) prior to job site mobilization (USA Ticket Nos. 416822 and 416839).

- Retained the services of Advanced Technology Laboratories (ATL), a Caltrans-approved and California-certified analytical laboratory, to perform the chemical analyses of soil and traffic stripe paint samples.

### **3.2 Field Activities**

On September 14 and 15, 2015, 122 soil samples were collected from 41 hand-auger borings located along the unpaved shoulders of WB and EB SR-32. The soil borings were advanced to the maximum sampling depth of 3 feet. Soil samples were collected at depth intervals of 0 to 1 foot, 1 to 2 feet, and 2 to 3 feet. We encountered refusal on rock at a depth of 2 feet in boring B6.

We collected four yellow traffic stripe paint samples (PC1 through PC4) from the Site for lead and chromium analysis.

The sample locations were selected in the field by the Caltrans Task Order Manager. Following sample collection, the borings were backfilled with the excess soil cuttings. Details of the field activities are presented in the following sections. Photographs of typical sampling locations are attached.

## **4.0 INVESTIGATIVE METHODS**

### **4.1 Soil Sampling Procedures**

The following borings were advanced along the unpaved shoulder areas of SR-32 approximately 3 to 5 feet from the edge of pavement. The approximate boring locations are depicted on Figures 2-1 through 2-6 and 3-1 through 3-6.

- Borings B1 through B10 were advanced along the north side of WB SR-32 (E 8<sup>th</sup> Street);
- Borings B11 through B20 were advanced along the south side of WB SR-32 (E 8<sup>th</sup> Street);
- Borings B21 through B35 were advanced along the north side of EB SR-32 (E 9<sup>th</sup> Street); and
- Borings B36 through B41 were advanced along the south side of EB SR-32 (E 9<sup>th</sup> Street).

Soil samples were collected using a hand-auger and transferred to Ziploc<sup>®</sup> re-sealable plastic bags for field homogenization. The sample bags were subsequently labeled and placed in a cooler and transported to ATL for chemical analyses under chain-of-custody (COC) procedures. Following sample collection, the borings were backfilled with excess soil cuttings. Soil types were noted on the daily field log.

The coordinates of the boring locations were determined using a differential global positioning system (GPS) except borings B26 and B38. We could not obtain the coordinates for the two borings due to overhead obstruction. The GPS was utilized during the field activities to locate the horizontal position of the boring locations with an error of no more than 3.3 feet. The latitude and longitude of the boring locations are summarized on Table 1.

## **4.2 Traffic Stripe Paint Sampling Procedures**

We collected yellow traffic stripe paint samples PC1 and PC2 along WB SR-32 (E 8<sup>th</sup> Street), and samples PC3 and PC4 along EB SR-32 (E 9<sup>th</sup> Street). The traffic stripe paint samples were collected using a hammer to break a chip off the traffic stripe paint, then the samples were placed in Ziploc<sup>®</sup> re-sealable plastic bags, labeled, and delivered to ATL under standard COC documentation. The approximate traffic stripe paint sample locations are depicted on Figures 2-2, 2-3, 3-2, and 3-5.

## **4.3 Quality Assurance/Quality Control (QA/QC) Procedures**

QA/QC procedures were performed during the field exploration activities. These procedures included the decontamination of sampling equipment before each sample was collected and providing COC documentation for each sample submitted to the laboratory. The soil sampling equipment was cleansed between borings by washing the equipment with an Alconox<sup>®</sup> solution followed by a double rinse with distilled water. The decontamination water was discharged to the ground surface within the Caltrans ROW, away from the roadway and storm drain inlets.

## **4.4 Laboratory Analyses**

The soil and traffic stripe paint samples were analyzed under expedited 5-day turnaround time (TAT) for the following analyses. The laboratory was instructed to homogenize the soil samples prior to analysis in accordance with Contract 03A2132 requirements.

- Each soil sample was analyzed for total lead following Environmental Protection Agency (EPA) Test Method 6010B.
- Four yellow traffic stripe paint samples were analyzed for total lead and total chromium following EPA Test Method 6010B.
- Twenty-one soil samples with total lead concentrations greater than or equal to 50 milligrams per kilogram (mg/kg) (i.e., ten times the lead STLC) were further analyzed for WET soluble lead using EPA Test Method 6010B.

- One traffic stripe paint sample with a total lead concentration greater than 50 mg/kg was further analyzed for WET soluble lead using EPA Test Method 6010B.
- Five soil samples with total lead concentrations greater than 200 mg/kg were further analyzed for TCLP soluble lead using EPA Test Method 6010B.

QA/QC procedures were performed by ATL as applicable for the method of analysis with specificity for each analyte listed in the test method's QA/QC. QA/QC measures for the lead analysis included the following:

- One method blank for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One sample analyzed in duplicate for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One spiked sample for every ten samples, batch of samples or type of matrix, whichever was more frequent, with the spike made at ten times the detection limit or at the analyte level.

Prior to submitting the samples to the laboratory, the COC documentation was reviewed for accuracy and completeness. Copies of the laboratory reports and COC documentation are presented in Appendix A.

#### **4.5 Traffic Control**

Caltrans provided shoulder closure traffic control using an attenuator truck during the field sampling activities.

### **5.0 FIELD OBSERVATIONS AND INVESTIGATIVE RESULTS**

#### **5.1 Soil Description**

Soil encountered during the excavation of borings generally consisted of base gravel/rock to a depth of 1 foot and silt and clay to the maximum sampling depth of approximately 3 feet. Groundwater was not encountered in the soil borings.

#### **5.2 Soil Analytical Results**

##### **5.2.1 WB SR-32 (E 8<sup>th</sup> Street)**

Total lead was detected in the 59 soil samples analyzed at concentrations ranging from 2.7 to 200 mg/kg. Eight of the 59 soil samples had reported total lead concentrations equal to or greater than 50 mg/kg (ten times the STLC for lead of 5.0 milligrams per liter [mg/l]) and were further analyzed for WET soluble lead.

WET soluble lead was reported for four of the eight samples analyzed at concentrations ranging from 1.3 to 4.1 mg/l, less than the STLC for lead of 5.0 mg/l.

TCLP soluble lead was not reported for the one soil sample analyzed at a concentration equal to or greater than the laboratory test method reporting limit (RL).

### **5.2.2 EB SR-32 (E 9<sup>th</sup> Street)**

Total lead was detected in the 63 soil samples analyzed at concentrations ranging from 2.2 to 400 mg/kg. Thirteen of the 63 soil samples had reported total lead concentrations equal to or greater than 50 mg/kg (ten times the STLC for lead of 5.0 mg/l) and were further analyzed for WET soluble lead.

WET soluble lead was reported for eleven of the thirteen soil samples analyzed at concentrations ranging from 1.1 to 12 mg/l. Five of the soil samples had WET soluble lead concentrations greater than the STLC for lead of 5.0 mg/l.

TCLP soluble lead was reported for one of the four soil samples analyzed at 0.066 mg/l.

The analytical results for the soil samples are summarized on Table 2. Copies of the ATL laboratory reports and COC documentation are in Appendix A.

### **5.3 Traffic Stripe Paint Analytical Results**

Total lead was detected in each of the four traffic stripe paint samples collected at concentrations ranging from 3.6 to 54 mg/kg. One of the four traffic stripe paint samples had a reported total lead concentration greater than 50 mg/kg and was further analyzed for WET soluble lead.

WET soluble lead was not reported for the one traffic stripe paint sample analyzed at a concentration equal to or greater than the RL.

Total chromium was detected in three of the four traffic stripe paint samples collected at concentrations ranging from 4.0 to 35 mg/kg. None of the traffic stripe paint samples had a reported total chromium concentration greater than 50 mg/kg (ten times the STLC for chromium of 5.0 mg/l).

The analytical results for the traffic stripe paint samples are summarized on Table 3. Copies of the ATL laboratory reports and COC documentation are in Appendix A.

#### **5.4 Laboratory QA/QC**

We reviewed the QA/QC provided with the ATL laboratory report. The relative percent differences for some sample duplicates were outside acceptance criteria. Calculation is based on raw values as noted in the laboratory report. Based on the laboratory QA/QC data, no qualification of the data presented herein is necessary, and the data are of sufficient quality for the purposes of this report.

#### **5.5 Statistical Evaluation for Lead Detected in Soil Samples**

Statistical methods were applied to the total lead data to evaluate: 1) the upper confidence limits (UCLs) of the arithmetic means of the total lead concentrations for each sampling depth; and 2) if an acceptable correlation between total and WET lead concentrations exists that would allow the prediction of WET lead concentrations based on the calculated UCLs. The total lead data were separated into two sample populations according to two separate segments of SR-32 for statistical evaluation as described below.

- **WB SR-32 (E 8<sup>th</sup> Street)** consists of borings B1 through B20; and
- **EB SR-32 (E 9<sup>th</sup> Street)** consists of borings B21 through B41.

##### **5.5.1 Calculating the UCLs for the Arithmetic Mean**

Non-parametric bootstrap techniques were used to calculate the UCLs. The upper one-sided 90% and 95% UCLs of the arithmetic mean are defined as the values that, when calculated repeatedly for randomly drawn subsets of site data, equal or exceed the true mean 90% and 95% of the time, respectively. Statistical confidence limits are the classical tool for addressing uncertainties of a distribution mean. The UCLs of the arithmetic mean concentration are used as mean concentrations because it is not possible to know the true mean due to the essentially infinite number of soil samples that could be collected from a site. The UCLs therefore account for uncertainties due to limited sampling data. As data become less limited at a site, uncertainties decrease, and the UCLs move closer to the true mean.

The bootstrap results are in Appendix B. The calculated UCLs and statistical results for each sample population are summarized in the following tables:

**WB SR-32 (E 8<sup>th</sup> Street)**

SAMPLE INTERVAL (feet)	90% TOTAL LEAD UCL (mg/kg)	95% TOTAL LEAD UCL (mg/kg)	TOTAL LEAD MEAN (mg/kg)	MINIMUM VALUE (mg/kg)	MAXIMUM VALUE (mg/kg)
0 to 1	60.4	64.6	45.8	5.7	200
1 to 2	17.0	18.3	12.8	4.7	56
2 to 3	6.7	6.9	6.2	2.7	10

**EB SR-32 (E 9<sup>th</sup> Street)**

SAMPLE INTERVAL (feet)	90% TOTAL LEAD UCL (mg/kg)	95% TOTAL LEAD UCL (mg/kg)	TOTAL LEAD MEAN (mg/kg)	MINIMUM VALUE (mg/kg)	MAXIMUM VALUE (mg/kg)
0 to 1	115.8	123.5	88.9	2.2	400
1 to 2	32.0	36.5	19.8	3.5	220
2 to 3	15.4	16.7	10.6	4.8	82

**5.5.2 Correlation of Total and Soluble Lead**

Total and corresponding WET soluble lead concentrations are bivariate data with a linear structure. This linear structure should allow for the prediction of WET soluble lead concentrations based on the UCLs calculated above in Section 5.5.1.

To estimate the degree of interrelation between total and corresponding WET soluble lead values ( $x$  and  $y$ , respectively), the *correlation coefficient* [ $r$ ] is used. The correlation coefficient is a ratio that ranges from +1 to -1. A *correlation coefficient* of +1 indicates a perfect direct relationship between two variables; a *correlation coefficient* of -1 indicates that one variable changes inversely with relation to the other. Between the two extremes is a spectrum of less-than-perfect relationships, including zero, which indicates the lack of any sort of linear relationship at all.

The *correlation coefficient* calculated for EB and WB SR-32 for the 20 ( $x$ ,  $y$ ) data points (i.e., soil samples analyzed for both total lead [ $x$ ] and WET soluble lead [ $y$ ]) was 0.86. A *correlation coefficient* greater than or equal to 0.8 is an acceptable indicator that a correlation exists. Consequently, an acceptable correlation between total and soluble lead concentrations was established for the data points since the *correlation coefficient* is greater than 0.8. In order to obtain an acceptable *correlation coefficient*, we eliminated one data point from the calculation.

For the *correlation coefficient* that indicates a linear relationship between total and WET soluble lead concentrations, it is possible to compute the line of dependence or a best-fit line between the two variables. A least squares method was used to find the equation of a best-fit line (regression line) by forcing the y-intercept equal to zero since that is a known point. The equation of the regression line for EB and WB SR-32 was determined to be  $y = 0.0225(x)$ , where  $x$  represents total lead concentrations and  $y$  represents predicted WET soluble lead concentrations.

This equation was used to estimate the expected WET lead concentrations for the total lead UCLs for the EB and WB SR-32 data sets. Regression analysis results and a scatter plot depicting the  $(x, y)$  data points along with the regression line are in Appendix B. The 90% and 95% UCLs and the UCL-predicted WET soluble lead concentrations are presented in Section 6.0.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

Hazardous waste classification based on the 90% UCL is considered sufficient to satisfy a good faith effort as discussed in SW-846. Risk assessment characterization is typically based on the 95% UCL in accordance with the *Risk Assessment Guidance for Superfund (RAGS) Volume 1 Documentation for Exposure Assessment*. Per Caltrans, 90% UCLs are to be used to evaluate onsite reuse, and 95% UCLs are to be used to evaluate offsite reuse or disposal.

### 6.1 WB SR-32 (E 8<sup>th</sup> Street)

Total lead concentrations ranged from 2.7 to 200 mg/kg with an average total lead concentration of 21.9 mg/kg. The table below summarizes the excavation scenarios, the weighted average based on the calculated total lead UCLs, and the waste classification for excavated soil within the project limits as represented by borings B1 through B20.

Excavation Depth	90% UCL Total Lead (mg/kg)	90% UCL Predicted WET Lead (mg/l)	95% UCL Total Lead (mg/kg)	95% UCL Predicted WET Lead (mg/l)	Waste Classification
0 to 1 foot	60	1.4	65	1.5	Non-hazardous
Underlying soil (1 to 3 feet)	14	0.3	14	0.3	Non-hazardous
0 to 2 feet	39	0.9	41	0.9	Non-hazardous
Underlying soil (2 to 3 feet)	6.7	0.2	6.9	0.2	Non-hazardous
0 to 3 feet	32	0.7	35	0.8	Non-hazardous

90% UCL applicable for waste classification and onsite reuse; 95% UCL applicable for risk assessment and offsite disposal. Predicted WET lead concentrations were calculated using the equation of the regression line:  $y = 0.0225x$ .

Based on the table above, soil excavated to a depth of 3.0 feet or shallower within this area would not be classified as a California-hazardous waste since the 90% and 95% UCL-predicted WET soluble lead concentrations are less than the STLC for lead of 5.0 mg/l. Consequently, excavated soil from the top 3 feet or shallower could be reused or disposed of as non-hazardous soil with respect to lead content.

## 6.2 EB SR-32 (E 9<sup>th</sup> Street)

Total lead concentrations ranged from 2.2 to 400 mg/kg with an average total lead concentration of 39.8 mg/kg. The table below summarizes the excavation scenarios, the weighted average based on the calculated total lead UCLs, and the waste classification for excavated soil within the project limits as represented by borings B21 through B41.

Excavation Depth	90% UCL Total Lead (mg/kg)	90% UCL Predicted WET Lead (mg/l)	95% UCL Total Lead (mg/kg)	95% UCL Predicted WET Lead (mg/l)	Waste Classification
0 to 1 foot	116	2.6	124	2.8	Non-hazardous
Underlying soil (1 to 3 feet)	26	0.6	30	0.7	Non-hazardous
0 to 2 feet	74	1.7	80	1.8	Non-hazardous
Underlying soil (2 to 3 feet)	15	0.3	17	0.4	Non-hazardous
0 to 3 feet	62	1.4	67	1.5	Non-hazardous

90% UCL applicable for waste classification and onsite reuse; 95% UCL applicable for risk assessment and offsite disposal. Predicted WET lead concentrations were calculated using the equation of the regression line:  $y = 0.0225x$ .

Based on the table above, soil excavated to a depth of 3.0 feet or shallower within this area would not be classified as a California-hazardous waste since the 90% and 95% UCL-predicted WET soluble lead concentrations are less than the STLC for lead of 5.0 mg/l. Consequently, excavated soil from the top 3 feet or shallower could be reused or disposed of as non-hazardous soil with respect to lead content.

## 6.3 Traffic Stripe Paint

The yellow traffic stripe paint was sampled since it may be removed from the underlying asphalt concrete by grinding or sand blasting, which would create a paint waste stream. The analytical results of the traffic stripe paint will be used by Caltrans to provide contractors with preliminary analytical data for the traffic stripe paint.

Total lead was detected in the yellow traffic stripe paint samples at concentrations ranging from 3.6 to 54 mg/kg, less than the TTLC for lead of 1,000 mg/kg. WET soluble lead was not reported for the one traffic stripe paint sample analyzed at a concentration equal to or greater than the RL, and was therefore less than the STLC for lead of 5.0 mg/l. Total chromium was detected in three of the four traffic stripe paint samples collected at concentrations ranging

from 4.0 to 35 mg/kg, less than the TTLC for chromium of 2,500 mg/kg and 50 mg/kg (ten times the STLC for chromium of 5.0 mg/l). Thus, the yellow traffic stripe paint within the project boundaries will not require disposal as a California hazardous waste based on lead and chromium content.

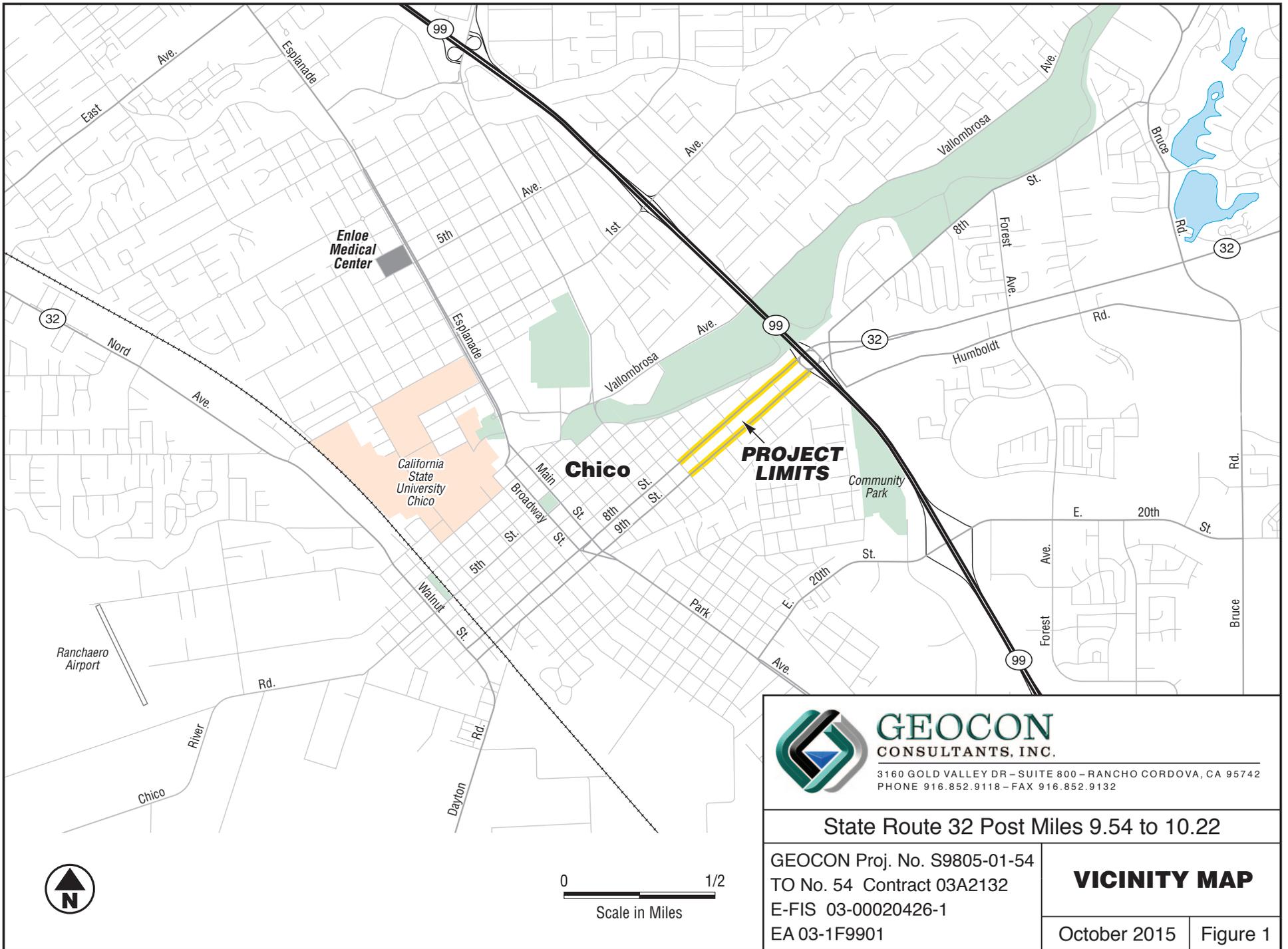
#### **6.4 Worker Protection**

Per Caltrans' requirements, the contractor(s) should prepare a project-specific Lead Compliance Plan (CCR Title 8, § 1532.1, the "Lead in Construction" standard) to minimize worker exposure to lead-impacted soil. The plan should include protocols for environmental and personnel monitoring, requirements for personal protective equipment, and other health and safety protocols and procedures for the handling of lead-impacted soil.

## 7.0 REPORT LIMITATIONS

This report has been prepared exclusively for Caltrans. The information contained herein is only valid as of the date of the report and will require an update to reflect additional information obtained.

This report is not a comprehensive site characterization and should not be construed as such. The findings as presented in this report are predicated on the results of the limited sampling and laboratory testing performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein. Therefore, the report should be deemed conclusive with respect to only the information obtained. We make no warranty, express or implied, with respect to the content of this report or any subsequent reports, correspondence or consultation. We strived to perform the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.



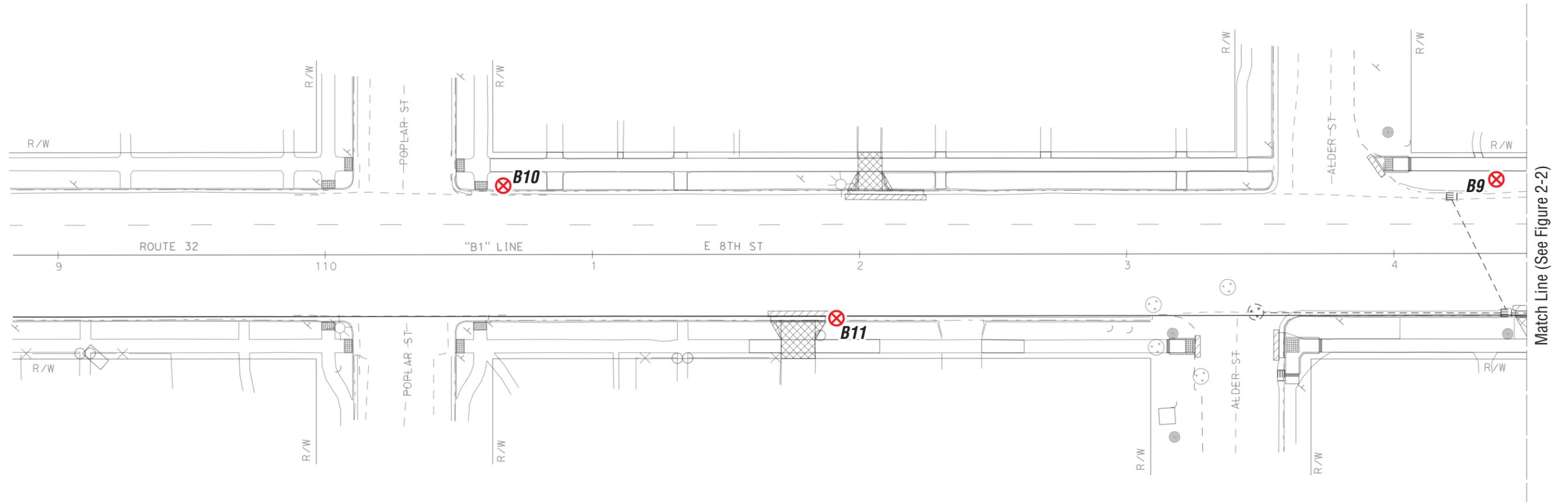
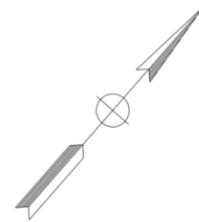

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CONSULTANTS, INC.  
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PHONE 916.852.9118 - FAX 916.852.9132

State Route 32 Post Miles 9.54 to 10.22

GEOCON Proj. No. S9805-01-54  
TO No. 54 Contract 03A2132  
E-FIS 03-00020426-1  
EA 03-1F9901

**VICINITY MAP**

October 2015	Figure 1
--------------	----------



LEGEND:

**B1** ⊗ Approximate Hand-Auger Boring Location



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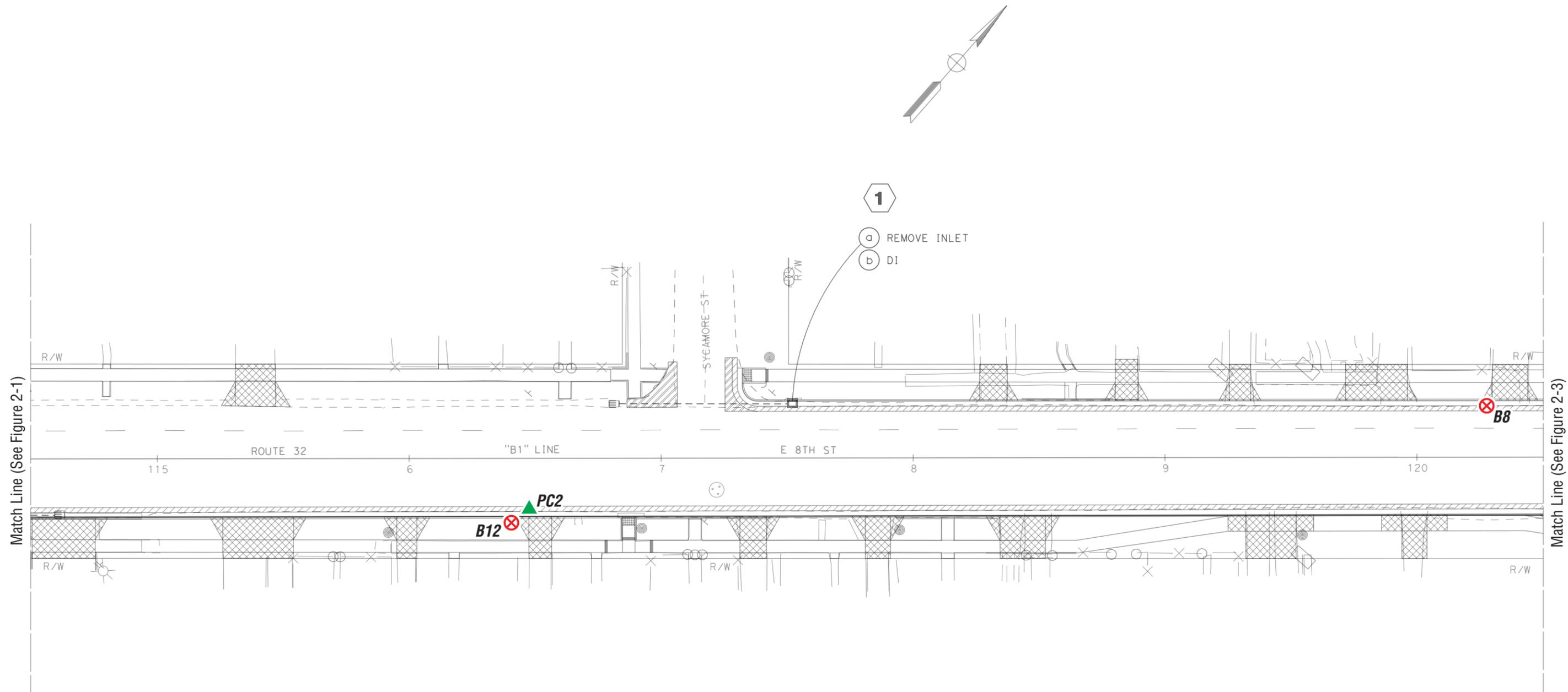
3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742  
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State Route 32 Post Miles 9.54 to 10.22

GEOCON Proj. No. S9805-01-54  
TO No. 54 Contract 03A2132  
E-FIS 03-00020426-1  
EA 03-1F9901

**SITE PLAN**  
**WB SR-32**  
**(E. 8th Street)**

October 2015 Figure 2-1



LEGEND:

- B1** ⊗ Approximate Hand-Auger Boring Location
- PC1** ▲ Approximate Yellow Traffic Stripe Paint Sampling Location



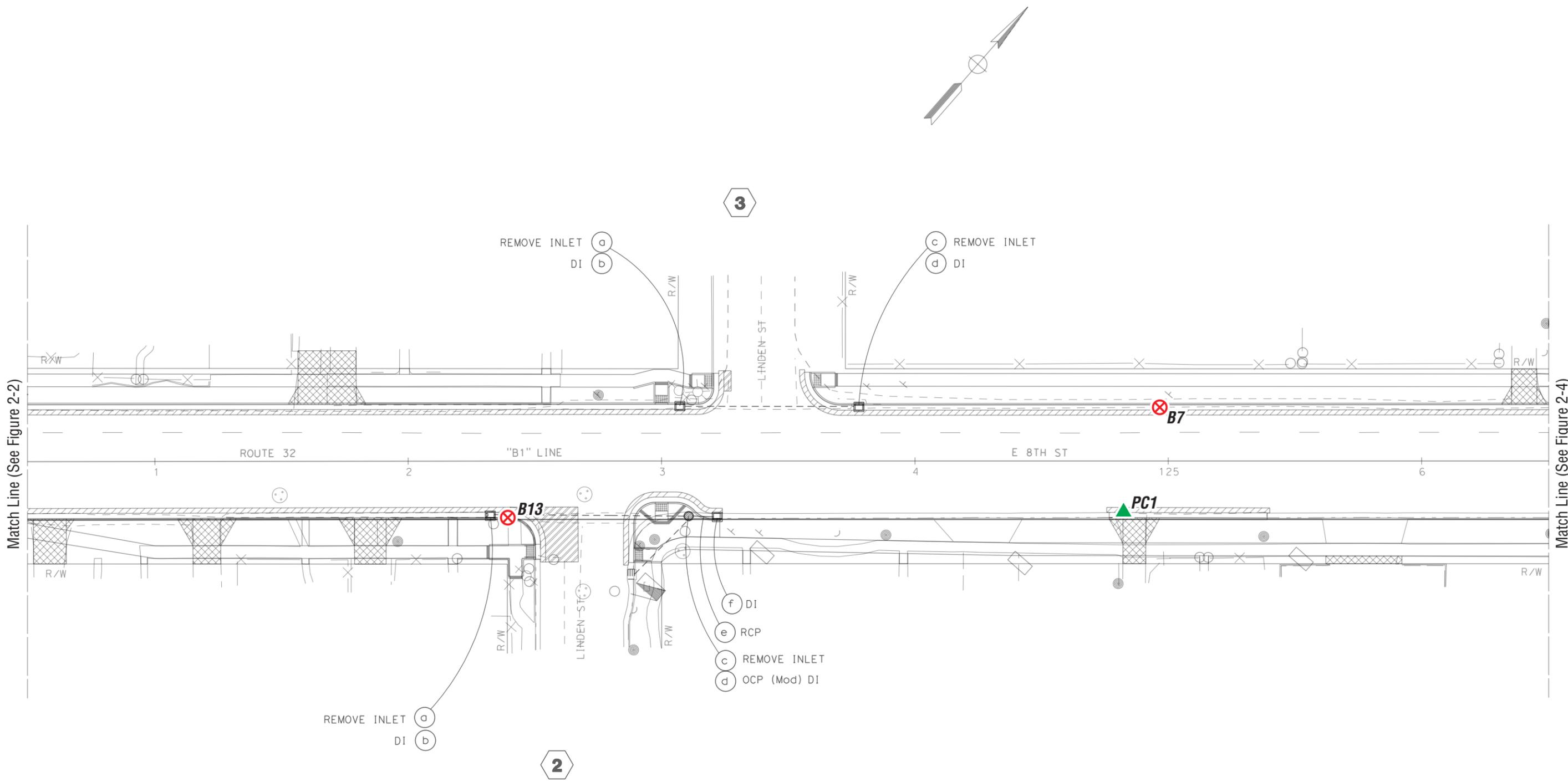
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CONSULTANTS, INC.  
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State Route 32 Post Miles 9.54 to 10.22

GEOCON Proj. No. S9805-01-54  
TO No. 54 Contract 03A2132  
E-FIS 03-00020426-1  
EA 03-1F9901

**SITE PLAN**  
**WB SR-32**  
**(E. 8th Street)**

October 2015 | Figure 2-2

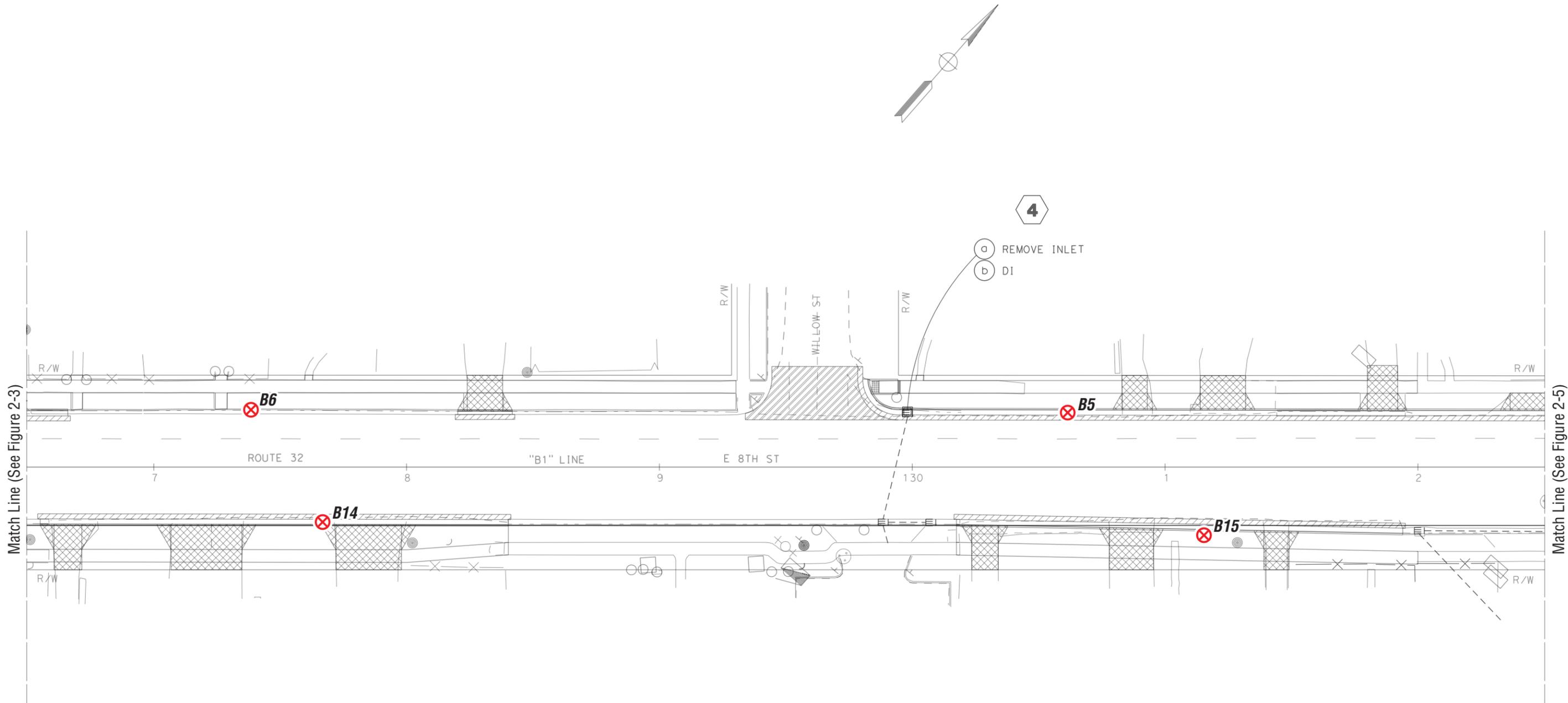


**LEGEND:**

- B1** Approximate Hand-Auger Boring Location
- PC1** Approximate Yellow Traffic Stripe Paint Sampling Location

<b>GEOCON</b> CONSULTANTS, INC. <small>3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742          PHONE 916.852.9118 - FAX 916.852.9132</small>	
<b>State Route 32 Post Miles 9.54 to 10.22</b>	
GEOCON Proj. No. S9805-01-54 TO No. 54 Contract 03A2132 E-FIS 03-00020426-1 EA 03-1F9901	<b>SITE PLAN</b> <b>WB SR-32</b> <b>(E. 8th Street)</b>
	October 2015   Figure 2-3





LEGEND:

**B1** ⊗ Approximate Hand-Auger Boring Location



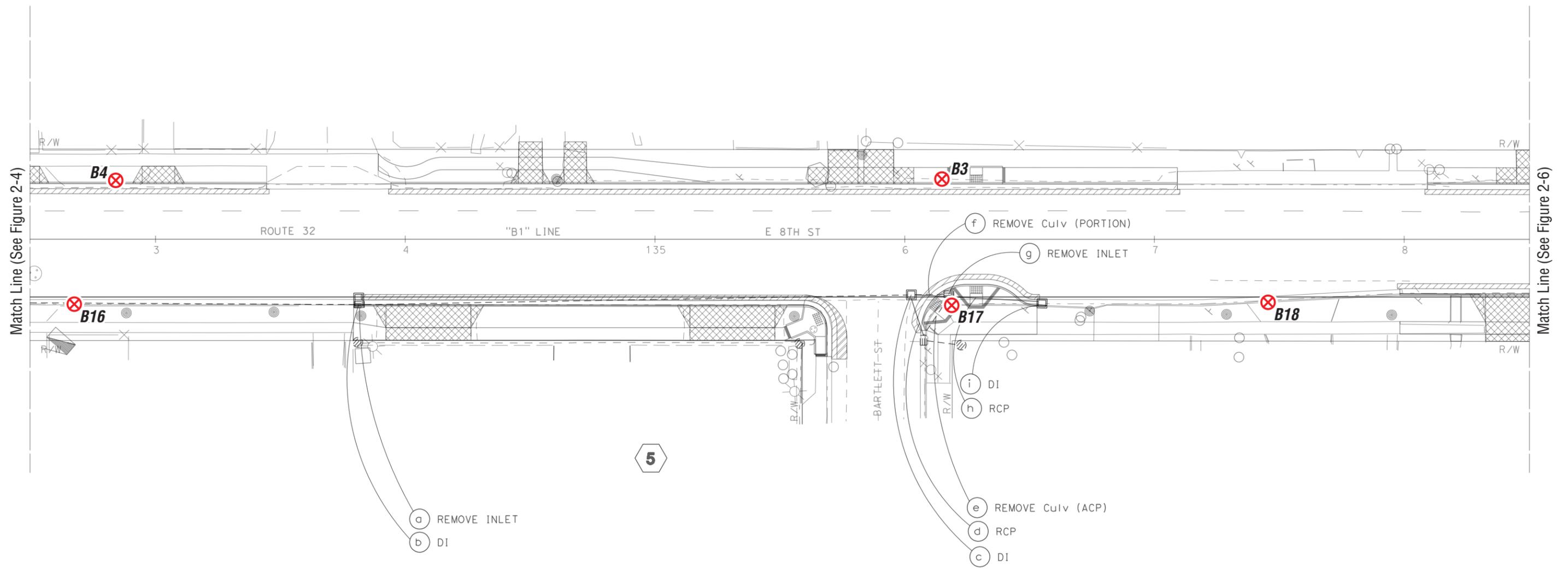
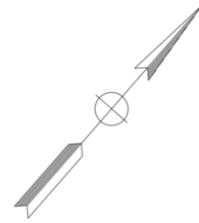
**GEOCON**  
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State Route 32 Post Miles 9.54 to 10.22

GEOCON Proj. No. S9805-01-54  
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EA 03-1F9901

**SITE PLAN**  
**WB SR-32**  
**(E. 8th Street)**

October 2015 Figure 2-4



LEGEND:

**B1** ⊗ Approximate Hand-Auger Boring Location



**GEOCON**  
CONSULTANTS, INC.

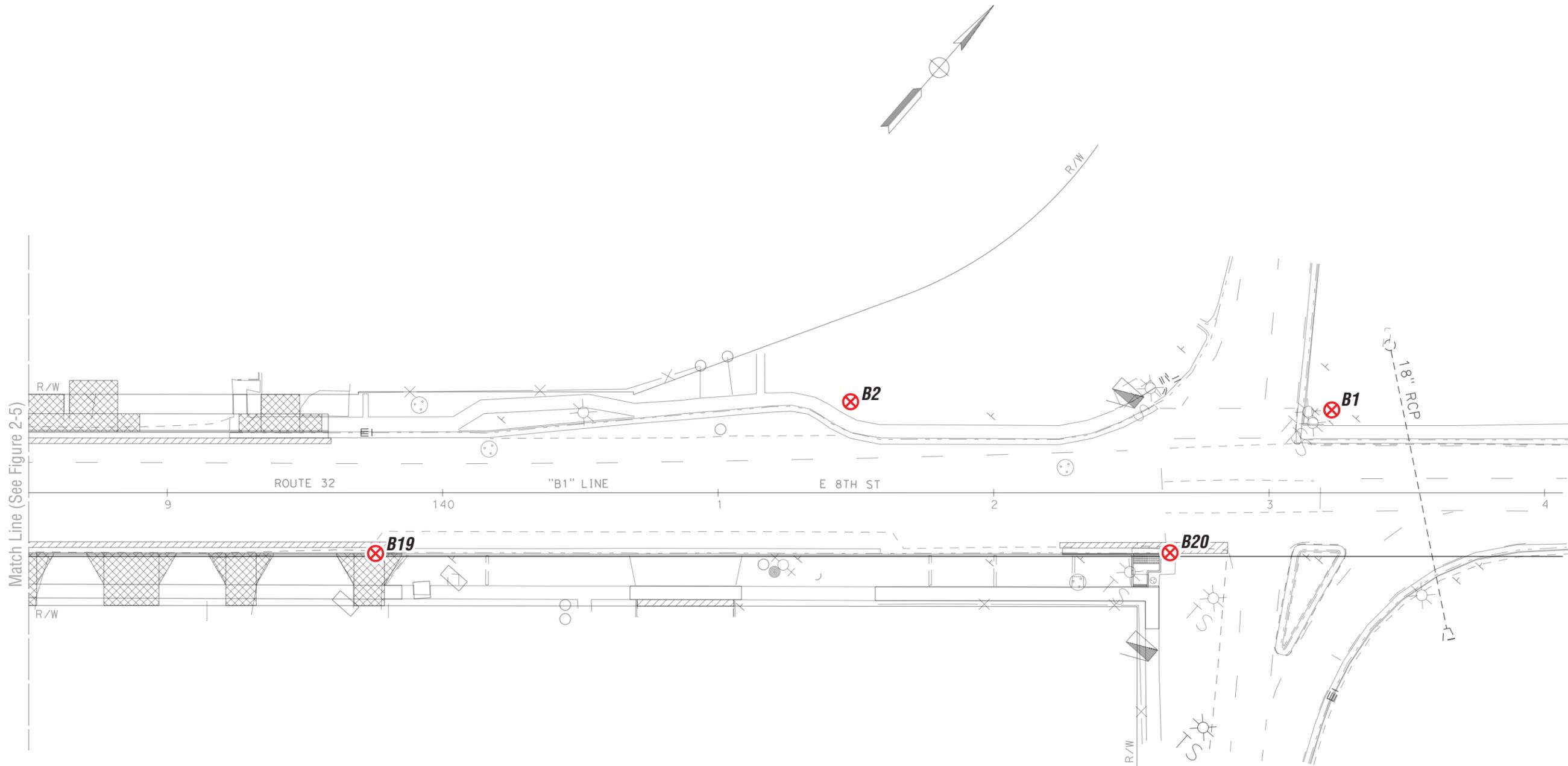
3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742  
PHONE 916.852.9118 - FAX 916.852.9132

State Route 32 Post Miles 9.54 to 10.22

GEOCON Proj. No. S9805-01-54  
TO No. 54 Contract 03A2132  
E-FIS 03-00020426-1  
EA 03-1F9901

**SITE PLAN**  
**WB SR-32**  
**(E. 8th Street)**

October 2015 | Figure 2-5



LEGEND:

**B1** ⊗ Approximate Hand-Auger Boring Location



**GEOCON**  
CONSULTANTS, INC.

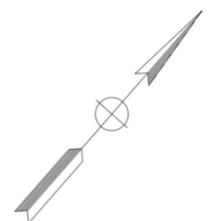
3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742  
PHONE 916.852.9118 - FAX 916.852.9132

State Route 32 Post Miles 9.54 to 10.22

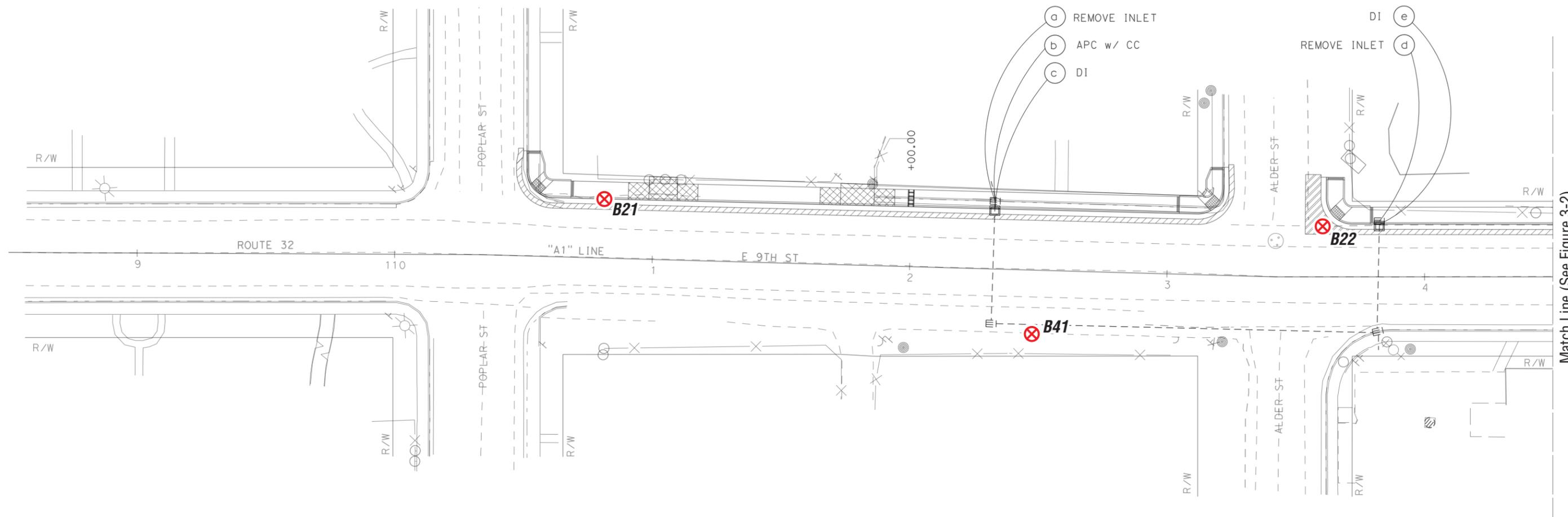
GEOCON Proj. No. S9805-01-54  
TO No. 54 Contract 03A2132  
E-FIS 03-00020426-1  
EA 03-1F9901

**SITE PLAN**  
**WB SR-32**  
**(E. 8th Street)**

October 2015 | Figure 2-6



6



Match Line (See Figure 3-2)

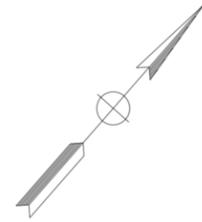
LEGEND:

**B1** ⊗ Approximate Hand-Auger Boring Location

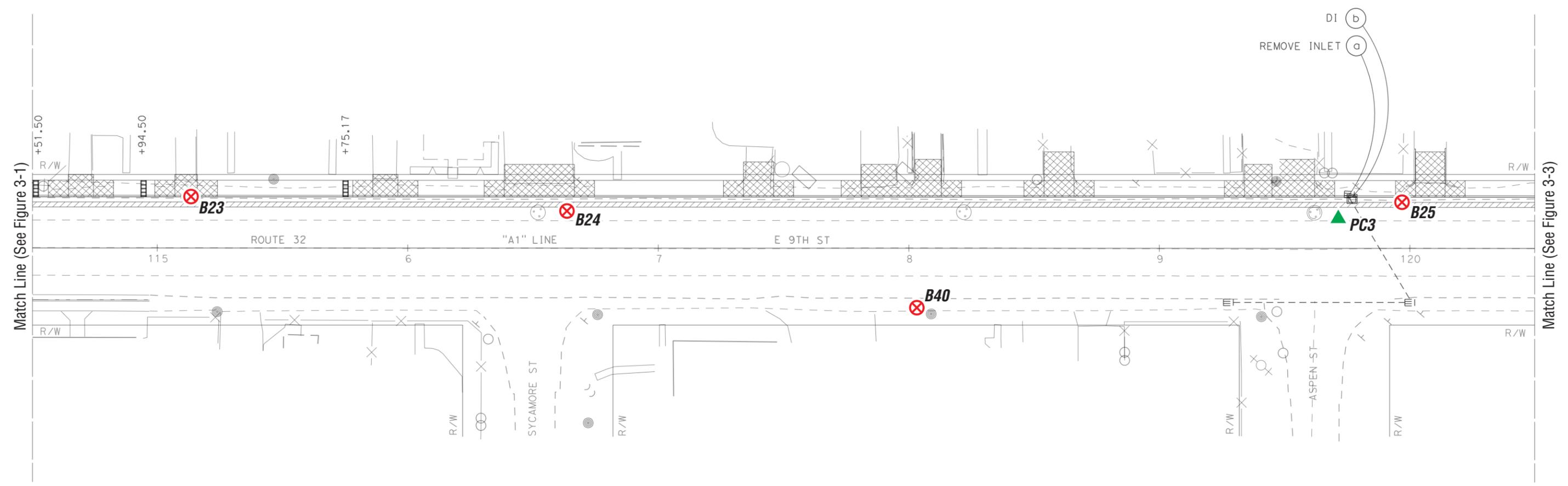


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State Route 32 Post Miles 9.54 to 10.22	
GEOCON Proj. No. S9805-01-54 TO No. 54 Contract 03A2132 E-FIS 03-00020426-1 EA 03-1F9901	<b>SITE PLAN</b> <b>EB SR-32</b> <b>(E. 9th Street)</b>
October 2015	Figure 3-1



7



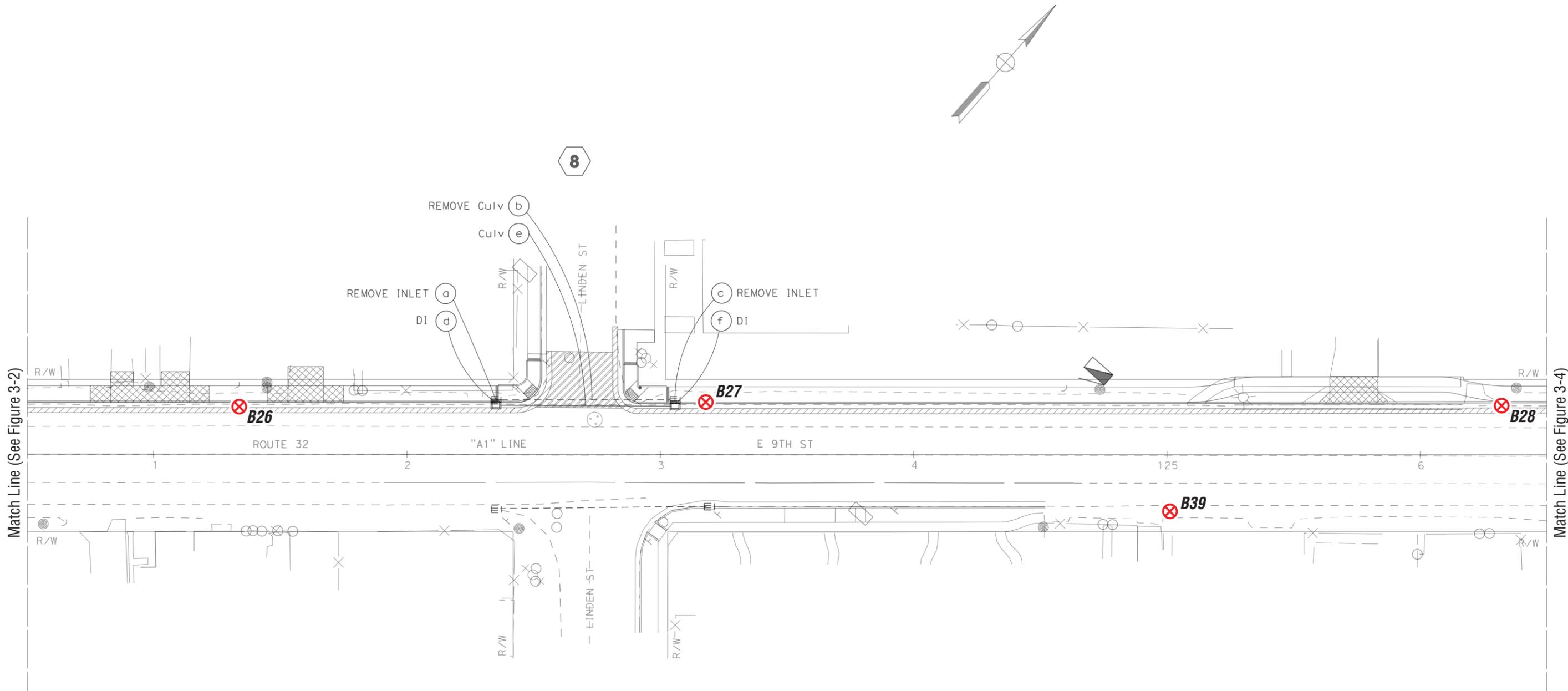
LEGEND:

- B1** ⊗ Approximate Hand-Auger Boring Location
- PC1** ▲ Approximate Yellow Traffic Stripe Paint Sampling Location



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State Route 32 Post Miles 9.54 to 10.22	
GEOCON Proj. No. S9805-01-54 TO No. 54 Contract 03A2132 E-FIS 03-00020426-1 EA 03-1F9901	<b>SITE PLAN</b> <b>EB SR-32</b> <b>(E. 9th Street)</b>
October 2015	Figure 3-2



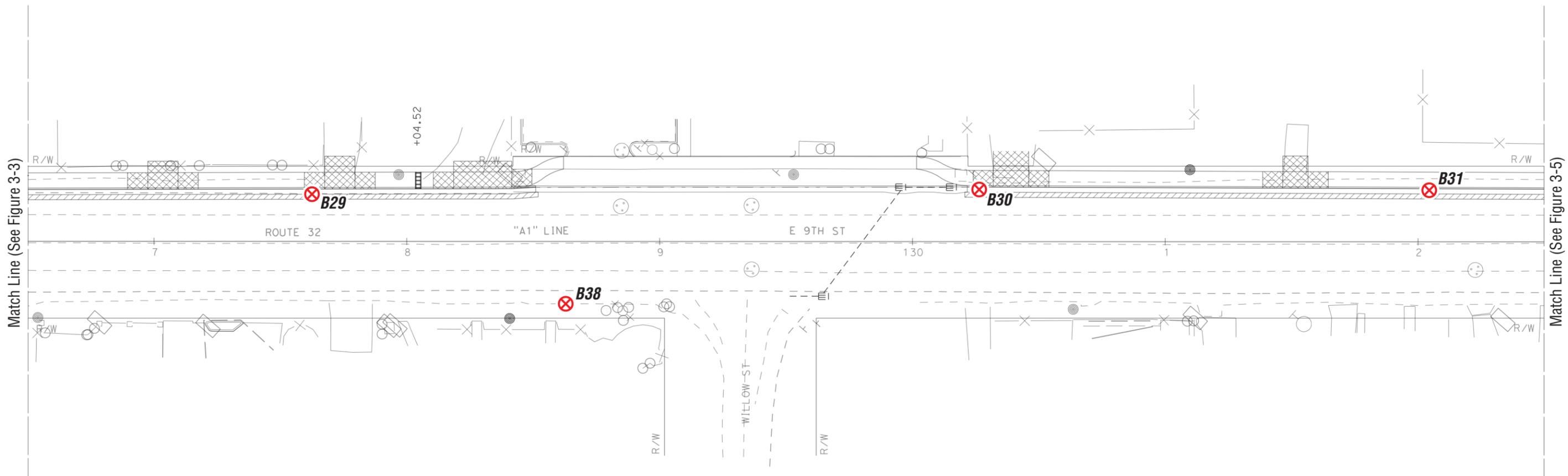
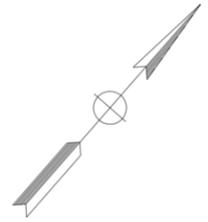
LEGEND:

**B1** ⊗ Approximate Hand-Auger Boring Location



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State Route 32 Post Miles 9.54 to 10.22	
GEOCON Proj. No. S9805-01-54 TO No. 54 Contract 03A2132 E-FIS 03-00020426-1 EA 03-1F9901	<b>SITE PLAN</b> <b>EB SR-32</b> <b>(E. 9th Street)</b>
October 2015	Figure 3-3



Match Line (See Figure 3-3)

Match Line (See Figure 3-5)

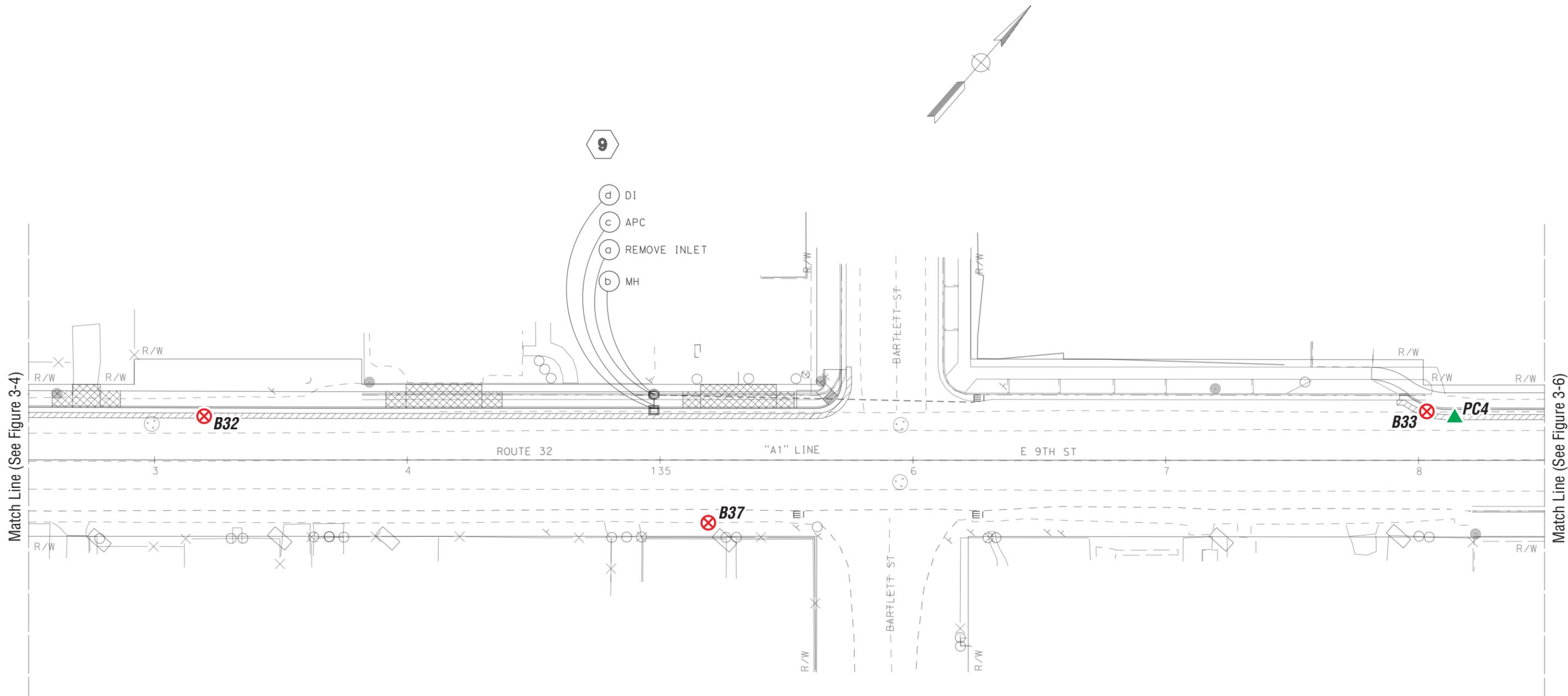
LEGEND:

**B1** ⊗ Approximate Hand-Auger Boring Location



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State Route 32 Post Miles 9.54 to 10.22	
GEOCON Proj. No. S9805-01-54 TO No. 54 Contract 03A2132 E-FIS 03-00020426-1 EA 03-1F9901	<b>SITE PLAN</b> <b>EB SR-32</b> <b>(E. 9th Street)</b>
October 2015	Figure 3-4



LEGEND:

- B1** ⊗ Approximate Hand-Auger Boring Location
- PC1** ▲ Approximate Yellow Traffic Stripe Paint Sampling Location



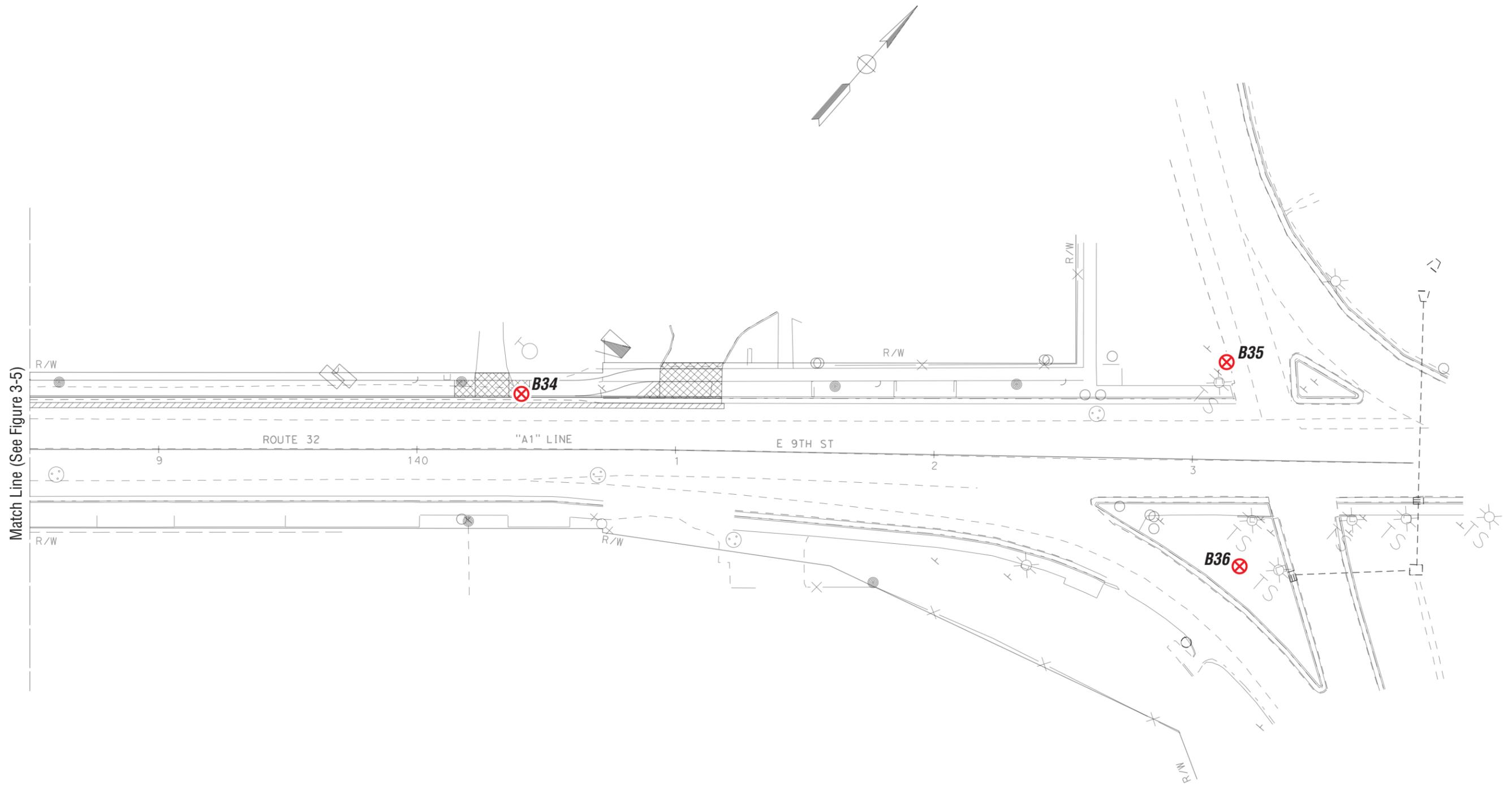
**GEOCON**  
CONSULTANTS, INC.  
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PHONE 916.852.9118 - FAX 916.852.9132

State Route 32 Post Miles 9.54 to 10.22

GEOCON Proj. No. S9805-01-54  
TO No. 54 Contract 03A2132  
E-FIS 03-00020426-1  
EA 03-1F9901

**SITE PLAN**  
**EB SR-32**  
**(E. 9th Street)**

October 2015 | Figure 3-5



LEGEND:

**B1**  Approximate Hand-Auger Boring Location



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State Route 32 Post Miles 9.54 to 10.22

GEOCON Proj. No. S9805-01-54  
TO No. 54 Contract 03A2132  
E-FIS 03-00020426-1  
EA 03-1F9901

**SITE PLAN**  
**EB SR-32**  
**(E. 9th Street)**

October 2015 | Figure 3-6



Photo No. 1 Typical sampling location on the south side of westbound SR-32 (E. 8th Street) in the vicinity of Boring B12



Photo No. 2 Typical sampling location on the south side of eastbound SR-32 (E. 9th Street) in the vicinity of Boring B37



**GEOCON**  
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**PHOTOS NO. 1 & 2**

State Route 32 Post Miles 9.54 to 10.22

GEOCON Proj. No. S9805-01-54  
TO No. 54 Contract 03A2132  
E-FIS 03-00020426-1  
EA 03-1F9901

October 2015

TABLE 1  
SUMMARY OF SOIL BORING COORDINATES  
EA 03-1F9901  
STATE ROUTE 32 POST MILE 9.54 TO 10.22  
BUTTE COUNTY, CALIFORNIA

BORING ID	SAMPLE DATE	LATITUDE	LONGITUDE
<b>WB SR-32 (E 8TH STREET)</b>			
B1	9/14/2015	39.736595034	-121.820473159
B2	9/14/2015	39.736254960	-121.820976932
B3	9/14/2015	39.735270450	-121.822358277
B4	9/14/2015	39.734657470	-121.823268619
B5	9/14/2015	39.734271214	-121.823829623
B6	9/14/2015	39.733694119	-121.824734598
B7	9/14/2015	39.733309756	-121.825299727
B8	9/14/2015	39.732385935	-121.826568118
B9	9/14/2015	39.731364709	-121.828124013
B10	9/14/2015	39.730676880	-121.829195164
B11	9/14/2015	39.730809077	-121.828754262
B12	9/14/2015	39.731613603	-121.827556931
B13	9/14/2015	39.732724502	-121.825941603
B14	9/14/2015	39.733648369	-121.824546206
B15	9/14/2015	39.734271524	-121.823607030
B16	9/14/2015	39.734550249	-121.823178940
B17	9/14/2015	39.735185628	-121.822221744
B18	9/14/2015	39.735612960	-121.821590095
B19	9/14/2015	39.735799406	-121.821332886
B20	9/14/2015	39.736345249	-121.820467375
<b>EB SR-32 (E 9TH STREET)</b>			
B21	9/14/2015	39.730018000	-121.828314851
B22	9/14/2015	39.730503077	-121.827537420
B23	9/14/2015	39.730752739	-121.827188915
B24	9/14/2015	39.731094136	-121.826666205
B25	9/15/2015	39.731610585	-121.825897900
B26	9/15/2015	NA	NA
B27	9/15/2015	39.732222915	-121.825011330
B28	9/15/2015	39.732779156	-121.824185788
B29	9/15/2015	39.733004981	-121.823833953
B30	9/15/2015	39.733483527	-121.823086333
B31	9/15/2015	39.733805249	-121.822656305
B32	9/15/2015	39.734036858	-121.822312930
B33	9/15/2015	39.734939131	-121.820977881
B34	9/15/2015	39.735313732	-121.820388910
B35	9/15/2015	39.735814256	-121.819690036

---

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TABLE 1  
SUMMARY OF SOIL BORING COORDINATES  
EA 03-1F9901  
STATE ROUTE 32 POST MILE 9.54 TO 10.22  
BUTTE COUNTY, CALIFORNIA

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BORING ID	SAMPLE DATE	LATITUDE	LONGITUDE
B36	9/15/2015	39.735689181	-121.819477409
B37	9/15/2015	39.734312640	-121.821660235
B38	9/15/2015	NA	NA
B39	9/15/2015	39.732458838	-121.824441978
B40	9/15/2015	39.731229480	-121.826256452
B41	9/14/2015	39.730190454	-121.827801180

---

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Notes:            NA = GPS data not available

TABLE 2  
 SUMMARY OF SOIL ANALYTICAL RESULTS  
 EA 03-1F9901  
 STATE ROUTE 32 POST MILE 9.54 TO 10.22  
 BUTTE COUNTY, CALIFORNIA

SAMPLE ID	TOP OF SAMPLE DEPTH INTERVAL (feet)	TOTAL LEAD (mg/kg)	WET LEAD (mg/l)	TCLP LEAD (mg/l)
<b>WB SR-32 (E 8<sup>TH</sup> STREET)</b>				
B1-0	0	34	---	---
B1-1	1	12	---	---
B1-2	2	6.5	---	---
B2-0	0	17	---	---
B2-1	1	5.1	---	---
B2-2	2	4.5	---	---
B3-0	0	23	---	---
B3-1	1	6.1	---	---
B3-2	2	5.5	---	---
B4-0	0	66	2.5	---
B4-1	1	5.9	---	---
B4-2	2	5.5	---	---
B5-0	0	12	---	---
B5-1	1	4.9	---	---
B5-2	2	2.7	---	---
B6-0	0	160	4.1	---
B6-1	1	53	1.3	---
B7-0	0	45	---	---
B7-1	1	4.9	---	---
B7-2	2	7.1	---	---
B8-0	0	63	<1.0	---
B8-1	1	7.9	---	---
B8-2	2	5.9	---	---
B9-0	0	17	---	---
B9-1	1	6.6	---	---
B9-2	2	5.3	---	---

TABLE 2  
SUMMARY OF SOIL ANALYTICAL RESULTS  
EA 03-1F9901  
STATE ROUTE 32 POST MILE 9.54 TO 10.22  
BUTTE COUNTY, CALIFORNIA

SAMPLE ID	TOP OF SAMPLE DEPTH INTERVAL (feet)	TOTAL LEAD (mg/kg)	WET LEAD (mg/l)	TCLP LEAD (mg/l)
B10-0	0	200	3.8	<0.05
B10-1	1	28	---	---
B10-2	2	10	---	---
B11-0	0	14	---	---
B11-1	1	14	---	---
B11-2	2	9.6	---	---
B12-0	0	28	---	---
B12-1	1	4.7	---	---
B12-2	2	4.8	---	---
B13-0	0	80	<1.0	---
B13-1	1	56	<1.0	---
B13-2	2	6.8	---	---
B14-0	0	22	---	---
B14-1	1	6.6	---	---
B14-2	2	5.7	---	---
B15-0	0	12	---	---
B15-1	1	6.5	---	---
B15-2	2	6.2	---	---
B16-0	0	7.5	---	---
B16-1	1	5.5	---	---
B16-2	2	5.9	---	---
B17-0	0	35	---	---
B17-1	1	5.7	---	---
B17-2	2	6.0	---	---
B18-0	0	5.7	---	---
B18-1	1	7.6	---	---
B18-2	2	7.6	---	---

TABLE 2  
 SUMMARY OF SOIL ANALYTICAL RESULTS  
 EA 03-1F9901  
 STATE ROUTE 32 POST MILE 9.54 TO 10.22  
 BUTTE COUNTY, CALIFORNIA

SAMPLE ID	TOP OF SAMPLE DEPTH INTERVAL (feet)	TOTAL LEAD (mg/kg)	WET LEAD (mg/l)	TCLP LEAD (mg/l)
B19-0	0	15	---	---
B19-1	1	7.2	---	---
B19-2	2	6.0	---	---
B20-0	0	59	<1.0	---
B20-1	1	7.3	---	---
B20-2	2	6.9	---	---
<b>EB SR-32 (E 9<sup>TH</sup> STREET)</b>				
B21-0	0	140	3.0	---
B21-1	1	12	---	---
B21-2	2	7.2	---	---
B22-0	0	400	8.5	0.066
B22-1	1	14	---	---
B22-2	2	5.7	---	---
B23-0	0	11	---	---
B23-1	1	14	---	---
B23-2	2	82	<1.0	---
B24-0	0	6.4	---	---
B24-1	1	6.3	---	---
B24-2	2	6.2	---	---
B25-0	0	2.2	---	---
B25-1	1	3.5	---	---
B25-2	2	4.8	---	---
B26-0	0	37	---	---
B26-1	1	7.2	---	---
B26-2	2	5.0	---	---
B27-0	0	16	---	---
B27-1	1	6.2	---	---
B27-2	2	5.5	---	---

TABLE 2  
SUMMARY OF SOIL ANALYTICAL RESULTS  
EA 03-1F9901  
STATE ROUTE 32 POST MILE 9.54 TO 10.22  
BUTTE COUNTY, CALIFORNIA

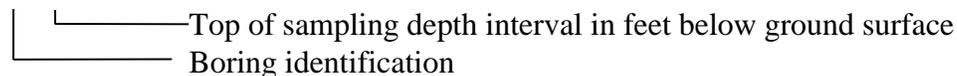
SAMPLE ID	TOP OF SAMPLE DEPTH INTERVAL (feet)	TOTAL LEAD (mg/kg)	WET LEAD (mg/l)	TCLP LEAD (mg/l)
B28-0	0	79	1.2	---
B28-1	1	7.6	---	---
B28-2	2	5.7	---	---
B29-0	0	84	1.5	---
B29-1	1	7.0	---	---
B29-2	2	5.6	---	---
B30-0	0	26	---	---
B30-1	1	12	---	---
B30-2	2	6.6	---	---
B31-0	0	37	---	---
B31-1	1	7.8	---	---
B31-2	2	6.6	---	---
B32-0	0	51	<1.0	---
B32-1	1	7.4	---	---
B32-2	2	5.5	---	---
B33-0	0	120	6.2	---
B33-1	1	7.8	---	---
B33-2	2	6.1	---	---
B34-0	0	160	5.4	---
B34-1	1	26	---	---
B34-2	2	5.6	---	---
B35-0	0	88	2.5	---
B35-1	1	7.3	---	---
B35-2	2	6.8	---	---
B36-0	0	11	---	---
B36-1	1	5.9	---	---
B36-2	2	5.8	---	---

TABLE 2  
 SUMMARY OF SOIL ANALYTICAL RESULTS  
 EA 03-1F9901  
 STATE ROUTE 32 POST MILE 9.54 TO 10.22  
 BUTTE COUNTY, CALIFORNIA

SAMPLE ID	TOP OF SAMPLE DEPTH INTERVAL (feet)	TOTAL LEAD (mg/kg)	WET LEAD (mg/l)	TCLP LEAD (mg/l)
B37-0	0	98	1.1	---
B37-1	1	6.8	---	---
B37-2	2	5.1	---	---
B38-0	0	11	---	---
B38-1	1	6.8	---	---
B38-2	2	6.4	---	---
B39-0	0	49	---	---
B39-1	1	5.9	---	---
B39-2	2	5.0	---	---
B40-0	0	210	5.8	<0.05
B40-1	1	220	12	<0.05
B40-2	2	30	---	---
B41-0	0	230	4.4	<0.05
B41-1	1	24	---	---
B41-2	2	6.1	---	---

Notes:

B1-0



WET = Waste Extraction Test

TCLP = Toxicity Characteristic Leaching Procedure

mg/kg = Milligrams per kilogram

mg/l = Milligrams per liter

< = Less than the laboratory reporting limit

--- = Not analyzed

---

TABLE 3  
SUMMARY OF TRAFFIC STRIPE PAINT ANALYTICAL RESULTS  
EA 03-1F9901  
STATE ROUTE 32 POST MILE 9.54 TO 10.22  
BUTTE COUNTY, CALIFORNIA

---

BORING ID	SAMPLE LOCATION	TRAFFIC PAINT COLOR	TOTAL LEAD (mg/kg)	WET LEAD (mg/l)	TOTAL CHROMIUM (mg/kg)
PC1	WB SR-32 (E 8th Street)	YELLOW	54	<1.0	16
PC2	WB SR-32 (E 8th Street)	YELLOW	3.7	---	<2.0
PC3	EB SR-32 (E 9th Street)	YELLOW	4.9	---	35
PC4	EB SR-32 (E 9th Street)	YELLOW	3.6	---	4.0

---

Notes:

mg/l = milligrams per liter

mg/kg = Milligrams per kilogram

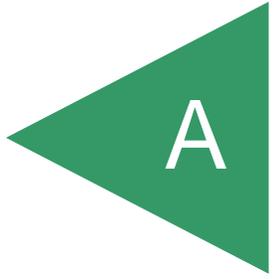
< = Less than the laboratory reporting limit

EB = Eastbound

WB = Westbound

APPENDIX

A





September 23, 2015

Rebecca Silva  
Geocon Consultants, Inc.  
3160 Gold Valley Drive, Suite 800  
Rancho Cordova, CA 95742  
Tel: (916) 852-9118  
Fax:(916) 852-9132

ELAP No.: 1838  
CSDLAC No.: 10196  
ORELAP No.: CA300003  
TCEQ No. : T104704502

Re: ATL Work Order Number : 1503194  
Client Reference : SR-32 Chico ADL, S9805-01-54

Enclosed are the results for sample(s) received on September 16, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Rodriguez', is written over a light gray rectangular background.

Eddie Rodriguez  
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



## Certificate of Analysis

Geocon Consultants, Inc.

Project Number : SR-32 Chico ADL, S9805-01-54

3160 Gold Valley Drive, Suite 800

Report To : Rebecca Silva

Rancho Cordova , CA 95742

Reported : 09/23/2015

### SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B1-0	1503194-01	Soil	9/14/15 9:14	9/16/15 8:58
B1-1	1503194-02	Soil	9/14/15 9:24	9/16/15 8:58
B1-2	1503194-03	Soil	9/14/15 9:28	9/16/15 8:58
B2-0	1503194-04	Soil	9/14/15 9:15	9/16/15 8:58
B2-1	1503194-05	Soil	9/14/15 9:27	9/16/15 8:58
B2-2	1503194-06	Soil	9/14/15 9:33	9/16/15 8:58
B3-0	1503194-07	Soil	9/14/15 9:43	9/16/15 8:58
B3-1	1503194-08	Soil	9/14/15 9:47	9/16/15 8:58
B3-2	1503194-09	Soil	9/14/15 9:49	9/16/15 8:58
B4-0	1503194-10	Soil	9/14/15 10:14	9/16/15 8:58
B4-1	1503194-11	Soil	9/14/15 10:22	9/16/15 8:58
B4-2	1503194-12	Soil	9/14/15 10:24	9/16/15 8:58
B5-0	1503194-13	Soil	9/14/15 11:28	9/16/15 8:58
B5-1	1503194-14	Soil	9/14/15 11:36	9/16/15 8:58
B5-2	1503194-15	Soil	9/14/15 11:40	9/16/15 8:58
B6-0	1503194-16	Soil	9/14/15 12:11	9/16/15 8:58
B6-1	1503194-17	Soil	9/14/15 12:15	9/16/15 8:58
B7-0	1503194-18	Soil	9/14/15 12:28	9/16/15 8:58
B7-1	1503194-19	Soil	9/14/15 12:36	9/16/15 8:58
B7-2	1503194-20	Soil	9/14/15 12:38	9/16/15 8:58
B8-0	1503194-21	Soil	9/14/15 13:01	9/16/15 8:58
B8-1	1503194-22	Soil	9/14/15 13:05	9/16/15 8:58
B8-2	1503194-23	Soil	9/14/15 13:07	9/16/15 8:58
B9-0	1503194-24	Soil	9/14/15 13:31	9/16/15 8:58
B9-1	1503194-25	Soil	9/14/15 13:37	9/16/15 8:58
B9-2	1503194-26	Soil	9/14/15 13:39	9/16/15 8:58
B10-0	1503194-27	Soil	9/14/15 14:00	9/16/15 8:58
B10-1	1503194-28	Soil	9/14/15 14:02	9/16/15 8:58
B10-2	1503194-29	Soil	9/14/15 14:06	9/16/15 8:58
B11-0	1503194-30	Soil	9/14/15 13:49	9/16/15 8:58
B11-1	1503194-31	Soil	9/14/15 13:51	9/16/15 8:58
B11-2	1503194-32	Soil	9/14/15 13:53	9/16/15 8:58
B12-0	1503194-33	Soil	9/14/15 13:15	9/16/15 8:58
B12-1	1503194-34	Soil	9/14/15 13:17	9/16/15 8:58



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3160 Gold Valley Drive, Suite 800

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Rancho Cordova , CA 95742

Reported : 09/23/2015

B12-2	1503194-35	Soil	9/14/15 13:19	9/16/15 8:58
B13-0	1503194-36	Soil	9/14/15 12:45	9/16/15 8:58
B13-1	1503194-37	Soil	9/14/15 12:47	9/16/15 8:58
B13-2	1503194-38	Soil	9/14/15 12:49	9/16/15 8:58
B14-0	1503194-39	Soil	9/14/15 11:59	9/16/15 8:58
B14-1	1503194-40	Soil	9/14/15 12:01	9/16/15 8:58
B14-2	1503194-41	Soil	9/14/15 12:03	9/16/15 8:58
B15-0	1503194-42	Soil	9/14/15 11:32	9/16/15 8:58
B15-1	1503194-43	Soil	9/14/15 11:37	9/16/15 8:58
B15-2	1503194-44	Soil	9/14/15 11:43	9/16/15 8:58
B16-0	1503194-45	Soil	9/14/15 11:07	9/16/15 8:58
B16-1	1503194-46	Soil	9/14/15 11:13	9/16/15 8:58
B16-2	1503194-47	Soil	9/14/15 11:15	9/16/15 8:58
B17-0	1503194-48	Soil	9/14/15 10:50	9/16/15 8:58
B17-1	1503194-49	Soil	9/14/15 10:58	9/16/15 8:58
B17-2	1503194-50	Soil	9/14/15 11:06	9/16/15 8:58
B18-0	1503194-51	Soil	9/14/15 10:45	9/16/15 8:58
B18-1	1503194-52	Soil	9/14/15 10:51	9/16/15 8:58
B18-2	1503194-53	Soil	9/14/15 10:55	9/16/15 8:58
B19-0	1503194-54	Soil	9/14/15 10:07	9/16/15 8:58
B19-1	1503194-55	Soil	9/14/15 10:17	9/16/15 8:58
B19-2	1503194-56	Soil	9/14/15 10:23	9/16/15 8:58
B20-0	1503194-57	Soil	9/14/15 9:46	9/16/15 8:58
B20-1	1503194-58	Soil	9/14/15 9:48	9/16/15 8:58
B20-2	1503194-59	Soil	9/14/15 9:56	9/16/15 8:58
B21-0	1503194-60	Soil	9/14/15 14:20	9/16/15 8:58
B21-1	1503194-61	Soil	9/14/15 14:21	9/16/15 8:58
B21-2	1503194-62	Soil	9/14/15 14:23	9/16/15 8:58
B22-0	1503194-63	Soil	9/14/15 14:50	9/16/15 8:58
B22-1	1503194-64	Soil	9/14/15 14:56	9/16/15 8:58
B22-2	1503194-65	Soil	9/14/15 14:58	9/16/15 8:58
B23-0	1503194-66	Soil	9/14/15 15:09	9/16/15 8:58
B23-1	1503194-67	Soil	9/14/15 15:11	9/16/15 8:58
B23-2	1503194-68	Soil	9/14/15 15:13	9/16/15 8:58
B24-0	1503194-69	Soil	9/14/15 15:25	9/16/15 8:58
B24-1	1503194-70	Soil	9/14/15 15:29	9/16/15 8:58
B24-2	1503194-71	Soil	9/14/15 15:31	9/16/15 8:58
B25-0	1503194-72	Soil	9/15/15 9:05	9/16/15 8:58
B25-1	1503194-73	Soil	9/15/15 9:12	9/16/15 8:58



## Certificate of Analysis

Geocon Consultants, Inc.

Project Number : SR-32 Chico ADL, S9805-01-54

3160 Gold Valley Drive, Suite 800

Report To : Rebecca Silva

Rancho Cordova , CA 95742

Reported : 09/23/2015

B25-2	1503194-74	Soil	9/15/15 9:20	9/16/15 8:58
B26-0	1503194-75	Soil	9/15/15 9:28	9/16/15 8:58
B26-1	1503194-76	Soil	9/15/15 9:30	9/16/15 8:58
B26-2	1503194-77	Soil	9/15/15 9:32	9/16/15 8:58
B27-0	1503194-78	Soil	9/15/15 9:36	9/16/15 8:58
B27-1	1503194-79	Soil	9/15/15 9:38	9/16/15 8:58
B27-2	1503194-80	Soil	9/15/15 9:40	9/16/15 8:58
B28-0	1503194-81	Soil	9/15/15 10:07	9/16/15 8:58
B28-1	1503194-82	Soil	9/15/15 10:09	9/16/15 8:58
B28-2	1503194-83	Soil	9/15/15 10:11	9/16/15 8:58
B29-0	1503194-84	Soil	9/15/15 10:19	9/16/15 8:58
B29-1	1503194-85	Soil	9/15/15 10:21	9/16/15 8:58
B29-2	1503194-86	Soil	9/15/15 10:23	9/16/15 8:58
B30-0	1503194-87	Soil	9/15/15 10:45	9/16/15 8:58
B30-1	1503194-88	Soil	9/15/15 10:48	9/16/15 8:58
B30-2	1503194-89	Soil	9/15/15 10:51	9/16/15 8:58
B31-0	1503194-90	Soil	9/15/15 11:00	9/16/15 8:58
B31-1	1503194-91	Soil	9/15/15 11:02	9/16/15 8:58
B31-2	1503194-92	Soil	9/15/15 11:04	9/16/15 8:58
B32-0	1503194-93	Soil	9/15/15 11:08	9/16/15 8:58
B32-1	1503194-94	Soil	9/15/15 11:11	9/16/15 8:58
B32-2	1503194-95	Soil	9/15/15 11:13	9/16/15 8:58
B33-0	1503194-96	Soil	9/15/15 11:31	9/16/15 8:58
B33-1	1503194-97	Soil	9/15/15 11:33	9/16/15 8:58
B33-2	1503194-98	Soil	9/15/15 11:38	9/16/15 8:58
B34-0	1503194-99	Soil	9/15/15 11:48	9/16/15 8:58
B34-1	1503194-AA	Soil	9/15/15 11:52	9/16/15 8:58
B34-2	1503194-AB	Soil	9/15/15 11:58	9/16/15 8:58
B35-0	1503194-AC	Soil	9/15/15 12:05	9/16/15 8:58
B35-1	1503194-AD	Soil	9/15/15 12:09	9/16/15 8:58
B35-2	1503194-AE	Soil	9/15/15 12:14	9/16/15 8:58
B36-0	1503194-AF	Soil	9/15/15 12:18	9/16/15 8:58
B36-1	1503194-AG	Soil	9/15/15 12:20	9/16/15 8:58
B36-2	1503194-AH	Soil	9/15/15 12:22	9/16/15 8:58
B37-0	1503194-AI	Soil	9/15/15 11:23	9/16/15 8:58
B37-1	1503194-AJ	Soil	9/15/15 11:25	9/16/15 8:58
B37-2	1503194-AK	Soil	9/15/15 11:28	9/16/15 8:58
B38-0	1503194-AL	Soil	9/15/15 10:31	9/16/15 8:58
B38-1	1503194-AM	Soil	9/15/15 10:35	9/16/15 8:58



## Certificate of Analysis

Geocon Consultants, Inc.

3160 Gold Valley Drive, Suite 800

Rancho Cordova, CA 95742

Project Number : SR-32 Chico ADL, S9805-01-54

Report To : Rebecca Silva

Reported : 09/23/2015

B38-2	1503194-AN	Soil	9/15/15 10:37	9/16/15 8:58
B39-0	1503194-AO	Soil	9/15/15 9:55	9/16/15 8:58
B39-1	1503194-AP	Soil	9/15/15 9:58	9/16/15 8:58
B39-2	1503194-AQ	Soil	9/15/15 10:01	9/16/15 8:58
B40-0	1503194-AR	Soil	9/15/15 8:52	9/16/15 8:58
B40-1	1503194-AS	Soil	9/15/15 8:54	9/16/15 8:58
B40-2	1503194-AT	Soil	9/15/15 8:55	9/16/15 8:58
B41-0	1503194-AU	Soil	9/14/15 14:30	9/16/15 8:58
B41-1	1503194-AV	Soil	9/14/15 14:34	9/16/15 8:58
B41-2	1503194-AW	Soil	9/14/15 14:38	9/16/15 8:58
PC1	1503194-AX	Paint Chip	9/14/15 12:25	9/16/15 8:58
PC2	1503194-AY	Paint Chip	9/14/15 13:16	9/16/15 8:58
PC3	1503194-AZ	Paint Chip	9/15/15 9:18	9/16/15 8:58
PC4	1503194-BA	Paint Chip	9/15/15 9:36	9/16/15 8:58



# Certificate of Analysis

Geocon Consultants, Inc.  
 3160 Gold Valley Drive, Suite 800  
 Rancho Cordova , CA 95742

Project Number : SR-32 Chico ADL, S9805-01-54  
 Report To : Rebecca Silva  
 Reported : 09/23/2015

## Lead by ICP-AES EPA 6010B

Analyte: Lead

Analyst: RR

Laboratory ID	Client Sample ID	Result	Units	PQL	Dilution	Batch	Prepared	Date/Time	Notes
								Analyzed	
1503194-01	B1-0	34	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:40	
1503194-02	B1-1	12	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:40	
1503194-03	B1-2	6.5	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:41	
1503194-04	B2-0	17	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:42	
1503194-05	B2-1	5.1	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 13:30	
1503194-06	B2-2	4.5	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:43	
1503194-07	B3-0	23	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:44	
1503194-08	B3-1	6.1	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:47	
1503194-09	B3-2	5.5	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:48	
1503194-10	B4-0	66	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:48	
1503194-11	B4-1	5.9	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:51	
1503194-12	B4-2	5.5	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:51	
1503194-13	B5-0	12	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:52	
1503194-14	B5-1	4.9	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:53	
1503194-15	B5-2	2.7	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:54	
1503194-16	B6-0	160	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:56	
1503194-17	B6-1	53	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:57	
1503194-18	B7-0	45	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:58	
1503194-19	B7-1	4.9	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:59	
1503194-20	B7-2	7.1	mg/kg	1.0	1	B5I0413	09/21/2015	09/22/15 12:59	
1503194-21	B8-0	63	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:07	
1503194-22	B8-1	7.9	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:08	
1503194-23	B8-2	5.9	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:09	
1503194-24	B9-0	17	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:10	
1503194-25	B9-1	6.6	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:10	
1503194-26	B9-2	5.3	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:11	
1503194-27	B10-0	200	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:12	
1503194-28	B10-1	28	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:13	
1503194-29	B10-2	10	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:13	
1503194-30	B11-0	14	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:16	



## Certificate of Analysis

Geocon Consultants, Inc.

3160 Gold Valley Drive, Suite 800

Rancho Cordova, CA 95742

Project Number : SR-32 Chico ADL, S9805-01-54

Report To : Rebecca Silva

Reported : 09/23/2015

### Lead by ICP-AES EPA 6010B

Analyte: Lead

Analyst: RR

Laboratory ID	Client Sample ID	Result	Units	PQL	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1503194-31	B11-1	14	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:18	
1503194-32	B11-2	9.6	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:19	
1503194-33	B12-0	28	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:20	
1503194-34	B12-1	4.7	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:21	
1503194-35	B12-2	4.8	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:21	
1503194-36	B13-0	80	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:22	
1503194-37	B13-1	56	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:23	
1503194-38	B13-2	6.8	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:26	
1503194-39	B14-0	22	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:26	
1503194-40	B14-1	6.6	mg/kg	1.0	1	B5I0414	09/21/2015	09/22/15 13:27	
1503194-41	B14-2	5.7	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:36	
1503194-42	B15-0	12	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:37	
1503194-43	B15-1	6.5	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:38	
1503194-44	B15-2	6.2	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:39	
1503194-45	B16-0	7.5	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:39	
1503194-46	B16-1	5.5	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:40	
1503194-47	B16-2	5.9	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:41	
1503194-48	B17-0	35	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:42	
1503194-49	B17-1	5.7	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 14:27	
1503194-50	B17-2	6.0	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 14:28	
1503194-51	B18-0	5.7	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 14:29	
1503194-52	B18-1	7.6	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:48	
1503194-53	B18-2	7.6	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:49	
1503194-54	B19-0	15	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:50	
1503194-55	B19-1	7.2	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:50	
1503194-56	B19-2	6.0	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:51	
1503194-57	B20-0	59	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:52	
1503194-58	B20-1	7.3	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:53	
1503194-59	B20-2	6.9	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:55	
1503194-60	B21-0	140	mg/kg	1.0	1	B5I0415	09/21/2015	09/22/15 13:56	



## Certificate of Analysis

Geocon Consultants, Inc.

3160 Gold Valley Drive, Suite 800

Rancho Cordova, CA 95742

Project Number : SR-32 Chico ADL, S9805-01-54

Report To : Rebecca Silva

Reported : 09/23/2015

### Lead by ICP-AES EPA 6010B

Analyte: Lead

Analyst: RR

Laboratory ID	Client Sample ID	Result	Units	PQL	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1503194-61	B21-1	12	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:02	
1503194-62	B21-2	7.2	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:03	
1503194-63	B22-0	400	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:06	
1503194-64	B22-1	14	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:07	
1503194-65	B22-2	5.7	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:07	
1503194-66	B23-0	11	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:08	
1503194-67	B23-1	14	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:09	
1503194-68	B23-2	82	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:10	
1503194-69	B24-0	6.4	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:10	
1503194-70	B24-1	6.3	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:11	
1503194-71	B24-2	6.2	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:16	
1503194-72	B25-0	2.2	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:16	
1503194-73	B25-1	3.5	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:17	
1503194-74	B25-2	4.8	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:18	
1503194-75	B26-0	37	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:19	
1503194-76	B26-1	7.2	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:19	
1503194-77	B26-2	5.0	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:20	
1503194-78	B27-0	16	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:21	
1503194-79	B27-1	6.2	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:22	
1503194-80	B27-2	5.5	mg/kg	1.0	1	B5I0416	09/21/2015	09/22/15 14:22	
1503194-81	B28-0	79	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:33	
1503194-82	B28-1	7.6	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:36	
1503194-83	B28-2	5.7	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:36	
1503194-84	B29-0	84	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:37	
1503194-85	B29-1	7.0	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:38	
1503194-86	B29-2	5.6	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:39	
1503194-87	B30-0	26	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:39	
1503194-88	B30-1	12	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:40	
1503194-89	B30-2	6.6	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 15:32	
1503194-90	B31-0	37	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:42	



# Certificate of Analysis

Geocon Consultants, Inc.

Project Number : SR-32 Chico ADL, S9805-01-54

3160 Gold Valley Drive, Suite 800

Report To : Rebecca Silva

Rancho Cordova , CA 95742

Reported : 09/23/2015

## Lead by ICP-AES EPA 6010B

Analyte: Lead

Analyst: RR

Laboratory ID	Client Sample ID	Result	Units	PQL	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1503194-91	B31-1	7.8	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:46	
1503194-92	B31-2	6.6	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:47	
1503194-93	B32-0	51	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:47	
1503194-94	B32-1	7.4	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:48	
1503194-95	B32-2	5.5	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 15:35	
1503194-96	B33-0	120	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:50	
1503194-97	B33-1	7.8	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:50	
1503194-98	B33-2	6.1	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:51	
1503194-99	B34-0	160	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:52	
1503194-AA	B34-1	26	mg/kg	1.0	1	B5I0417	09/21/2015	09/22/15 14:55	
1503194-AB	B34-2	5.6	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:01	
1503194-AC	B35-0	88	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:02	
1503194-AD	B35-1	7.3	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:03	
1503194-AE	B35-2	6.8	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:05	
1503194-AF	B36-0	11	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:06	
1503194-AG	B36-1	5.9	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:07	
1503194-AH	B36-2	5.8	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:08	
1503194-AI	B37-0	98	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:08	
1503194-AJ	B37-1	6.8	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:35	
1503194-AK	B37-2	5.1	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:10	
1503194-AL	B38-0	11	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:12	
1503194-AM	B38-1	6.8	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:15	
1503194-AN	B38-2	6.4	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:16	
1503194-AO	B39-0	49	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:16	
1503194-AP	B39-1	5.9	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:17	
1503194-AQ	B39-2	5.0	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:18	
1503194-AR	B40-0	210	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:19	
1503194-AS	B40-1	220	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:19	
1503194-AT	B40-2	30	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:20	
1503194-AU	B41-0	230	mg/kg	1.0	1	B5I0418	09/21/2015	09/22/15 15:21	



# Certificate of Analysis

Geocon Consultants, Inc.  
 3160 Gold Valley Drive, Suite 800  
 Rancho Cordova , CA 95742

Project Number : SR-32 Chico ADL, S9805-01-54  
 Report To : Rebecca Silva  
 Reported : 09/23/2015

## Lead by ICP-AES EPA 6010B

Analyte: Lead

Analyst: RR

Laboratory ID	Client Sample ID	Result	Units	PQL	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1503194-AV	B41-1	24	mg/kg	1.0	1	B5I0419	09/21/2015	09/22/15 15:28	
1503194-AW	B41-2	6.1	mg/kg	1.0	1	B5I0419	09/21/2015	09/22/15 15:29	

## Client Sample ID PC1

Lab ID: 1503194-AX

## Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	16	2.0	1	B5I0439	09/21/2015	09/22/15 12:21	
Lead	54	2.0	1	B5I0439	09/21/2015	09/22/15 12:21	

## Client Sample ID PC2

Lab ID: 1503194-AY

## Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	2.0	1	B5I0439	09/21/2015	09/22/15 12:27	
Lead	3.7	2.0	1	B5I0439	09/21/2015	09/22/15 12:27	

## Client Sample ID PC3

Lab ID: 1503194-AZ

## Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	35	2.0	1	B5I0439	09/21/2015	09/22/15 12:30	
Lead	4.9	2.0	1	B5I0439	09/21/2015	09/22/15 12:30	



## Certificate of Analysis

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3160 Gold Valley Drive, Suite 800

Rancho Cordova , CA 95742

Project Number : SR-32 Chico ADL, S9805-01-54

Report To : Rebecca Silva

Reported : 09/23/2015

**Client Sample ID PC4**

**Lab ID: 1503194-BA**

**Total Metals by ICP-AES EPA 6010B**

**Analyst: RR**

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
<b>Chromium</b>	<b>4.0</b>	2.0	1	B510439	09/21/2015	09/22/15 12:32	
<b>Lead</b>	<b>3.6</b>	2.0	1	B510439	09/21/2015	09/22/15 12:32	



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 Rancho Cordova , CA 95742

Project Number : SR-32 Chico ADL, S9805-01-54  
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 Reported : 09/23/2015

### QUALITY CONTROL SECTION

#### Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
<b>Batch B5I0439 - EPA 3050B_S</b>									
<b>Blank (B5I0439-BLK1)</b>					Prepared: 9/21/2015 Analyzed: 9/22/2015				
Chromium	ND	1.0			NR				
Lead	ND	1.0			NR				
<b>LCS (B5I0439-BS1)</b>					Prepared: 9/21/2015 Analyzed: 9/22/2015				
Chromium	51.2746	1.0	50.0000		103	80 - 120			
Lead	46.6567	1.0	50.0000		93.3	80 - 120			
<b>Duplicate (B5I0439-DUP1)</b>					Prepared: 9/21/2015 Analyzed: 9/22/2015				
				<b>Source: 1503192-01</b>					
Chromium	93.7971	1.0		91.3594	NR		2.63	20	
Lead	6.65740	1.0		6.64673	NR		0.160	20	
<b>Duplicate (B5I0439-DUP2)</b>					Prepared: 9/21/2015 Analyzed: 9/22/2015				
				<b>Source: 1503192-01RE1</b>					
Chromium	113.852	10		110.898	NR		2.63	20	D6
Lead	8.33946	10		8.31218	NR		0.328	20	D6
<b>Matrix Spike (B5I0439-MS1)</b>					Prepared: 9/21/2015 Analyzed: 9/22/2015				
				<b>Source: 1503192-01</b>					
Chromium	185.059	1.0	125.000	91.3594	75.0	53 - 121			
Lead	88.8049	1.0	125.000	6.64673	65.7	35 - 129			
<b>Matrix Spike (B5I0439-MS2)</b>					Prepared: 9/21/2015 Analyzed: 9/22/2015				
				<b>Source: 1503192-01RE1</b>					
Chromium	218.767	10	125.000	110.898	86.3	53 - 121			D6
Lead	108.638	10	125.000	8.31218	80.3	35 - 129			D6
<b>Matrix Spike Dup (B5I0439-MSD1)</b>					Prepared: 9/21/2015 Analyzed: 9/22/2015				
				<b>Source: 1503192-01</b>					
Chromium	199.971	1.0	125.000	91.3594	86.9	53 - 121	7.75	20	
Lead	92.2697	1.0	125.000	6.64673	68.5	35 - 129	3.83	20	
<b>Matrix Spike Dup (B5I0439-MSD2)</b>					Prepared: 9/21/2015 Analyzed: 9/22/2015				
				<b>Source: 1503192-01RE1</b>					
Chromium	241.294	10	125.000	110.898	104	53 - 121	9.79	20	D6
Lead	117.312	10	125.000	8.31218	87.2	35 - 129	7.68	20	D6



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Project Number : SR-32 Chico ADL, S9805-01-54  
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### Lead by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
<b>Batch B5I0413 - EPA 3050 Modified_S</b>									
<b>Blank (B5I0413-BLK1)</b>									
Lead	ND	1.0							Prepared: 9/21/2015 Analyzed: 9/22/2015 NR
<b>Blank (B5I0413-BLK2)</b>									
Lead	ND	1.0							Prepared: 9/21/2015 Analyzed: 9/22/2015 NR
<b>LCS (B5I0413-BS1)</b>									
Lead	48.4972	1.0	50.0000		97.0	80 - 120			Prepared: 9/21/2015 Analyzed: 9/22/2015
<b>Duplicate (B5I0413-DUP1)</b>									
Lead	6.26500	1.0		7.11884			12.8	20	Source: 1503194-20 Prepared: 9/21/2015 Analyzed: 9/22/2015 NR
<b>Duplicate (B5I0413-DUP2)</b>									
Lead	75.8818	1.0		66.0162			13.9	20	Source: 1503194-10 Prepared: 9/21/2015 Analyzed: 9/22/2015 NR
<b>Matrix Spike (B5I0413-MS1)</b>									
Lead	230.371	1.0	250.000	7.11884	89.3	35 - 129			Source: 1503194-20 Prepared: 9/21/2015 Analyzed: 9/22/2015
<b>Matrix Spike (B5I0413-MS2)</b>									
Lead	284.892	1.0	250.000	66.0162	87.6	35 - 129			Source: 1503194-10 Prepared: 9/21/2015 Analyzed: 9/22/2015
<b>Matrix Spike Dup (B5I0413-MSD1)</b>									
Lead	223.852	1.0	250.000	7.11884	86.7	35 - 129	2.87	20	Source: 1503194-20 Prepared: 9/21/2015 Analyzed: 9/22/2015



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### Lead by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
<b>Batch B5I0414 - EPA 3050 Modified_S</b>									
<b>Blank (B5I0414-BLK1)</b>									
Lead	ND	1.0							Prepared: 9/21/2015 Analyzed: 9/22/2015 NR
<b>Blank (B5I0414-BLK2)</b>									
Lead	ND	1.0							Prepared: 9/21/2015 Analyzed: 9/22/2015 NR
<b>LCS (B5I0414-BS1)</b>									
Lead	49.7634	1.0	50.0000		99.5	80 - 120			Prepared: 9/21/2015 Analyzed: 9/22/2015
<b>Duplicate (B5I0414-DUP1)</b>									
Lead	5.58069	1.0		6.58486			16.5	20	Source: 1503194-40 Prepared: 9/21/2015 Analyzed: 9/22/2015
<b>Duplicate (B5I0414-DUP2)</b>									
Lead	13.7214	1.0		13.6118			0.802	20	Source: 1503194-30 Prepared: 9/21/2015 Analyzed: 9/22/2015
<b>Matrix Spike (B5I0414-MS1)</b>									
Lead	228.372	1.0	250.000	6.58486	88.7	35 - 129			Source: 1503194-40 Prepared: 9/21/2015 Analyzed: 9/22/2015
<b>Matrix Spike (B5I0414-MS2)</b>									
Lead	237.510	1.0	250.000	13.6118	89.6	35 - 129			Source: 1503194-30 Prepared: 9/21/2015 Analyzed: 9/22/2015
<b>Matrix Spike Dup (B5I0414-MSD1)</b>									
Lead	215.473	1.0	250.000	6.58486	83.6	35 - 129	5.81	20	Source: 1503194-40 Prepared: 9/21/2015 Analyzed: 9/22/2015



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### Lead by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
<b>Batch B5I0415 - EPA 3050 Modified_S</b>								
<b>Blank (B5I0415-BLK1)</b>								
Lead	ND	1.0						Prepared: 9/21/2015 Analyzed: 9/22/2015 NR
<b>Blank (B5I0415-BLK2)</b>								
Lead	ND	1.0						Prepared: 9/21/2015 Analyzed: 9/22/2015 NR
<b>LCS (B5I0415-BS1)</b>								
Lead	48.3788	1.0	50.0000		96.8    80 - 120			Prepared: 9/21/2015 Analyzed: 9/22/2015
<b>Duplicate (B5I0415-DUP1)</b>								
Lead	146.968	1.0		136.172	NR	7.63	20	Prepared: 9/21/2015 Analyzed: 9/22/2015 <b>Source: 1503194-60</b>
<b>Duplicate (B5I0415-DUP2)</b>								
Lead	5.79762	1.0		5.99410	NR	3.33	20	Prepared: 9/21/2015 Analyzed: 9/22/2015 <b>Source: 1503194-50</b>
<b>Matrix Spike (B5I0415-MS1)</b>								
Lead	379.659	1.0	250.000	136.172	97.4    35 - 129			Prepared: 9/21/2015 Analyzed: 9/22/2015 <b>Source: 1503194-60</b>
<b>Matrix Spike (B5I0415-MS2)</b>								
Lead	226.528	1.0	250.000	5.99410	88.2    35 - 129			Prepared: 9/21/2015 Analyzed: 9/22/2015 <b>Source: 1503194-50</b>
<b>Matrix Spike Dup (B5I0415-MSD1)</b>								
Lead	350.453	1.0	250.000	136.172	85.7    35 - 129	8.00	20	Prepared: 9/21/2015 Analyzed: 9/22/2015 <b>Source: 1503194-60</b>



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### Lead by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
<b>Batch B5I0416 - EPA 3050 Modified_S</b>									
<b>Blank (B5I0416-BLK1)</b>									
Lead	ND	1.0							Prepared: 9/21/2015 Analyzed: 9/22/2015 NR
<b>Blank (B5I0416-BLK2)</b>									
Lead	ND	1.0							Prepared: 9/21/2015 Analyzed: 9/22/2015 NR
<b>LCS (B5I0416-BS1)</b>									
Lead	45.4915	1.0	50.0000		91.0	80 - 120			Prepared: 9/21/2015 Analyzed: 9/22/2015
<b>Duplicate (B5I0416-DUP1)</b>									
Lead	5.91355	1.0		5.49078			7.41	20	Source: 1503194-80 Prepared: 9/21/2015 Analyzed: 9/22/2015 NR
<b>Duplicate (B5I0416-DUP2)</b>									
Lead	6.60462	1.0		6.34056			4.08	20	Source: 1503194-70 Prepared: 9/21/2015 Analyzed: 9/22/2015 NR
<b>Matrix Spike (B5I0416-MS1)</b>									
Lead	230.375	1.0	250.000	5.49078	90.0	35 - 129			Source: 1503194-80 Prepared: 9/21/2015 Analyzed: 9/22/2015
<b>Matrix Spike (B5I0416-MS2)</b>									
Lead	236.484	1.0	250.000	6.34056	92.1	35 - 129			Source: 1503194-70 Prepared: 9/21/2015 Analyzed: 9/22/2015
<b>Matrix Spike Dup (B5I0416-MSD1)</b>									
Lead	231.028	1.0	250.000	5.49078	90.2	35 - 129	0.283	20	Source: 1503194-80 Prepared: 9/21/2015 Analyzed: 9/22/2015



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Project Number : SR-32 Chico ADL, S9805-01-54  
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 Reported : 09/23/2015

### Lead by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
<b>Batch B5I0417 - EPA 3050 Modified_S</b>								
<b>Blank (B5I0417-BLK1)</b>								
Lead	ND	1.0						Prepared: 9/21/2015 Analyzed: 9/22/2015 NR
<b>Blank (B5I0417-BLK2)</b>								
Lead	ND	1.0						Prepared: 9/21/2015 Analyzed: 9/22/2015 NR
<b>LCS (B5I0417-BS1)</b>								
Lead	48.3224	1.0	50.0000		96.6    80 - 120			Prepared: 9/21/2015 Analyzed: 9/22/2015
<b>Duplicate (B5I0417-DUP1)</b>								
Lead	32.5806	1.0		26.3282	NR		21.2    20	Prepared: 9/21/2015 Analyzed: 9/22/2015 R
<b>Duplicate (B5I0417-DUP2)</b>								
Lead	21.5009	1.0		37.1804	NR		53.4    20	Prepared: 9/21/2015 Analyzed: 9/22/2015 R
<b>Matrix Spike (B5I0417-MS1)</b>								
Lead	237.326	1.0	250.000	26.3282	84.4    35 - 129			Prepared: 9/21/2015 Analyzed: 9/22/2015
<b>Matrix Spike (B5I0417-MS2)</b>								
Lead	239.745	1.0	250.000	37.1804	81.0    35 - 129			Prepared: 9/21/2015 Analyzed: 9/22/2015
<b>Matrix Spike Dup (B5I0417-MSD1)</b>								
Lead	246.173	1.0	250.000	26.3282	87.9    35 - 129	3.66	20	Prepared: 9/21/2015 Analyzed: 9/22/2015



## Certificate of Analysis

Geocon Consultants, Inc.  
 3160 Gold Valley Drive, Suite 800  
 Rancho Cordova , CA 95742

Project Number : SR-32 Chico ADL, S9805-01-54  
 Report To : Rebecca Silva  
 Reported : 09/23/2015

### Lead by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
<b>Batch B5I0418 - EPA 3050 Modified_S</b>								
<b>Blank (B5I0418-BLK1)</b>								
Lead	ND	1.0						
					Prepared: 9/21/2015 Analyzed: 9/22/2015			
					NR			
<b>Blank (B5I0418-BLK2)</b>								
Lead	ND	1.0						
					Prepared: 9/21/2015 Analyzed: 9/22/2015			
					NR			
<b>LCS (B5I0418-BS1)</b>								
Lead	48.0376	1.0	50.0000		96.1	80 - 120		
					Prepared: 9/21/2015 Analyzed: 9/22/2015			
<b>Duplicate (B5I0418-DUP1)</b>								
		<b>Source: 1503194-AU</b>			Prepared: 9/21/2015 Analyzed: 9/22/2015			
Lead	174.676	1.0		228.078	NR		26.5	20 R
<b>Duplicate (B5I0418-DUP2)</b>								
		<b>Source: 1503194-AK</b>			Prepared: 9/21/2015 Analyzed: 9/22/2015			
Lead	6.49924	1.0		5.11711	NR		23.8	20 R
<b>Matrix Spike (B5I0418-MS1)</b>								
		<b>Source: 1503194-AU</b>			Prepared: 9/21/2015 Analyzed: 9/22/2015			
Lead	432.616	1.0	250.000	228.078	81.8	35 - 129		
<b>Matrix Spike (B5I0418-MS2)</b>								
		<b>Source: 1503194-AK</b>			Prepared: 9/21/2015 Analyzed: 9/22/2015			
Lead	228.870	1.0	250.000	5.11711	89.5	35 - 129		
<b>Matrix Spike Dup (B5I0418-MSD1)</b>								
		<b>Source: 1503194-AU</b>			Prepared: 9/21/2015 Analyzed: 9/22/2015			
Lead	438.052	1.0	250.000	228.078	84.0	35 - 129	1.25	20



## Certificate of Analysis

Geocon Consultants, Inc.  
 3160 Gold Valley Drive, Suite 800  
 Rancho Cordova , CA 95742

Project Number : SR-32 Chico ADL, S9805-01-54  
 Report To : Rebecca Silva  
 Reported : 09/23/2015

### Lead by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes	
<b>Batch B510419 - EPA 3050 Modified_S</b>									
<b>Blank (B510419-BLK1)</b>									
Lead	ND	1.0						Prepared: 9/21/2015 Analyzed: 9/22/2015 NR	
<b>LCS (B510419-BS1)</b>									
Lead	47.2840	1.0	50.0000		94.6	80 - 120		Prepared: 9/21/2015 Analyzed: 9/22/2015	
<b>Duplicate (B510419-DUP1)</b>									
				<b>Source: 1503194-AW</b>					Prepared: 9/21/2015 Analyzed: 9/22/2015
Lead	6.92998	1.0		6.07752	NR		13.1	20	
<b>Matrix Spike (B510419-MS1)</b>									
				<b>Source: 1503194-AW</b>					Prepared: 9/21/2015 Analyzed: 9/22/2015
Lead	224.330	1.0	250.000	6.07752	87.3	35 - 129			
<b>Matrix Spike Dup (B510419-MSD1)</b>									
				<b>Source: 1503194-AW</b>					Prepared: 9/21/2015 Analyzed: 9/22/2015
Lead	224.694	1.0	250.000	6.07752	87.4	35 - 129	0.162	20	



## Certificate of Analysis

Geocon Consultants, Inc.

3160 Gold Valley Drive, Suite 800

Rancho Cordova , CA 95742

Project Number : SR-32 Chico ADL, S9805-01-54

Report To : Rebecca Silva

Reported : 09/23/2015

### Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
D6	Sample required dilution due to high concentration of target analyte.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

#### Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.



**Advanced Technologies Laboratories**  
 3275 Walnut Avenue  
 Signal Hill, CA 90755  
 Tel: (562) 989-4045 • Fax: (562) 989-4040

Client: Geocon Consultants, Inc  
 Attention: Gemma Reblando

Project Name: SR-32 Chico ADL

Project #: S9805-01-54

Address: 3160 Gold Valley Drive, Suite 800  
 City: Rancho Cordova State: CA

Tel: 916-852-9118  
 Fax: 916-852-9132

Sampler: Gemma Reblando

Received by: (Signature and Printed Name)

Date: 9/19/15 Time: 1530

Received by: (Signature and Printed Name)

Date: 9/11/15 Time: 08:58

Received by: (Signature and Printed Name)

Date: \_\_\_\_\_ Time: \_\_\_\_\_

I hereby authorize ATL to perform the work indicated below:

Project Mgr /Submitter:

Gemma Reblando

Signature \_\_\_\_\_

Date \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Address: \_\_\_\_\_

Co: \_\_\_\_\_

Attn: \_\_\_\_\_

Bill To: \_\_\_\_\_

Attn: \_\_\_\_\_

Co: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Special Instructions/Comments:  
 Calltrans 03AZ132  
 Please homogenize samples prior to lead analysis.  
 Please copy Kari Cook on the results and include an Excel file. Thank you. (cook@geoconinc.com)

Circle or Add Analysis(es) Requested  
 SOIL  
 WATER  
 GROUND WATER  
 WASTEWATER  
 TOTAL LEAD (60109)

LAB USE ONLY:	Lab No.	Sample ID / Location	Date	Time	Container(s)	TAT #	Type	REMARKS
	1907194-20	B7-2	9/14/15	1238		E 1	baggie	
		B8-0		1301		E 1	baggie	
		B8-1		1305		E 1	baggie	
		B8-2		1307		E 1	baggie	
		B9-0		1331		E 1	baggie	
		B9-1		1357		E 1	baggie	
		B9-2		1339		E 1	baggie	
		B10-0		1400		E 1	baggie	
		B10-1		1402		E 1	baggie	
		B10-2		1406		E 1	baggie	
		B11-0		1349		E 1	baggie	
		B11-1		1351		E 1	baggie	
		B11-2		1353		E 1	baggie	
		B12-0		1315		E 1	baggie	
		B12-1		1317		E 1	baggie	
		B12-2		1319		E 1	baggie	
		B13-0		1345		E 1	baggie	
		B13-1		1347		E 1	baggie	
		B13-2		1249		E 1	baggie	
		B14-0		1159		E 1	baggie	

TAT:  A = Overnight ≤ 24 hrs  
 B = Emergency Next Workday  
 C = Critical 2 Workdays  
 D = Urgent 3 Workdays  
 E = Routine 7 Workdays  
 Preservatives: H=HCl N=HNO<sub>3</sub> S=H<sub>2</sub>SO<sub>4</sub> C=4°C  
 Z=Zn(Ac)<sub>2</sub> O=NaOH T=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
 Container Types: T=Tube V=VOA L=Liter P=Pin L=Liter P=Pin J=Jar B=Bedlar G=Glass P=Plastic M=Metal



CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY

**Advanced Technology Laboratories**  
 3275 Walnut Avenue  
 Signal Hill, CA 90755  
 Tel: (562) 989-4045 • Fax: (562) 989-4040

Client: Geocon Consultants, Inc  
 Attention: Gemma Reblando  
 Project Name: SR-32 Chico ADL  
 Project #: S9805-01-54

Method of Transport  
 Client  ATL  FedEx  Other:   
 CA OverN

Sample Condition Upon Receipt  
 1. CHILLED  4. SEALED  N   
 2. HEADSPACE (VOA)  5. # OF SPLS MATCH COC  N   
 3. CONTAINER INTACT  6. PRESERVED  Y  N

Address: 3160 Gold Valley Drive, Suite 800  
 City: Rancho Cordova State: CA Zip Code: 95742  
 Tel: 916-852-9118 Fax: 916-852-9132  
 Sampler: Gemma Reblando J. Esquivel  
 Received by: (Signature and Printed Name) J. Esquivel Date: 9/15/15 Time: 15:30  
 Received by: (Signature and Printed Name) REBLANDO Date: 9/16/15 Time: 08:58  
 Received by: (Signature and Printed Name) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Special Instructions/Comments:  
 Caltrans 03A2132  
 Please homogenize samples prior to lead analysis.  
 Please copy Kari Cook on the results and include an Excel file. Thank you. (cook@geoconinc.com)

Bill To: \_\_\_\_\_ Attn: \_\_\_\_\_  
 Co: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Circle or Add Analysis(es) Requested: \_\_\_\_\_

Send Report To: \_\_\_\_\_ Attn: \_\_\_\_\_  
 Co: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

LAB USE ONLY:  
 Lab No. \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Sample ID / Location \_\_\_\_\_

Sample Description \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

LAB USE ONLY:	Lab No.	Sample ID / Location	Date	Time	Circle or Add Analysis(es) Requested	Container(s)	TAT #	Type	REMARKS
	B21-0		9/15/15	1420			E 1	baggie	
	B21-1		9/15/15	1421			E 1	baggie	
	B21-2		9/15/15	1423			E 1	baggie	
	B22-0		9/15/15	1450			E 1	baggie	
	B22-1		9/15/15	1451			E 1	baggie	
	B22-2		9/15/15	1456			E 1	baggie	
	B23-0		9/15/15	1501			E 1	baggie	
	B23-1		9/15/15	1511			E 1	baggie	
	B23-2		9/15/15	1513			E 1	baggie	
	B24-0		9/15/15	1525			E 1	baggie	
	B24-1		9/15/15	1529			E 1	baggie	
	B24-2		9/15/15	1531			E 1	baggie	
	B25-0		9/15/15	0905			E 1	baggie	
	B25-1		9/15/15	0912			E 1	baggie	
	B25-2		9/15/15	0920			E 1	baggie	
	B26-0		9/15/15	0928			E 1	baggie	
	B26-1		9/15/15	0930			E 1	baggie	
	B26-2		9/15/15	0932			E 1	baggie	
	B27-0		9/15/15	0943			E 1	baggie	
	B27-1		9/15/15	0958			E 1	baggie	

Container(s) Type: \_\_\_\_\_  
 TAT # \_\_\_\_\_  
 SPECIFY APPROPRIATE: \_\_\_\_\_  
 SOIL \_\_\_\_\_  
 GROUND WATER \_\_\_\_\_  
 WASTEWATER \_\_\_\_\_

QA/QC  
 RTNE  CT   
 SWRCB Logcode   
 OTHER \_\_\_\_\_

Preservatives: H=HCl N=HNO<sub>3</sub> S=H<sub>2</sub>SO<sub>4</sub> C=4°C  
 Z=Zn(Ac)<sub>2</sub> O=NaOH T=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
 TAT:  A = Overnight ≤ 24 hrs  B = Emergency Next Workday  C = Critical 2 Workdays  D = Urgent 3 Workdays  E = Routine 7 Workdays  
 Container Types: T=Tube V=VOA L=Liter P=Plastic G=Glass M=Metal J=Jar B=Bedlar P=Plastic M=Metal  
 TAT starts 8AM the following day if samples received after 3 PM

# CHAIN OF CUSTODY RECORD

## FOR LABORATORY USE ONLY



**Advanced Technology Laboratories**  
 3275 Walnut Avenue  
 Signal Hill, CA 90755  
 Tel: (562) 989-4045 • Fax: (562) 989-4040

P.O. #: \_\_\_\_\_ Date: \_\_\_\_\_

Logged By: \_\_\_\_\_

Method of Transport  
 Client  ATL  
 CA OverN  FedEx  Other: \_\_\_\_\_

Sample Condition Upon Receipt  
 1. CHILLED  4. SEALED  Y  N  Y  N   
 2. HEADSPACE (VOA)  5. # OF SPLS MATCH COC  Y  N  Y  N   
 3. CONTAINER INTACT  6. PRESERVED  Y  N  Y  N

Client: Geocon Consultants, Inc  
 Attention: Gemma Reblando  
 Address: 3160 Gold Valley Drive, Suite 800  
 City: Rancho Cordova State: CA Zip Code: 95742  
 Tel: 916-852-9118 Fax: 916-852-9132

Project Name: SR-32 Chico ADL  
 Project #: S9805-01-54  
 Sampler: Gemma Reblando J. Esquivel  
 Received by: (Signature and Printed Name) J. Esquivel Time: 9/15/15  
 Relinquished by: (Signature and Printed Name) Gemma Reblando Time: 9/15/15  
 Relinquished by: (Signature and Printed Name) Ontrac Time: 9/15/15  
 Relinquished by: (Signature and Printed Name) Ontrac Time: 9/15/15

Special Instructions/Comments:  
 Caltrans 03A2132  
 Please homogenize samples prior to lead analysis.  
 Please copy Kari Cook on the results and include an Excel file. Thank you. (cook@geoconinc.com)

Send Report To:  
 Attn: \_\_\_\_\_  
 Co: \_\_\_\_\_  
 Addr: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**Sample/Records - Archival & Disposal**  
 Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

**Storage Fees (applies when storage is requested):**  
 ■ Sample: \$2.00 / sample / mo (after 45 days)  
 ■ Records: \$1 / ATL workorder / mo (after 1 year)

LAB USE ONLY:	Lab No.	Sample ID / Location	Date	Time	Analysis(es) Requested	Circle or Add Analysis(es) Requested	Container(s)	TAT #	Type	REMARKS
	B27-2		9/15/15	0940				E	1	baggie
	B28-0		1007					E	1	baggie
	B28-1		1009					E	1	baggie
	B28-2		1011					E	1	baggie
	B29-0		1019					E	1	baggie
	B29-1		1021					E	1	baggie
	B29-2		1023					E	1	baggie
	B30-0		1045					E	1	baggie
	B30-1		1048					E	1	baggie
	B30-2		1051					E	1	baggie
	B31-0		1100					E	1	baggie
	B31-1		1102					E	1	baggie
	B31-2		1104					E	1	baggie
	B32-0		1108					E	1	baggie
	B32-1		1111					E	1	baggie
	B32-2		1113					E	1	baggie
	B33-0		1151					E	1	baggie
	B33-1		1153					E	1	baggie
	B33-2		1158					E	1	baggie
	B34-0		1158					E	1	baggie

Circle or Add Analysis(es) Requested: SOIL GROUND WATER WATER WASTEWATER

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

TAT:  A = Overnight ≤ 24 hrs  B = Emergency Next Workday  C = Critical 2 Workdays  D = Urgent 3 Workdays  E = Routine 7 Workdays

Preservatives: H=HCl N=HNO<sub>3</sub> S=H<sub>2</sub>SO<sub>4</sub> C=4°C Z=Zn(Ac)<sub>2</sub> O=NaOH T=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

FOR LABORATORY USE ONLY

**Advanced Technology Laboratories**  
 3275 Walnut Avenue  
 Signal Hill, CA 90755  
 Tel: (562) 989-4045 • Fax: (562) 989-4040

Client: Geocon Consultants, Inc  
 Attention: Gemma Reblando

Address: 3160 Gold Valley Drive, Suite 800  
 City: Rancho Cordova State: CA Zip Code: 95742

Project #: S9805-01-54  
 Sampler: Gemma Reblando

Received by: (Signature and Printed Name)  
 Date: 9/15/15 Time: 1530

Relinquished by: (Signature and Printed Name)  
 Date: 9/15/15 Time: 1530

Relinquished by: (Signature and Printed Name)  
 Date: 9/16/15 Time: 08:58

I hereby authorize ATL to perform the work indicated below:  
 Project Mgr /Submitter: Gemma Reblando

Send Report To:  
 Attn: \_\_\_\_\_  
 Co: \_\_\_\_\_  
 Addr: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Bill To:  
 Attn: \_\_\_\_\_  
 Co: \_\_\_\_\_  
 Addr: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Special Instructions/Comments:  
 Caltrans 03A2132  
 Please homogenize samples prior to lead analysis.  
 Please copy Kari Cook on the results and include an Excel file. Thank you. (cook@geoconinc.com)

Method of Transport  
 Client  
 ATL  
 CA OverN  
 FedEx  
 Other: \_\_\_\_\_

Sample Condition Upon Receipt  
 1. CHILLED  
 2. HEADSPACE (VOA)  
 3. CONTAINER INTACT  
 4. SEALED  
 5. # OF SPLS MATCH COC  
 6. PRESERVED

P.O. #: \_\_\_\_\_  
 Logged By: \_\_\_\_\_  
 Date: \_\_\_\_\_

QA/QC  
 RTNE  
 CT  
 SWRCB Logcode  
 OTHER  
 REMARKS

Circle or Add Analysis(es) Requested

Container(s)  
 TAT # Type

WATER  
 GROUND WATER  
 WASTEWATER  
 SOIL

LAB USE ONLY:  
 Lab No. Sample ID / Location Date Time

1007190 - A A B34-1 9/15/15 1152

A B B34-2 9/15/15 1158

K C B35-0 1205

B D B35-1 1209

B E B35-2 1214

A F B36-0 1218

A G B36-1 1220

A H B36-2 1222

A I B37-0 1123

A J B37-1 1125

A K B37-2 1128

A L B38-0 1031

B M B38-1 1035

A N B38-2 1037

B O B39-0 0955

A P B39-1 0958

A Q B39-2 1001

A R B40-0 9/15/15 0852

A S B40-1 0854

A T B40-2 0858

TAT:  A = Overnight ≤ 24 hrs  
 B = Emergency Next Workday  
 C = Critical 2 Workdays  
 D = Urgent 3 Workdays  
 E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pin P=Plastic M=Metal

Preservatives:  
 H=HCl N=HNO<sub>3</sub> S=H<sub>2</sub>SO<sub>4</sub> C=4°C  
 Z=Zn(Ac)<sub>2</sub> O=NaOH T=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>





October 01, 2015

Rebecca Silva  
Geocon Consultants, Inc.  
3160 Gold Valley Drive, Suite 800  
Rancho Cordova, CA 95742  
Tel: (916) 852-9118  
Fax:(916) 852-9132

ELAP No.: 1838  
CSDLAC No.: 10196  
ORELAP No.: CA300003  
TCEQ No. : T104704502

Re: ATL Work Order Number : 1503194  
Client Reference : SR-32 Chico ADL, S9805-01-54

Enclosed are the results for sample(s) received on September 16, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Rodriguez', is written over a light gray rectangular background.

Eddie Rodriguez  
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

*3275 Walnut Avenue, Signal Hill, CA 90755 • Tel: 562-989-4045 • Fax: 562-989-4040*  
*www.atlglobal.com*



## Certificate of Analysis

Geocon Consultants, Inc.

Project Number : SR-32 Chico ADL, S9805-01-54

3160 Gold Valley Drive, Suite 800

Report To : Rebecca Silva

Rancho Cordova , CA 95742

Reported : 10/01/2015

### SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B4-0	1503194-10	Soil	9/14/15 10:14	9/16/15 8:58
B6-0	1503194-16	Soil	9/14/15 12:11	9/16/15 8:58
B6-1	1503194-17	Soil	9/14/15 12:15	9/16/15 8:58
B8-0	1503194-21	Soil	9/14/15 13:01	9/16/15 8:58
B10-0	1503194-27	Soil	9/14/15 14:00	9/16/15 8:58
B13-0	1503194-36	Soil	9/14/15 12:45	9/16/15 8:58
B13-1	1503194-37	Soil	9/14/15 12:47	9/16/15 8:58
B20-0	1503194-57	Soil	9/14/15 9:46	9/16/15 8:58
B21-0	1503194-60	Soil	9/14/15 14:20	9/16/15 8:58
B22-0	1503194-63	Soil	9/14/15 14:50	9/16/15 8:58
B23-2	1503194-68	Soil	9/14/15 15:13	9/16/15 8:58
B28-0	1503194-81	Soil	9/15/15 10:07	9/16/15 8:58
B29-0	1503194-84	Soil	9/15/15 10:19	9/16/15 8:58
B32-0	1503194-93	Soil	9/15/15 11:08	9/16/15 8:58
B33-0	1503194-96	Soil	9/15/15 11:31	9/16/15 8:58
B34-0	1503194-99	Soil	9/15/15 11:48	9/16/15 8:58
B35-0	1503194-AC	Soil	9/15/15 12:05	9/16/15 8:58
B37-0	1503194-AI	Soil	9/15/15 11:23	9/16/15 8:58
B40-0	1503194-AR	Soil	9/15/15 8:52	9/16/15 8:58
B40-1	1503194-AS	Soil	9/15/15 8:54	9/16/15 8:58
B41-0	1503194-AU	Soil	9/14/15 14:30	9/16/15 8:58
PC1	1503194-AX	Paint Chip	9/14/15 12:25	9/16/15 8:58



## Certificate of Analysis

Geocon Consultants, Inc.

3160 Gold Valley Drive, Suite 800

Rancho Cordova, CA 95742

Project Number : SR-32 Chico ADL, S9805-01-54

Report To : Rebecca Silva

Reported : 10/01/2015

### TCLP Metals by ICP-AES EPA 6010B

Analyte: Lead

Analyst: RR

Laboratory ID	Client Sample ID	Result	Units	PQL	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1503194-27	B10-0	ND	mg/L	0.050	1	B510614	09/29/2015	09/29/15 15:55	
1503194-63	B22-0	0.066	mg/L	0.050	1	B510614	09/29/2015	09/29/15 15:08	
1503194-AR	B40-0	ND	mg/L	0.050	1	B510614	09/29/2015	09/29/15 15:10	
1503194-AS	B40-1	ND	mg/L	0.050	1	B510614	09/29/2015	09/29/15 15:13	
1503194-AU	B41-0	ND	mg/L	0.050	1	B510614	09/29/2015	09/29/15 15:16	



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Reported : 10/01/2015

### STLC Metals by ICP-AES by EPA 6010B

Analyte: Lead

Analyst: RR

Laboratory ID	Client Sample ID	Result	Units	PQL	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1503194-10	B4-0	2.5	mg/L	1.0	20	B510668	09/30/2015	09/30/15 12:34	
1503194-16	B6-0	4.1	mg/L	1.0	20	B510668	09/30/2015	09/30/15 12:36	
1503194-17	B6-1	1.3	mg/L	1.0	20	B510668	09/30/2015	09/30/15 12:39	
1503194-21	B8-0	ND	mg/L	1.0	20	B510668	09/30/2015	09/30/15 12:41	
1503194-27	B10-0	3.8	mg/L	1.0	20	B510668	09/30/2015	09/30/15 12:48	
1503194-36	B13-0	ND	mg/L	1.0	20	B510668	09/30/2015	09/30/15 12:50	
1503194-37	B13-1	ND	mg/L	1.0	20	B510668	09/30/2015	09/30/15 12:56	
1503194-57	B20-0	ND	mg/L	1.0	20	B510668	09/30/2015	09/30/15 12:59	
1503194-60	B21-0	3.0	mg/L	1.0	20	B510668	09/30/2015	09/30/15 13:01	
1503194-63	B22-0	8.5	mg/L	1.0	20	B510668	09/30/2015	09/30/15 13:03	
1503194-68	B23-2	ND	mg/L	1.0	20	B510668	09/30/2015	09/30/15 13:06	
1503194-81	B28-0	1.2	mg/L	1.0	20	B510668	09/30/2015	09/30/15 13:08	
1503194-84	B29-0	1.5	mg/L	1.0	20	B510668	09/30/2015	09/30/15 13:10	
1503194-93	B32-0	ND	mg/L	1.0	20	B510668	09/30/2015	09/30/15 13:13	
1503194-96	B33-0	6.2	mg/L	1.0	20	B510669	09/30/2015	09/30/15 13:26	
1503194-99	B34-0	5.4	mg/L	1.0	20	B510669	09/30/2015	09/30/15 13:35	
1503194-AC	B35-0	2.5	mg/L	1.0	20	B510669	09/30/2015	09/30/15 13:37	
1503194-AI	B37-0	1.1	mg/L	1.0	20	B510669	09/30/2015	09/30/15 13:40	
1503194-AR	B40-0	5.8	mg/L	1.0	20	B510669	09/30/2015	09/30/15 13:42	
1503194-AS	B40-1	12	mg/L	1.0	20	B510669	09/30/2015	09/30/15 13:48	
1503194-AU	B41-0	4.4	mg/L	1.0	20	B510669	09/30/2015	09/30/15 13:51	
1503194-AX	PC1	ND	mg/L	1.0	20	B510669	09/30/2015	09/30/15 13:53	



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### QUALITY CONTROL SECTION

#### TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
<b>Batch B5I0614 - EPA 3010A_S</b>									
<b>Blank (B5I0614-BLK1)</b>					Prepared: 9/29/2015 Analyzed: 9/29/2015				
Lead	ND	0.050					NR		
<b>Blank (B5I0614-BLK2)</b>					Prepared: 9/29/2015 Analyzed: 9/29/2015				
Lead	ND	0.050					NR		
<b>LCS (B5I0614-BS1)</b>					Prepared: 9/29/2015 Analyzed: 9/29/2015				
Lead	0.938560	0.050	1.00000		93.9	80 - 120			
<b>Duplicate (B5I0614-DUP1)</b>					Prepared: 9/29/2015 Analyzed: 9/29/2015				
Lead	35.0138	0.25		37.8956	NR		7.91	20	D6
<b>Duplicate (B5I0614-DUP2)</b>					Prepared: 9/29/2015 Analyzed: 9/29/2015				
Lead	14.9476	0.050		14.9210	NR		0.178	20	
<b>Matrix Spike (B5I0614-MS1)</b>					Prepared: 9/29/2015 Analyzed: 9/29/2015				
Lead	38.1922	0.25	2.50000	37.8956	11.9	77 - 121			D6, M1
<b>Matrix Spike (B5I0614-MS2)</b>					Prepared: 9/29/2015 Analyzed: 9/29/2015				
Lead	16.7217	0.050	2.50000	14.9210	72.0	77 - 121			M1
<b>Matrix Spike Dup (B5I0614-MSD1)</b>					Prepared: 9/29/2015 Analyzed: 9/29/2015				
Lead	35.1030	0.25	2.50000	37.8956	-112	77 - 121	8.43	20	D6, M1



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Reported : 10/01/2015

### STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
<b>Batch B510668 - STLC_S Extraction</b>									
<b>Blank (B510668-BLK1)</b>									
Lead	ND	1.0							Prepared: 9/30/2015 Analyzed: 9/30/2015 NR
<b>Blank (B510668-BLK2)</b>									
Lead	ND	1.0							Prepared: 9/30/2015 Analyzed: 9/30/2015 NR
<b>LCS (B510668-BS1)</b>									
Lead	1.98461		2.00000		99.2	80 - 120			Prepared: 9/30/2015 Analyzed: 9/30/2015
<b>Duplicate (B510668-DUP1)</b>									
Lead	3.71364		1.0	3.71412	NR		0.0131	20	Source: 1503170-13 Prepared: 9/30/2015 Analyzed: 9/30/2015
<b>Duplicate (B510668-DUP2)</b>									
Lead	0.854053		1.0	0.858527	NR		0.522	20	Source: 1503194-21 Prepared: 9/30/2015 Analyzed: 9/30/2015
<b>Matrix Spike (B510668-MS1)</b>									
Lead	6.08540		2.50000	3.71412	94.9	44 - 130			Source: 1503170-13 Prepared: 9/30/2015 Analyzed: 9/30/2015
<b>Matrix Spike (B510668-MS2)</b>									
Lead	3.06628		2.50000	0.858527	88.3	44 - 130			Source: 1503194-21 Prepared: 9/30/2015 Analyzed: 9/30/2015
<b>Matrix Spike Dup (B510668-MSD1)</b>									
Lead	6.09464		2.50000	3.71412	95.2	44 - 130	0.152	20	Source: 1503170-13 Prepared: 9/30/2015 Analyzed: 9/30/2015



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 Report To : Rebecca Silva  
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### STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
<b>Batch B510669 - STLC_S Extraction</b>								
<b>Blank (B510669-BLK1)</b>				Prepared: 9/30/2015 Analyzed: 9/30/2015				
Lead	ND	1.0			NR			
<b>LCS (B510669-BS1)</b>				Prepared: 9/30/2015 Analyzed: 9/30/2015				
Lead	1.85302		2.00000		92.7    80 - 120			
<b>Duplicate (B510669-DUP1)</b>				Source: 1503194-96      Prepared: 9/30/2015 Analyzed: 9/30/2015				
Lead	6.25214	1.0		6.24429	NR	0.126	20	
<b>Matrix Spike (B510669-MS1)</b>				Source: 1503194-96      Prepared: 9/30/2015 Analyzed: 9/30/2015				
Lead	8.37834		2.50000	6.24429	85.4	44 - 130		
<b>Matrix Spike Dup (B510669-MSD1)</b>				Source: 1503194-96      Prepared: 9/30/2015 Analyzed: 9/30/2015				
Lead	8.62563		2.50000	6.24429	95.3	44 - 130	2.91	20



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Report To : Rebecca Silva

Reported : 10/01/2015

### Notes and Definitions

M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
D6	Sample required dilution due to high concentration of target analyte.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

#### Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Diane Galvan

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**From:** Rebecca Silva [silva@geoconinc.com]  
**Sent:** Thursday, September 24, 2015 2:15 PM  
**To:** Diane Galvan  
**Subject:** RE: Results/EDD/Invoice - SR-32 Chico ADL (1503194)

Hi again. The client just asked for five day instead of standard. Please assign these on 5-day TAT. Thanks!

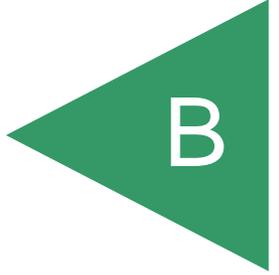
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**From:** Rebecca Silva [mailto:silva@geoconinc.com]  
**Sent:** Thursday, September 24, 2015 1:33 PM  
**To:** Diane Galvan  
**Subject:** FW: Results/EDD/Invoice - SR-32 Chico ADL (1503194)

Hi Diane – Please analyze the 21 soil samples and 1 paint sample with total lead > 50 mg/kg for WET lead on standard TAT. Also, please analyze the 5 samples with total lead = or >200 mg/kg for TCLP lead.

Thanks!  
Rebecca

APPENDIX



**TABLE**  
**Summary of Statistical Analysis**

**WB SR-32 (E 8TH STREET)**

**TOTAL LEAD UCLs**

	<b>Total Lead (mg/kg)</b>	
	<b>90% UCL</b>	<b>95% UCL</b>
0 to 0.5 ft	60.4	64.6
1 to 1.5 ft	17.0	18.3
2 to 2.5 ft	6.7	6.9

**EXCAVATION SCENARIOS**

<b>Excavation Depth</b>	<b>90% UCL</b>		<b>95% UCL</b>	
	<b>Total Lead (mg/kg)</b>	<b>Soluble (WET) Lead* (mg/l)</b>	<b>Total Lead (mg/kg)</b>	<b>Soluble (WET) Lead* (mg/l)</b>
0 to 1 ft	60	1.4	65	1.5
<i>Underlying Soil (1 to 2.5 ft)</i>	14	0.3	14	0.3
0 to 2 ft	39	0.9	41	0.9
<i>Underlying Soil (2 to 2.5 ft)</i>	6.7	0.2	6.9	0.2
0 to 2.5 ft	32	0.7	35	0.8

**Notes:**

UCL = Upper Confidence Limit (90% UCL is applicable for onsite reuse; 95% UCL is applicable for offsite reuse/disposal)

mg/kg = milligrams per kilogram

mg/l = milligrams per liter

\* = Soluble (WET) lead concentrations are predicted using slope of regression line,  
where  $y$  = predicted soluble (WET) lead and  $x$  = total lead.

Regression Line Slope  $y = 0.0225 x$

**TABLE**  
**Summary of Statistical Analysis**

**EB SR-32 (E 9TH STREET)**

**TOTAL LEAD UCLs**

	Total Lead (mg/kg)	
	90% UCL	95% UCL
0 to 0.5 ft	115.8	123.5
1 to 1.5 ft	32.0	36.5
2 to 2.5 ft	15.4	16.7

**EXCAVATION SCENARIOS**

Excavation Depth	90% UCL		95% UCL	
	Total Lead (mg/kg)	Soluble (WET) Lead* (mg/l)	Total Lead (mg/kg)	Soluble (WET) Lead* (mg/l)
0 to 1 ft	116	2.6	124	2.8
<i>Underlying Soil (1 to 2.5 ft)</i>	26	0.6	30	0.7
0 to 2 ft	74	1.7	80	1.8
<i>Underlying Soil (2 to 2.5 ft)</i>	15	0.3	17	0.4
0 to 2.5 ft	62	1.4	67	1.5

**Notes:**

UCL = Upper Confidence Limit (90% UCL is applicable for onsite reuse; 95% UCL is applicable for offsite reuse/disposal)

mg/kg = milligrams per kilogram

mg/l = milligrams per liter

\* = Soluble (WET) lead concentrations are predicted using slope of regression line,  
where  $y$  = predicted soluble (WET) lead and  $x$  = total lead.

Regression Line Slope  $y = 0.0225 x$

**8th - 0**

Total Number of Observations	20	Number of Distinct Observations	18
Minimum	5.7	Mean	45.76
Maximum	200	Median	25.5
SD	51.04	Std. Error of Mean	11.41
Coefficient of Variation	1.115	Skewness	2.144
Mean of logged Data	3.368	SD of logged Data	0.957
<b>90% Standard Bootstrap UCL</b>	<b>60.37</b>	<b>95% Standard Bootstrap UCL</b>	<b>64.63</b>

**8th - 1**

Total Number of Observations	20	Number of Distinct Observations	18
Minimum	4.7	Mean	12.78
Maximum	56	Median	6.6
SD	15.2	Std. Error of Mean	3.399
Coefficient of Variation	1.19	Skewness	2.41
Mean of logged Data	2.177	SD of logged Data	0.752
<b>90% Standard Bootstrap UCL</b>	<b>17</b>	<b>95% Standard Bootstrap UCL</b>	<b>18.27</b>

**8th - 2**

Total Number of Observations	19	Number of Distinct Observations	16
Minimum	2.7	Mean	6.237
Maximum	10	Median	6
SD	1.651	Std. Error of Mean	0.379
Coefficient of Variation	0.265	Skewness	0.561
Mean of logged Data	1.795	SD of logged Data	0.28
<b>90% Standard Bootstrap UCL</b>	<b>6.702</b>	<b>95% Standard Bootstrap UCL</b>	<b>6.855</b>

**9th - 0**

Total Number of Observations	21	Number of Distinct Observations	18
Minimum	2.2	Mean	88.89
Maximum	400	Median	51
SD	97.57	Std. Error of Mean	21.29
Coefficient of Variation	1.098	Skewness	1.877
Mean of logged Data	3.827	SD of logged Data	1.337

**90% Standard Bootstrap UCL 115.8****95% Standard Bootstrap UCL 123.5****9th - 1**

Total Number of Observations	21	Number of Distinct Observations	16
Minimum	3.5	Mean	19.79
Maximum	220	Median	7.4
SD	46.23	Std. Error of Mean	10.09
Coefficient of Variation	2.337	Skewness	4.469
Mean of logged Data	2.306	SD of logged Data	0.853

**90% Standard Bootstrap UCL 31.99****95% Standard Bootstrap UCL 36.49****9th - 2**

Total Number of Observations	21	Number of Distinct Observations	15
Minimum	4.8	Mean	10.63
Maximum	82	Median	5.8
SD	17.19	Std. Error of Mean	3.751
Coefficient of Variation	1.617	Skewness	4.01
Mean of logged Data	1.966	SD of logged Data	0.672

**90% Standard Bootstrap UCL 15.36****95% Standard Bootstrap UCL 16.68**

Sample ID	Sample Depth (feet)	Total Lead (mg/kg)	WET Lead (mg/l)	Residual WET Lead (mg/l)	Squared Residual WET Lead (mg/l)
B6-1	1	53	1.3	0.11	0.01
B21-0	0	140	3.0	-0.15	0.02
B29-0	0	84	1.5	-0.39	0.15
B6-0	0	160	4.1	0.50	0.25
B22-0	0	400	8.5	-0.51	0.26
B35-0	0	88	2.5	0.52	0.27
B28-0	0	79	1.2	-0.58	0.34
B32-0	0	51	0.5	-0.65	0.42
B10-0	0	200	3.8	-0.70	0.50
B13-1	1	56	0.5	-0.76	0.58
B41-0	0	230	4.4	-0.78	0.61
B20-0	0	59	0.5	-0.83	0.69
B8-0	0	63	0.5	-0.92	0.84
B4-0	0	66	2.5	1.01	1.03
B40-0	0	210	5.8	1.07	1.15
B37-0	0	98	1.1	-1.11	1.23
B13-0	0	80	0.5	-1.30	1.69
B23-2	2	82	0.5	-1.35	1.81
B34-0	0	160	5.4	1.80	3.23
B33-0	0	120	6.2	3.50	12.23

**Not Used**

B40-1	1	220	12	6.65	44.21
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