FINAL AERIALLY DEPOSITED LEAD REPORT

I-5 HOV Improvement Project (Segments 1, 2, and 3)
Cities of San Clemente and Dana Point, and San Juan Capistrano, Orange County, California
12-Ora-5, PM 3.0/8.7
Caltrans Project Nos. 1200020277 (EA 12-0F96B), 1200020278 (EA No. 12-0F96C1), and 1200020279 (EA 12-0F96E1)

EMI Project Nos. 11-135, 11-136, 11-137
Date: July 2, 2012

EARTH MECHANICS, INC.

Geotechnical and Earthquake Engineering

Earth Mechanics, Inc.

Geotechnical & Earthquake Engineering

July 2, 2012

EMI Project Nos. 11-135, 11-136, 11-137

California Department of Transportation
District 12, Environmental Engineering
3347 Michelson Drive, Suite 100
Irvine, CA 92612-1691

Attention: Dr. Reza Aurasteh, Branch Chief

Subject: ***Final Aerially Deposited Lead Report***
Interstate 5 HOV Improvement Project (Segments 1, 2, and 3)
Cities of San Clemente and Dana Point, and San Juan Capistrano
Orange County, California
12-Ora-5, PM 3.0/8.7
Caltrans Project Nos. 1200020277 (EA 12-0F96B),
1200020278 (EA No. 12-0F96C1), and 1200020279 (EA 12-0F96E1)

Dear Dr. Aurasteh:

Attached is our Final Aerially Deposited Lead (ADL) Report for the subject projects. This report presents the details of our field and laboratory investigations, and the results of our analyses and recommendations for handling, disposal and re-use of potentially lead-contaminated soils and yellow traffic stripes as part of the structure and roadway improvements for the subject projects.

Earlier version of this ADL Report, dated April 30, 2012, was reviewed by Caltrans. Caltrans reviewer provided comments in emails and telephone conversations. We coordinated with Caltrans reviewers to resolve those comments by submitting report revisions in emails with follow-up telephone conversations. After a few iterations, Caltrans prepared an approval memorandum, dated June 5, 2012; a copy of this memorandum is included in Appendix D. All Caltrans review comments and our proposed revisions have been incorporated into this final report.

We appreciate the opportunity to provide design services and recommendations for this project. If you have any questions please call us.

Sincerely,
EARTH MECHANICS, INC.

REGISTERED PROFESSIONAL ENGINEER
GNANAPRAGASAM J. GUNARANJAN
No. GE2970
Exp: 12-31-13
GEOTECHNICAL
STATE OF CALIFORNIA

7-2-12

(Ranjan) G. J. Gunaranjan, GE 2970
Senior Staff Engineer

REGISTERED PROFESSIONAL ENGINEER
LINO C. CHEANG
NO. GE 2345
EXP. 9/30/13
GEOTECHNICAL
STATE OF CALIFORNIA

7-2-12

Lino Cheang, GE 2345
Project Manager

GJG/gjg,lcc

17800 Newhope Street, Suite B, Fountain Valley, California 92708 Tel: (714) 751-3826 Fax: (714) 751-3928

FINAL AERIALLY DEPOSITED LEAD REPORT
INTERSTATE 5 HOV WIDENING, SEGMENTS 1, 2, AND 3
CITIES OF SAN CLEMENTE, DANA POINT, AND SAN JUAN CAPISTRANO
ORANGE COUNTY, CALIFORNIA
12-ORA-5, PM 3.0/8.7
CALTRANS PROJECT NOS. 1200020277 (EA 12-0F96B), 1200020278 (EA 12-0F96C1), AND 1200020279 (EA 12-0F96E1)

Prepared for:

California Department of Transportation
District 12, Environmental Engineering
3347 Michelson Drive, Suite 100
Irvine, CA 92612-1691

Prepared by:

Earth Mechanics, Inc.
17800 Newhope Street, Suite B
Fountain Valley, California 92708

EMI Project Nos. 11-135, 11-136, 11-137

July 2, 2012

TABLE OF CONTENTS

Section Page

1.0 INTRODUCTION 1

1.1 Purpose and Scope of Work 1
1.2 Project Description 1
1.3 Proposed Improvements 2
1.4 Pre-Field Activities 2

2.0 INVESTIGATIVE METHODS AND RESULTS 3

2.1 Existing Information 3
2.2 Field Exploration 3
2.2.1 ADL Soil Borings 3
2.2.2 Yellow Traffic Stripe Sampling 3
2.3 Laboratory Testing 4
2.3.1 Soil Sample Testing 4
2.3.2 Yellow Traffic Stripe Sample Testing 4
2.4 Ground Water 5

3.0 STATISTICAL DATA EVALUATION - METHODOLOGY 6

3.1 Purpose 6
3.2 Data Distribution and Goodness-of-Fit Tests 6
3.3 Upper Confidence Limit (UCL) 6
3.4 Regression Analysis 7
3.5 Incorporation of Non-Detects (ND's) 7

4.0 ANALYSES AND RECOMMENDATIONS 8

4.1 Caltrans Aerially Deposited Lead Soil Management 8
4.2 Conclusions 9
4.2.1 Segment 1, Between Sta. 163+00 and Sta. 210+00 ("A" Line) 9
4.2.2 Segment 2, Between Sta. 210+00 and Sta. 340+00 ("A" Line) 9
4.2.2.1 Region 2A - Sta. 210+00 to Sta. 271+00 ("A" Line) 10
4.2.2.2 Region 2B - Sta. 271+00 to Sta. 275+00 ("A" Line) 10
4.2.2.3 Region 2C - Sta. 275+00 to Sta. 282+00 ("A" Line) 10
4.2.2.4 Region 2D - Sta. 282+00 to Sta. 288+50 ("A" Line) 11
4.2.2.5 Region 2E - Sta. 288+50 to Sta. 340+00 ("A" Line) 11
4.2.3 Segment 3, Between Sta. 340+00 and Sta. 408+00 ("A" Line) 12
4.2.3.1 Region 3A - NB Sta. 340+00 to Sta. 348+00 and SB Sta. 340+00 to Sta. 353+00 ("A" Line) 12
4.2.3.2 Region 3B - NB Sta. 348+00 to Sta. 353+00 ("A" Line) 12
4.2.3.3 Region 3C - Sta. 353+00 to Sta. 408+00 ("A" Line) 13
4.3 Recommendations 13
4.4 Conclusion and Recommendations for Yellow Traffic Stripe Paint Analyses 14

5.0 LIMITATIONS 16

6.0 REFERENCES 17

TABLES

Table 1. Caltrans Aerially Deposited Lead Soil Management (2009).....8

FIGURES (After the Main Text)

Figure 1. Site Location Map
Figure 2. Boring Location Plan for Segment 1 (1 of 4)
Figure 3. Boring Location Plan for Segment 1 (2 of 4)
Figure 4. Boring Location Plan for Segment 1 (3 of 4)
Figure 5. Boring Location Plan for Segment 1 (4 of 4)
Figure 6. Boring Location Plan for Segment 2 (1 of 13)
Figure 7. Boring Location Plan for Segment 2 (2 of 13)
Figure 8. Boring Location Plan for Segment 2 (3 of 13)
Figure 9. Boring Location Plan for Segment 2 (4 of 13)
Figure 10. Boring Location Plan for Segment 2 (5 of 13)
Figure 11. Boring Location Plan for Segment 2 (6 of 13)
Figure 12. Boring Location Plan for Segment 2 (7 of 13)
Figure 13. Boring Location Plan for Segment 2 (8 of 13)
Figure 14. Boring Location Plan for Segment 2 (9 of 13)
Figure 15. Boring Location Plan for Segment 2 (10 of 13)
Figure 16. Boring Location Plan for Segment 2 (11 of 13)
Figure 17. Boring Location Plan for Segment 2 (12 of 13)
Figure 18. Boring Location Plan for Segment 2 (13 of 13)
Figure 19. Boring Location Plan for Segment 3 (1 of 7)
Figure 20. Boring Location Plan for Segment 3 (2 of 7)
Figure 21. Boring Location Plan for Segment 3 (3 of 7)
Figure 22. Boring Location Plan for Segment 3 (4 of 7)
Figure 23. Boring Location Plan for Segment 3 (5 of 7)
Figure 24. Boring Location Plan for Segment 3 (6 of 7)
Figure 25. Boring Location Plan for Segment 3 (7 of 7)
Figure 26. Regression Analysis for Segment 1
Figure 27. Regression Analysis for Segment 2, Region 2A
Figure 28. Regression Analysis for Segment 2, Region 2B
Figure 29. Regression Analysis for Segment 2, Region 2C
Figure 30. Regression Analysis for Segment 2, Region 2D
Figure 31. Regression Analysis for Segment 2, Region 2E
Figure 32. Regression Analysis for Segment 3, Region 3B
Figure 33. Regression Analysis for Segment 3, Region 3C

APPENDICES

Appendix A. Chain-of-Custody Form
Appendix B. Laboratory Test Results
Appendix C. Statistical Calculations
Appendix D. Caltrans Approval Memorandum

1.0 INTRODUCTION

1.1 Purpose and Scope of Work

This Aerially Deposited Lead (ADL) Report presents the findings and conclusions of the ADL investigation conducted by Earth Mechanics, Inc. (EMI) for Interstate 5 (I-5) mainline between Avenida Pico and San Juan Creek Road in the Cities of San Clemente and Dana Point, and San Juan Capistrano, Orange County, California. This report presents results of the field investigation and laboratory testing and provides recommendations to aid designers in preparing the project plans, specifications, and cost estimates.

The geotechnical services provided for this project included the following tasks:

- Field exploration consisting of excavating and sampling a total of two-hundred (200) exploratory borings;
- Laboratory testing of soil samples;
- Statistical analysis to characterize the test data and evaluate the level of contamination of site soils;
- Perform lead contamination investigation in yellow traffic striping; and
- Preparation of this report presenting our findings, conclusions, and recommendations.

This report is intended for use by the project roadway design engineers and construction personnel.

1.2 Project Description

The Orange County Transportation Authority (OCTA), in cooperation with the California Department of Transportation (Caltrans), and the Cities of Dana Point, San Clemente, and San Juan Capistrano, is proposing to widen the I-5 mainline between Avenida Pico and San Juan Creek Road. The project will add one HOV lane in each direction of the I-5 freeway, reestablish existing auxiliary lanes and construct new auxiliary lanes, and improve several existing on- and off-ramps. The total project length along the I-5 corridor is approximately 5.7 miles. The project limits on I-5 freeway extend from 0.4 mile south of the Avenida Pico Undercrossing (UC) at Post Mile (PM) 3.0 to 0.1 mile south of the San Juan Creek Road UC at PM 8.7.

The project is divided into three segments:

- Segment 1 is from Post Mile 3.0 to 3.7;
- Segment 2 is from Post Mile 3.7 to 6.2; and
- Segment 3 is from Post Mile 6.2 to 8.7.

A site location map showing the project limits of these segments is provided in Figure 1.

The segments of I-5 freeway within the project limits currently provides five through-lanes in each direction north of SR-1 and four through-lanes in each direction south of SR-1, with auxiliary lanes at some of the on- and off-ramps. Based on the plans, we understand that earthwork will not be performed from northbound Station 395+00 ("A" Line) and southbound Station 408+00 ("A" Line) to the northern project limit at Station 465+00 ("A" Line) in Segment 3; only pavement restriping will be performed within this stretch of I-5 freeway.

1.3 Proposed Improvements

To accommodate the HOV lanes, the I-5 mainline will be widened in both the northbound (NB) and southbound (SB) directions of the freeway. The project proposes to remove the existing I-5 paved shoulders and construct new traveled way and new shoulder pavement to the outside of the NB and SB lanes to accommodate HOV lanes. As part of the proposed improvements, the following structures within the project limits will be modified:

- Avenida Pico Undercrossing (Bridge No. 55-0207): Structure replacement.
- Avenida Vaquero Undercrossing (Bridge No. 55-0223): Structure widening.
- Camino de Estrella Overcrossing (Bridge No. 55-0224): Tieback retaining wall under the structure.
- Via California (Bridge No. 55-0225): Tieback retaining wall under the structure.
- NB I-5 to NB PCH Connector (Bridge No. 55-0226): Structure widening.
- I-5/Camino Las Ramblas (SR-1) Undercrossing (Bridge No. 55-0510): Structure widening.
- Camino Capistrano Undercrossing (Bridge No. 55-0227): Structure widening.

In addition, all ramps within the project limits will be modified in order to accommodate the HOV lanes, which include improvements ranging from restriping to complete reconstruction. Specifically, ramp modifications include: On- and Off-ramps at Avenida Pico, Avenida Vista Hermosa, Camino de Estrella, Camino Las Ramplas/SR-1, and Camino Capistrano (Stonehill Drive). Ancillary improvements include several earth retaining walls, sound walls, new pavement, overhead sign structures, utility lines, drainage structures, lighting, landscaping, and roadway striping.

1.4 Pre-Field Activities

EMI conducted pre-field activities including:

- Preparing a boring location map,
- Preparing a Work Plan for Caltrans review and approval,
- Securing an encroachment permit from Caltrans,
- Marking the proposed boring locations,
- Notifying Underground Services Alert for utility clearance on the proposed borings,
- Preparing a schedule for the field work, and
- Coordinating work with drilling/soil sampling subcontractors and Caltrans.

2.0 INVESTIGATIVE METHODS AND RESULTS

2.1 Existing Information

Based on our understanding, there have not been any previous ADL studies conducted specifically for the project improvements described in this report.

2.2 Field Exploration

The field investigation, accomplished in December 2011 and February 2012, was performed to collect near-surface samples of on-site soils for ADL testing. In addition, yellow thermoplastic traffic stripes were also sampled to test for lead and chromium contamination.

2.2.1 ADL Soil Borings

A total of two-hundred (200) shallow borings to collect near-surface samples of on-site soils specifically for ADL testing for Segments 1, 2, and 3. The approximate locations of the borings performed for each segment are shown on the attached Boring Location Plans as follows:

- Segment 1 - Figure 2 through Figure 5
- Segment 2 - Figure 6 through Figure 18
- Segment 3 - Figure 19 through Figure 25

Boring locations were selected at about 300-foot spacing within Caltrans right-of-way, along unpaved shoulders of existing paved roadways where excavations are expected to be performed. In Segment 3, ADL borings were not performed from northbound Station 395+00 ("A" Line) and southbound Station 408+00 ("A" Line) to the northern end Station 465+00 ("A" Line) of the project limit since no earthwork is proposed within these regions. Borings were performed by a 3-inch diameter stainless steel hand auger. Borings were excavated to a depth up to 4 feet below existing grade. A triple-rinse method was used to decontaminate the samplers before collecting the soil samples. Soil samples were collected from depths of about 6, 18, 36, and 48 inches below existing grade. A total of eight-hundred (800) soil samples were collected and tested for ADL content.

Soil samples retrieved from the hand auger bailer were immediately placed in clean glass jars with teflon lids. Jars were labeled with project information including the project name and number, boring number, sample number, depth from which sample was collected, date and time of sampling. All samples were entered on the chain-of-custody forms and transported to a laboratory for testing. Copies of the chain-of-custody forms are provided in Appendix A.

2.2.2 Yellow Traffic Stripe Sampling

TRC Solutions, Inc. (TRC) will sample and test the yellow thermoplastic traffic stripes in Segment 3. Yellow thermoplastic traffic stripes were sampled at 0.5 mile interval along the I-5 Mainline median in each direction and all the ramps within Segments 1 and 2.

2.3 Laboratory Testing

Soil and yellow thermoplastic traffic stripes samples collected from the field investigation were forwarded to Alpha Scientific Corporation (ASC) of Cerritos, California, a California Certified Analytical Laboratory for testing.

2.3.1 Soil Sample Testing

Soil samples were analyzed for total lead (TTLC), soluble lead content by the California Waste Extraction Test using CITRATE (STLC) and de-ionized water (WET-DI) as the leaching compound, soluble lead using the toxicity characteristic leashing procedure (TCLP), and pH.

Laboratory testing on the selected soil samples was assigned as follows:

(1) All samples were tested for total lead,

(2) Samples that contain greater than or equal to 50 mg/kg of total lead were analyzed for soluble lead using Waste Extraction Test (citric acid extraction) for extractable lead,

(3) Samples that contain greater than or equal to 5 mg/l of extractable lead using WET (citric acid), were analyzed using WET (de-ionized extraction) for de-ionized extractable lead,

(4) Samples that contain greater than or equal to 1000 mg/kg of total lead, or greater than or equal to 5 mg/l of extractable lead using WET (Citric acid) were analyzed using the Toxic Characteristic Leaching Procedure (TCLP) for leachable lead, and

(5) Ten percent of all samples were tested for pH.

Results of the laboratory testing are presented in Table B1 through Table B3 in Appendix B. Copies of the original laboratory test results for the soil samples are also included in Appendix B.

2.3.2 Yellow Traffic Stripe Sample Testing

The existing yellow thermoplastic traffic striping samples were tested for concentrations of lead and chromium contents as follows:

(1) All samples were analyzed for total lead,

(2) All samples were analyzed for Chromium,

(3) Samples that contain greater than or equal to 50 mg/kg total lead were analyzed for soluble lead using Waste Extraction Test (Citric acid extraction) for extractable lead,

(4) Samples that contain greater than or equal to 50 mg/kg total chromium were analyzed for soluble chromium lead using Waste Extraction Test (Citric acid extraction) for extractable lead,

(5) Samples that contain greater than or equal to 1,000 mg/kg of total lead, or greater than or equal to 5 mg/l of extractable lead using WET (Citric acid) were analyzed for Toxic characteristic Leaching Procedure (TCLP) for leachable lead, and

(6) Samples that contain greater than or equal to 1,000 mg/kg of total chromium, or greater than or equal to 5 mg/l of extractable lead chromium using WET (Citric acid) were analyzed for Toxic characteristic Leaching Procedure (TCLP) for leachable chromium lead.

2.4 Ground Water

No groundwater was encountered down to a depth of 4 feet below the ground surface during the ADL soil boring investigation conducted in December 2011 and February 2012.

3.0 STATISTICAL DATA EVALUATION - METHODOLOGY

3.1 Purpose

The purpose of the statistical evaluation of the laboratory test results is to determine the applicability of the Department of Toxic Substance's Control (DTSC) variance and the appropriate waste classification(s) for any excess soils generated due to remedial excavations and general earthwork on the project.

3.2 Data Distribution and Goodness-of-Fit Tests

The primary statistical element used to classify ADL-impacted soils is the upper confidence limit (UCL) on the mean. There are several different methods to calculate the 95% UCL on the mean consisting of parametric methods that are dependent on the distribution of data, and non-parametric methods that are independent of the distribution of data.

Caltrans ADL Guidance (Caltrans, 2007) recommends specific methodology for calculation of the UCL for three different parametric distributions (normal distribution, log-normal distribution and gamma distribution) and for non-parametric distributions. The advantage of using parametric tests is their assumptions are more stringent, thereby requiring less qualification of the results in drawing conclusions about the data. Non-parametric methods enable data to be reduced that otherwise would be unsuitable for statistical analysis.

Goodness-of-fit tests are performed to determine the distribution of the sample data. Based on the number of samples and the distribution of data, the appropriate statistical method is selected to calculate the 95% UCL on the mean. If the data do not appear to be distributed normally, log-normally or as a gamma distribution, application of a non-parametric method is required to determine the 95% UCL on the mean.

Goodness-of-fit tests performed on the sample data presented herein and determination of the data distribution was performed using the EPA's statistical program ProUCL V4.00.02 (EPA, 2007).

3.3 Upper Confidence Limit (UCL)

The method of calculation of the UCL was based upon the recommendations provided in the Caltrans ADL Guidelines and determined using the statistical program ProUCL V4.00.02. For normally-distributed data, the 95% UCL on the mean is determined using the Student's-t distribution. For log-normally-distributed data, the H-statistic based UCL is used if the standard deviation is less than 2.0; otherwise, either a UCL computation based upon a gamma distribution, a non-parametric bootstrap or Chebyshev method is used to determine the UCL. For gamma-distributed data, either a gamma method, adjusted gamma method, Bootstrap-t or Hall's Bootstrap method may be used to determine the UCL. For data that are not normally-, log-normally-, or gamma-distributed, a variety of non-parametric distributions may be used including Hall's Bootstrap UCL, the Chebyshev UCL, and the modified-t statistic.

3.4 Regression Analysis

For samples tested with greater than 50 mg/kg of total lead requiring that soluble lead be tested using the WET-Citric method, a correlation between the 95% UCL on the mean for total lead and the 95% UCL on the mean for soluble lead can be obtained using a regression analysis.

The regression analysis consists of creating a least-squares-fit approximation of the soluble lead and total lead data and obtaining a correlation coefficient "r". If the regression analysis yields a correlation coefficient "r", a value of 0.8 or greater, the 95% UCL for total lead can be correlated to the 95% UCL for soluble lead. To determine the correlation coefficient "r", a line is fit to the data using the equation:

$$y = mx + b$$

where:

y = soluble lead, milligrams per liter
x = total lead concentration, milligrams per kilogram
b = y-intercept
m = slope = $(r \times s_l)/s_s$

where:

r = correlation coefficient
s_l = standard deviation of the total lead concentrations
s_s = standard deviation of the soluble lead concentrations

The applicability of the correlation is directly related to "r", which should be greater than or equal to 0.8. If "r" is less than 0.8, then the determination of the 95% UCL on the mean for soluble lead may not be achievable by this method.

3.5 Incorporation of Non-Detects (ND's)

As part of the Associated Documents of the Caltrans ADL Guidance (Caltrans, 2007), Section 3.0 of the "Statistical Analysis of ADL Data" indicates that if the number of non-detect results within a sample is less than 15% of the data, reliable statistical results can be obtained by replacing each ND sample with a value equal to one-half the detectible limit of the analysis. However, the Caltrans ADL Guidance also recommends the use of the statistical software available from the Environmental Protection Agency (EPA) which recommends in Section 2.8 of the ProUCL V4.00.02 User Guide (EPA, 2007) that ND's be replaced with a value equal to the detectible limit of the analysis.

For the analyses presented herein, where ND samples are included in the sample data, ND samples are incorporated consistent with the ProUCL V4.00.02 user guide recommendations and replaced with a value equal to the detectible limit of the analysis.

4.0 ANALYSES AND RECOMMENDATIONS

4.1 Caltrans Aerially Deposited Lead Soil Management

Caltrans specifications classify soils based on total and soluble lead concentrations to provide guidance on appropriate management of these materials. The soil classifications and associated criteria for each classification per Caltrans Aerially Deposited Lead Soil Management can be downloaded from the Caltrans website http://www.dot.ca.gov/hq/env/haz/pdfs/adl/h306.pdf. This Caltrans ADL Soil Management classification is duplicated below in Table 1.

Table 1. Caltrans Aerially Deposited Lead Soil Management

SOLUBLE LEAD (mg/l)	TOTAL LEAD (mg/kg)	SOIL TYPE	HANDLING
California Testing			
STLC < 5.0	TTLC < 1000	X	Non-hazardous. Notify and require Lead Compliance Plan for worker safety.
	1000 ≤ TTLC <1411 & DI WET < 1.5 mg/l	Y1	Hazardous Variance applies – cover with minimum 1 foot of clean soil*.
	1411 ≤ TTLC < 3397 & DI WET < 150 mg/l	Y2	Hazardous Variance applies – cover with pavement structure*.
	1000 ≤ TTLC < 3397 but Surplus	Z2	Surplus - Hazardous Dispose at Class 1 disposal site.
	3397 ≤ TTLC or 1000 ≤ TTLC < 3397 and DI WET > 150 mg/l	Z2	Hazardous – not reusable under Variance. Dispose at Class 1 disposal site.
STLC > 5.0	TTLC < 1411 & DI WET < 1.5 mg/l	Y1	Hazardous Variance applies – cover with minimum of 1 foot of clean soil*.
	1411 ≤ TTLC < 3397 & DI WET < 150 mg/l	Y2	Hazardous Variance applies – cover with pavement structure*.
	TTLC < 3397 & DI WET < 150 mg/l but Surplus	Z2	Surplus – Hazardous Dispose at Class 1 disposal site.
	3397 ≤ TTLC or DI WET > 150 mg/l	Z2	Hazardous – not reusable under Variance Dispose at Class 1 disposal site.
Federal Testing			
TCLP > 5.0 mg/l	N/A	Z3	RCRA Hazardous Waste Dispose at Class 1 disposal site as a RCRA waste regardless of TTLC and STLC results.
**Note: For hazardous waste levels of lead – if pH is less than 5.5 soil must be placed under a pavement structure. If pH is less than 5.0 variance cannot be used and the soil must be disposed as Z-2 material.*			

4.2 Conclusions

Based on our assessment of all the laboratory test results, the TTLC (except for one out of 800 samples), TCLP, DI-WET and pH values are all less than the threshold published in the Caltrans Aerially Deposited Lead Soil Management table (Table 1):

- TTLC test results are all less than 1000 mg/kg, except for one sample L-3-09-1 shows TTLC of 1,600 mg/kg,
- TCLP test results are all less than 5.0 mg/l,
- DI-WET test results are all less than 1.5 mg/l, and
- pH test results are all greater than 5.5.

Thus, the TTLC, TCLP, DI-Wet and pH test results do not govern handling of the onsite soils. Only the STLC test results will affect the handling procedure of the onsite soils.

Using the statistical analysis discussed earlier, the laboratory test results, and the Caltrans Aerially Deposited Lead Soil Management table, the findings within each roadway segment including the ramps are presented below. The statistical calculations performed for each roadway segment including the ramps are included in Appendix C.

4.2.1 Segment 1, Between Sta. 163+00 and Sta. 210+00 ("A" Line)

As shown in Figure 26, a correlation coefficient of 0.952 was obtained in the regression analysis between TTLC and STLC. This indicates that the 95% UCL (Upper Confidence Limit) for TTLC can be correlated to the 95% UCL for STLC. Results of the statistical analyses and the projected STLC based on 95% UCL TTLC are tabulated below.

Depth Interval (ft)	TTLC			STLC		WET-DI		TCLP		UCL		
	No.	Mean (mg/kg)	SD (mg/kg)	No.	Mean (mg/l)	No.	Value (mg/l)	No.	Value (mg/l)	95% UCL TTLC (mg/kg)	Distribution	Proj. STLC (mg/l)
0.0-4.0	164	19.1	37.9	14	3.5	1	0.18	1	0.18	37.61	Chebyshev	0

Based on the above 95% UCL of TTLC and the projected STLC, soils in Segment 1 are considered as Soil Type "X", which is non-hazardous. There is no special requirement for on-site reuse and off-site disposal.

4.2.2 Segment 2, Between Sta. 210+00 and Sta. 340+00 ("A" Line)

In order to refine the limits of the classification areas, Segment 2 was divided into the following five regions:

Region	Stationing ("A" Line)	Boring No.
2A	Sta. 210+00 to Sta. 271+00	From Borings L-2-1 to L-2-43, and Boring L-2-45
2B	Sta. 271+00 to Sta. 275+00	Borings L-2-44 and L-2-47
2C	Sta. 275+00 to Sta. 282+00	Boring L-2-46, and from Borings L-2-48 to L-2-51
2D	Sta. 282+00 to Sta. 288+50	From Borings L-2-52 to L-2-55
2E	Sta. 288+50 to Sta. 340+00	From Borings L-2-56 to L-2-102

4.2.2.1 Region 2A - Sta. 210+00 to Sta. 271+00 ("A" Line)

As shown in Figure 27, a correlation coefficient of 0.983 was obtained in the regression analysis between TTLC and STLC. This indicates that the 95% UCL for TTLC can be correlated to the 95% UCL for STLC. Results of the statistical analyses and the projected STLC based on 95% UCL TTLC are tabulated below.

Depth Interval (ft)	TTLC			STLC		WET-DI		TCLP		UCL		
	No.	Mean (mg/kg)	SD (mg/kg)	No.	Mean (mg/l)	No.	Value (mg/l)	No.	Value (mg/l)	95% UCL TTLC (mg/kg)	Distribution	Proj. STLC (mg/l)
0.0-4.0	176	14.6	40.8	9	3.3	1	0.2	1	0.1	28.04	Chebyshev	0.65

Based on the above 95% UCL of TTLC and the projected STLC, soils in Region 2A are considered as Soil Type "X", which is non-hazardous. There is no special requirement for on-site reuse and off-site disposal.

4.2.2.2 Region 2B - Sta. 271+00 to Sta. 275+00 ("A" Line)

As shown in Figure 28, a correlation coefficient of 0.850 was obtained in the regression analysis between TTLC and STLC. This indicates that the 95% UCL for TTLC can be correlated to the 95% UCL for STLC. Results of the statistical analyses and the projected STLC based on 95% UCL TTLC are tabulated below.

Depth Interval (ft)	TTLC			STLC		WET-DI		TCLP		UCL		
	No.	Mean (mg/kg)	SD (mg/kg)	No.	Mean (mg/l)	No.	Max & Mean (mg/l)	No.	Max & Mean (mg/l)	95% UCL TTLC (mg/kg)	Distribution	Proj. STLC (mg/l)
0.0-4.0	8	71.5	46.0	6	5.1	4	0.2	4	0.1	102.3	Student's-t	5.7

Based on the above 95% UCL of TTLC and the projected STLC, soils in Region 2B are considered as Soil Type "Y1", which is hazardous. The "block-diagram" approach was not performed to delineate the vertical extent of the "Y1" soils because the number of data-points is not adequate to compute a meaningful and reliable estimates of 95% UCL for TTLC for limited upper depth scenarios (i.e., top 0.5 or 1.5 or 3.0 feet depths). Therefore, we conservatively recommend classifying the upper 4 feet of onsite soils, regardless of depth, within this region as Soil Type "Y1"; the 4-foot depth is the maximum depth explored in this study. If the upper 4.0 feet of excavated soil, regardless of depth, is disposed off-site, it should be classified as Soil Type "Z2" (hazardous waste).

4.2.2.3 Region 2C - Sta. 275+00 to Sta. 282+00 ("A" Line)

As shown in Figure 29, a correlation coefficient of 0.988 was obtained in the regression analysis between TTLC and STLC. This indicates that the 95% UCL for TTLC can be correlated to the 95% UCL for STLC. Results of the statistical analyses and the projected STLC based on 95% UCL TTLC are tabulated below.

Depth Interval (ft)	TTLC			STLC		WET-DI		TCLP		UCL		
	No.	Mean (mg/kg)	SD (mg/kg)	No.	Mean (mg/l)	No.	Mean (mg/l)	No.	Mean (mg/l)	95% UCL TTLC (mg/kg)	Distribution	Proj. STLC (mg/l)
0.0-4.0	20	50.4	113.2	5	2.1	-	-	-	-	107.4	Chebyshev	2.28

Based on the above 95% UCL of TTLC and the projected STLC, soils in Region 2C are considered as Soil Type "X", which is non-hazardous. There is no special requirement for on-site reuse and off-site disposal.

4.2.2.4 Region 2D - Sta. 282+00 to Sta. 288+50 ("A" Line)

As shown in Figure 30, a correlation coefficient of 0.894 was obtained in the regression analysis between TTLC and STLC. This indicates that the 95% UCL for TTLC can be correlated to the 95% UCL for STLC. Results of the statistical analyses and the projected STLC based on 95% UCL TTLC are tabulated below.

Depth Interval (ft)	TTLC			STLC		WET-DI		TCLP		UCL		
	No.	Mean (mg/kg)	SD (mg/kg)	No.	Mean (mg/l)	No.	Max & Mean (mg/l)	No.	Max & Mean (mg/l)	95% UCL TTLC (mg/kg)	Distribution	Proj. STLC (mg/l)
0.0-4.0	16	51.8	90.0	4	11.5	3	0.20	3	0.10	275.7	Chebyshev	25.7

Based on the above 95% UCL of TTLC and the projected STLC, soils in Region 2D are considered as Soil Type "Y1", which is hazardous. The "block-diagram" approach was not performed to delineate the vertical extent of the "Y1" soils because the number of data-points is not adequate to compute a meaningful and reliable estimates of 95% UCL for TTLC for limited upper depth scenarios (i.e., top 0.5 or 1.5 or 3.0 feet depths). Therefore, we conservatively recommend classifying the upper 4 feet of onsite soils, regardless of depth, within this region as Soil Type "Y1"; the 4-foot depth is the maximum depth explored in this study. If the upper 4.0 feet of excavated soil, regardless of depth, is disposed off-site, it should be classified as Soil Type "Z2" (hazardous waste).

4.2.2.5 Region 2E - Sta. 288+50 to Sta. 340+00 ("A" Line)

As shown in Figure 31, a correlation coefficient of 0.922 was obtained in the regression analysis between TTLC and STLC. This indicates that the 95% UCL for TTLC can be correlated to the 95% UCL for STLC. Results of the statistical analyses and the projected STLC based on 95% UCL TTLC are tabulated below.

Depth Interval (ft)	TTLC			STLC		WET-DI		TCLP		UCL		
	No.	Mean (mg/kg)	SD (mg/kg)	No.	Mean (mg/l)	No.	Value (mg/l)	No.	Value (mg/l)	95% UCL TTLC (mg/kg)	Distribution	Proj. STLC (mg/l)
0.0-4.0	188	14.8	28.6	11	3.6	1	0.2	1	0.1	27.87	Chebyshev	1.06

Based on the above 95% UCL of TTLC and the projected STLC, soils in Region 2E are considered as Soil Type "X", which is non-hazardous. There is no special requirement for on-site reuse and off-site disposal.

4.2.3 Segment 3, Between Sta. 340+00 and Sta. 408+00 ("A" Line)

In order to refine the limits of the classification areas, Segment 3 was divided into the following three regions:

Region	Stationing ("A" Line)	Boring No.
3A	NB Sta. 340+00 to Sta. 348+00, and SB Sta. 340+00 to Sta. 353+00	From Borings L-3-1 to L-3-6, and Borings L-3-8 and L-3-10
3B	NB Sta. 348+00 to Sta. 353+00	Borings L-3-7, L-3-9 and L-3-11
3C	Sta. 353+00 to Sta. 408+00	From Borings L-2-12 to L-3-57

4.2.3.1 Region 3A - NB Sta. 340+00 to Sta. 348+00 and SB Sta. 340+00 to Sta. 353+00 ("A" Line)

There were 8 borings drilled in this region and a total of 32 samples were tested. Among the 32 samples, only 5 samples with TTLC greater than 50 mg/kg were tested for soluble lead (STLC). All of the test results for TTLC and STLC indicate the soils are well below the "Y1" Classification threshold. The maximum TTLC is 91.9 mg/kg and the average TTLC is 25.1 mg/kg; the maximum STLC is 3.2 mg/l and the average STLC is 2.2 mg/l. Therefore, soils in Region 3A are considered as Soil Type "X", which is non-hazardous. There is no special requirement for on-site reuse and off-site disposal.

4.2.3.2 Region 3B - NB Sta. 348+00 to Sta. 353+00 ("A" Line)

As shown in Figure 32, a correlation coefficient of 0.951 was obtained in the regression analysis between TTLC and STLC. This indicates that the 95% UCL for TTLC can be correlated to the 95% UCL for STLC. Results of the statistical analyses and the projected STLC based on mean and 95% UCL TTLC are tabulated below.

Depth Interval (ft)	TTLC			STLC		WET-DI		TCLP		UCL		
	No.	Mean (mg/kg)	SD (mg/kg)	No.	Mean (mg/l)	No.	Max & Mean (mg/l)	No.	Max & Mean (mg/l)	95% UCL TTLC (mg/kg)	Distribution	Proj. STLC (mg/l)
0.0-4.0	12	55.1	86.8	5	12.0	3	0.49	3	0.10	1071	Chebyshev	23.20

Based on the above 95% UCL of TTLC and the projected STLC, soils in Region 3B are considered as Soil Type "Y1", which is hazardous. The "block-diagram" approach was not performed to delineate the vertical extent of the "Y1" soils because the number of data-points is not adequate to compute a meaningful and reliable estimates of 95% UCL for TTLC for limited upper depth scenarios (i.e., top 0.5 or 1.5 or 3.0 feet depths). Therefore, we conservatively recommend classifying the upper 4 feet of onsite soils, regardless of depth, within this region as Soil Type "Y1"; the 4-foot depth is the maximum depth explored in this study. If the upper 4.0 feet of excavated soil, regardless of depth, is disposed off-site, it should be classified as Soil Type "Z2" (hazardous waste).

4.2.3.3 Region 3C - Sta. 353+00 to Sta. 408+00 ("A" Line)

As shown in Figure 33, a correlation coefficient of 0.924 was obtained in the regression analysis between TTLC and STLC. This indicates that the 95% UCL for TTLC can be correlated to the 95% UCL for STLC. Results of the statistical analyses and the projected STLC based on 95% UCL TTLC are tabulated below.

Depth Interval (ft)	TTLC			STLC		WET-DI		TCLP		UCL		
	No.	Mean (mg/kg)	SD (mg/kg)	No.	Mean (mg/l)	No.	Mean (mg/l)	No.	Mean (mg/l)	95% UCL TTLC (mg/kg)	Distribution	Proj. STLC (mg/l)
0.0-4.0	184	44.3	100.3	34	7.5	13	0.30	13	0.11	90.53	Chebyshev	2.55

Based on the above 95% UCL of TTLC and the projected STLC, soils in Region 3C are considered as Soil Type "X", which is non-hazardous. There is no special requirement for on-site reuse and off-site disposal.

4.3 Recommendations

Based on the analytical results, soils from the following regions along the mainline should be managed as Soil Type Y1 based on Caltrans Aerially Deposited Lead Soil Management presented earlier in Table 1:

- Soils from the upper 4.0 feet, regardless of depth, between mainline northbound and southbound Sta. 271+00 and Sta. 275+00 ("A" Line) (Region 2B);
- Soils from the upper 4.0 feet, regardless of depth, between mainline northbound and southbound Sta. 282+00 and Sta. 288+50 ("A" Line) (Region 2D); and
- Soils from the upper 4.0 feet, regardless of depth, between mainline northbound Sta. 348+00 and Sta. 353+00 ("A" Line) (Region 3B).

The remaining soils within the project limit, including the ramps, are considered as Soil Type X. For soils classified as Soil Type X, there is no special requirement for on-site reuse and off-site disposal.

Soils classified as Soil Type Y1 are suitable for on-site reuse with respect to the total and WET-DI soluble lead concentrations. They are allowed to be used as fill in the Caltrans right-of-way provided the soil is placed a minimum of 5 feet above the maximum level of water table and is covered either with pavement structure or with a minimum of 1 foot of clean soil. If the above soils are elected to be disposed offsite, they should be classified as Soil Type Z2 since the citric soluble lead concentrations exceed the STLC of 5.0 mg/l. Soil Type Z2 is considered as California hazardous waste. Therefore, they should be disposed at a Class I hazardous waste facility.

Contractors excavating, transporting, or stockpiling soil should prepare a Lead Compliance Plan in accordance with the Caltrans Code of Safety Practices, California Code of Regulations and

Cal-OSHA standards addressing the presence of ADL in the soils within the project area. A Lead content testing results contained herein should be given to contractors handling the soils during construction.

4.4 Conclusion and Recommendations for Yellow Traffic Stripe Paint Analyses

Caltrans SSP states that waste residue from removal of yellow painted traffic stripe and pavement marking is a non-hazardous waste, if it contains lead in average concentrations less than 1000 mg/kg total lead and 5 mg/l soluble lead. For leachable chromium (Cr) lead, samples that contain lead in average concentrations less than 1000 mg/kg total Cr and 5 mg/l extractable lead Cr is considered a non-hazardous waste.

TRC Solutions, Inc. (TRC) will sample and test the yellow thermoplastic traffic stripes in Segment 3. Within Segments 1 and 2, yellow traffic stripes were located along the ramps and the mainline median only. Therefore, yellow traffic stripe paint samples were collected at the on- and off-ramps, and along the I-5 Mainline median in the southbound and northbound directions at 0.5 mile interval.

Copies of the original laboratory test results for the paint samples are included in Appendix B. A summary of the test results are tabulated below for the ramps followed by the mainline median.

Sample ID	Lab ID	Ramp	TTLC (mg/kg)	STLC (mg/l)	Total Cr (mg/kg)	STLC Cr (mg/l)
LP-NPF	EA202012-1	I-5, NB Avenida Pico Off-Ramp	234.0	0.6	81.2	1.9
LP-SPF	EA202012-2	I-5, SB Avenida Pico Off-Ramp	2.8	-	ND	-
LP-SPN	EA202012-3	I-5, SB Avenida Pico On-Ramp	114.0	1.4	46.3	-
LP-NPN	EA202012-4	I-5, NB Avenida Pico On-Ramp	11,600.0	3.2	2,870.0	10.1
LP-SHF	EA202012-5	I-5, SB Avenida Vista Hermosa Off-Ramp	119.0	0.6	38.6	-
LP-SHNL	EA202012-6	I-5, SB Avenida Vista Hermosa On-Ramp Loop	217.0	0.9	54.5	3.6
LP-NHNL	EA202012-7	I-5, NB Avenida Vista Hermosa On-Ramp Loop	342.0	1.4	125.0	4.0
LP-NHN	EA202012-8	I-5, NB Avenida Vista Hermosa On-Ramp	384.0	0.8	89.5	2.7
LP-NHF	EA202012-9	I-5, NB Avenida Vista HermosaOff-Ramp	199.0	0.5	59.2	2.0
LP-SEF	EA202012-10	I-5, SB Camino de Estrella Off-Ramp	222.0	0.7	67.5	1.4
LP-SEN	EA202012-11	I-5, SB Camino de Estrella On-Ramp	4,650.0	4.6	1,320.0	8.9
LP-NEN	EA202012-12	I-5, NB Camino de Estrella On-Ramp	332.0	0.7	107.0	1.5
LP-NENL	EA202012-13	I-5, NB Camino de Estrella On-Ramp Loop	9,620.0	4.3	1,620.0	7.5
LP-NEF	EA202012-14	I-5, NB Camino de Estrella Off-Ramp	2,610.0	3.1	633.0	13.9

Sample ID	Lab ID	Mainline Median	TTLC (mg/kg)	STLC (mg/l)	Total Cr (mg/kg)	STLC Cr (mg/l)
LP-S-1	EA202012-15	I-5, SB Sta. 307+50	10.2	-	6.50	-
LP-S-2	EA202012-16	I-5, SB Sta. 281+00	7.0	-	2.0	-
LP-S-3	EA202012-17	I-5, SB Sta. 255+50	14.8	-	2.50	-
LP-S-4	EA202012-18	I-5, SB Sta. 229+50	7.1	-	2.0	-
LP-S-5	EA202012-19	I-5, SB Sta. 203+50	9.1	-	10.40	-
LP-S-6	EA202012-20	I-5, SB Sta. 177+50	8.2	-	3.10	-
LP-N-1	EA202012-21	I-5, NB Sta. 190+00	1,470.0	5.7	328.00	5.2
LP-N-2	EA202012-22	I-5, NB Sta. 216+00	4.9	-	2.0	-
LP-N-3	EA202012-23	I-5, NB Sta. 242+00	526.0	0.6	105.00	1.5
LP-N-4	EA202012-24	I-5, NB Sta. 272+50	2,540.0	2.9	672.00	5.2
LP-N-5	EA202012-25	I-5, NB Sta. 294+00	15.6	-	5.60	-
LP-N-6	EA202012-26	I-5, NB Sta. 320+00	129.0	0.3	37.70	-

Based on the above results, the yellow stripe paint Samples LP-NPN, LP-SEN, LP-NENL, and LP-NEF collected at ramp locations and Samples LP-N-1 and LP-N-4 collected along the I-5 northbound median contain total lead concentration greater than the TTLC value for total lead of 1,000 mg/kg or soluble lead concentration greater than the STLC value for soluble lead of 5 mg/l. Therefore, the waste residue from removal of painted yellow traffic stripes from the following locations should be considered as a hazardous waste residue:

- I-5, NB Avenida Pico On-Ramp (Sample LP-NPN);
- I-5, SB Camino de Estrella On-Ramp (Sample LP-SEN);
- I-5, NB Camino de Estrella On-Ramp Loop (Sample LP-NENL);
- I-5, NB Camino de Estrella Off-Ramp (Sample LP-NEF);
- I-5 Northbound Mainline median between Sta. 163+00 and Sta. 216+00 ("A" Line) (Sample LP-N-1); and
- I-5 Northbound Mainline median between Sta. 242+00 and Sta. 294+00 ("A" Line) (Sample LP-N-4).

The remaining waste residues from removal of painted yellow traffic stripes within the project limit are considered as a non-hazardous waste residue.

5.0 LIMITATIONS

This report is intended for use by OCTA, Caltrans, Parsons, AECOM and TRC for the I-5 HOV Improvement Project (Segments 1, 2, and 3). This report is based on the project as described herein and the information obtained from the exploratory borings at the approximate locations indicated on the attached plans. The findings and recommendations contained in this report are based on the results of the field investigation, laboratory tests, and analyses. Also, soils and subsurface conditions encountered in the exploratory borings are presumed to be representative of the project site; however, subsurface conditions and characteristics of soils between exploratory borings can vary. Findings reflect an interpretation of the direct evidence obtained. Recommendations presented herein are based on the assumption that an appropriate level of quality control and quality assurance (inspections and tests) will be provided during construction. EMI should be notified of any pertinent changes in the project plans or if subsurface conditions are found to vary from those described herein. Modifications to the project plans or variations in subsurface conditions may require re-evaluation of the recommendations contained in this report.

The data, opinions, and recommendations contained herein are applicable to the specific design elements and locations which are the subject of this report. Data, opinions, and recommendations herein have no applicability to any other design elements or to any other locations, and any and all subsequent users accept any and all liability resulting from any use or reuse of the data, opinions, and recommendations without the prior written consent of EMI.

EMI is not responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions or programs in connection with the construction, for the acts or omissions of the Contractor, or any other person performing any of the construction, or for the failure of any worker to carry out the construction in accordance with the Final construction drawings and specifications.

Services performed by EMI were conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation, expressed or implied, and no warranty or guarantee is included or intended.

6.0 REFERENCES

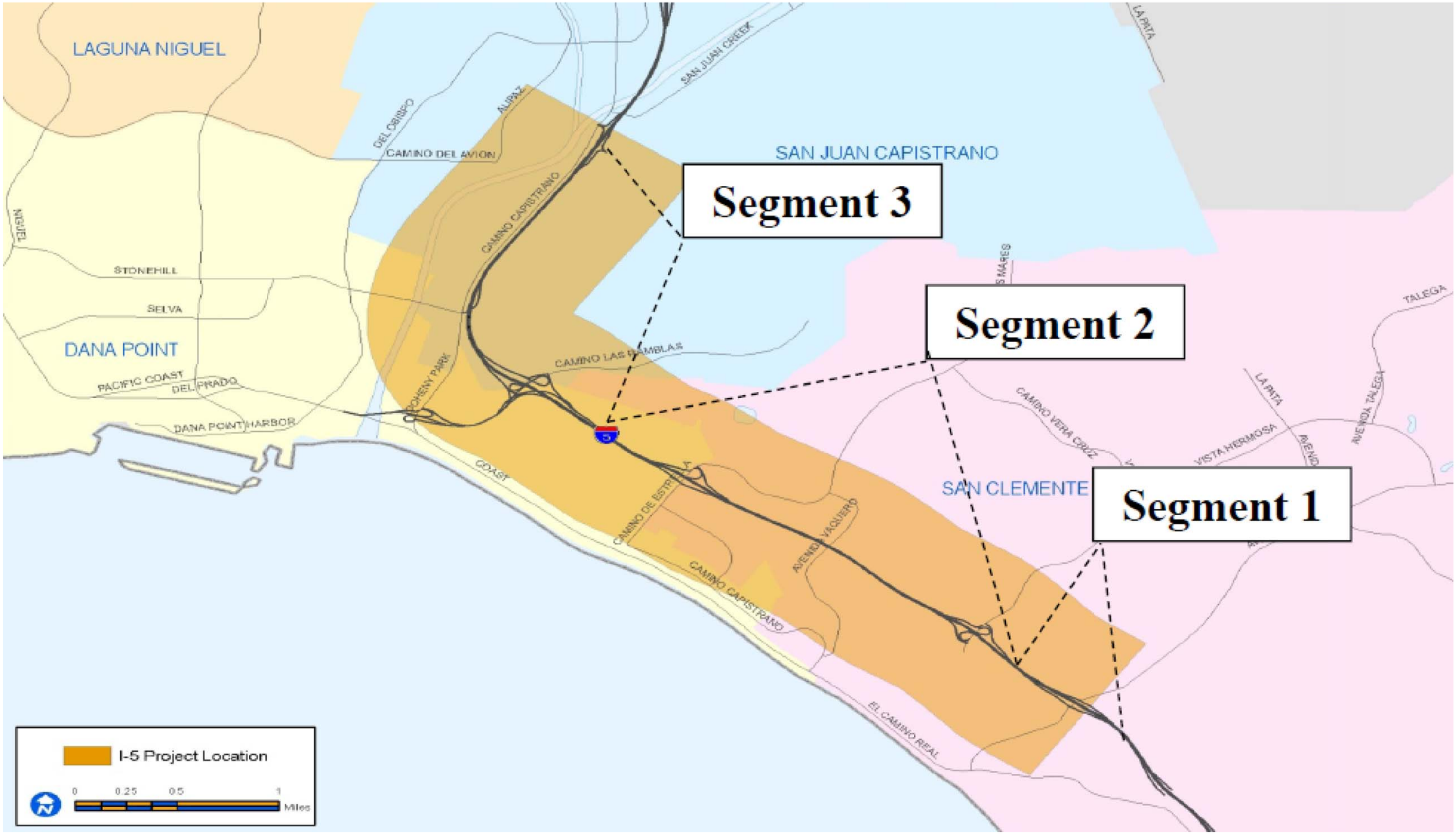
California Environmental Protection Agency, Department of Toxic Substances Control; Variance (to Caltrans District 8 for Reuse of Lead-Contaminated Soils), Variance No. 00-H-VAR-04; September 22, 2000.

California Department of Transportation (Caltrans), 2007, Aerially Deposited Lead Guidance, June.

Caltrans, Aerially Deposited Lead Soil Management, http://www.dot.ca.gov/hq/env/haz/pdfs/adl/h306.pdf.

United States Environmental Protection Agency (EPA), 2007, ProUCL Version 4.00.02 User Guide and Technical Guide, April.

FIGURES



Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

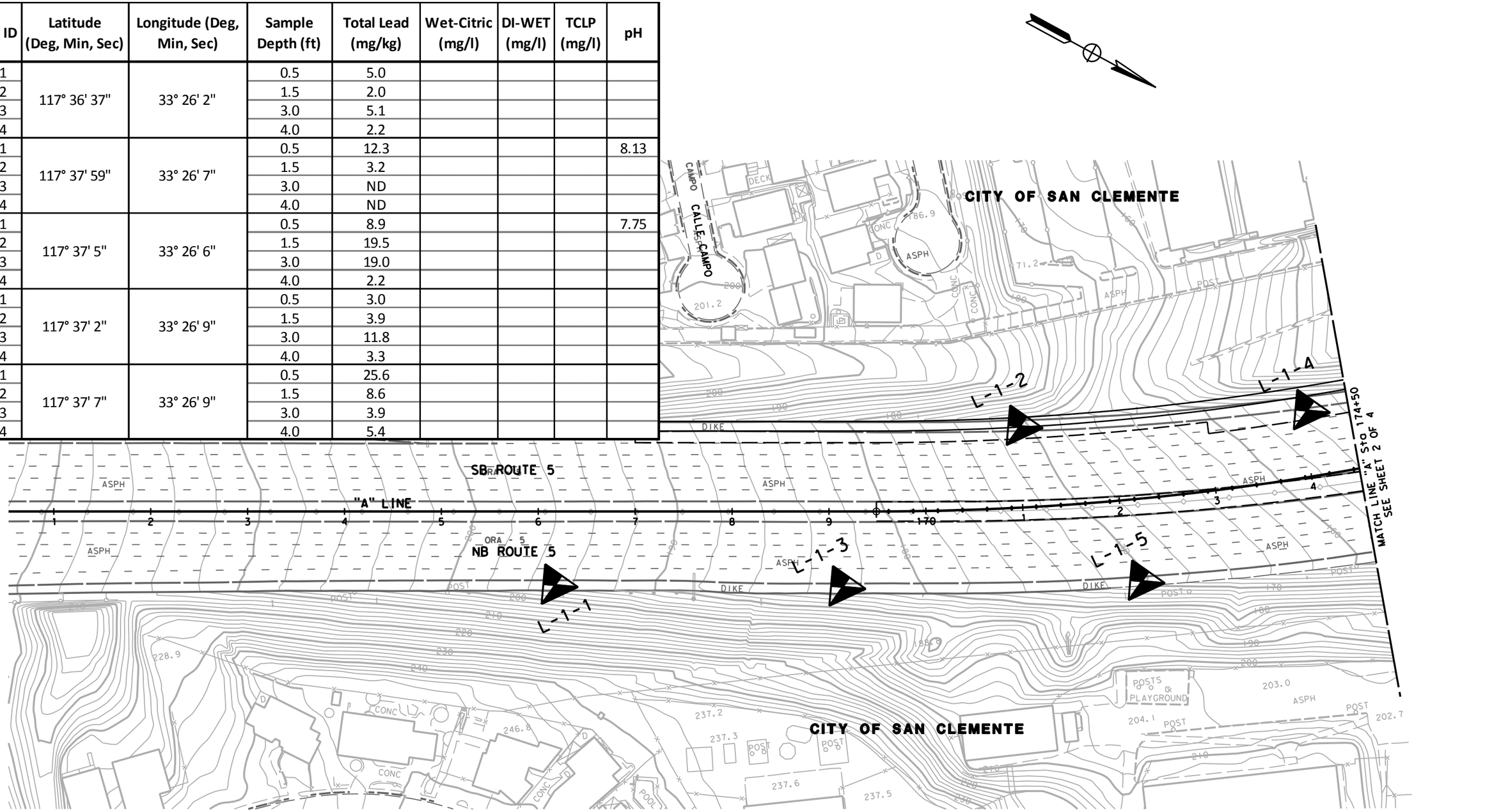
ADL Investigation, I-5 HOV Widening, Segments 1, 2 and 3

EMI Project No.: 11-135, 11-136, 11-137 | Date: 04-25-2012

Site Location Map

Figure 1

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-1-1-1	117° 36' 37"	33° 26' 2"	0.5	5.0				
L-1-1-2			1.5	2.0				
L-1-1-3			3.0	5.1				
L-1-1-4			4.0	2.2				
L-1-2-1	117° 37' 59"	33° 26' 7"	0.5	12.3				8.13
L-1-2-2			1.5	3.2				
L-1-2-3			3.0	ND				
L-1-2-4			4.0	ND				
L-1-3-1	117° 37' 5"	33° 26' 6"	0.5	8.9				7.75
L-1-3-2			1.5	19.5				
L-1-3-3			3.0	19.0				
L-1-3-4			4.0	2.2				
L-1-4-1	117° 37' 2"	33° 26' 9"	0.5	3.0				
L-1-4-2			1.5	3.9				
L-1-4-3			3.0	11.8				
L-1-4-4			4.0	3.3				
L-1-5-1	117° 37' 7"	33° 26' 9"	0.5	25.6				
L-1-5-2			1.5	8.6				
L-1-5-3			3.0	3.9				
L-1-5-4			4.0	5.4				



Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV IMPROVEMENT PROJECT (SEGMENT 1)

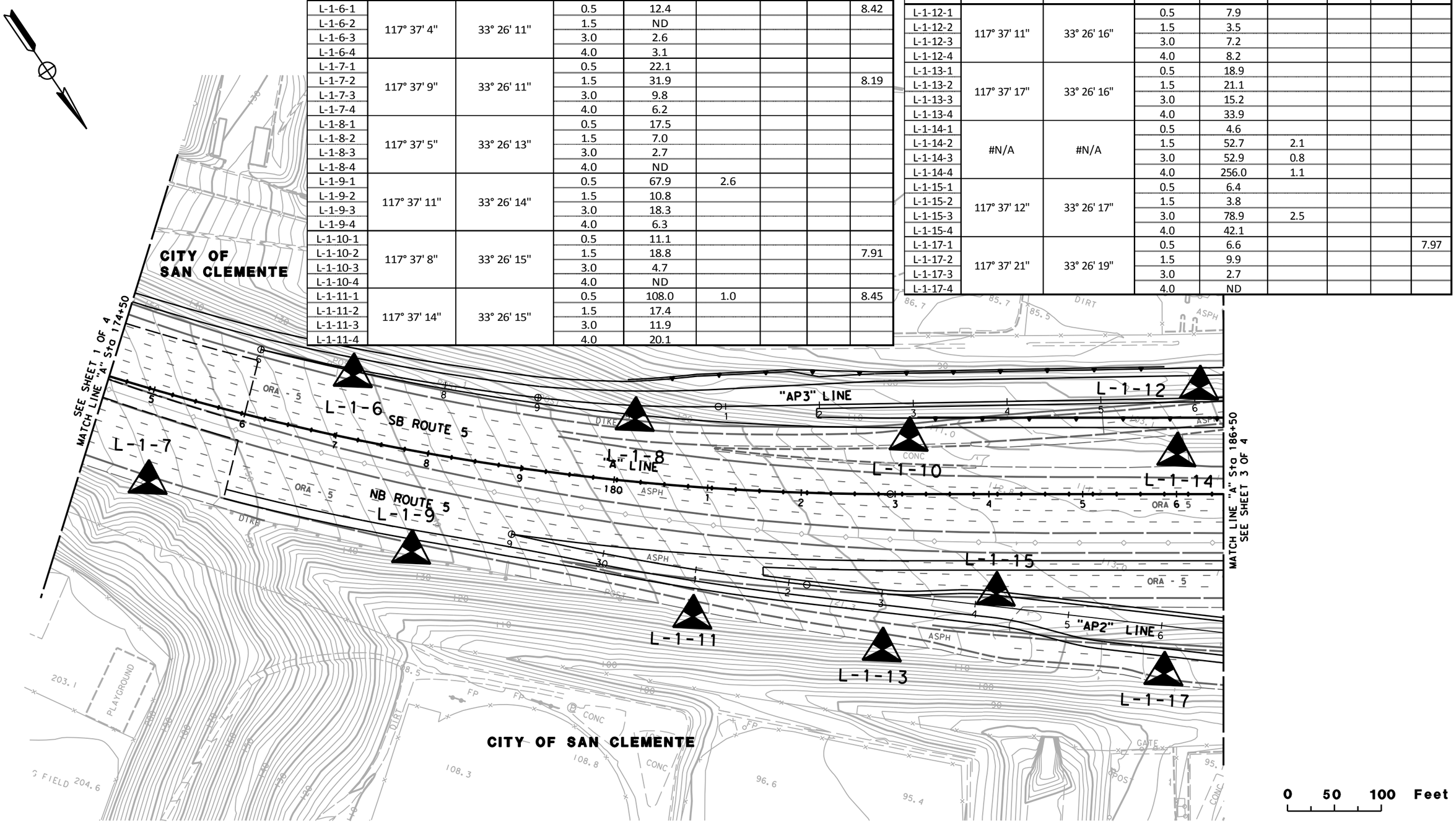
Project No.: 11-135 | Date: 03-14-2012

Exploratory Boring Location Map (1 of 4) for ADL Study

Figure 2

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-1-6-1	117° 37' 4"	33° 26' 11"	0.5	12.4				8.42
L-1-6-2			1.5	ND				
L-1-6-3			3.0	2.6				
L-1-6-4			4.0	3.1				
L-1-7-1	117° 37' 9"	33° 26' 11"	0.5	22.1				
L-1-7-2			1.5	31.9				8.19
L-1-7-3			3.0	9.8				
L-1-7-4			4.0	6.2				
L-1-8-1	117° 37' 5"	33° 26' 13"	0.5	17.5				
L-1-8-2			1.5	7.0				
L-1-8-3			3.0	2.7				
L-1-8-4			4.0	ND				
L-1-9-1	117° 37' 11"	33° 26' 14"	0.5	67.9	2.6			
L-1-9-2			1.5	10.8				
L-1-9-3			3.0	18.3				
L-1-9-4			4.0	6.3				
L-1-10-1	117° 37' 8"	33° 26' 15"	0.5	11.1				
L-1-10-2			1.5	18.8				7.91
L-1-10-3			3.0	4.7				
L-1-10-4			4.0	ND				
L-1-11-1	117° 37' 14"	33° 26' 15"	0.5	108.0	1.0			8.45
L-1-11-2			1.5	17.4				
L-1-11-3			3.0	11.9				
L-1-11-4			4.0	20.1				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-1-12-1	117° 37' 11"	33° 26' 16"	0.5	7.9				
L-1-12-2			1.5	3.5				
L-1-12-3			3.0	7.2				
L-1-12-4			4.0	8.2				
L-1-13-1	117° 37' 17"	33° 26' 16"	0.5	18.9				
L-1-13-2			1.5	21.1				
L-1-13-3			3.0	15.2				
L-1-13-4			4.0	33.9				
L-1-14-1	#N/A	#N/A	0.5	4.6				
L-1-14-2			1.5	52.7	2.1			
L-1-14-3			3.0	52.9	0.8			
L-1-14-4			4.0	256.0	1.1			
L-1-15-1	117° 37' 12"	33° 26' 17"	0.5	6.4				
L-1-15-2			1.5	3.8				
L-1-15-3			3.0	78.9	2.5			
L-1-15-4			4.0	42.1				
L-1-17-1	117° 37' 21"	33° 26' 19"	0.5	6.6				7.97
L-1-17-2			1.5	9.9				
L-1-17-3			3.0	2.7				
L-1-17-4			4.0	ND				



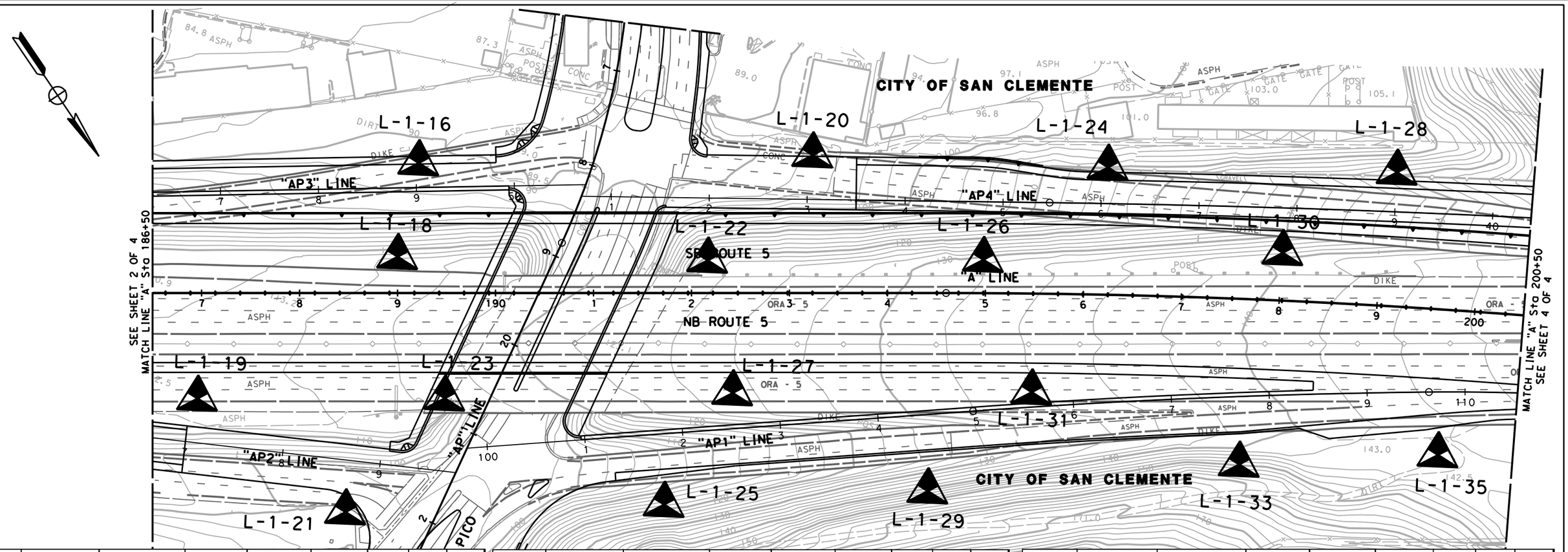
Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV IMPROVEMENT PROJECT (SEGMENT 1)

Project No.: 11-135 | Date: 03-14-2012

Exploratory Boring Location Map (2 of 4) for ADL Study

Figure 3



Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-1-16-1	117° 37' 13"	33° 26' 18"	0.5	18.7				8.21
L-1-16-2			1.5	14.2				
L-1-16-3			3.0	2.2				
L-1-16-4			4.0	ND				
L-1-18-1	117° 37' 15"	33° 26' 19"	0.5	27.7				
L-1-18-2			1.5	15.3				
L-1-18-3			3.0	22.3				
L-1-18-4			4.0	21.6				
L-1-19-1	117° 37' 20"	33° 26' 19"	0.5	91.1	3.9			
L-1-19-2			1.5	41.1				8.48
L-1-19-3			3.0	12.4				
L-1-19-4			4.0	2.7				
L-1-20-1	117° 37' 16"	33° 26' 20"	0.5	5.7				8.04
L-1-20-2			1.5	2.3				
L-1-20-3			3.0	2.4				
L-1-20-4			4.0	2.2				
L-1-21-1	117° 37' 25"	33° 26' 20"	0.5	4.0				
L-1-21-2			1.5	5.6				
L-1-21-3			3.0	ND				
L-1-21-4			4.0	ND				
L-1-22-1	117° 37' 17"	33° 26' 20"	0.5	18.2				
L-1-22-2			1.5	30.2				
L-1-22-3			3.0	21.7				
L-1-22-4			4.0	17.5				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-1-23-1	117° 37' 23"	33° 26' 20"	0.5	9.3				
L-1-23-2			1.5	9.7				
L-1-23-3			3.0	41.3				
L-1-23-4			4.0	18.4				
L-1-24-1	117° 37' 18"	33° 26' 21"	0.5	9.6				
L-1-24-2			1.5	8.7				
L-1-24-3			3.0	10.4				
L-1-24-4			4.0	8.8				
L-1-25-1	117° 37' 27"	33° 26' 22"	0.5	22.1				7.68
L-1-25-2			1.5	16.4				
L-1-25-3			3.0	3.2				
L-1-25-4			4.0	ND				
L-1-26-1	117° 37' 20"	33° 26' 22"	0.5	4.3				8
L-1-26-2			1.5	3.0				
L-1-26-3			3.0	2.1				
L-1-26-4			4.0	7.3				
L-1-27-1	117° 37' 25"	33° 26' 21"	0.5	51.6	1.7			
L-1-27-2			1.5	17.9				8.51
L-1-27-3			3.0	8.2				
L-1-27-4			4.0	11.5				
L-1-28-1	117° 37' 21"	33° 26' 24"	0.5	ND				
L-1-28-2			1.5	ND				8.87
L-1-28-3			3.0	ND				
L-1-28-4			4.0	2.4				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-1-29-1	117° 37' 30"	33° 26' 23"	0.5	19.8				
L-1-29-2			1.5	14.5				
L-1-29-3			3.0	3.5				
L-1-29-4			4.0	7.2				
L-1-30-1	117° 37' 23"	33° 26' 24"	0.5	21.6				
L-1-30-2			1.5	2.9				
L-1-30-3			3.0	6.2				
L-1-30-4			4.0	ND				
L-1-31-1	117° 37' 28"	33° 26' 23"	0.5	32.4				
L-1-31-2			1.5	4.9				
L-1-31-3			3.0	7.8				
L-1-31-4			4.0	39.0				
L-1-33-1	117° 37' 33"	33° 26' 25"	0.5	108.0	1.5			7.61
L-1-33-2			1.5	335.0	23.8	ND	0.18	
L-1-33-3			3.0	25.3				
L-1-33-4			4.0	3.7				
L-1-35-1	117° 37' 32"	33° 26' 26"	0.5	12.9				
L-1-35-2			1.5	19.6				
L-1-35-3			3.0	4.7				
L-1-35-4			4.0	7.6				

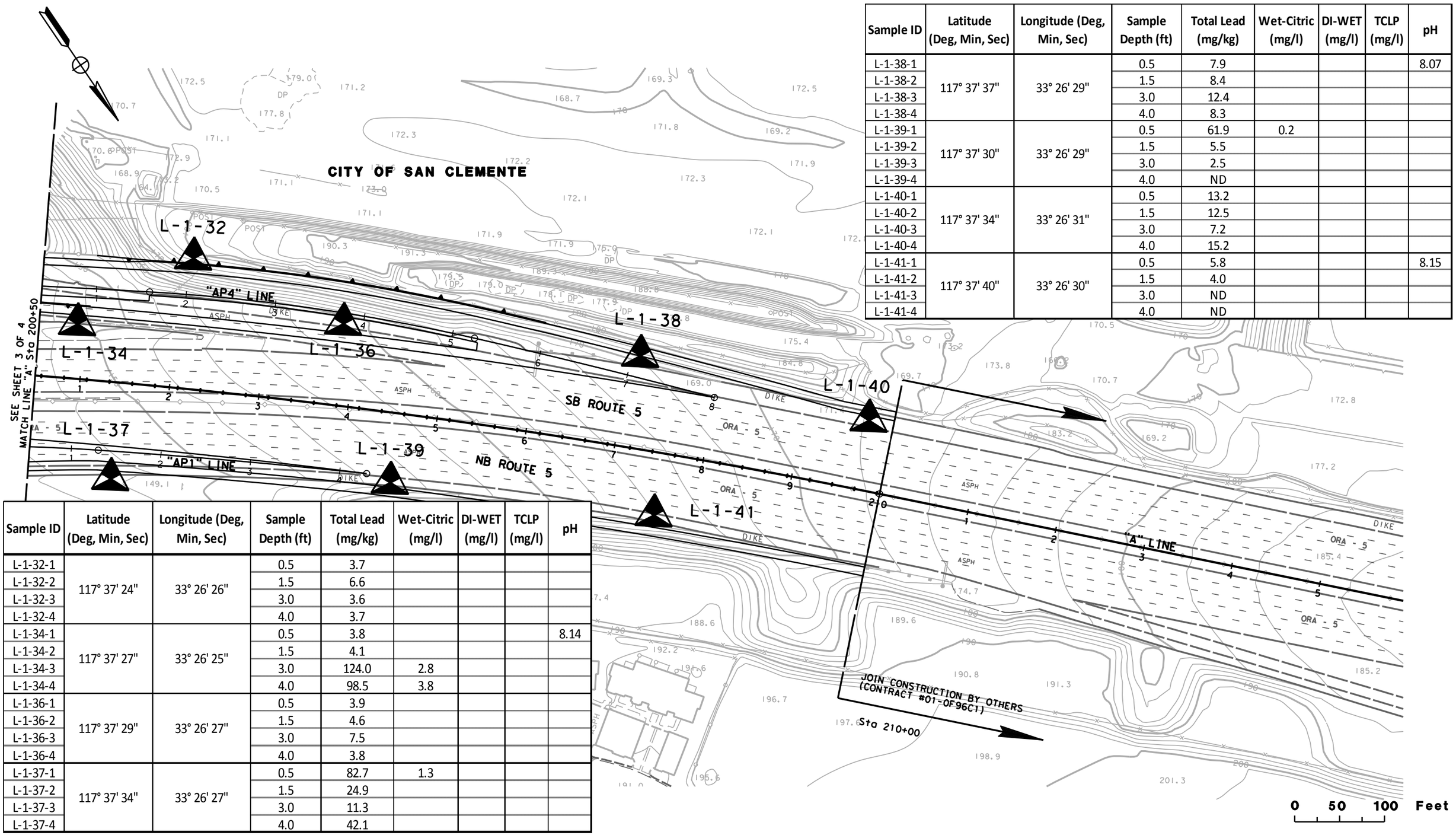
Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV IMPROVEMENT PROJECT (SEGMENT 1)

Project No.: 11-135 | Date: 03-14-2012

Exploratory Boring Location Map (3 of 4) for ADL Study

Figure 4



Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-1-38-1	117° 37' 37"	33° 26' 29"	0.5	7.9				8.07
L-1-38-2			1.5	8.4				
L-1-38-3			3.0	12.4				
L-1-38-4			4.0	8.3				
L-1-39-1	117° 37' 30"	33° 26' 29"	0.5	61.9	0.2			
L-1-39-2			1.5	5.5				
L-1-39-3			3.0	2.5				
L-1-39-4			4.0	ND				
L-1-40-1	117° 37' 34"	33° 26' 31"	0.5	13.2				
L-1-40-2			1.5	12.5				
L-1-40-3			3.0	7.2				
L-1-40-4			4.0	15.2				
L-1-41-1	117° 37' 40"	33° 26' 30"	0.5	5.8				8.15
L-1-41-2			1.5	4.0				
L-1-41-3			3.0	ND				
L-1-41-4			4.0	ND				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-1-32-1	117° 37' 24"	33° 26' 26"	0.5	3.7				
L-1-32-2			1.5	6.6				
L-1-32-3			3.0	3.6				
L-1-32-4			4.0	3.7				
L-1-34-1	117° 37' 27"	33° 26' 25"	0.5	3.8				8.14
L-1-34-2			1.5	4.1				
L-1-34-3			3.0	124.0	2.8			
L-1-34-4			4.0	98.5	3.8			
L-1-36-1	117° 37' 29"	33° 26' 27"	0.5	3.9				
L-1-36-2			1.5	4.6				
L-1-36-3			3.0	7.5				
L-1-36-4			4.0	3.8				
L-1-37-1	117° 37' 34"	33° 26' 27"	0.5	82.7	1.3			
L-1-37-2			1.5	24.9				
L-1-37-3			3.0	11.3				
L-1-37-4			4.0	42.1				

Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

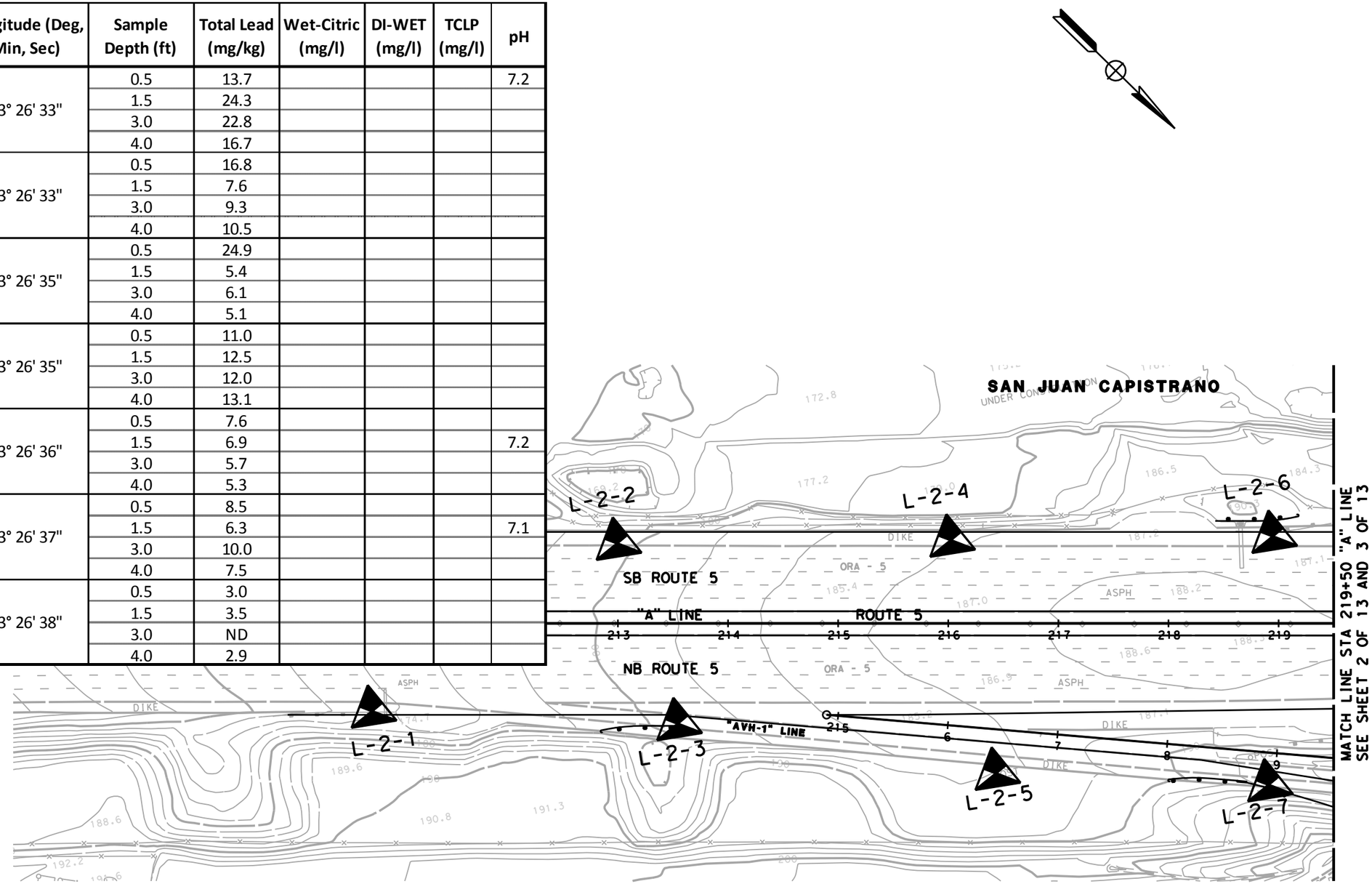
INTERSTATE 5 HOV IMPROVEMENT PROJECT (SEGMENT 1)

Project No.: 11-135 | Date: 03-14-2012

Exploratory Boring Location Map (4 of 4) for ADL Study

Figure 5

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-1-1	117° 37' 36"	33° 26' 33"	0.5	13.7				7.2
L-2-1-2			1.5	24.3				
L-2-1-3			3.0	22.8				
L-2-1-4			4.0	16.7				
L-2-2-1	117° 37' 39"	33° 26' 33"	0.5	16.8				
L-2-2-2			1.5	7.6				
L-2-2-3			3.0	9.3				
L-2-2-4			4.0	10.5				
L-2-3-1	117° 37' 42"	33° 26' 35"	0.5	24.9				
L-2-3-2			1.5	5.4				
L-2-3-3			3.0	6.1				
L-2-3-4			4.0	5.1				
L-2-4-1	117° 37' 41"	33° 26' 35"	0.5	11.0				
L-2-4-2			1.5	12.5				
L-2-4-3			3.0	12.0				
L-2-4-4			4.0	13.1				
L-2-5-1	117° 37' 45"	33° 26' 36"	0.5	7.6				
L-2-5-2			1.5	6.9				7.2
L-2-5-3			3.0	5.7				
L-2-5-4			4.0	5.3				
L-2-6-1	117° 37' 43"	33° 26' 37"	0.5	8.5				
L-2-6-2			1.5	6.3				7.1
L-2-6-3			3.0	10.0				
L-2-6-4			4.0	7.5				
L-2-7-1	117° 37' 47"	33° 26' 38"	0.5	3.0				
L-2-7-2			1.5	3.5				
L-2-7-3			3.0	ND				
L-2-7-4			4.0	2.9				



Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV WIDENING PROJECT, SEGMENT 2

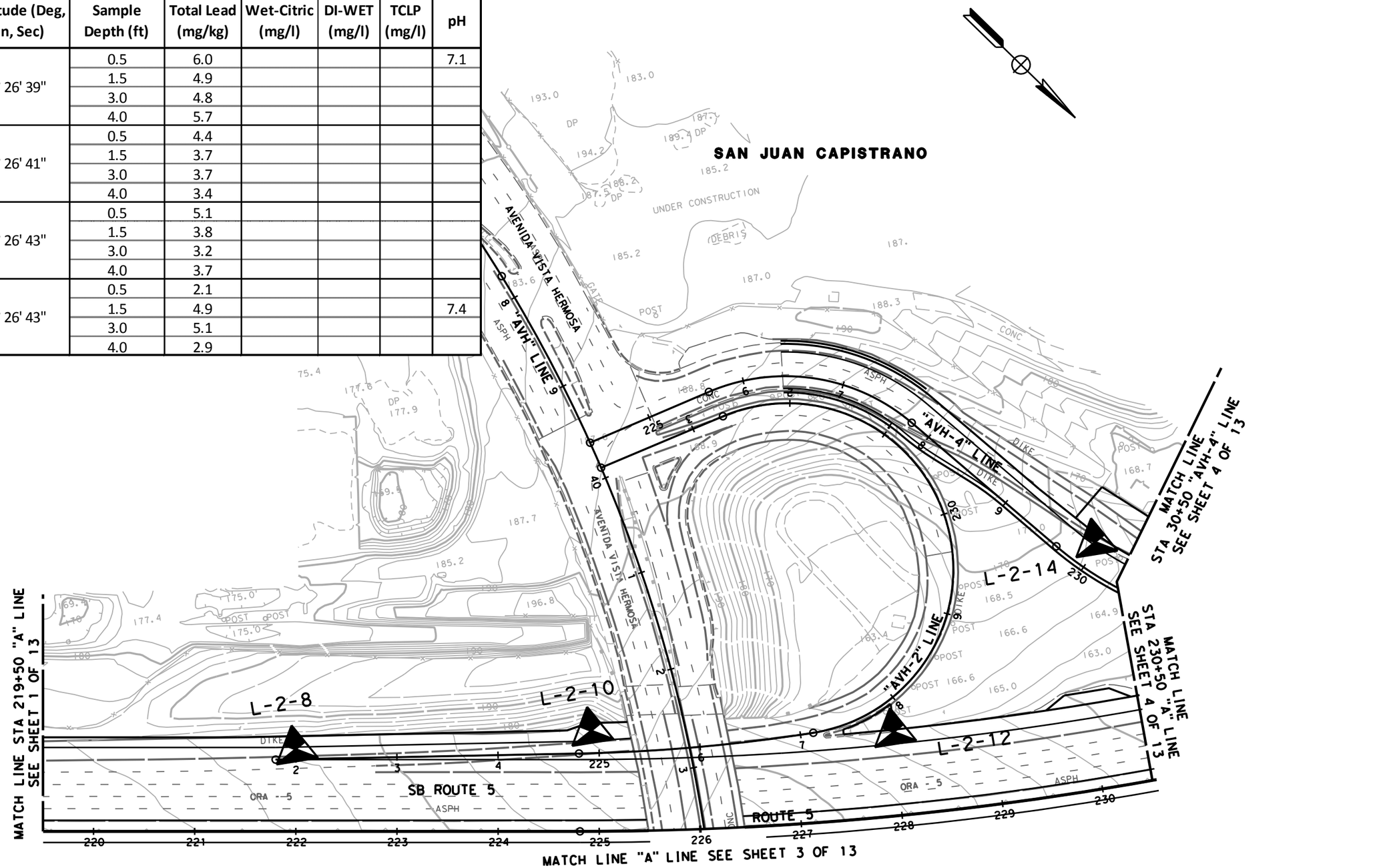
Project No.: 11-136

Date: 03-01-2012

Exploratory Boring Location Map (1 of 13) for ADL Study

Figure 6

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-8-1	117° 37' 45"	33° 26' 39"	0.5	6.0				7.1
L-2-8-2			1.5	4.9				
L-2-8-3			3.0	4.8				
L-2-8-4			4.0	5.7				
L-2-10-1	117° 37' 46"	33° 26' 41"	0.5	4.4				
L-2-10-2			1.5	3.7				
L-2-10-3			3.0	3.7				
L-2-10-4			4.0	3.4				
L-2-12-1	117° 37' 49"	33° 26' 43"	0.5	5.1				
L-2-12-2			1.5	3.8				
L-2-12-3			3.0	3.2				
L-2-12-4			4.0	3.7				
L-2-14-1	117° 37' 46"	33° 26' 43"	0.5	2.1				
L-2-14-2			1.5	4.9				7.4
L-2-14-3			3.0	5.1				
L-2-14-4			4.0	2.9				



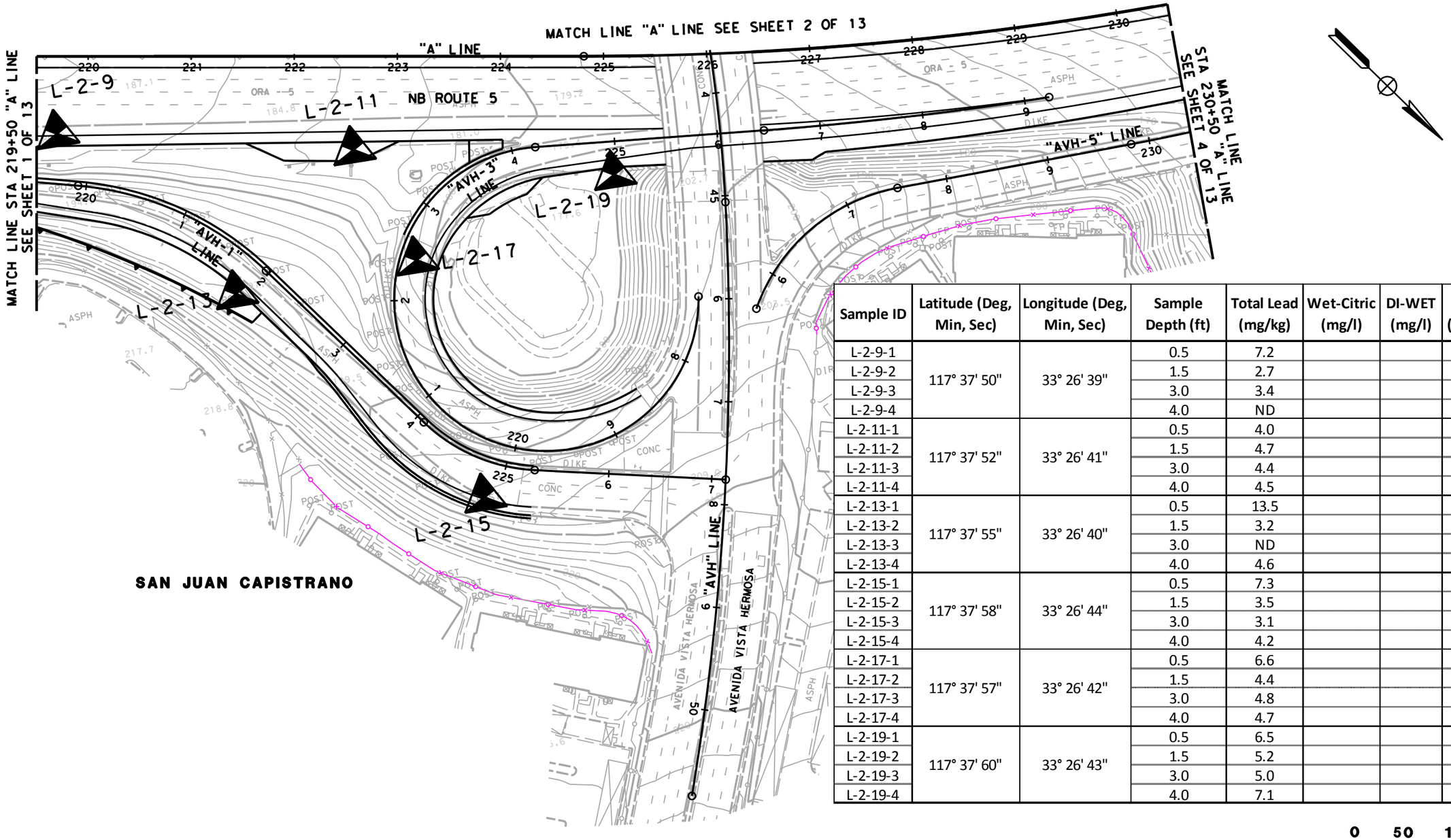
Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV WIDENING PROJECT, SEGMENT 2

Project No.: 11-136 | Date: 03-01-2012

Exploratory Boring Location Map (2 of 13) for ADL Study

Figure 7



Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-9-1	117° 37' 50"	33° 26' 39"	0.5	7.2				
L-2-9-2			1.5	2.7				
L-2-9-3			3.0	3.4				
L-2-9-4			4.0	ND				
L-2-11-1	117° 37' 52"	33° 26' 41"	0.5	4.0				
L-2-11-2			1.5	4.7				
L-2-11-3			3.0	4.4				7.2
L-2-11-4			4.0	4.5				
L-2-13-1	117° 37' 55"	33° 26' 40"	0.5	13.5				7.3
L-2-13-2			1.5	3.2				
L-2-13-3			3.0	ND				
L-2-13-4			4.0	4.6				
L-2-15-1	117° 37' 58"	33° 26' 44"	0.5	7.3				
L-2-15-2			1.5	3.5				
L-2-15-3			3.0	3.1				
L-2-15-4			4.0	4.2				
L-2-17-1	117° 37' 57"	33° 26' 42"	0.5	6.6				
L-2-17-2			1.5	4.4				7.7
L-2-17-3			3.0	4.8				
L-2-17-4			4.0	4.7				
L-2-19-1	117° 37' 60"	33° 26' 43"	0.5	6.5				
L-2-19-2			1.5	5.2				
L-2-19-3			3.0	5.0				
L-2-19-4			4.0	7.1				

0 50 100 Feet

Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV WIDENING PROJECT, SEGMENT 2

Project No.: 11-136

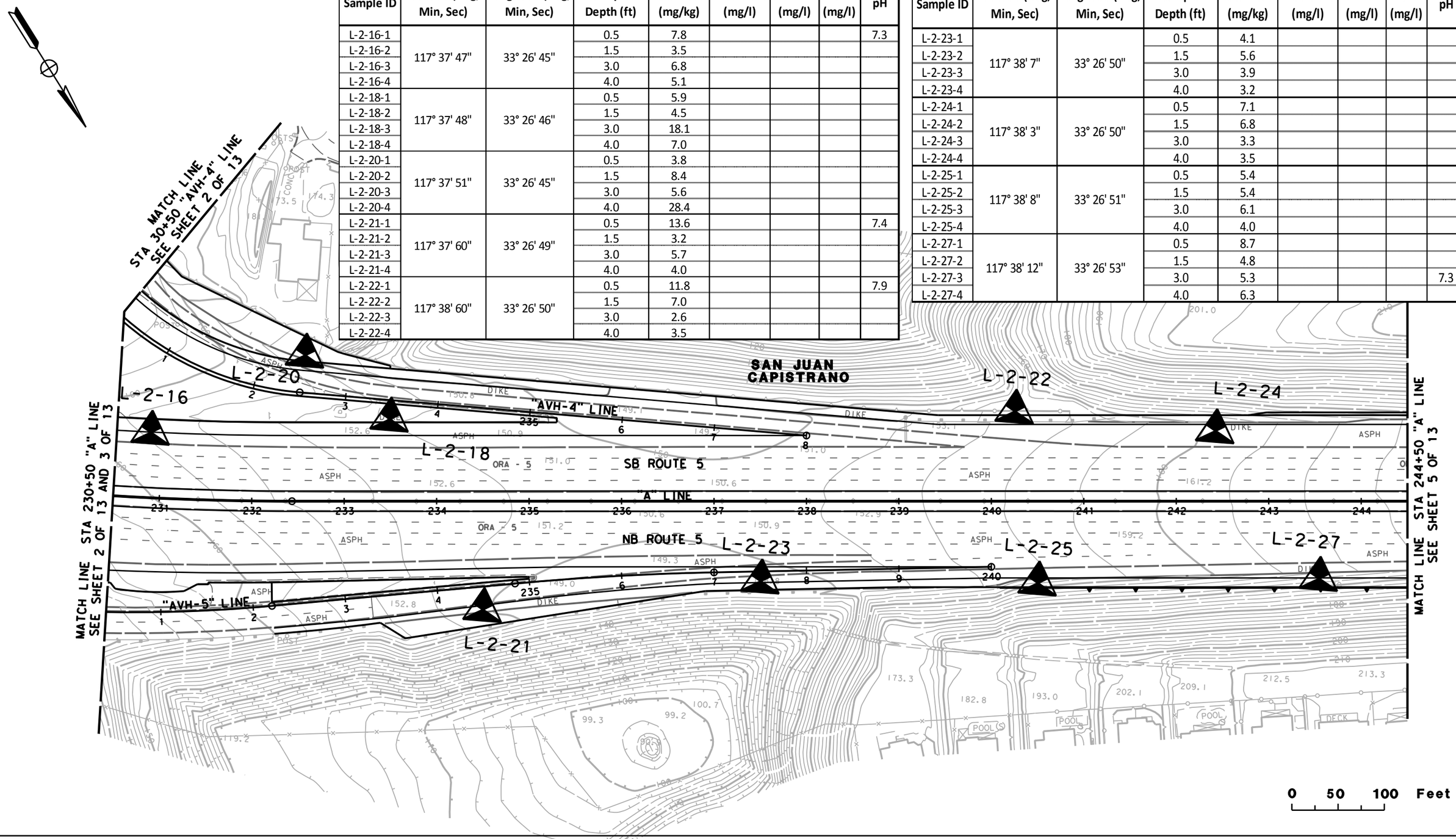
Date: 03-01-2012

Exploratory Boring Location Map (3 of 13) for ADL Study

Figure 8

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-16-1	117° 37' 47"	33° 26' 45"	0.5	7.8				7.3
L-2-16-2			1.5	3.5				
L-2-16-3			3.0	6.8				
L-2-16-4			4.0	5.1				
L-2-18-1	117° 37' 48"	33° 26' 46"	0.5	5.9				
L-2-18-2			1.5	4.5				
L-2-18-3			3.0	18.1				
L-2-18-4			4.0	7.0				
L-2-20-1	117° 37' 51"	33° 26' 45"	0.5	3.8				
L-2-20-2			1.5	8.4				
L-2-20-3			3.0	5.6				
L-2-20-4			4.0	28.4				
L-2-21-1	117° 37' 60"	33° 26' 49"	0.5	13.6				7.4
L-2-21-2			1.5	3.2				
L-2-21-3			3.0	5.7				
L-2-21-4			4.0	4.0				
L-2-22-1	117° 38' 60"	33° 26' 50"	0.5	11.8				7.9
L-2-22-2			1.5	7.0				
L-2-22-3			3.0	2.6				
L-2-22-4			4.0	3.5				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-23-1	117° 38' 7"	33° 26' 50"	0.5	4.1				
L-2-23-2			1.5	5.6				
L-2-23-3			3.0	3.9				
L-2-23-4			4.0	3.2				
L-2-24-1	117° 38' 3"	33° 26' 50"	0.5	7.1				
L-2-24-2			1.5	6.8				
L-2-24-3			3.0	3.3				
L-2-24-4			4.0	3.5				
L-2-25-1	117° 38' 8"	33° 26' 51"	0.5	5.4				
L-2-25-2			1.5	5.4				
L-2-25-3			3.0	6.1				
L-2-25-4			4.0	4.0				
L-2-27-1	117° 38' 12"	33° 26' 53"	0.5	8.7				
L-2-27-2			1.5	4.8				
L-2-27-3			3.0	5.3				7.3
L-2-27-4			4.0	6.3				



Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV WIDENING PROJECT, SEGMENT 2

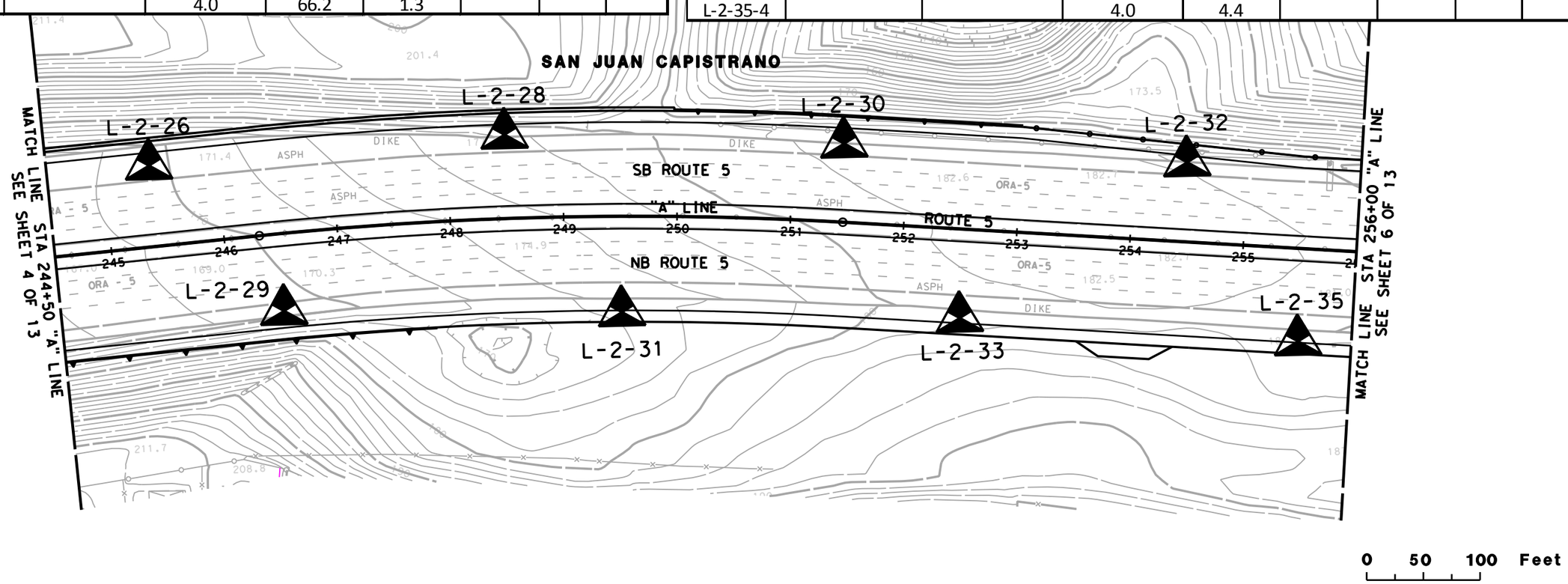
Project No.: 11-136 | Date: 03-01-2012

Exploratory Boring Location Map (4 of 13) for ADL Study

Figure 9

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-26-1	117° 38' 6"	33° 26' 53"	0.5	7.0				
L-2-26-2			1.5	4.7				
L-2-26-3			3.0	3.9				
L-2-26-4			4.0	3.6				
L-2-28-1	117° 38' 10"	33° 26' 54"	0.5	61.2	1.3			
L-2-28-2			1.5	18.1				7.6
L-2-28-3			3.0	18.9				
L-2-28-4			4.0	16.8				
L-2-29-1	117° 38' 15"	33° 26' 55"	0.5	20.2				
L-2-29-2			1.5	6.6				
L-2-29-3			3.0	5.6				
L-2-29-4			4.0	6.6				
L-2-30-1	117° 38' 13"	33° 26' 55"	0.5	446.0	1.3			
L-2-30-2			1.5	67.4	1.3			
L-2-30-3			3.0	61.7	1.7			
L-2-30-4			4.0	66.2	1.3			

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-31-1	117° 38' 17"	33° 26' 56"	0.5	20.0				6.7
L-2-31-2			1.5	24.9				
L-2-31-3			3.0	5.4				
L-2-31-4			4.0	3.8				
L-2-32-1	117° 38' 15"	33° 26' 58"	0.5	44.8				
L-2-32-2			1.5	6.3				
L-2-32-3			3.0	14.3				
L-2-32-4			4.0	14.6				
L-2-33-1	117° 38' 21"	33° 26' 57"	0.5	11.1				
L-2-33-2			1.5	3.6				
L-2-33-3			3.0	ND				
L-2-33-4			4.0	ND				
L-2-35-1	117° 38' 23"	33° 26' 59"	0.5	21.8				
L-2-35-2			1.5	4.4				
L-2-35-3			3.0	5.5				
L-2-35-4			4.0	4.4				



Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV WIDENING PROJECT, SEGMENT 2

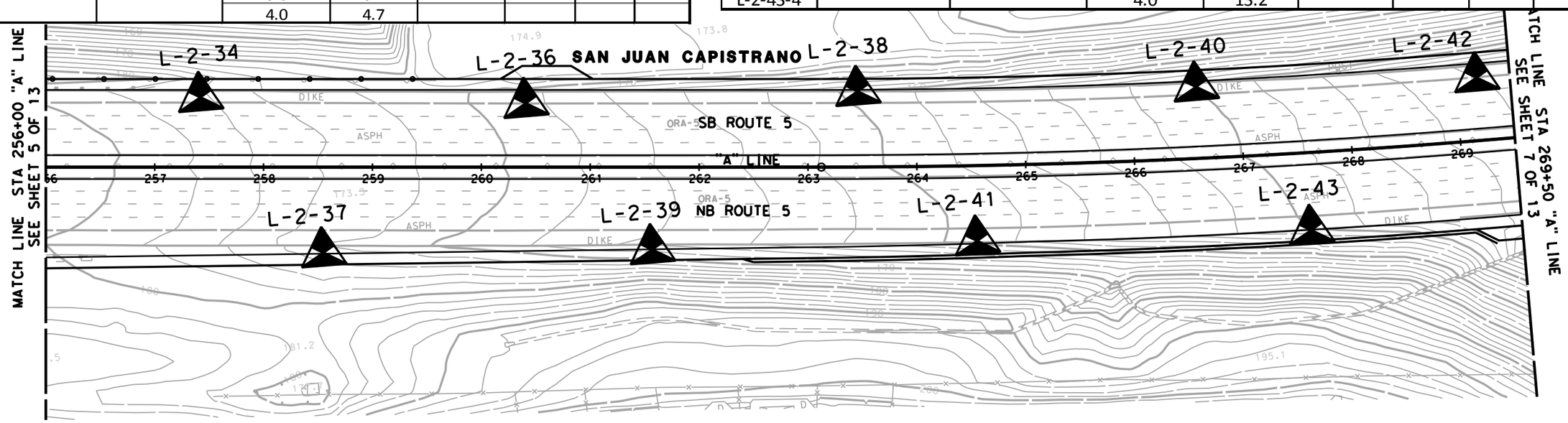
Project No.: 11-136 | Date: 03-01-2012

Exploratory Boring Location Map (5 of 13) for ADL Study

Figure 10

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-34-1	117° 38' 17"	33° 26' 60"	0.5	282.0	16.1	ND	ND	7.7
L-2-34-2			1.5	15.8				
L-2-34-3			3.0	6.2				
L-2-34-4			4.0	5.3				
L-2-36-1	117° 38' 20"	33° 27' 2"	0.5	8.1				
L-2-36-2			1.5	2.8				
L-2-36-3			3.0	3.4				
L-2-36-4			4.0	2.3				
L-2-37-1	117° 38' 26"	33° 27' 1"	0.5	11.4				
L-2-37-2			1.5	3.2				7.2
L-2-37-3			3.0	4.2				
L-2-37-4			4.0	3.5				
L-2-38-1	117° 38' 23"	33° 27' 4"	0.5	4.7				
L-2-38-2			1.5	4.6				
L-2-38-3			3.0	51.2	0.1			
L-2-38-4			4.0	49.2				
L-2-39-1	117° 38' 28"	33° 27' 3"	0.5	26.0				
L-2-39-2			1.5	5.9				
L-2-39-3			3.0	6.4				
L-2-39-4			4.0	4.7				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-40-1	117° 38' 26"	33° 27' 5"	0.5	9.9				
L-2-40-2			1.5	13.0				7.1
L-2-40-3			3.0	6.0				
L-2-40-4			4.0	33.3				
L-2-41-1	117° 38' 31"	33° 27' 6"	0.5	6.6				
L-2-41-2			1.5	9.6				
L-2-41-3			3.0	7.0				
L-2-41-4			4.0	5.3				
L-2-42-1	117° 38' 29"	33° 27' 7"	0.5	91.6	3.1			7.5
L-2-42-2			1.5	55.9	3.4			
L-2-42-3			3.0	7.6				
L-2-42-4			4.0	4.9				
L-2-43-1	117° 38' 34"	33° 27' 8"	0.5	9.0				
L-2-43-2			1.5	12.9				
L-2-43-3			3.0	18.0				
L-2-43-4			4.0	13.2				



Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV WIDENING PROJECT, SEGMENT 2

Project No.: 11-136

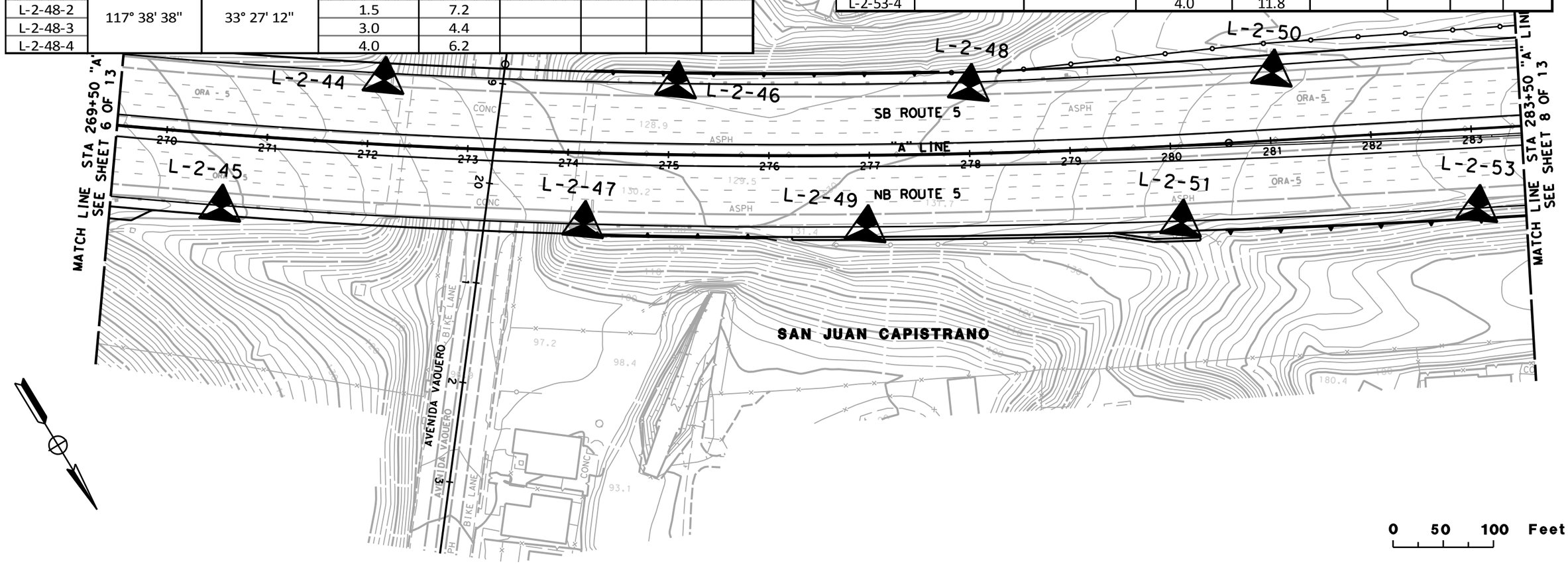
Date: 03-01-2012

Exploratory Boring Location Map (6 of 13) for ADL Study

Figure 11

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-44-1	117° 38' 32"	33° 27' 9"	0.5	56.4	1.8			
L-2-44-2			1.5	119.0	5.8	ND	ND	7.1
L-2-44-3			3.0	7.9				
L-2-44-4			4.0	3.4				
L-2-45-1	117° 38' 37"	33° 27' 9"	0.5	27.3				8.5
L-2-45-2			1.5	6.4				
L-2-45-3			3.0	14.2				
L-2-45-4			4.0	10.1				
L-2-46-1	117° 38' 34"	33° 27' 10"	0.5	71.5	1.3			
L-2-46-2			1.5	25.7				
L-2-46-3			3.0	3.9				
L-2-46-4			4.0	6.2				
L-2-47-1	117° 38' 40"	33° 27' 11"	0.5	87.7	4.5			
L-2-47-2			1.5	118.0	7.7	ND	ND	
L-2-47-3			3.0	106.0	5.5	ND	ND	
L-2-47-4			4.0	73.5	5.3	ND	ND	
L-2-48-1	117° 38' 38"	33° 27' 12"	0.5	119.0	2.6			
L-2-48-2			1.5	7.2				
L-2-48-3			3.0	4.4				
L-2-48-4			4.0	6.2				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-49-1	117° 38' 43"	33° 27' 13"	0.5	65.5	0.8			
L-2-49-2			1.5	22.3				
L-2-49-3			3.0	510.0	4.1			
L-2-49-4			4.0	18.1				
L-2-50-1	117° 38' 41"	33° 27' 13"	0.5	18.5				6.1
L-2-50-2			1.5	4.7				
L-2-50-3			3.0	3.7				
L-2-50-4			4.0	ND				
L-2-51-1	117° 38' 45"	33° 27' 14"	0.5	18.0				7.6
L-2-51-2			1.5	91.5	1.8			
L-2-51-3			3.0	5.4				
L-2-51-4			4.0	3.7				
L-2-53-1	117° 38' 49"	33° 27' 15"	0.5	225.0	16.1	ND	ND	
L-2-53-2			1.5	26.8				
L-2-53-3			3.0	53.1	1.1			
L-2-53-4			4.0	11.8				



Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV WIDENING PROJECT, SEGMENT 2

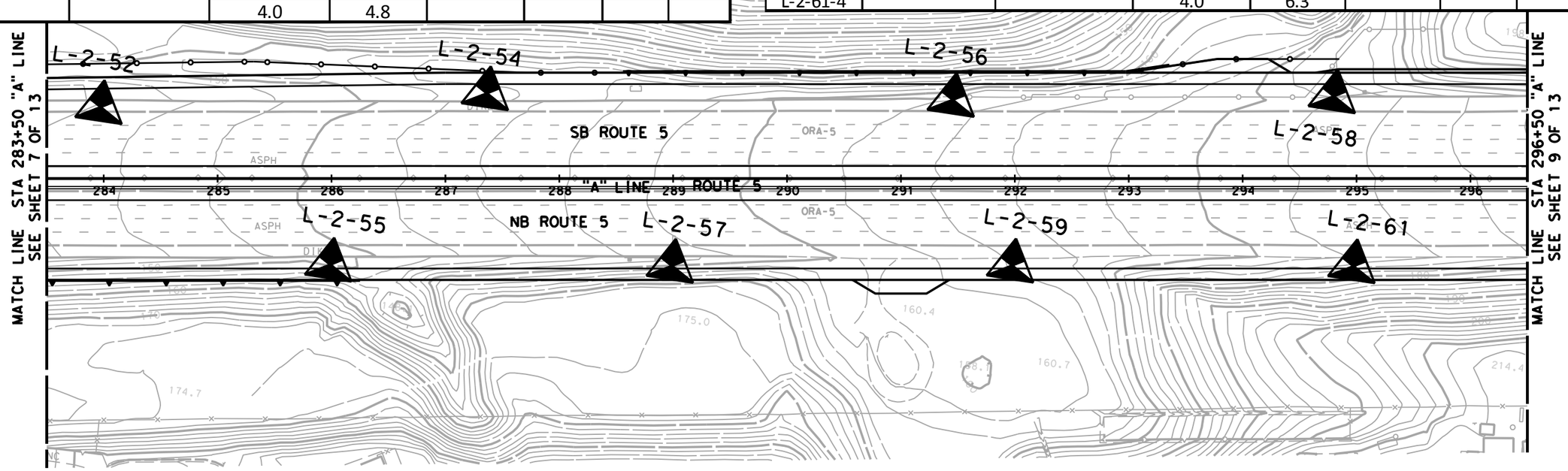
Project No.: 11-136 | Date: 03-01-2012

Exploratory Boring Location Map (7 of 13) for ADL Study

Figure 12

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-52-1	117° 38' 44"	33° 27' 15"	0.5	8.7				
L-2-52-2			1.5	6.1				
L-2-52-3			3.0	6.3				
L-2-52-4			4.0	3.5				
L-2-54-1	117° 38' 46"	33° 27' 16"	0.5	5.1				6.2
L-2-54-2			1.5	271.0	6.9	ND	ND	
L-2-54-3			3.0	2.8				
L-2-54-4			4.0	4.0				
L-2-55-1	117° 38' 53"	33° 27' 17"	0.5	191.0	22.0	ND	ND	
L-2-55-2			1.5	8.9				
L-2-55-3			3.0	2.6				
L-2-55-4			4.0	2.7				
L-2-56-1	117° 38' 51"	33° 27' 18"	0.5	5.1				
L-2-56-2			1.5	3.8				
L-2-56-3			3.0	4.3				
L-2-56-4			4.0	4.8				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-57-1	117° 38' 56"	33° 27' 18"	0.5	2.7				7.7
L-2-57-2			1.5	79.6	4.6			
L-2-57-3			3.0	12.8				
L-2-57-4			4.0	7.6				
L-2-58-1	117° 38' 53"	33° 27' 19"	0.5	14.7				
L-2-58-2			1.5	3.1				
L-2-58-3			3.0	5.5				
L-2-58-4			4.0	6.4				
L-2-59-1	117° 38' 60"	33° 27' 19"	0.5	7.2				
L-2-59-2			1.5	19.7				
L-2-59-3			3.0	13.8				
L-2-59-4			4.0	4.1				
L-2-61-1	117° 38' 2"	33° 27' 21"	0.5	10.1				
L-2-61-2			1.5	25.2				7.5
L-2-61-3			3.0	5.8				
L-2-61-4			4.0	6.3				



0 50 100 Feet

Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV WIDENING PROJECT, SEGMENT 2

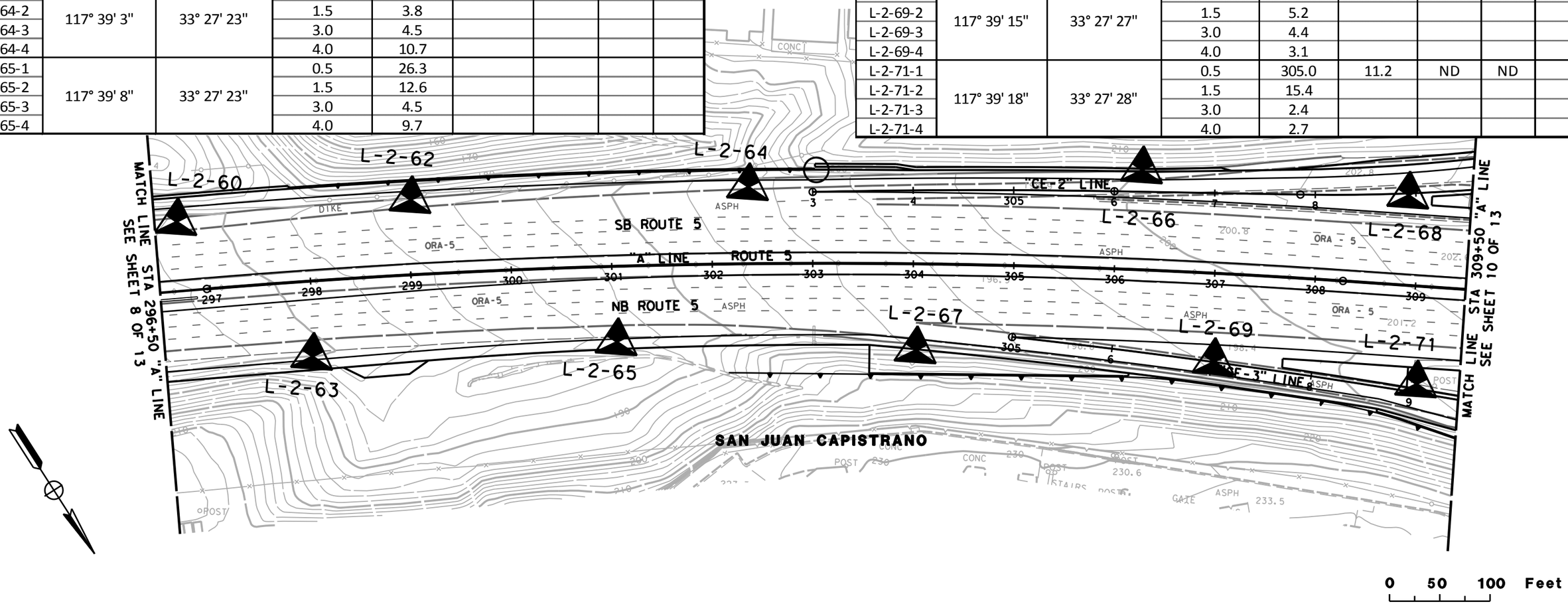
Project No.: 11-136 | Date: 03-01-2012

Exploratory Boring Location Map (8 of 13) for ADL Study

Figure 13

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-60-1	117° 39' 56"	33° 27' 20"	0.5	11.1				
L-2-60-2			1.5	4.1				
L-2-60-3			3.0	4.8				
L-2-60-4			4.0	5.2				
L-2-62-1	117° 39' 60"	33° 27' 21"	0.5	56.7	0.9			7.1
L-2-62-2			1.5	18.0				
L-2-62-3			3.0	38.4				
L-2-62-4			4.0	13.4				
L-2-63-1	117° 39' 3"	33° 27' 22"	0.5	8.7				7.7
L-2-63-2			1.5	13.3				
L-2-63-3			3.0	3.2				
L-2-63-4			4.0	3.1				
L-2-64-1	117° 39' 3"	33° 27' 23"	0.5	7.8				
L-2-64-2			1.5	3.8				
L-2-64-3			3.0	4.5				
L-2-64-4			4.0	10.7				
L-2-65-1	117° 39' 8"	33° 27' 23"	0.5	26.3				
L-2-65-2			1.5	12.6				
L-2-65-3			3.0	4.5				
L-2-65-4			4.0	9.7				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-66-1	117° 39' 5"	33° 27' 25"	0.5	7.3				
L-2-66-2			1.5	2.4				
L-2-66-3			3.0	4.6				
L-2-66-4			4.0	2.2				
L-2-67-1	117° 39' 12"	33° 27' 25"	0.5	3.2				
L-2-67-2			1.5	2.4				
L-2-67-3			3.0	ND				
L-2-67-4			4.0	3.4				
L-2-68-1	117° 39' 9"	33° 27' 27"	0.5	17.7				
L-2-68-2			1.5	4.7				
L-2-68-3			3.0	8.6				
L-2-68-4			4.0	4.7				
L-2-69-1	117° 39' 15"	33° 27' 27"	0.5	3.9				6.6
L-2-69-2			1.5	5.2				
L-2-69-3			3.0	4.4				
L-2-69-4			4.0	3.1				
L-2-71-1	117° 39' 18"	33° 27' 28"	0.5	305.0	11.2	ND	ND	
L-2-71-2			1.5	15.4				
L-2-71-3			3.0	2.4				
L-2-71-4			4.0	2.7				



Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV WIDENING PROJECT, SEGMENT 2

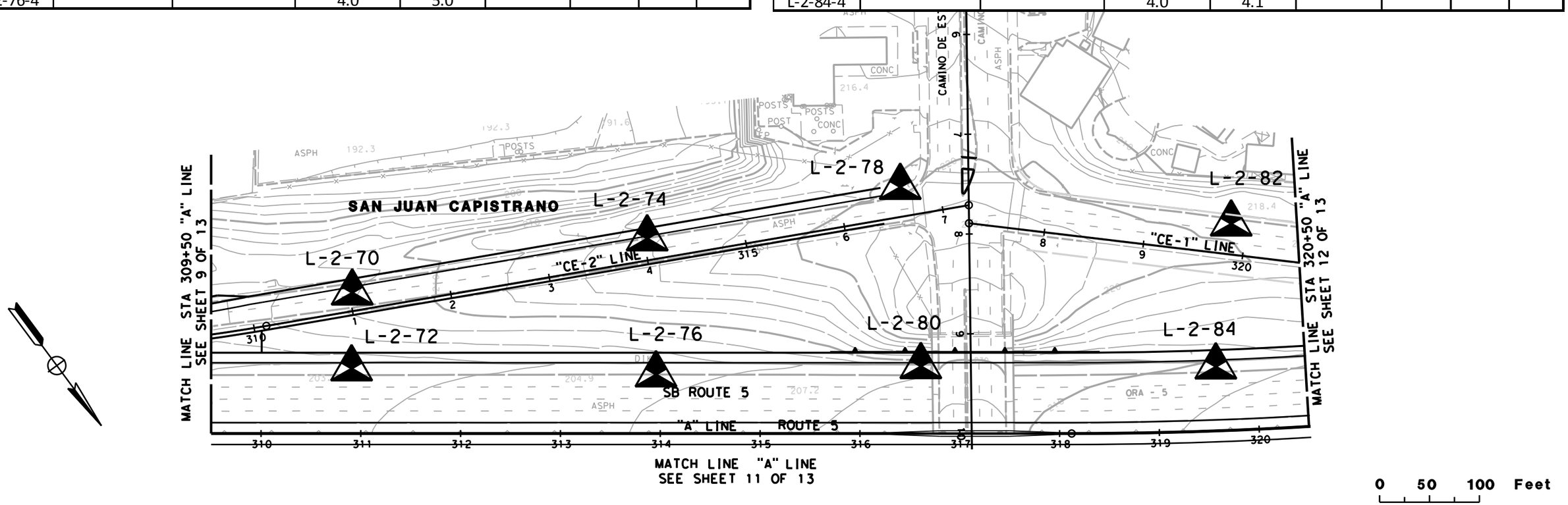
Project No.: 11-136 | Date: 03-01-2012

Exploratory Boring Location Map (9 of 13) for ADL Study

Figure 14

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-70-1	117° 39' 11"	33° 27' 27"	0.5	11.8				
L-2-70-2			1.5	2.4				
L-2-70-3			3.0	2.3				
L-2-70-4			4.0	ND				
L-2-72-1	117° 39' 14"	33° 27' 28"	0.5	16.9				
L-2-72-2			1.5	2.1				
L-2-72-3			3.0	3.5				
L-2-72-4			4.0	3.2				
L-2-74-1	117° 39' 15"	33° 27' 31"	0.5	7.3				
L-2-74-2			1.5	9.6				
L-2-74-3			3.0	6.8				
L-2-74-4			4.0	3.6				
L-2-76-1	117° 39' 20"	33° 27' 30"	0.5	14.1				7.6
L-2-76-2			1.5	2.3				
L-2-76-3			3.0	4.5				
L-2-76-4			4.0	5.0				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-78-1	117° 39' 18"	33° 27' 30"	0.5	70.6	2.6			6.7
L-2-78-2			1.5	10.2				
L-2-78-3			3.0	7.3				
L-2-78-4			4.0	9.6				
L-2-80-1	117° 39' 16"	33° 27' 31"	0.5	9.5				
L-2-80-2			1.5	4.0				
L-2-80-3			3.0	3.4				
L-2-80-4			4.0	21.0				
L-2-82-1	117° 39' 18"	33° 27' 32"	0.5	26.1				
L-2-82-2			1.5	20.6				
L-2-82-3			3.0	18.4				
L-2-82-4			4.0	16.0				
L-2-84-1	117° 39' 20"	33° 27' 33"	0.5	8.2				
L-2-84-2			1.5	3.7				
L-2-84-3			3.0	2..4				
L-2-84-4			4.0	4.1				



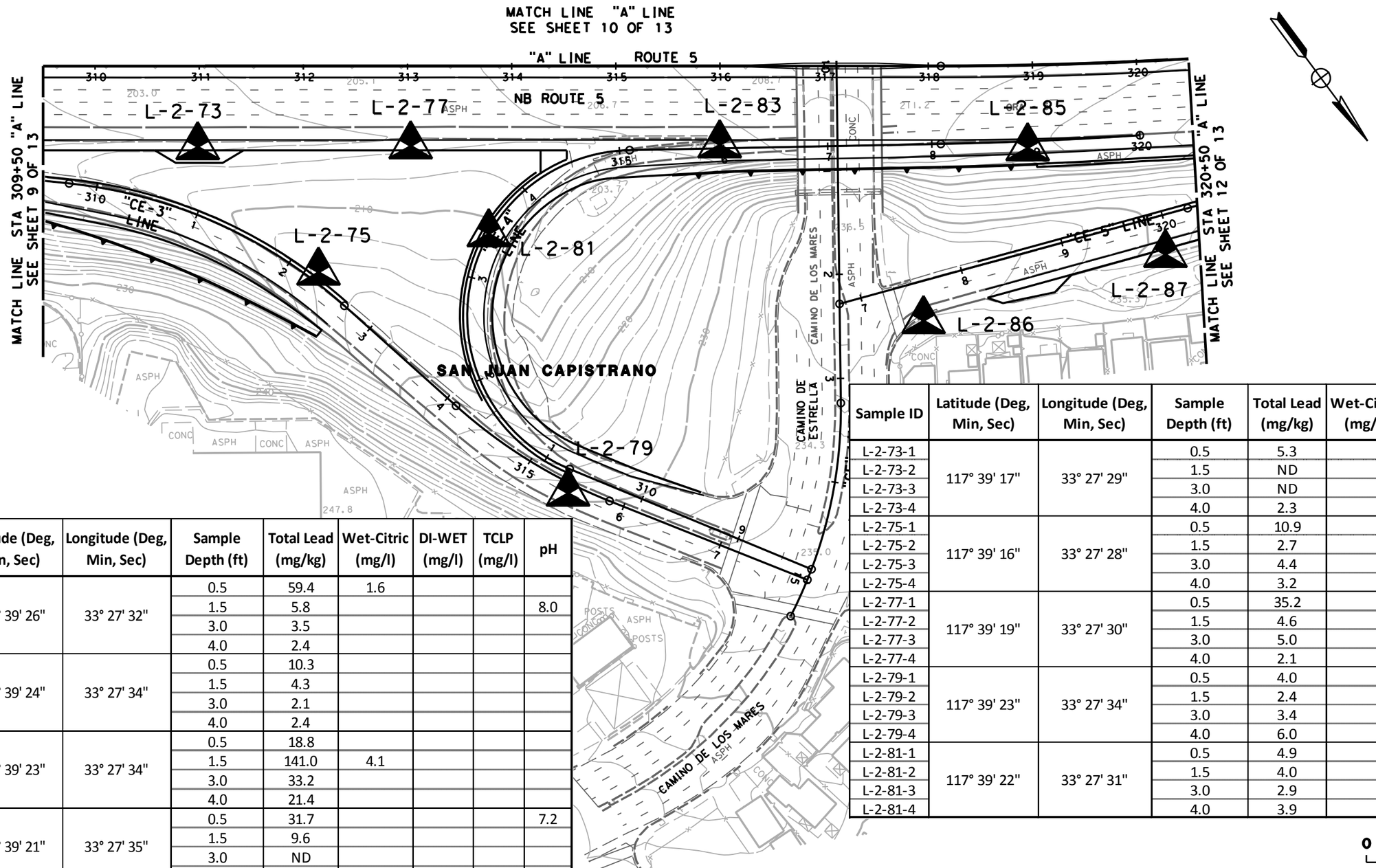
Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV WIDENING PROJECT, SEGMENT 2

Project No.: 11-136 | Date: 03-01-2012

Exploratory Boring Location Map (10 of 13) for ADL Study

Figure 15



Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-83-1	117° 39' 26"	33° 27' 32"	0.5	59.4	1.6			
L-2-83-2			1.5	5.8				8.0
L-2-83-3			3.0	3.5				
L-2-83-4			4.0	2.4				
L-2-85-1	117° 39' 24"	33° 27' 34"	0.5	10.3				
L-2-85-2			1.5	4.3				
L-2-85-3			3.0	2.1				
L-2-85-4			4.0	2.4				
L-2-86-1	117° 39' 23"	33° 27' 34"	0.5	18.8				
L-2-86-2			1.5	141.0	4.1			
L-2-86-3			3.0	33.2				
L-2-86-4			4.0	21.4				
L-2-87-1	117° 39' 21"	33° 27' 35"	0.5	31.7				7.2
L-2-87-2			1.5	9.6				
L-2-87-3			3.0	ND				
L-2-87-4			4.0	3.3				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-73-1	117° 39' 17"	33° 27' 29"	0.5	5.3				
L-2-73-2			1.5	ND				
L-2-73-3			3.0	ND				
L-2-73-4			4.0	2.3				
L-2-75-1	117° 39' 16"	33° 27' 28"	0.5	10.9				6.6
L-2-75-2			1.5	2.7				
L-2-75-3			3.0	4.4				
L-2-75-4			4.0	3.2				
L-2-77-1	117° 39' 19"	33° 27' 30"	0.5	35.2				
L-2-77-2			1.5	4.6				
L-2-77-3			3.0	5.0				
L-2-77-4			4.0	2.1				
L-2-79-1	117° 39' 23"	33° 27' 34"	0.5	4.0				
L-2-79-2			1.5	2.4				
L-2-79-3			3.0	3.4				
L-2-79-4			4.0	6.0				
L-2-81-1	117° 39' 22"	33° 27' 31"	0.5	4.9				7.9
L-2-81-2			1.5	4.0				
L-2-81-3			3.0	2.9				
L-2-81-4			4.0	3.9				

0 50 100 Feet

Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV WIDENING PROJECT, SEGMENT 2

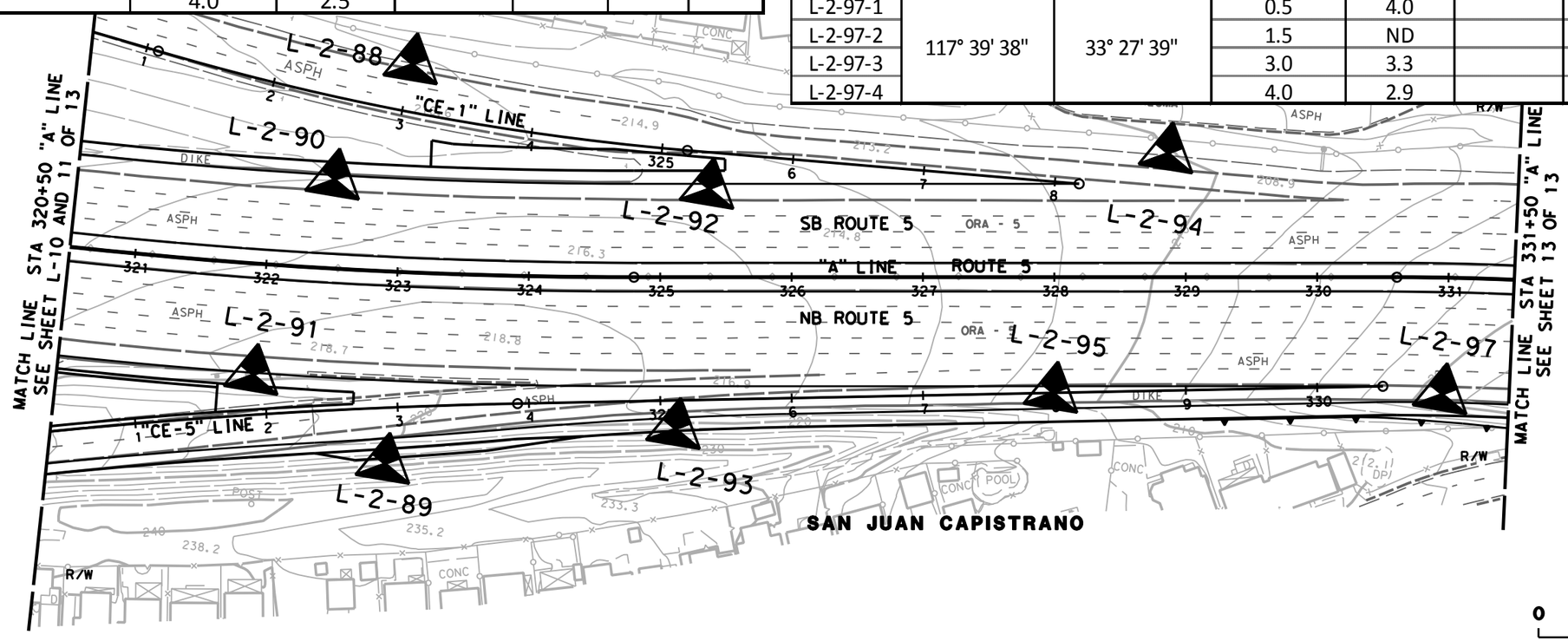
Project No.: 11-136 | Date: 03-01-2012

Exploratory Boring Location Map (11 of 13) for ADL Study

Figure 16

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-88-1	117° 39' 24"	33° 27' 34"	0.5	3.5				6.9
L-2-88-2			1.5	ND				
L-2-88-3			3.0	ND				
L-2-88-4			4.0	ND				
L-2-89-1	117° 39' 29"	33° 27' 36"	0.5	3.8				
L-2-89-2			1.5	2.1				
L-2-89-3			3.0	2.7				
L-2-89-4			4.0	ND				
L-2-90-1	117° 39' 27"	33° 27' 34"	0.5	4.2				
L-2-90-2			1.5	12.3				
L-2-90-3			3.0	8.1				
L-2-90-4			4.0	24.2				
L-2-91-1	117° 39' 27"	33° 27' 35"	0.5	8.4				
L-2-91-2			1.5	3.6				
L-2-91-3			3.0	ND				
L-2-91-4			4.0	2.5				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-92-1	117° 39' 26"	33° 27' 35"	0.5	85.3	2.2			6.8
L-2-92-2			1.5	38.2				
L-2-92-3			3.0	32.5				
L-2-92-4			4.0	47.2				
L-2-93-1	117° 39' 30"	33° 27' 37"	0.5	9.6				7.7
L-2-93-2			1.5	2.7				
L-2-93-3			3.0	2.2				
L-2-93-4			4.0	2.7				
L-2-94-1	117° 39' 29"	33° 27' 37"	0.5	12.5				
L-2-94-2			1.5	15.9				
L-2-94-3			3.0	21.6				
L-2-94-4			4.0	11.6				
L-2-95-1	117° 39' 34"	33° 27' 38"	0.5	19.2				
L-2-95-2			1.5	6.8				
L-2-95-3			3.0	2.6				
L-2-95-4			4.0	2.9				
L-2-97-1	117° 39' 38"	33° 27' 39"	0.5	4.0				
L-2-97-2			1.5	ND				
L-2-97-3			3.0	3.3				
L-2-97-4			4.0	2.9				



Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV WIDENING PROJECT, SEGMENT 2

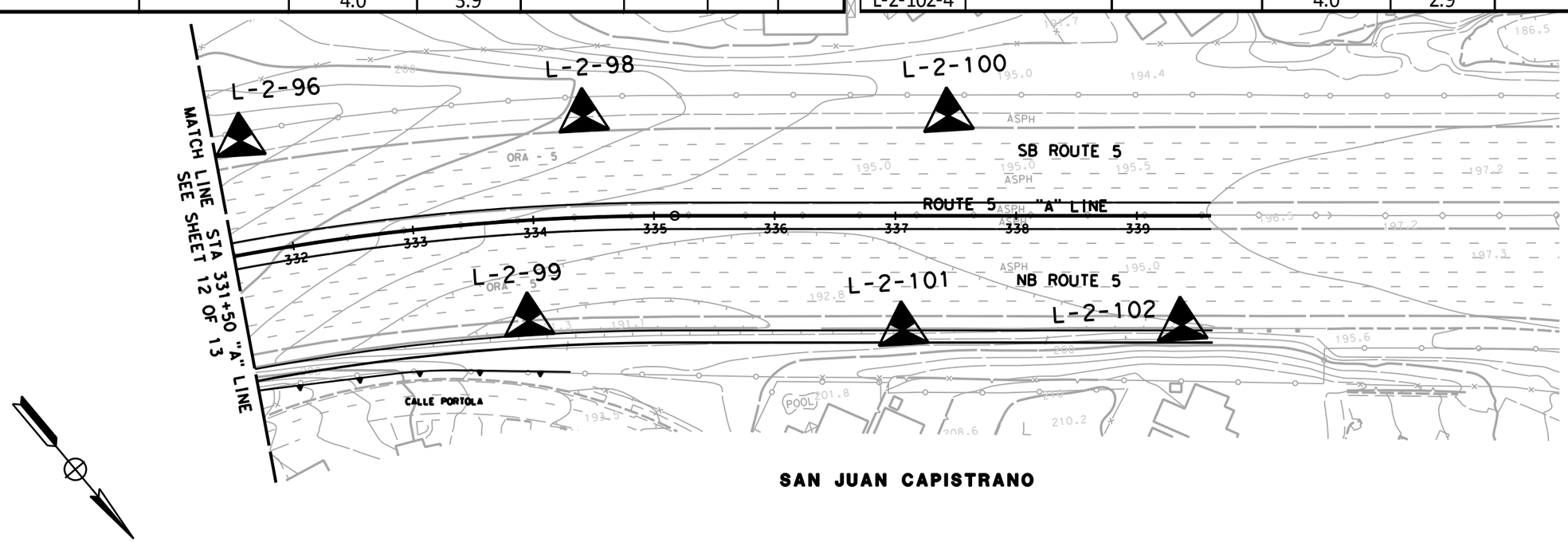
Project No.: 11-136 | Date: 03-01-2012

Exploratory Boring Location Map (12 of 13) for ADL Study

Figure 17

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-96-1	117° 39' 31"	33° 27' 38"	0.5	68.0	4.6			
L-2-96-2			1.5	77.9	3.3			
L-2-96-3			3.0	80.1	2.4			
L-2-96-4			4.0	74.9	2.4			
L-2-98-1	117° 39' 36"	33° 27' 40"	0.5	41.8				6.3
L-2-98-2			1.5	48.1				
L-2-98-3			3.0	35.9				
L-2-98-4			4.0	22.7				
L-2-99-1	117° 39' 40"	33° 27' 41"	0.5	28.8				7.9
L-2-99-2			1.5	20.8				
L-2-99-3			3.0	9.7				
L-2-99-4			4.0	3.9				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-100-1	117° 39' 38"	33° 27' 41"	0.5	40.1				
L-2-100-2			1.5	27.6				
L-2-100-3			3.0	9.8				
L-2-100-4			4.0	12.2				
L-2-101-1	117° 39' 43"	33° 27' 43"	0.5	16.3				
L-2-101-2			1.5	4.2				
L-2-101-3			3.0	2.2				
L-2-101-4			4.0	2.3				
L-2-102-1	117° 39' 41"	33° 27' 44"	0.5	33.0				
L-2-102-2			1.5	9.9				8.3
L-2-102-3			3.0	2.4				
L-2-102-4			4.0	2.9				



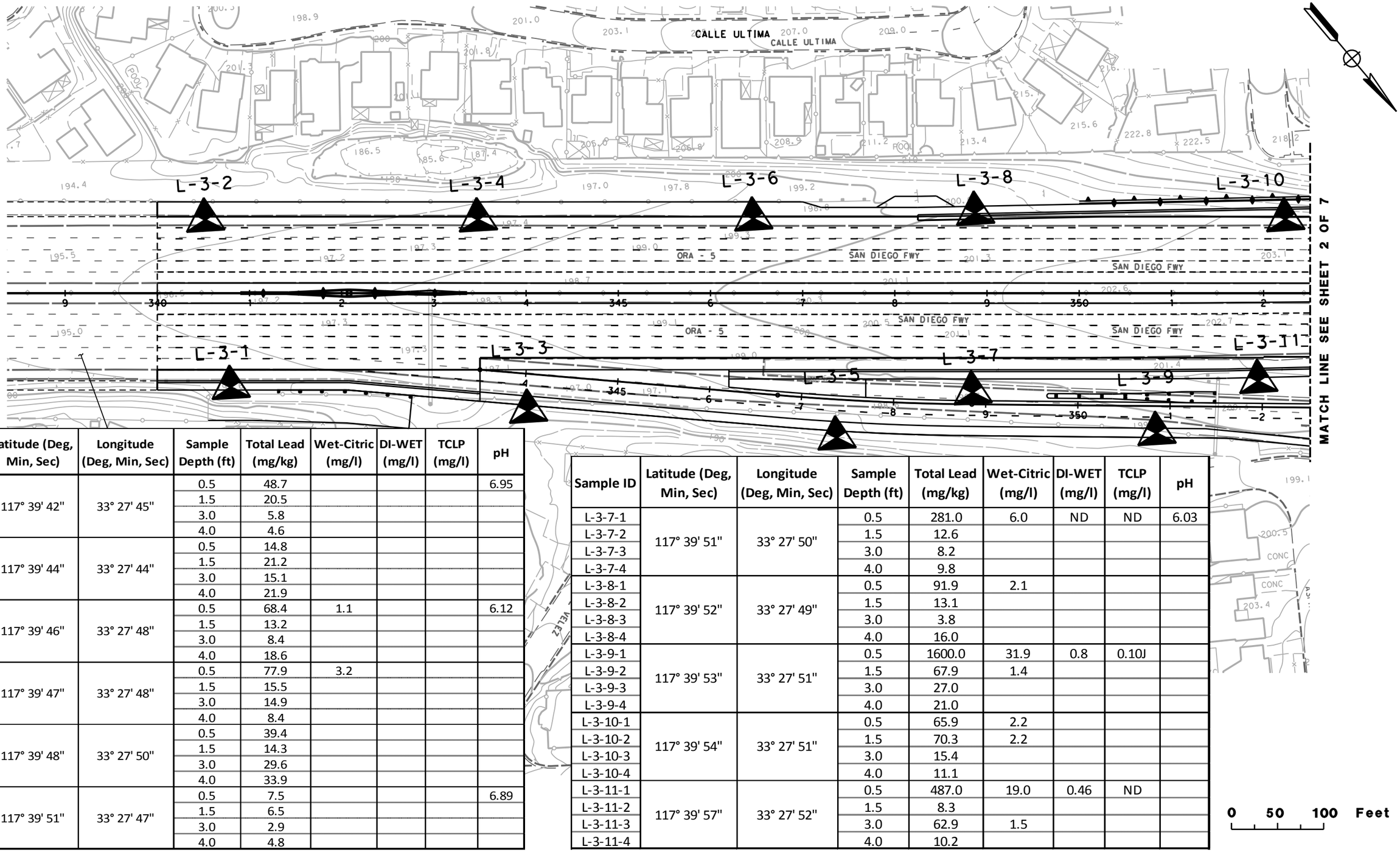
Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV WIDENING PROJECT, SEGMENT 2

Project No.: 11-136 | Date: 03-01-2012

Exploratory Boring Location Map (13 of 13) for ADL Study

Figure 18



Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-3-1-1	117° 39' 42"	33° 27' 45"	0.5	48.7				6.95
L-3-1-2			1.5	20.5				
L-3-1-3			3.0	5.8				
L-3-1-4			4.0	4.6				
L-3-2-1	117° 39' 44"	33° 27' 44"	0.5	14.8				
L-3-2-2			1.5	21.2				
L-3-2-3			3.0	15.1				
L-3-2-4			4.0	21.9				
L-3-3-1	117° 39' 46"	33° 27' 48"	0.5	68.4	1.1			6.12
L-3-3-2			1.5	13.2				
L-3-3-3			3.0	8.4				
L-3-3-4			4.0	18.6				
L-3-4-1	117° 39' 47"	33° 27' 48"	0.5	77.9	3.2			
L-3-4-2			1.5	15.5				
L-3-4-3			3.0	14.9				
L-3-4-4			4.0	8.4				
L-3-5-1	117° 39' 48"	33° 27' 50"	0.5	39.4				
L-3-5-2			1.5	14.3				
L-3-5-3			3.0	29.6				
L-3-5-4			4.0	33.9				
L-3-6-1	117° 39' 51"	33° 27' 47"	0.5	7.5				6.89
L-3-6-2			1.5	6.5				
L-3-6-3			3.0	2.9				
L-3-6-4			4.0	4.8				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-3-7-1	117° 39' 51"	33° 27' 50"	0.5	281.0	6.0	ND	ND	6.03
L-3-7-2			1.5	12.6				
L-3-7-3			3.0	8.2				
L-3-7-4			4.0	9.8				
L-3-8-1	117° 39' 52"	33° 27' 49"	0.5	91.9	2.1			
L-3-8-2			1.5	13.1				
L-3-8-3			3.0	3.8				
L-3-8-4			4.0	16.0				
L-3-9-1	117° 39' 53"	33° 27' 51"	0.5	1600.0	31.9	0.8	0.10J	
L-3-9-2			1.5	67.9	1.4			
L-3-9-3			3.0	27.0				
L-3-9-4			4.0	21.0				
L-3-10-1	117° 39' 54"	33° 27' 51"	0.5	65.9	2.2			
L-3-10-2			1.5	70.3	2.2			
L-3-10-3			3.0	15.4				
L-3-10-4			4.0	11.1				
L-3-11-1	117° 39' 57"	33° 27' 52"	0.5	487.0	19.0	0.46	ND	
L-3-11-2			1.5	8.3				
L-3-11-3			3.0	62.9	1.5			
L-3-11-4			4.0	10.2				

Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

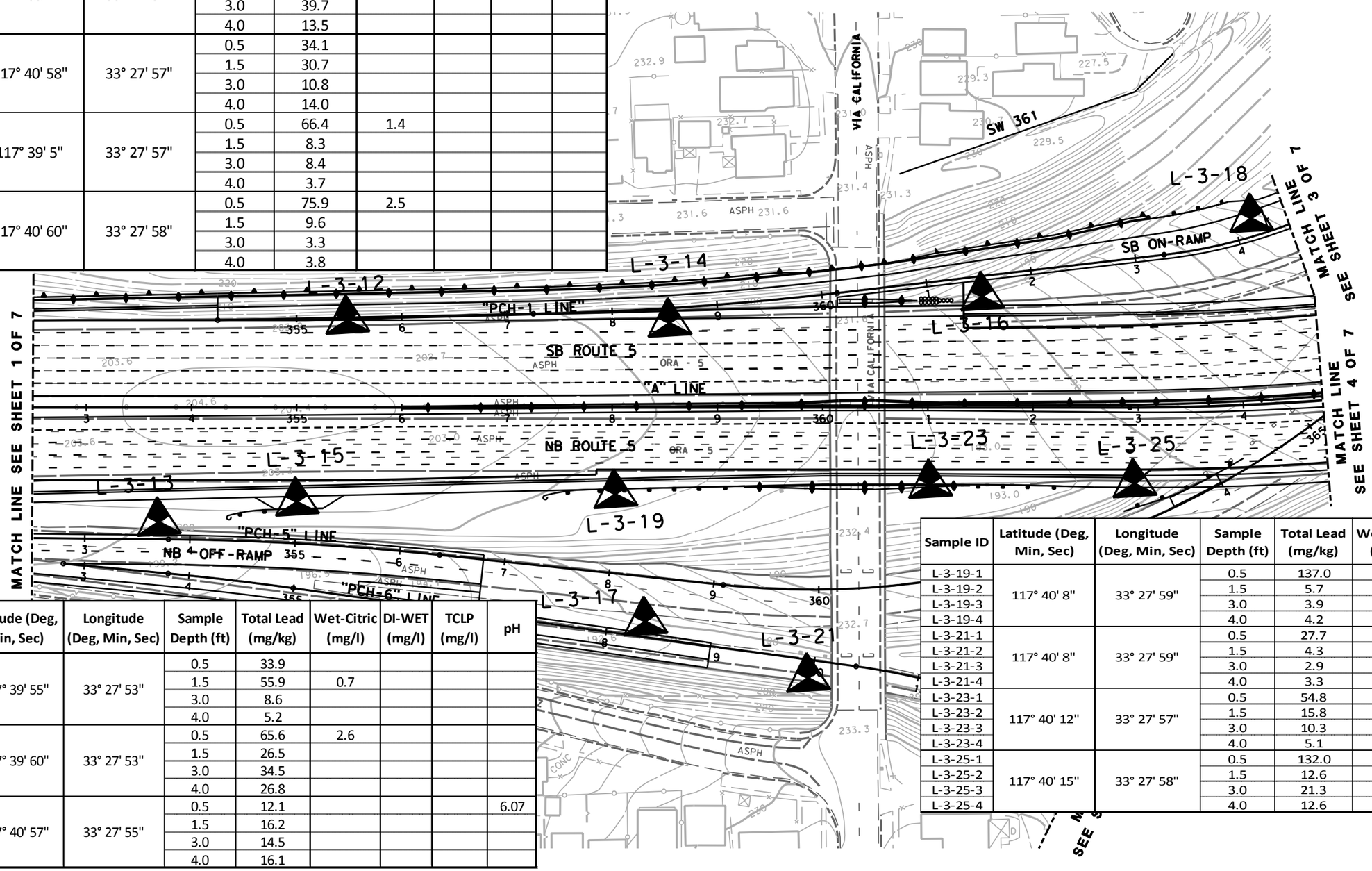
INTERSTATE 5 HOV IMPROVEMENT PROJECT, SEGMENT 3

Project No.: 11-137 | Date: 03-08-2012

Exploratory Boring Location Map (1 of 7) for ADL Study

Figure 19

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-3-15-1	117° 39' 2"	33° 27' 54"	0.5	63.4	1.1			
L-3-15-2			1.5	6.1				
L-3-15-3			3.0	39.7				
L-3-15-4			4.0	13.5				
L-3-16-1	117° 40' 58"	33° 27' 57"	0.5	34.1				
L-3-16-2			1.5	30.7				
L-3-16-3			3.0	10.8				
L-3-16-4			4.0	14.0				
L-3-17-1	117° 39' 5"	33° 27' 57"	0.5	66.4	1.4			
L-3-17-2			1.5	8.3				
L-3-17-3			3.0	8.4				
L-3-17-4			4.0	3.7				
L-3-18-1	117° 40' 60"	33° 27' 58"	0.5	75.9	2.5			
L-3-18-2			1.5	9.6				
L-3-18-3			3.0	3.3				
L-3-18-4			4.0	3.8				



Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-3-12-1	117° 39' 55"	33° 27' 53"	0.5	33.9				
L-3-12-2			1.5	55.9	0.7			
L-3-12-3			3.0	8.6				
L-3-12-4			4.0	5.2				
L-3-13-1	117° 39' 60"	33° 27' 53"	0.5	65.6	2.6			
L-3-13-2			1.5	26.5				
L-3-13-3			3.0	34.5				
L-3-13-4			4.0	26.8				
L-3-14-1	117° 40' 57"	33° 27' 55"	0.5	12.1				6.07
L-3-14-2			1.5	16.2				
L-3-14-3			3.0	14.5				
L-3-14-4			4.0	16.1				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-3-19-1	117° 40' 8"	33° 27' 59"	0.5	137.0	4.5			6.4
L-3-19-2			1.5	5.7				
L-3-19-3			3.0	3.9				
L-3-19-4			4.0	4.2				
L-3-21-1	117° 40' 8"	33° 27' 59"	0.5	27.7				5.81
L-3-21-2			1.5	4.3				
L-3-21-3			3.0	2.9				
L-3-21-4			4.0	3.3				
L-3-23-1	117° 40' 12"	33° 27' 57"	0.5	54.8	1.0			
L-3-23-2			1.5	15.8				
L-3-23-3			3.0	10.3				
L-3-23-4			4.0	5.1				
L-3-25-1	117° 40' 15"	33° 27' 58"	0.5	132.0	4.6			
L-3-25-2			1.5	12.6				
L-3-25-3			3.0	21.3				
L-3-25-4			4.0	12.6				

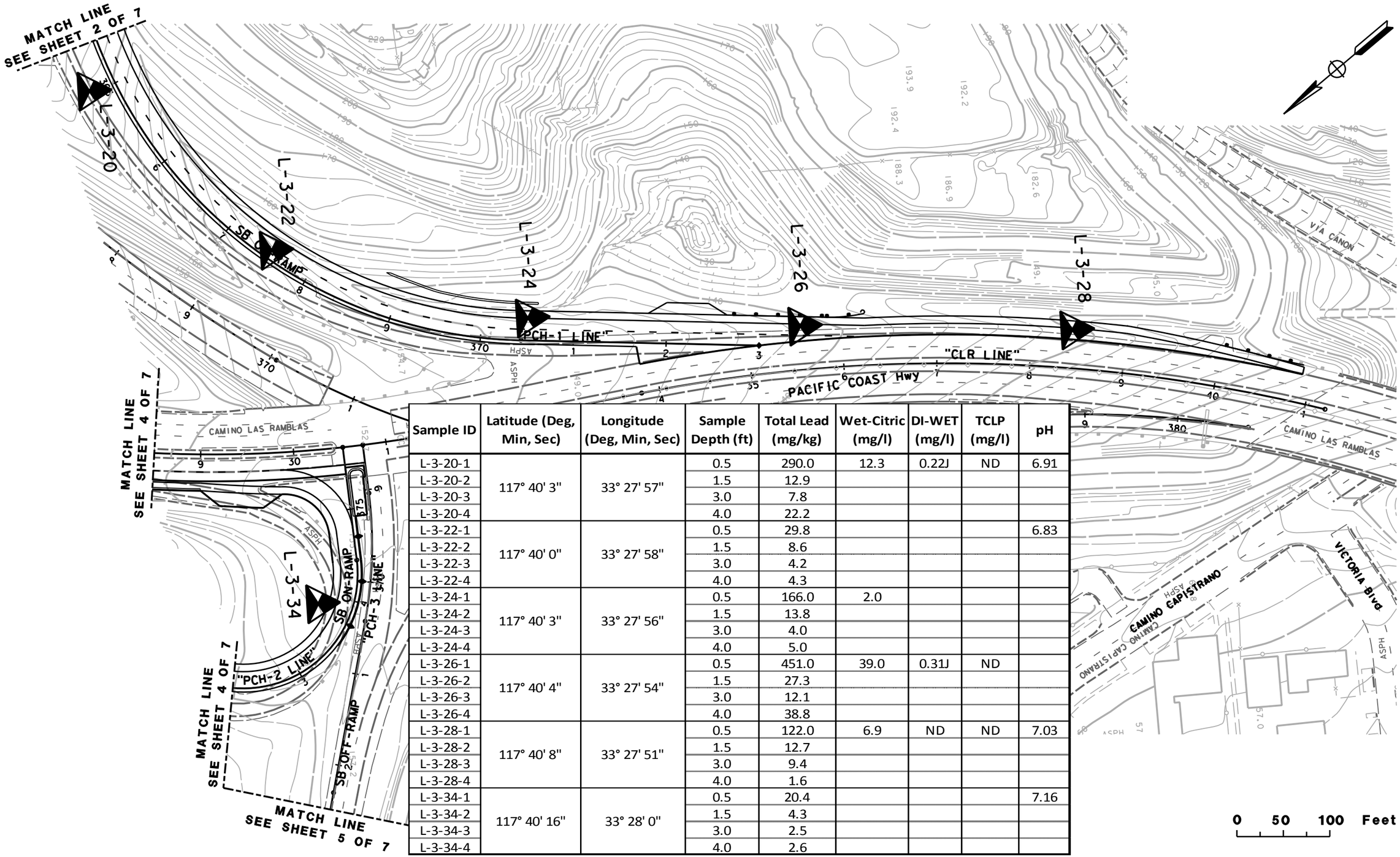
Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV IMPROVEMENT PROJECT, SEGMENT 3

Project No.: 11-137 | Date: 03-08-2012

Exploratory Boring Location Map (2 of 7) for ADL Study

Figure 20



Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-3-20-1	117° 40' 3"	33° 27' 57"	0.5	290.0	12.3	0.22J	ND	6.91
L-3-20-2			1.5	12.9				
L-3-20-3			3.0	7.8				
L-3-20-4			4.0	22.2				
L-3-22-1	117° 40' 0"	33° 27' 58"	0.5	29.8				6.83
L-3-22-2			1.5	8.6				
L-3-22-3			3.0	4.2				
L-3-22-4			4.0	4.3				
L-3-24-1	117° 40' 3"	33° 27' 56"	0.5	166.0	2.0			
L-3-24-2			1.5	13.8				
L-3-24-3			3.0	4.0				
L-3-24-4			4.0	5.0				
L-3-26-1	117° 40' 4"	33° 27' 54"	0.5	451.0	39.0	0.31J	ND	
L-3-26-2			1.5	27.3				
L-3-26-3			3.0	12.1				
L-3-26-4			4.0	38.8				
L-3-28-1	117° 40' 8"	33° 27' 51"	0.5	122.0	6.9	ND	ND	7.03
L-3-28-2			1.5	12.7				
L-3-28-3			3.0	9.4				
L-3-28-4			4.0	1.6				
L-3-34-1	117° 40' 16"	33° 28' 0"	0.5	20.4				7.16
L-3-34-2			1.5	4.3				
L-3-34-3			3.0	2.5				
L-3-34-4			4.0	2.6				

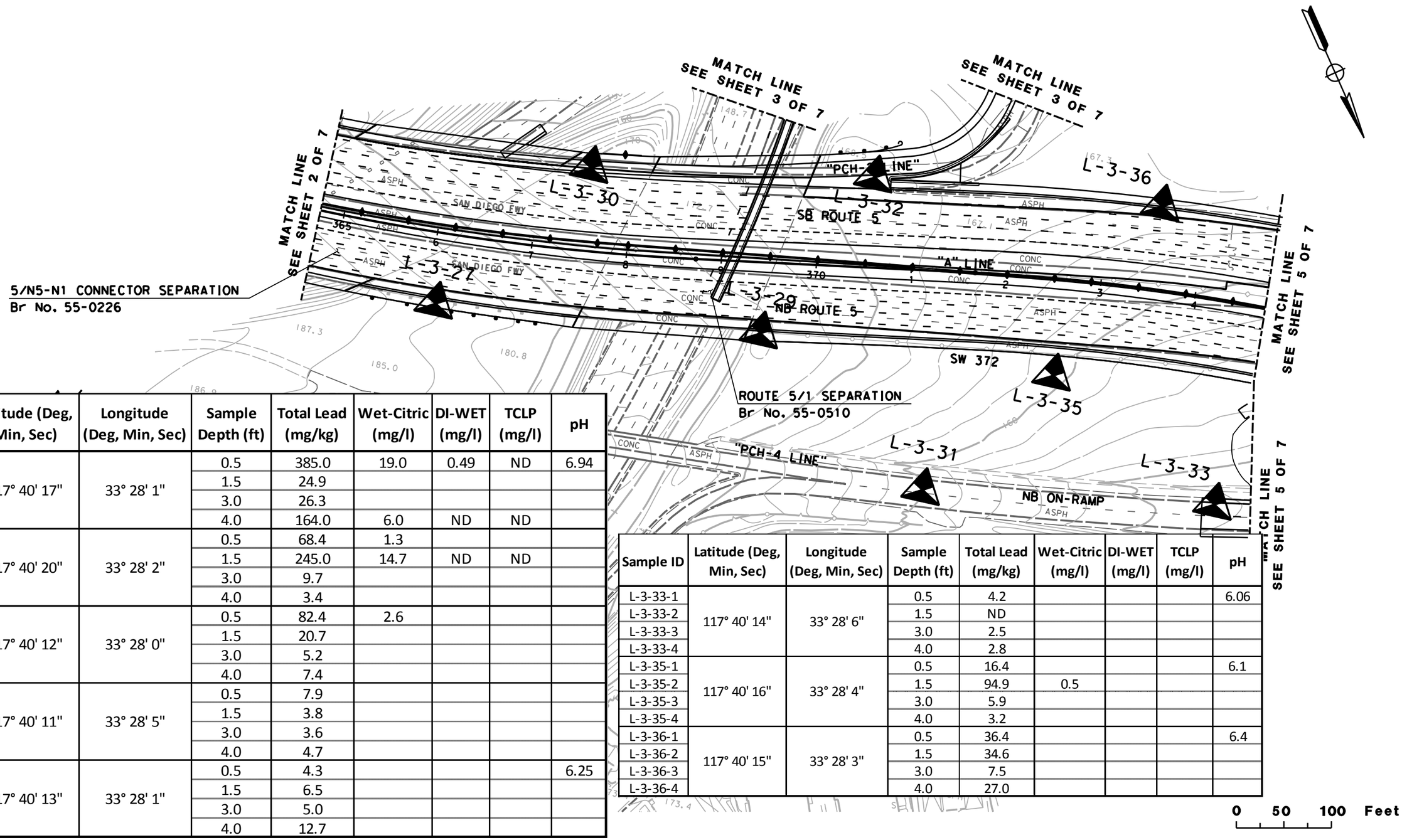
Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV IMPROVEMENT PROJECT, SEGMENT 3

Project No.: 11-137 | Date: 03-08-2012

Exploratory Boring Location Map (3 of 7) for ADL Study

Figure 21



Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-3-27-1	117° 40' 17"	33° 28' 1"	0.5	385.0	19.0	0.49	ND	6.94
L-3-27-2			1.5	24.9				
L-3-27-3			3.0	26.3				
L-3-27-4			4.0	164.0	6.0	ND	ND	
L-3-29-1	117° 40' 20"	33° 28' 2"	0.5	68.4	1.3			
L-3-29-2			1.5	245.0	14.7	ND	ND	
L-3-29-3			3.0	9.7				
L-3-29-4			4.0	3.4				
L-3-30-1	117° 40' 12"	33° 28' 0"	0.5	82.4	2.6			
L-3-30-2			1.5	20.7				
L-3-30-3			3.0	5.2				
L-3-30-4			4.0	7.4				
L-3-31-1	117° 40' 11"	33° 28' 5"	0.5	7.9				
L-3-31-2			1.5	3.8				
L-3-31-3			3.0	3.6				
L-3-31-4			4.0	4.7				
L-3-32-1	117° 40' 13"	33° 28' 1"	0.5	4.3				6.25
L-3-32-2			1.5	6.5				
L-3-32-3			3.0	5.0				
L-3-32-4			4.0	12.7				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-3-33-1	117° 40' 14"	33° 28' 6"	0.5	4.2				6.06
L-3-33-2			1.5	ND				
L-3-33-3			3.0	2.5				
L-3-33-4			4.0	2.8				
L-3-35-1	117° 40' 16"	33° 28' 4"	0.5	16.4				6.1
L-3-35-2			1.5	94.9	0.5			
L-3-35-3			3.0	5.9				
L-3-35-4			4.0	3.2				
L-3-36-1	117° 40' 15"	33° 28' 3"	0.5	36.4				6.4
L-3-36-2			1.5	34.6				
L-3-36-3			3.0	7.5				
L-3-36-4			4.0	27.0				

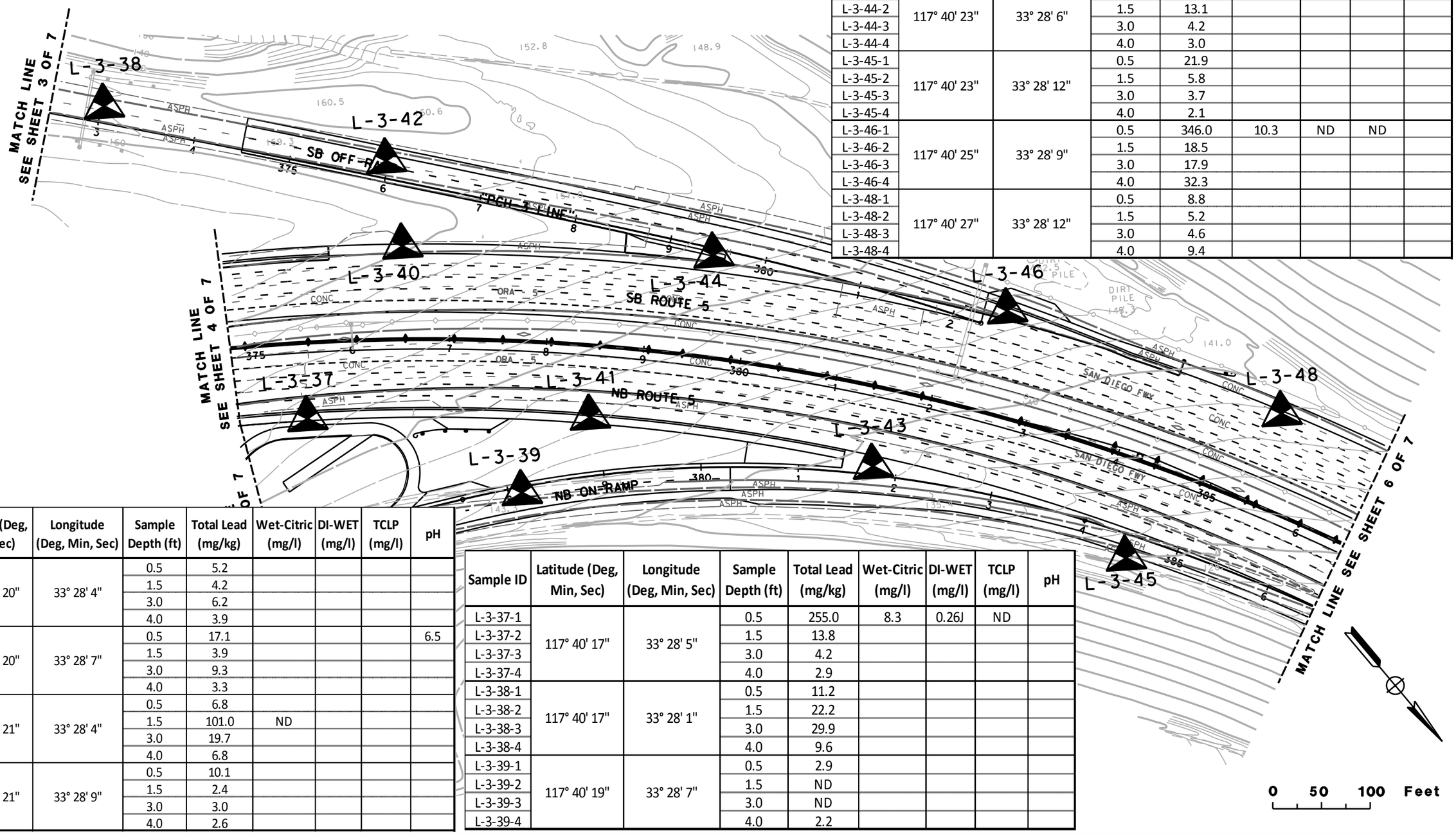
Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV IMPROVEMENT PROJECT, SEGMENT 3

Project No.: 11-137 | Date: 03-08-2012

Exploratory Boring Location Map (4 of 7) for ADL Study

Figure 22



Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-3-44-1	117° 40' 23"	33° 28' 6"	0.5	83.3	2.2			6.36
L-3-44-2			1.5	13.1				
L-3-44-3			3.0	4.2				
L-3-44-4			4.0	3.0				
L-3-45-1	117° 40' 23"	33° 28' 12"	0.5	21.9				
L-3-45-2			1.5	5.8				
L-3-45-3			3.0	3.7				
L-3-45-4			4.0	2.1				
L-3-46-1	117° 40' 25"	33° 28' 9"	0.5	346.0	10.3	ND	ND	
L-3-46-2			1.5	18.5				
L-3-46-3			3.0	17.9				
L-3-46-4			4.0	32.3				
L-3-48-1	117° 40' 27"	33° 28' 12"	0.5	8.8				
L-3-48-2			1.5	5.2				
L-3-48-3			3.0	4.6				
L-3-48-4			4.0	9.4				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-3-40-1	117° 40' 20"	33° 28' 4"	0.5	5.2				
L-3-40-2			1.5	4.2				
L-3-40-3			3.0	6.2				
L-3-40-4			4.0	3.9				
L-3-41-1	117° 40' 20"	33° 28' 7"	0.5	17.1				6.5
L-3-41-2			1.5	3.9				
L-3-41-3			3.0	9.3				
L-3-41-4			4.0	3.3				
L-3-42-1	117° 40' 21"	33° 28' 4"	0.5	6.8				
L-3-42-2			1.5	101.0	ND			
L-3-42-3			3.0	19.7				
L-3-42-4			4.0	6.8				
L-3-43-1	117° 40' 21"	33° 28' 9"	0.5	10.1				
L-3-43-2			1.5	2.4				
L-3-43-3			3.0	3.0				
L-3-43-4			4.0	2.6				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-3-37-1	117° 40' 17"	33° 28' 5"	0.5	255.0	8.3	0.26J	ND	
L-3-37-2			1.5	13.8				
L-3-37-3			3.0	4.2				
L-3-37-4			4.0	2.9				
L-3-38-1	117° 40' 17"	33° 28' 1"	0.5	11.2				
L-3-38-2			1.5	22.2				
L-3-38-3			3.0	29.9				
L-3-38-4			4.0	9.6				
L-3-39-1	117° 40' 19"	33° 28' 7"	0.5	2.9				
L-3-39-2			1.5	ND				
L-3-39-3			3.0	ND				
L-3-39-4			4.0	2.2				

Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

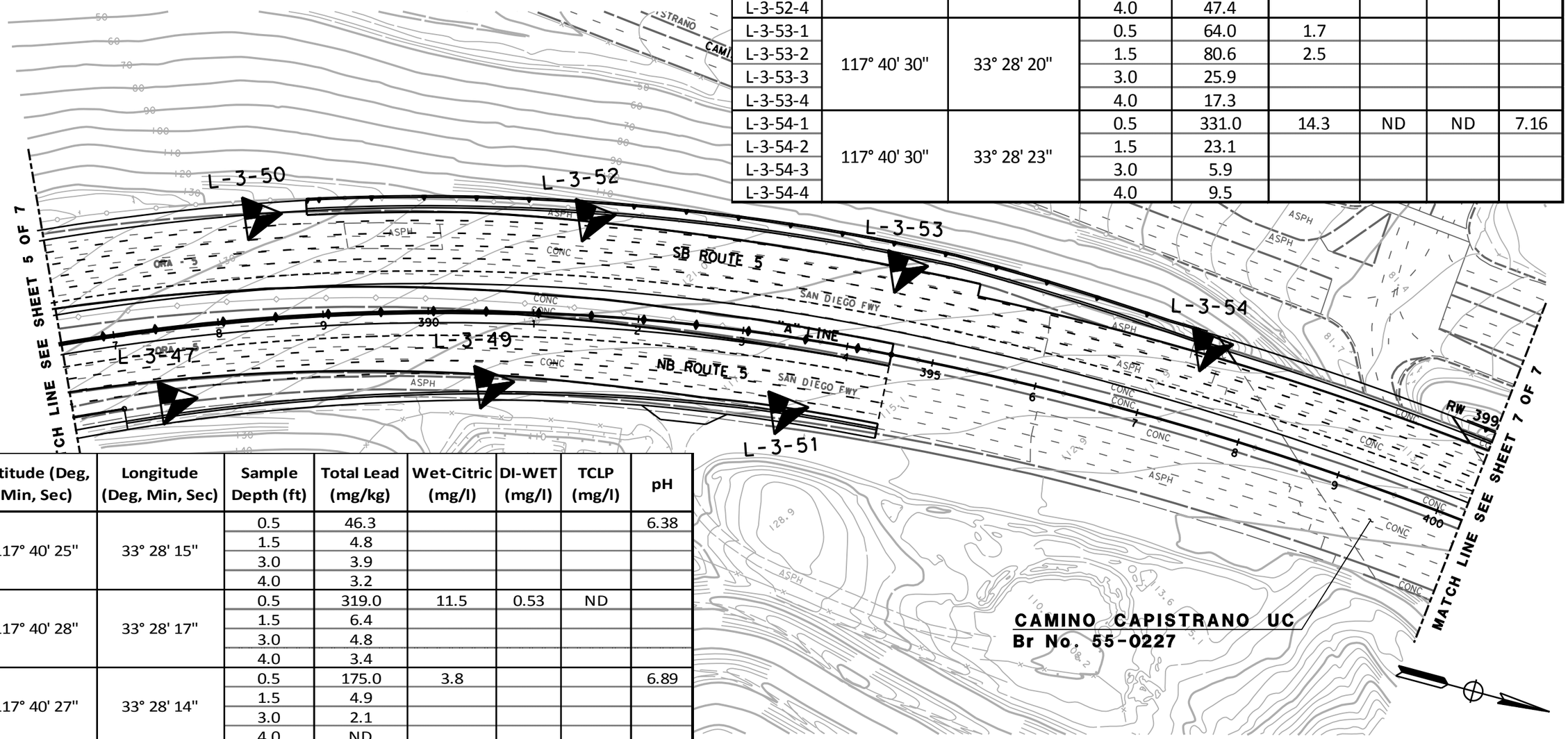
INTERSTATE 5 HOV IMPROVEMENT PROJECT, SEGMENT 3

Project No.: 11-137 | Date: 03-08-2012

Exploratory Boring Location Map (5 of 7) for ADL Study

Figure 23

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-3-52-1	117° 40' 28"	33° 28' 17"	0.5	243.0	7.9	ND	ND	
L-3-52-2			1.5	46.6				
L-3-52-3			3.0	19.8				
L-3-52-4			4.0	47.4				
L-3-53-1	117° 40' 30"	33° 28' 20"	0.5	64.0	1.7			
L-3-53-2			1.5	80.6	2.5			
L-3-53-3			3.0	25.9				
L-3-53-4			4.0	17.3				
L-3-54-1	117° 40' 30"	33° 28' 23"	0.5	331.0	14.3	ND	ND	7.16
L-3-54-2			1.5	23.1				
L-3-54-3			3.0	5.9				
L-3-54-4			4.0	9.5				



Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-3-47-1	117° 40' 25"	33° 28' 15"	0.5	46.3				6.38
L-3-47-2			1.5	4.8				
L-3-47-3			3.0	3.9				
L-3-47-4			4.0	3.2				
L-3-49-1	117° 40' 28"	33° 28' 17"	0.5	319.0	11.5	0.53	ND	
L-3-49-2			1.5	6.4				
L-3-49-3			3.0	4.8				
L-3-49-4			4.0	3.4				
L-3-50-1	117° 40' 27"	33° 28' 14"	0.5	175.0	3.8			6.89
L-3-50-2			1.5	4.9				
L-3-50-3			3.0	2.1				
L-3-50-4			4.0	ND				
L-3-51-1	117° 40' 29"	33° 28' 20"	0.5	68.1	2.6			6.06
L-3-51-2			1.5	11.0				
L-3-51-3			3.0	6.7				
L-3-51-4			4.0	4.7				

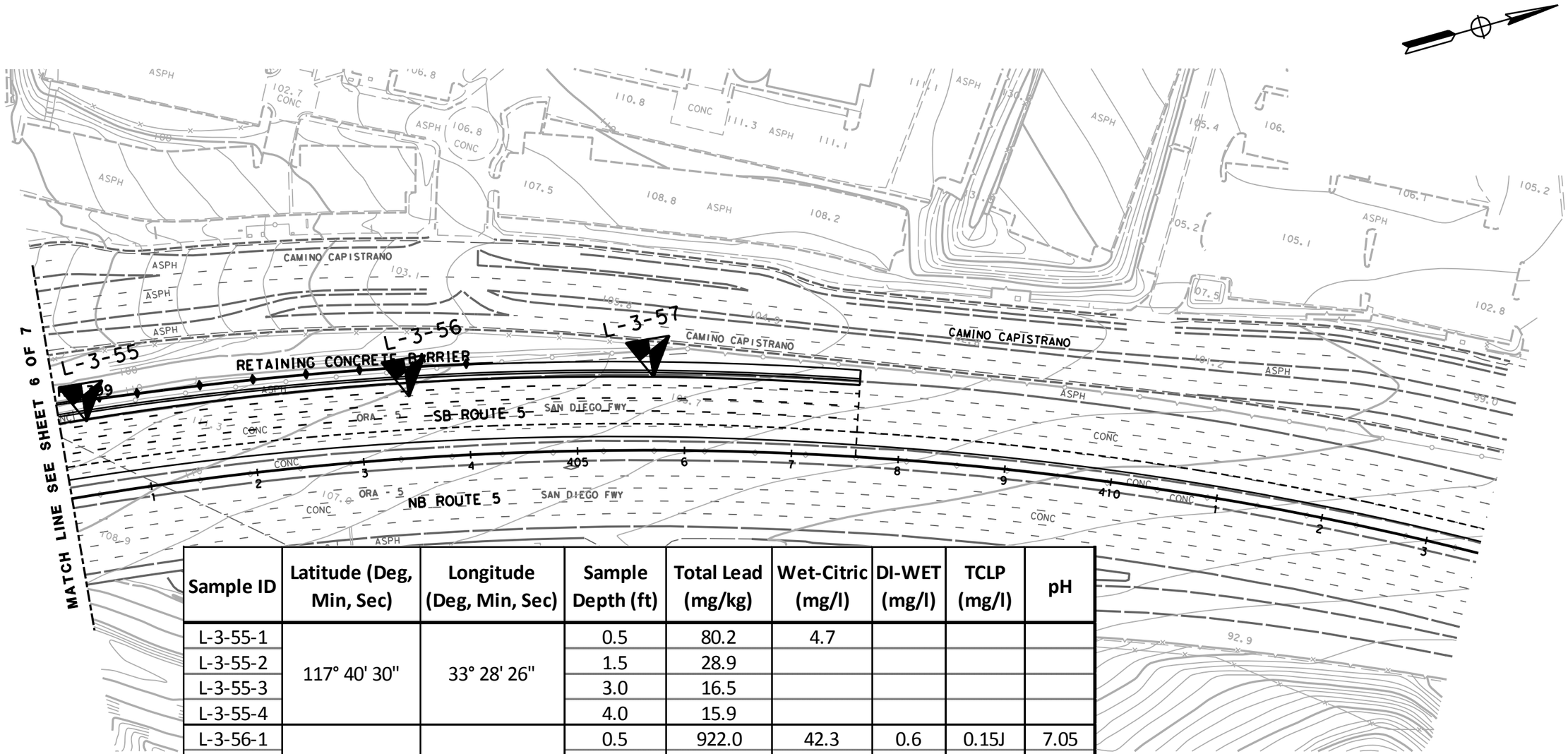
Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV IMPROVEMENT PROJECT, SEGMENT 3

Project No.: 11-137 | Date: 03-08-2012

Exploratory Boring Location Map (6 of 7) for ADL Study

Figure 24



Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-3-55-1	117° 40' 30"	33° 28' 26"	0.5	80.2	4.7			
L-3-55-2			1.5	28.9				
L-3-55-3			3.0	16.5				
L-3-55-4			4.0	15.9				
L-3-56-1	117° 40' 30"	33° 28' 29"	0.5	922.0	42.3	0.6	0.15J	7.05
L-3-56-2			1.5	30.3				
L-3-56-3			3.0	20.0				
L-3-56-4			4.0	91.4	2.6			
L-3-57-1	117° 40' 29"	33° 28' 32"	0.5	355.0	15.4	0.30J	ND	
L-3-57-2			1.5	87.3	3.5			
L-3-57-3			3.0	5.6				
L-3-57-4			4.0	21.1				

Earth Mechanics, Inc.
Geotechnical & Earthquake Engineering

INTERSTATE 5 HOV IMPROVEMENT PROJECT, SEGMENT 3

Project No.: 11-137 | Date: 03-08-2012

Exploratory Boring Location Map (7 of 7) for ADL Study

Figure 25

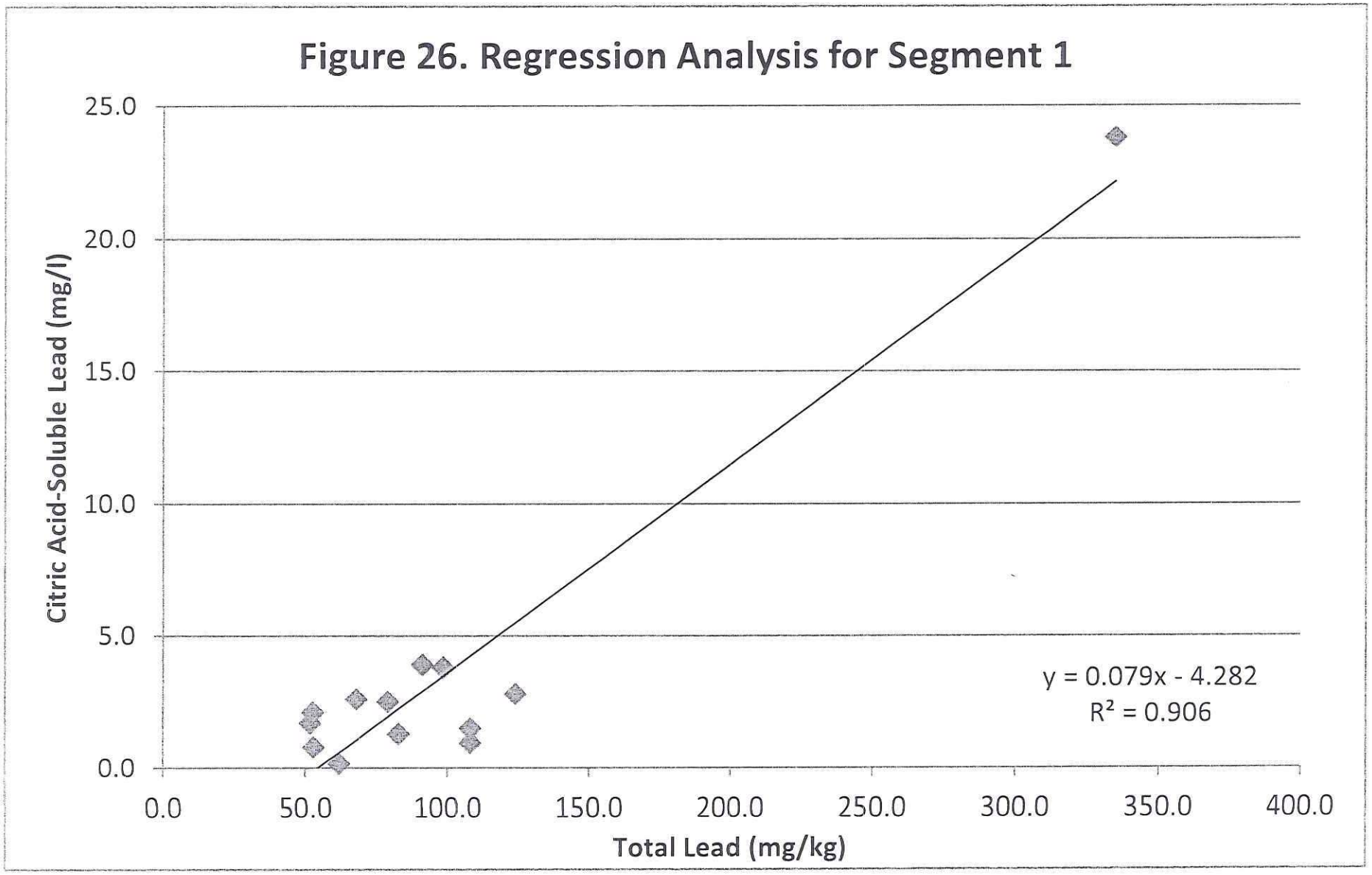


Figure 26. Regression Analysis for Segment 1
Citric Acid-Soluble Lead (mg/l)
25.0
20.0
15.0
10.0
5.0
0.0
0.0
50.0
100.0
150.0
200.0
250.0
300.0
350.0
400.0
Total Lead (mg/kg)
y = 0.079x - 4.282
R² = 0.906

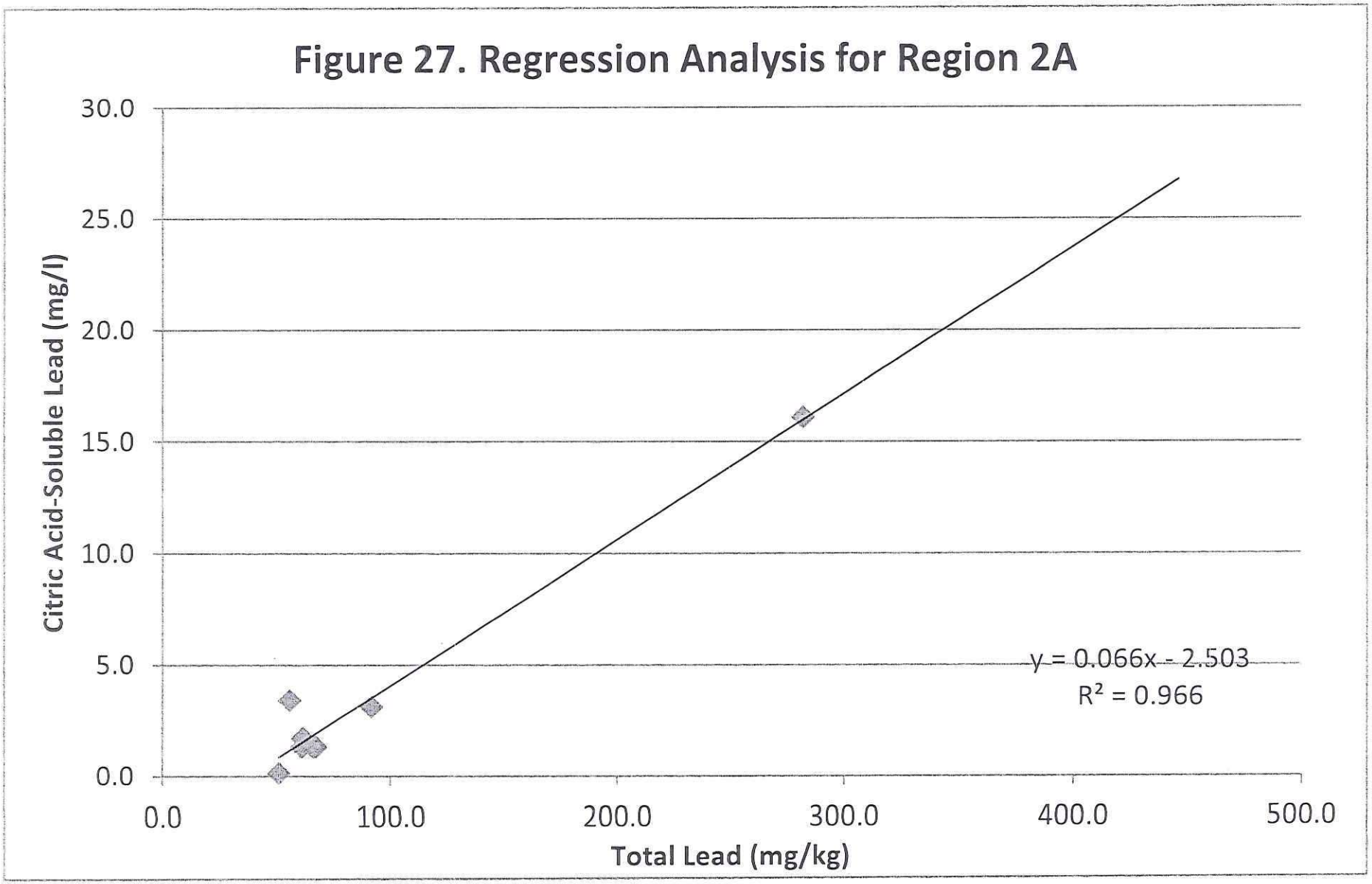


Figure 27. Regression Analysis for Region 2A
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Citric Acid-Soluble Lead (mg/l)
0.0
100.0
200.0
300.0
400.0
500.0
Total Lead (mg/kg)
y = 0.066x - 2.503
R² = 0.966

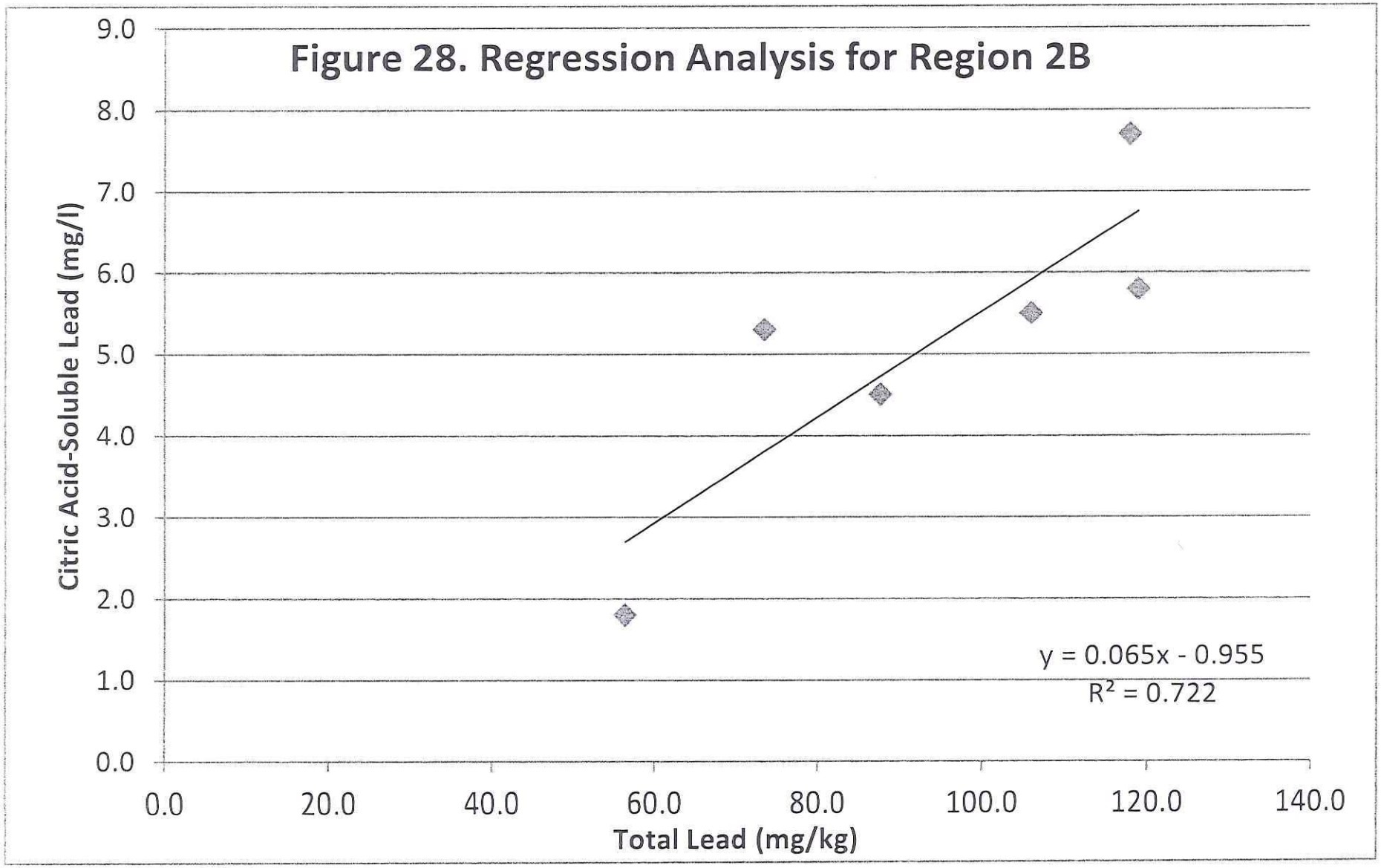


Figure 28. Regression Analysis for Region 2B
Citric Acid-Soluble Lead (mg/l)
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0
20.0
40.0
60.0
80.0
100.0
120.0
140.0
Total Lead (mg/kg)
y = 0.065x - 0.955
R² = 0.722

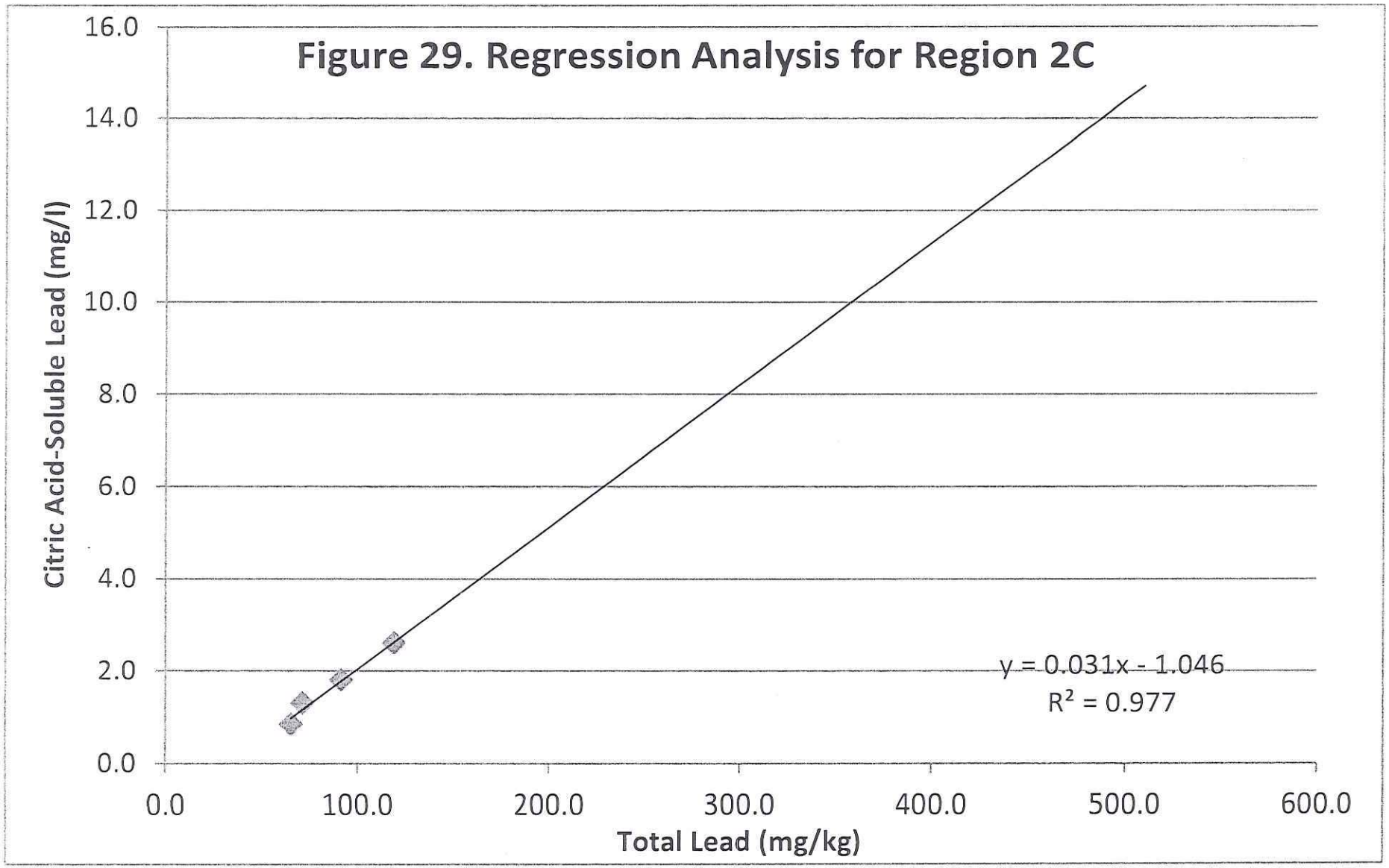


Figure 29. Regression Analysis for Region 2C
Citric Acid-Soluble Lead (mg/l)
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
0.0
100.0
200.0
300.0
400.0
500.0
600.0
Total Lead (mg/kg)
y = 0.031x - 1.046
R² = 0.977

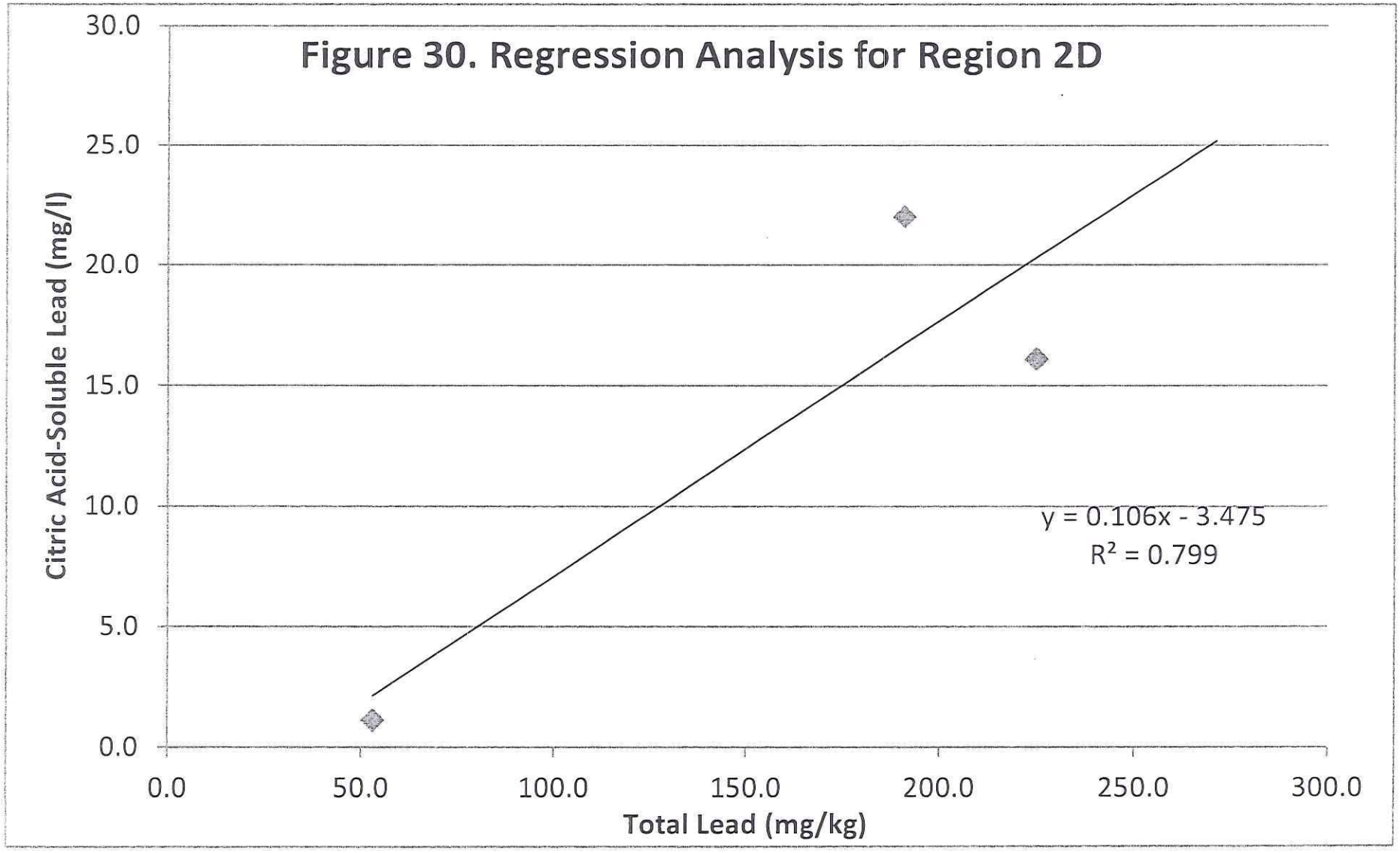


Figure 30. Regression Analysis for Region 2D
Citric Acid-Soluble Lead (mg/l)
30.0
25.0
20.0
15.0
10.0
5.0
0.0
0.0
50.0
100.0
150.0
200.0
250.0
300.0
Total Lead (mg/kg)
y = 0.106x - 3.475
R² = 0.799

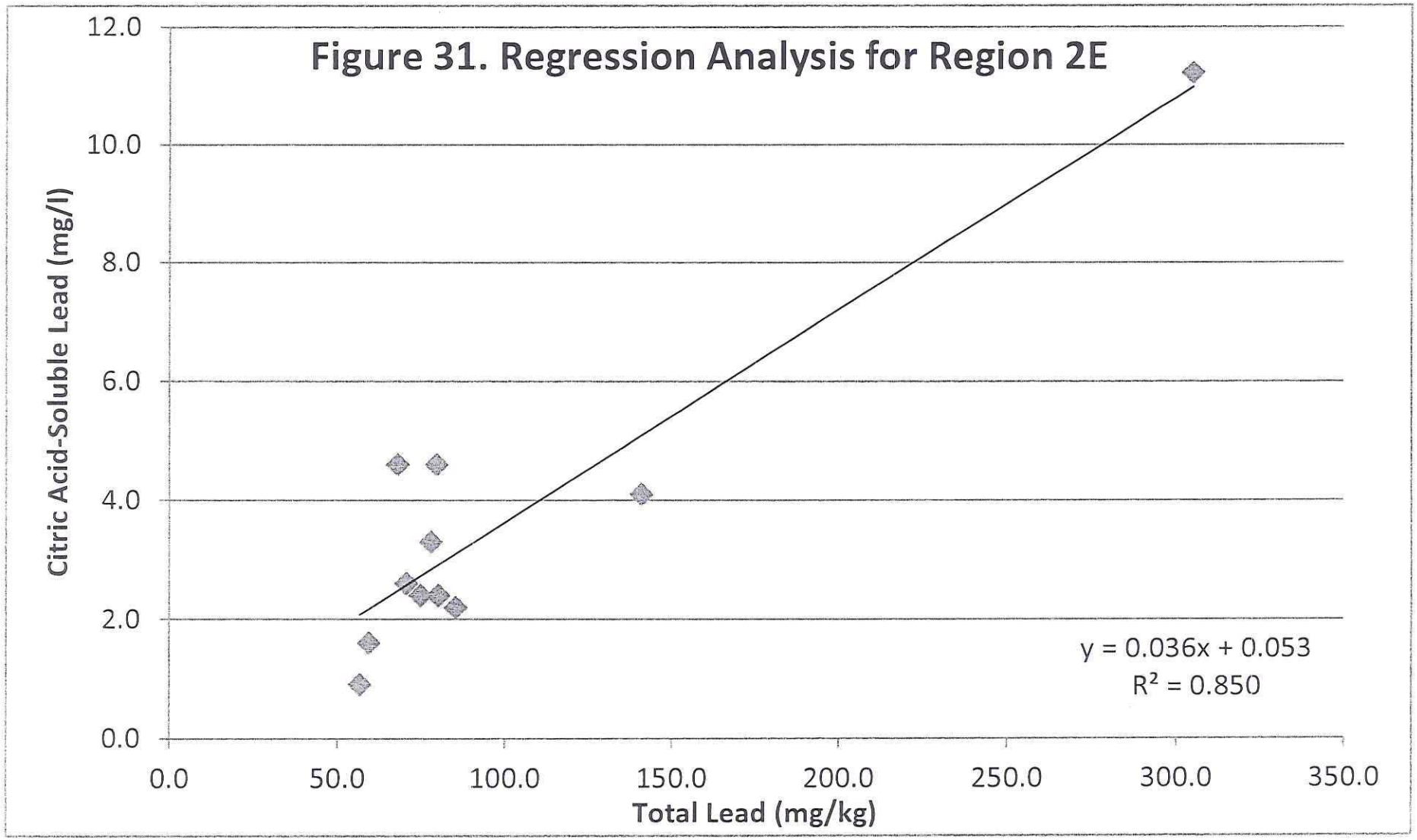


Figure 31. Regression Analysis for Region 2E
Citric Acid-Soluble Lead (mg/l)
12.0
10.0
8.0
6.0
4.0
2.0
0.0
0.0
50.0
100.0
150.0
200.0
250.0
300.0
350.0
Total Lead (mg/kg)
y = 0.036x + 0.053
R² = 0.850

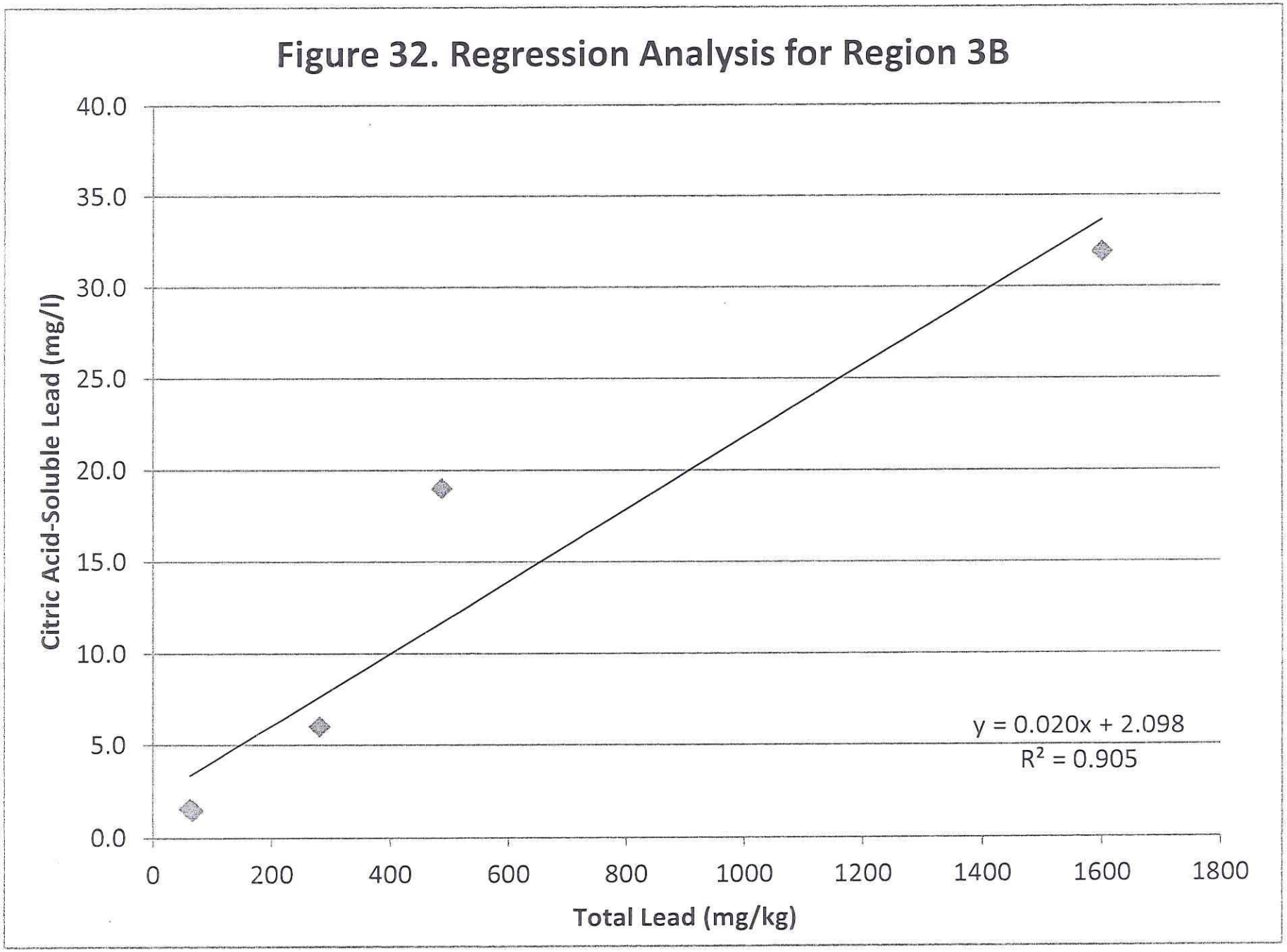


Figure 32. Regression Analysis for Region 3B
Citric Acid-Soluble Lead (mg/l)
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
0
200
400
600
800
1000
1200
1400
1600
1800
Total Lead (mg/kg)
y = 0.020x + 2.098
R² = 0.905

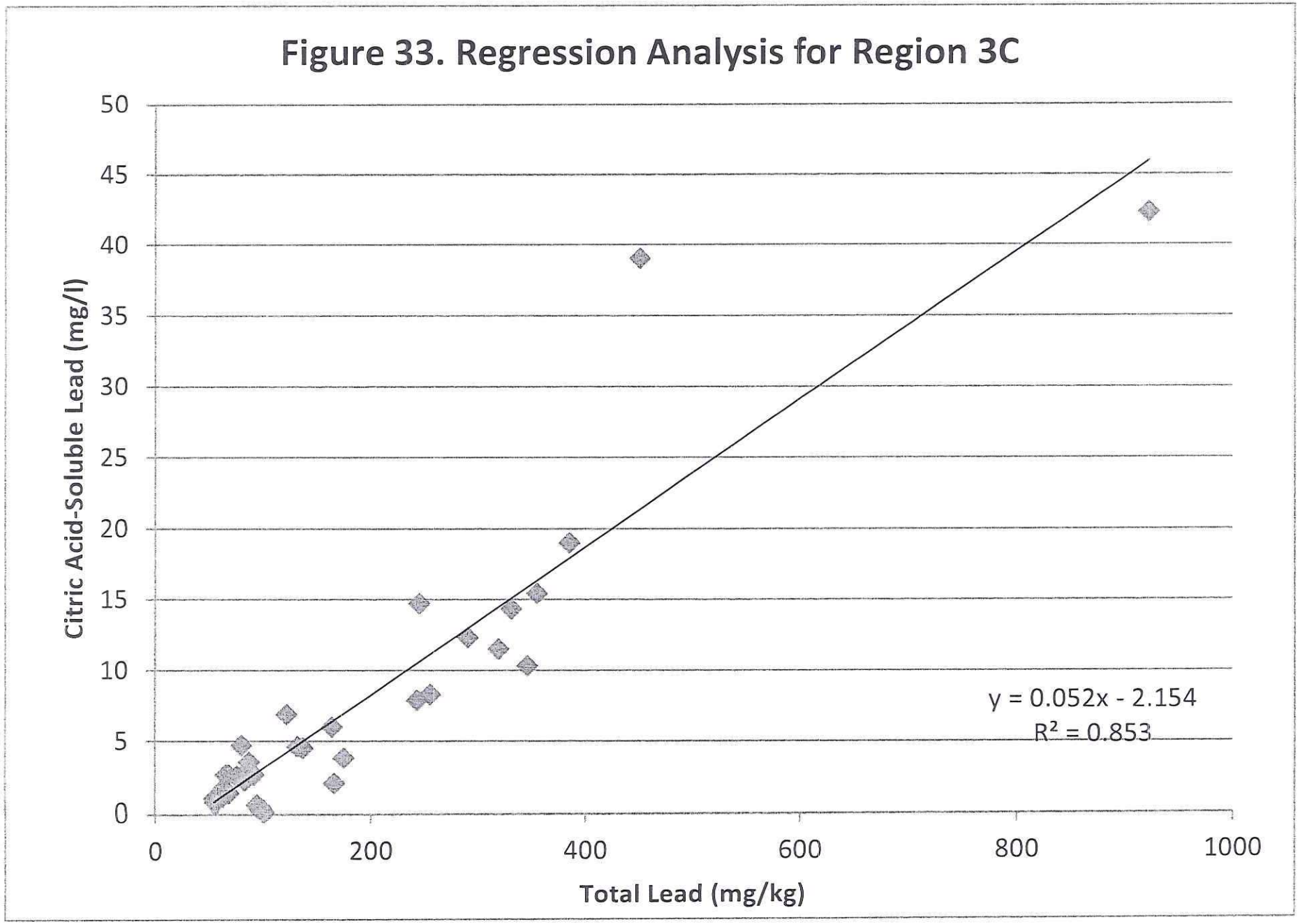


Figure 33. Regression Analysis for Region 3C
Citric Acid-Soluble Lead (mg/l)
50
45
40
35
30
25
20
15
10
5
0
0
200
400
600
800
1000
Total Lead (mg/kg)
y = 0.052x - 2.154
R² = 0.853

APPENDIX A

CHAIN-OF-CUSTODY FORM

SEGMENT 1

BETWEEN STA. 163+00 AND STA. 210+00 ("A" LINE)

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201140

Client: EARTH MECHANICS, INC.

Address:

Report Attention: Raja

Phone:

Fax:

Sampled by: R. Y.

Project Name/No.: 11-135

Project Site: I-5 HOV Lane

Analyses Requested: TPH-Gasoline; TPH-Diesel; 8260B (BTEX, Oxygenates); 8260B (VOCs); 8270C (SVOCs); CAM Metals; 8082 (PCBs); Total Lead (b/o); pH

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (b/o)	pH				Remark
L-1-40-1	EA201140-1	1-27-12	0920	Soil	None	1 Ziplock													Test total lead on all sample, please save samples for future tests
L-1-40-2	2		0930																
L-1-40-3	3		0945																
L-1-40-4	4		1005																
L-1-38-1	5		1020												X				
L-1-38-2	6		1030																
L-1-38-3	7		1050																
L-1-38-4	8		1110																
L-1-36-1	9		1120																
L-1-36-2	10		1125																
L-1-36-3	11		1145																
L-1-36-4	12		1210																
L-1-32-1	13		1300																
L-1-32-2	14		1310																
L-1-32-3	15		1330																
L-1-32-4	16		1350																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-28-12	1000	[signature]	AZC	1-28-12	1000
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, P=Plastic bottle, A=Air Bag, V=VOA vial, G=Glass bottle

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201140

Client: EARTH MECHANICS, INC.

Address

Report Attention: Raja | Phone | Fax | Sampled by: R. G.

Project Name/No.: 11-135 | Project Site: I-5 HOV Lane

Analyses Requested: TPH-Gasoline, TPH-Diesel, 8260B (BTEX, Oxygenates), 8260B (VOCs), 8270C (SVOCs), CAM Metals, 8082 (PCBs), Total Lead (6010), PH

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	PH				Remark
L-1-28-1	EA201140-17	1-27-12	1400	Soil	none	4oz. jar													Test total lead on all samples, please save samples for future tests
L-1-28-2	18	↓	1410	↓	↓	↓								↓	X				
L-1-28-3	19		1430																
L-1-28-4	20		1450																
L-1-24-1	21		1500																
L-1-24-2	22		1510																
L-1-24-3	23		1525																
L-1-24-4	24	↓	1545	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-28-12	1000	[signature]	ABC	1-28-12	1000
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA2020009

Client: EARTH MECHANICS, INC

Address

Report Attention: Rajia

Phone:

Fax:

Sampled by: R. Y.

Project Name/No.: 11-135

Project Site: I-5 HOV Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-1-20-1	EA2020009-1	1-27-12	1610	Soil	None	4oz. jar									X				Test total lead on all samples, please Devil samples for future tests
L-1-20-2	2		1620																
L-1-20-3	3		1635																
L-1-20-4	4		1650																
L-1-16-1	5	1-30-12													X				
L-1-16-2	6																		
L-1-16-3	7																		
L-1-16-4	8																		
L-1-12-1	9																		
L-1-12-2	10																		
L-1-12-3	11																		
L-1-12-4	12																		
L-1-10-1	13																		
L-1-10-2	14														X				
L-1-10-3	15																		
L-1-10-4	16																		

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
Rajiyed Yo	EMI	2-4-12	1010	[illegible]	ASC	2/4/12	10:10
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA202009

Client: EARTH MECHANICS, INC.

Address

Report Attention: Rafa

Phone

Fax

Sampled by: R. G.

Project Name/No.: 11-135

Project Site: I-5 HOV Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH			Remark
L-1-8-1	EA202009-17	1-30-12	1020	Soil	none	4 g. jar								↓				Test total lead on all sample, please keep samples for future tests
L-1-8-2	18	↓	1025	↓	↓	↓												
L-1-8-3	19		1040															
L-1-8-4	20		1100															
L-1-6-1	21		1120												X			
L-1-6-2	22		1130															
L-1-6-3	23		1145															
L-1-6-4	24		1210															
L-1-4-1	25		1300															
L-1-4-2	26		1310															
L-1-4-3	27		1330															
L-1-4-4	28		1350															
L-1-2-1	29		1400												X			
L-1-2-2	30		1410															
L-1-2-3	31		1435															
L-1-2-4	32	↓	1450	↓	↓	↓								↓				

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
Raymond Ji	EMI	2-4-12	1010	[illegible]	ASC	2/4/12	10:10
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: A=Air Bag, G=Glass bottle, M=Metal Tube, P=Plastic bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA2020009

Client: EARTH MECHANICS, INC.

Address:

Report Attention: Raja

Phone:

Fax:

Sampled by: R.J.

Project Name/No.: 11-135

Project Site: I-5 HOV Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH			Remark
L-1-1-1	EA2020009-33	1-30-12	1500	Soil	none	4oz. jar												Test total lead on all sample, please prepare samples for future tests
L-1-1-2	34	↓	1510	↓	↓	↓								↓				
L-1-1-3	35		1520															
L-1-1-4	36		1600															
L-1-3-1	37	1-31-12	0715												X			
L-1-3-2	38		0725															
L-1-3-3	39		0740															
L-1-3-4	40		0800															
L-1-5-1	41		0815															
L-1-5-2	42		0825															
L-1-5-3	43		0845															
L-1-5-4	44		0905															
L-1-7-1	45		0915															
L-1-7-2	46		0920												X			
L-1-7-3	47		0940															
L-1-7-4	48	↓	1000	↓	↓	↓								↓				

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
Raymond R.J.	EMI	2-4-12	1010	[illegible]	ABC	2/4/12	10:10
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA202009

Client: EARTH MECHANICS, INC

Address:

Report Attention: Raja

Phone:

Fax:

Sampled by: R.Y.

Project Name/No.: 11-135

Project Site: I-5 HOV Lane

Analyses Requested

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH			Remark
L-1-9-1	EA202009-49	3/12	1015	Soil	None	4oz. jar												Test total lead on all sample, please save samples for future tests
L-1-9-2	50		1025															
L-1-9-3	51		1040															
L-1-9-4	52		1100															
L-1-11-1	53		1120												X			
L-1-11-2	54		1130															
L-1-11-3	55		1150															
L-1-11-4	56		1210															
L-1-13-1	57		1300															
L-1-13-2	58		1310															
L-1-13-3	59		1330															
L-1-13-4	60		1350															
L-1-17-1	61		1400												X			
L-1-17-2	62		1410															
L-1-17-3	63		1425															
L-1-17-4	64		1440															

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	2-4-12	1010	[signature]	ABC	2/4/12	10:10
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA202009

Client: EARTH MECHANICS, INC.

Address:

Report Attention: Raja

Phone:

Fax:

Sampled by: RY

Project Name/No.: 11-135

Project Site: I-5 HOV Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH			Remark
L-1-21-1	EA202009-65	1-31-12	1500	Soil	none	4 oz. jar								↓				Test total lead on all sample, please save samples for future tests
L-1-21-2	66	↓	1510	↓	↓	↓												
L-1-21-3	67		1530															
L-1-21-4	68	↓	1550															
L-1-25-1	69	2-1-12	0730												X			
L-1-25-2	70	↓	0740															
L-1-25-3	71		0755															
L-1-25-4	72		0815															
L-1-29-1	73		0830															
L-1-29-2	74		0840															
L-1-29-3	75		0900															
L-1-29-4	76		0920															
L-1-33-1	77		0930												X			
L-1-33-2	78		0940															
L-1-33-3	79		0950															
L-1-33-4	80	↓	1010	↓	↓	↓								↓				

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	2-4-12	1010	[signature]	ABC	2/4/12	10:10
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA202009

Client: EARTH MECHANICS INC.

Address

Report Attention: Raja

Phone:

Fax:

Sampled by: R. J.

Project Name/No.: 11-135

Project Site: I-5 HOV Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-1-35-1	EA202009-81	2-1-12	1030	Soil	None	4oz jar													Test total lead on all sample, please save samples for future tests
L-1-35-2	82		1040																
L-1-35-3	83		1055																
L-1-35-4	84		1115																
L-1-37-1	85		1130																
L-1-37-2	86		1140																
L-1-37-3	87		1200																
L-1-37-4	88		1220																
L-1-39-1	89		1300																
L-1-39-2	90		1310																
L-1-39-3	91		1335																
L-1-39-4	92		1350																
L-1-41-1	93		1400												X				
L-1-41-2	94		1410																
L-1-41-3	95		1425																
L-1-41-4	96		1440																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	2-4-12	1010	[signature]	ABC	2/4/12	10:10

Container types: A=Air Bag, G=Glass bottle, M=Metal Tube, P=Plastic bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense. Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA202009

Client: EARTH MECHANICS, INC

Address

Report Attention: Raja

Phone

Fax

Sampled by: R.Y.

Project Name/No.: 11-135

Project Site: I-5 HOV Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-1-34-1	EA202009-97	2-1-12	1500	Soil	None	4 oz. jar									X				Test total lead on all sample, please save samples for future tests
L-1-34-2	98	↓	1510	↓	↓	↓								↓					
L-1-34-3	99		1525																
L-1-34-4	100		1545																
L-1-30-1	101	2-2-12	0730																
L-1-30-2	102		0740																
L-1-30-3	103		0755																
L-1-30-4	104		0815																
L-1-26-1	105		0830												X				
L-1-26-2	106		0840																
L-1-26-3	107		0900																
L-1-26-4	108		0920																
L-1-22-1	109		0925																
L-1-22-2	110		0935																
L-1-22-3	111		0950																
L-1-22-4	112	↓	1010	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	2-4-12	1010	[signature]	ABC	2/4/12	10:10
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA202009

Client: EARTH MECHANICS, Inc.

Address

Report Attention: Raja

Phone

Fax

Sampled by: R. Y.

Project Name/No.: 11-135

Project Site: I-5 HOV Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-1-18-1	EA202009-113	2-2-12	1030	Soil	None	4 oz. jar								✓					Test total lead on all sample, please save samples for future tests
L-1-18-2	114	↓	1040	↓	↓	↓								↓					
L-1-18-3	115		1055																
L-1-18-4	116		1110																
L-1-14-1	117		1130																
L-1-14-2	118		1140																
L-1-14-3	119		1200																
L-1-14-4	120		1215																
L-1-15-1	121		1300																
L-1-15-2	122		1310																
L-1-15-3	123		1325																
L-1-15-4	124		1345																
L-1-19-1	125		1400																
L-1-19-2	126		1410												X				
L-1-19-3	127		1425																
L-1-19-4	128	↓	1445	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
Raja	EMI	2-4-12	1010	[illegible]	ABC	2/4/12	10:10
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, G=Glass bottle, P=Plastic bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA202009

Client: EARTH MECHANICS, INC.

Address

Report Attention: Reza | Phone | Fax | Sampled by: R. G.

Project Name/No.: 11-135 | Project Site: I-5 Low Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☑ Chilled ☑ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)					Remark
L-1-23-1	EA202009-129	2-2-12	1500	Soil	None	4oz. jar													Test total lead on all sample, please save samples for factory tests
L-1-23-2	130		1510																
L-1-23-3	131		1535																
L-1-23-4	132		1600																
L-1-27-1	133	2-3-12	0820																
L-1-27-2	134		0830												X				
L-1-27-3	135		0845																
L-1-27-4	136		0900																
L-1-31-1	137		0720																
L-1-31-2	138		0730																
L-1-31-3	139		0750																
L-1-31-4	140		0810																
~~D-1-1~~	141		1700	Water			✓	✓		✓		✓							
~~D-1-2~~	142		1700				✓	✓		✓		✓							
~~D-2-1~~	143		1700				✓	✓		✓		✓							
D-2-2	144		1700				✓	✓		✓		✓							

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	2-4-12	10:10	[signature]	ABC	2/4/12	10:10
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION

CHAIN OF CUSTODY RECORD

Lab Job Number EA202009A

Client: EARTH MECHANICS, INC.

Address: 17800 Newhope st. Suite B, Fountain Valley, 92708

Report Attention: Raja

Phone:

Fax:

Sampled by: R. Go

Project Name/No.: 11-135

Project Site: I-5 HOV Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☑ Chilled ☒ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)						Remark
D-1-1	EA202009-141	2-3-12	1700	Water	None	4 oz. jar	✓	✓		✓		✓							
D-1-2	-142	↓	↓	↓	↓	↓	✓	✓		✓		✓							
D-2-1	-143	↓	↓	↓	↓	↓	✓	✓		✓		✓							
D-2-2	-144	↓	↓	↓	↓	↓	✓	✓		✓		✓							

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	2-4-12	1010	[signature]	ASC	2-4-12	1010
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

SEGMENT 2

BETWEEN STA. 210+00 AND STA. 340+00 ("A" LINE)

ALPHA SCIENTIFIC CORPORATION

CHAIN OF CUSTODY RECORD

Lab Job Number EA201027

Client: EARTH MECHANICS, INC.

Address: 17800 Newhope st. Suite B, Fountain Valley, 92708

Report Attention: Raja

Phone: 714-751-3826

Fax:

Sampled by: R. G.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane Widen

Analyses Requested

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)					Remark
L-2-68-1	EA201027-1	1-6-12	1100	Soil	None	4oz jar								↓					please test all sample for total lead. save sample for future tests
L-2-68-2	-2		1105																
L-2-68-3	-3		1120																
L-2-68-4	-4		1135																
L-2-66-1	-5		1145																
L-2-66-2	-6		1155																
L-2-66-3	-7		1215																
L-2-66-4	-8		1230																
L-2-64-1	-9		1300																
L-2-64-2	-10		1310																
L-2-64-3	-11		1325																
L-2-64-4	-12		1340																
L-2-58-1	-13		1400																
L-2-58-2	-14		1405																
L-2-58-3	-15		1420																
L-2-58-4	-16	↓	1440											↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
Kenneth Jin	EMI	1-7-12	12:20	Wangei	ASC	1-7-12	12:20
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201027

Client: EARTH MECHANICS, INC.

Address

Report Attention: Raja

Phone:

Fax:

Sampled by: R. J.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-2-48-1	EA201027-17	1-6-11	1455	Soil	None	4oz jar								↓					please test all sample for total lead, save sample for future tests
L-2-48-2	-18	↓	1505	↓	↓	↓													
L-2-48-3	-19		1515																
L-2-48-4	-20		1530																
L-2-46-1	-21		1540																
L-2-46-2	-22		1550																
L-2-46-3	-23		1610																
L-2-46-4	-24	↓	1625	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-7-12	12:20	[signature]	ASC	1-7-12	12:20
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201027

Client: EARTH MECHANICS, INC.

Address:

Report Attention: Raja | Phone: | Fax: | Sampled by: R. J.

Project Name/No.: 11-137 | Project Site: I-5 Hov Lane Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (bulk)	pH				Remark
L-3-7-1	EA201027-25	12-30-11	1435	Soil	None	4oz. jar									X				Please test all sample for total lead. save sample for future tests
L-3-7-2	-26		1440																
L-3-7-3	-27		1450																
L-3-7-4	-28		1505																
L-3-9-1	-29		1520																
L-3-9-2	-30		1530																
L-3-9-3	-31		1540																
L-3-9-4	-32		1555																
L-3-5-1	-33	1-3-12	0730																
L-3-5-2	-34		0740																
L-3-5-3	-35		0800																
L-3-5-4	-36		0820																
L-3-3-1	-37		0900												X				
L-3-3-2	-38		0905																
L-3-3-3	-39		0930																
L-3-3-4	-40		0950																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-7-12	12:20	[signature]	ASC	1-7-12	12:20

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201027

Client: EARTH MECHANICS, INC

Address

Report Attention: Raja | Phone | Fax | Sampled by: R. J.

Project Name/No.: 11-137 | Project Site: I-5 HOV Lane, Wilden

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	PH				Remark
L-3-11-1	EA201027-41	1-3-12	1050	Soil	none	4 oz. jar								↓					Please Test all samples for total lead. Save samples for future tests
L-3-11-2	-42	↓	1055	↓	↓	↓													
L-3-11-3	-43		1105																
L-3-11-4	-44		1115																
L-3-13-1	-45		1120																
L-3-13-2	-46		1130																
L-3-13-3	-47		1145																
L-3-13-4	-48		1205																
L-3-15-1	-49		1250																
L-3-15-2	-50		1300																
L-3-15-3	-51		1315																
L-3-15-4	-52		1330																
L-3-19-1	-53		1430												X				
L-3-19-2	-54		1435																
L-3-19-3	-55		1445																
L-3-19-4	-56	↓	1500	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
Leonard Ojis	EMI	1-7-12	12:20	Wanger	ASC	1-7-12	12:20
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA 201027

Client: EARTH MECHANICS, INC

Address:

Report Attention: Rafa | Phone: | Fax: | Sampled by: R. J.

Project Name/No.: 11-137 | Project Site: I-5 HOV Lane, Woden

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-3-23-1	EA201027-57	1-3-12	1510	Soil	none	4oz. jar								↓					please test all sample for total lead. save sample for future tests.
L-3-23-2	58	↓	1515	↓	↓	↓								↓					
L-3-23-3	59		1525																
L-3-23-4	60		1535																
L-3-25-1	61		1540																
L-3-25-2	62		1550																
L-3-25-3	63		1605																
L-3-25-4	64	↓	1620																
L-3-21-1	65	1-4-12	0730												X				
L-3-21-2	66	↓	0740																
L-3-21-3	67		0755																
L-3-21-4	68		0805																
L-3-17-1	69		0840																
L-3-17-2	70		0850																
L-3-17-3	71		0920																
L-3-17-4	72	↓	0930	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
Reynold Jr	EMI	1-7-12	12:20	Wangei	ASC	1-7-12	12:20

Container types: A=Air Bag, G=Glass bottle, M=Metal Tube, P=Plastic bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201027

Client: EARTH MECHANICS, INC

Address:

Report Attention: Rafa | Phone: | Fax: | Sampled by: R. J.

Project Name/No.: 11-137 | Project Site: I-5 HOV Lane, Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	DH				Remark
L-3-27-1	EA201027-73	1-4-12	1000	Soil	none	4oz. Jar									X				please test all sample for total lead. save samples for future tests
L-3-27-2	-74		1010																
L-3-27-3	-75		1025																
L-3-27-4	-76		1040																
L-3-29-1	-77		1100																
L-3-29-2	-78		1110																
L-3-29-3	-79		1125																
L-3-29-4	-80		1140																
L-3-35-1	-81		1210												X				
L-3-35-2	-82		1220																
L-3-35-3	-83		1235																
L-3-35-4	-84		1250																
L-3-31-1	-85	1-5-12	0730																
L-3-31-2	-86		0735																
L-3-31-3	-87		0750																
L-3-31-4	-88		0810																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
Reynold Yi	EMI	1-7-12	12:20	Wangei	ASC	1-7-12	12:20
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201027

Client: EARTH MECHANICS, INC

Address

Report Attention: Rania

Phone

Fax

Sampled by: R. J.

Project Name/No.: 11-137

Project Site: I-5 HOV Lane, Wilden

Analyses Requested: TPH-Gasoline, TPH-Diesel, 8260B (BTEX, Oxygenates), 8260B (VOCs), 8270C (SVOCs), CAM Metals, 8082 (PCBs), Total Lead (6010), pH

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-3-33-1	EA201027-89	1-5-12	0825	Soil	none	4oz. jar									X				please test all sample for total lead
L-3-33-2	90		0835																Save sample for future tests
L-3-33-3	91		0845																
L-3-33-4	92		0900																
L-3-39-1	93		0910																
L-3-39-2	94		0920																
L-3-39-3	95		0940																
L-3-39-4	96		1005																
L-3-45-1	97		1035																
L-3-45-2	98		1040																
L-3-45-3	99		1055																
L-3-45-4	100		1115																
L-3-47-1	101		1125												X				
L-3-47-2	102		1130																
L-3-47-3	103		1145																
L-3-47-4	104		1200																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-7-12	12:20	[signature]	ASC	1-7-12	12:20

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201027

Client: EARTH MECHANICS, INC.

Address:

Report Attention: Raja

Phone:

Fax:

Sampled by: R. J.

Project Name/No.: 11-137

Project Site: I-5 HOV Lane, Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-3-49-1	EA201027-105	1-5-12	1215	Soil	none	4oz jar													Please test all sample for total lead
L-3-49-2	106		1225																Save samples for future tests
L-3-49-3	107		1240																
L-3-49-4	108		1300																
L-3-51-1	109		1335												X				
L-3-51-2	110		1340																
L-3-51-3	111		1350																
L-3-51-4	112		1405																
L-3-37-1	113	1-6-12	0730																
L-3-37-2	114		0735																
L-3-37-3	115		0745																
L-3-37-4	116		0800																
L-3-41-1	117		0815												X				
L-3-41-2	118		0820																
L-3-41-3	119		0835																
L-3-41-4	120		0850																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
Leonard Qin	EMI	1-7-12	12:20	Wagei	ASC	1-7-12	12:20
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201027

Client: EARTH MECHANICS, INC.

Address

Report Attention: Raja

Phone

Fax

Sampled by: R. J.

Project Name/No.: 11-137

Project Site: I-5 HOV Lane, Wilton

Analyses Requested: TPH-Gasoline; TPH-Diesel; 8260B (BTEX, Oxygenates); 8260B (VOCs); 8270C (SVOCs); CAM Metals; 8082 (PCBs); Total Lead (6010); pH

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-3-43-1	EA201027-121	1-6-12	0900	Soil	none	4oz. jar								↓					Please test all Sampl. for Total Lead. Save samples for future tests
L-3-43-2	122	↓	0910	↓	↓	↓													
L-3-43-3	123		0925																
L-3-43-4	124		0940																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
Leonard Ojo	EMI	1-7-12	12:20	L Wangei	ASC	1-7-12	12:20
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense. Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201089

Client: EARTH MECHANICS, INC.

Address: 17800 Newhope Street, Suite B, Fountain Valley, 92708

Report Attention: Raja

Phone: 714-751-3826

Fax: 714-751-3928

Sampled by: R. J.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☒ Normal

Sample Condition: ☐ Chilled ☒ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	RH	STLC - Lead			Remark
L-2-28-1	EA201089-1	1-16-12	0730	Soil	none	4 oz. jar										X			please run Total lead on all sample
L-2-28-2	-2		0740												X				Save samples for future tests.
L-2-28-3	-3		0755																
L-2-28-4	-4		0815																
L-2-30-1	-5		0830													X			
L-2-30-2	-6		0835													X			
L-2-30-3	-7		0850													X			
L-2-30-4	-8		0910													X			
L-2-32-1	-9		0925																
L-2-32-2	-10		0930																
L-2-32-3	-11		0950																
L-2-32-4	-12		1010																
L-2-34-1	-13		1025												X	X			
L-2-34-2	-14		1030																
L-2-34-3	-15		1045																
L-2-34-4	-16	↓	1100	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
Raymond R. Ji	EMI	1-21-12	1145	[illegible]	ASC	1/21/12	11.45
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201089

Client: EARTH MECHANICS, INC.

Address:

Report Attention: Raja

Phone:

Fax:

Sampled by: R. J.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH	STLC-Lead			Remark
L-2-36-1	EA201089-17	1-16-12	1120	Soil	None	4oz. jar													Test total lead on all samples.
L-2-36-2	-18		1125																please save samples for future tests
L-2-36-3	-19		1140																
L-2-36-4	-20		1155																
L-2-38-1	-21		1210																
L-2-38-2	-22		1220																
L-2-38-3	-23		1235													X			
L-2-38-4	-24		1255																
L-2-40-1	-25		1315																
L-2-40-2	-26		1325												X				
L-2-40-3	-27		1340																
L-2-40-4	-28		1355																
L-2-42-1	-29		1425													X			
L-2-42-2	-30		1435													X			
L-2-42-3	-31		1450																
L-2-42-4	-32		1510																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-21-12	1145	[signature]	ABC	1/21/12	11:45

Container types: M=Metal Tube, A=Air Bag, G=Glass bottle, P=Plastic bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201089

Client: EARTH MECHANICS, INC

Address:

Report Attention: Raja | Phone: | Fax: | Sampled by: R. G.

Project Name/No.: 11-136 | Project Site: I-5 HOV Lane Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	PH	STLC - Lead			Remark
L-2-44-1	EA201089-33	1-16-12	1505	Soil	None	4 oz. jar										X			Test Total lead on all sample, please save samples for future Test
L-2-44-2	-34		1530												X	X			
L-2-44-3	-35		1545																
L-2-44-4	-36		1600																
L-2-26-1	-37		1615																
L-2-26-2	-38		1625																
L-2-26-3	-39		1635																
L-2-26-4	-40		1645																
L-2-24-1	-41	1-17-12	0720																
L-2-24-2	-42		0730																
L-2-24-3	-43		0750																
L-2-24-4	-44		0810																
L-2-22-1	-45		0825												X				
L-2-22-2	-46		0835																
L-2-22-3	-47		0855																
L-2-22-4	-48		0915																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
Leonard Gs	EMI	1-21-12	1145		ASC	1/12/12	11:45
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense. Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201089

Client: EARTH MECHANICS, INC.

Address

Report Attention: Kafa

Phone

Fax

Sampled by: R. G.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-2-20-1	E201089-49	1-17-12	0930	Soil	none	4 oz. jar													Test total Lead on all sample, please save samples for future tests
L-2-20-2	-50		0940																
L-2-20-3	-51		1000																
L-2-20-4	-52		1020																
L-2-18-1	-53		1040																
L-2-18-2	-54		1050																
L-2-18-3	-55		1105																
L-2-18-4	-56		1120																
L-2-16-1	-57		1130												X				
L-2-16-2	-58		1140																
L-2-16-3	-59		1155																
L-2-16-4	-60		1215																
L-2-14-1	-61		1250																
L-2-14-2	-62		1300												X				
L-2-14-3	-63		1315																
L-2-14-4	-64		1335																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[illegible]	EMI	1-24-12	1145	[illegible]	ABC	1/24/12	11:45
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, P=Plastic bottle, A=Air Bag, V=VOA vial, G=Glass bottle

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201089

Client: EARTH MECHANICS INC.

Address:

Report Attention: Raja

Phone:

Fax:

Sampled by: R. G.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☒ Normal

Sample Condition: ☐ Chilled ☒ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-2-12-1	EA201089-65	1-17-12	1345	Soil	None	4oz. jar													Test total lead on all samples please. Save samples for future tests
L-2-12-2	-66		1350																
L-2-12-3	-67		1410																
L-2-12-4	-68		1430																
L-2-10-1	-69		1450																
L-2-10-2	-70		1455																
L-2-10-3	-71		1515																
L-2-10-4	-72		1535																
L-2-8-1	-73		1600												X				
L-2-8-2	-74		1610																
L-2-8-3	-75		1630																
L-2-8-4	-76		1645																
L-2-6-1	-77	1-18-12	0730																
L-2-6-2	-78		0740												X				
L-2-6-3	-79		0755																
L-2-6-4	-80		0815																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-21-12	1145	[signature]	ASC	1/21/12	11:45
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION

CHAIN OF CUSTODY RECORD

Lab Job Number EA201089

Client: EARTH MECHANICS, INC

Address:

Report Attention: Raja

Phone:

Fax:

Sampled by: R. J.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-2-4-1	EA201089-81	1-8-12	0830	Soil	None	4oz. jar													Test total lead on all samples, please Devise samples for future tests
L-2-4-2	82		0840																
L-2-4-3	83		0855																
L-2-4-4	84		0915																
L-2-2-1	85		0930																
L-2-2-2	86		0940																
L-2-2-3	87		0950																
L-2-2-4	88		1010																
L-2-1-1	89		1030												X				
L-2-1-2	90		1040																
L-2-1-3	91		1055																
L-2-1-4	92		1120																
L-2-3-1	93		1130																
L-2-3-2	94		1140																
L-2-3-3	95		1150																
L-2-3-4	96		1215																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-21-12	1145	[signature]	ASC	1/21/12	11:45
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201089

Client: EARTH MECHANICS, INC.

Address

Report Attention: Raja

Phone:

Fax:

Sampled by: R. G.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH			Remark
L-2-5-1	EA201089-97	1-18-12	1300	Soil	none	4oz jar												Test Total lead on all sample, please save samples for future tests.
L-2-5-2	98		1310												X			
L-2-5-3	99		1330															
L-2-5-4	100		1350															
L-2-7-1	101		1400															
L-2-7-2	102		1410															
L-2-7-3	103		1425															
L-2-7-4	104		1445															
L-2-13-1	105		1500 RG												X			
L-2-13-2	106		1510															
L-2-13-3	107		1535															
L-2-13-4	108		1550															
L-2-15-1	109		1600															
L-2-15-2	110		1610															
L-2-15-3	111		1625															
L-2-15-4	112		1640															

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-21-12	1145	[signature]	ASC	1/21/12	11:45

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201089

Client: EARTH MECHANICS, INC.

Address

Report Attention: Raja

Phone

Fax

Sampled by: R. G.

Project Name/No.: 11-136

Project Site: I-5 Hoover Lane Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-2-9-1	EA201089-113	1-9-12	0715	Soil	none	4oz jar													Test Total Lead on all samples, please save samples for future tests
L-2-9-2	114		0725																
L-2-9-3	115		0740																
L-2-9-4	116		0800																
L-2-11-1	117		0815																
L-2-11-2	118		0825																
L-2-11-3	119		0835												X				
L-2-11-4	120		0855																
L-2-17-1	121		0915																
L-2-17-2	122		0925												X				
L-2-17-3	123		0940																
L-2-17-4	124		0955																
L-2-19-1	125		1020																
L-2-19-2	126		1030																
L-2-19-3	127		1045																
L-2-19-4	128		1100																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-21-12	1145	[signature]	ABC	1/21/12	1145

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201089

Client: EARTH MECHANICS, INC.

Address

Report Attention: Raja

Phone:

Fax:

Sampled by: R. J.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH			Remark
L-2-84-1	EA201089-129	1-9-12	1120	Soil	None	4oz jar												Test Total Lead on all sample, please save samples for future Tests
L-2-84-2	130		1125															
L-2-84-3	131		1140															
L-2-84-4	132		1200															
L-2-80-1	133		1215															
L-2-80-2	134		1225															
L-2-80-3	135		1240															
L-2-80-4	136		1300															
L-2-76-1	137		1330												X			
L-2-76-2	138		1340															
L-2-76-3	139		1355															
L-2-76-4	140		1410															
L-2-72-1	141		1430															
L-2-72-2	142		1440															
L-2-72-3	143		1500															
L-2-72-4	144		1515															

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-21-12	1145	[signature]	ASC	1/21/12	1145
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201089

Client: EARTH MECHANICS, INC.

Address

Report Attention: Raja

Phone:

Fax:

Sampled by: R. J.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane Widen

Analyses Requested

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH			Remark
L-2-21-1	EA201089-145	1-19-12	1535	Soil	None	4oz. jar									X			Test Total Lead on all sample, please save samples for future tests
L-2-21-2	146	↓	1545	↓	↓	↓								↓				
L-2-21-3	147	↓	1600	↓	↓	↓								↓				
L-2-21-4	148	↓	1620	↓	↓	↓								↓				
L-2-23-1	149	1-20-12	0720	↓	↓	↓								↓				
L-2-23-2	150	↓	0730	↓	↓	↓								↓				
L-2-23-3	151	↓	0745	↓	↓	↓								↓				
L-2-23-4	152	↓	0800	↓	↓	↓								↓				
L-2-25-1	153	↓	0815	↓	↓	↓								↓				
L-2-25-2	154	↓	0820	↓	↓	↓								↓				
L-2-25-3	155	↓	0835	↓	↓	↓								↓				
L-2-25-4	156	↓	0855	↓	↓	↓								↓				
L-2-27-1	157	↓	0915	↓	↓	↓								↓				
L-2-27-2	158	↓	0925	↓	↓	↓								↓				
L-2-27-3	159	↓	0940	↓	↓	↓								↓	X			
L-2-27-4	160	↓	0955	↓	↓	↓								↓				

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-21-12	1145	[signature]	ASC	1/21/12	1145
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201089

Client: EARTH MECHANICS, INC

Address

Report Attention: Roger

Phone:

Fax:

Sampled by: R. J.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH			Remark
L-2-29-1	EA201089-161	1-20-12	1015	Soil	None	4oz. jar												Test total lead on all samples, please save samples for future tests
L-2-29-2	162	↓	1025	↓	↓	↓								↓				
L-2-29-3	163		1040															
L-2-29-3	164		1100															
L-2-35-1	165		1120															
L-2-35-2	166		1130															
L-2-35-3	167		1145															
L-2-35-4	168	↓	1205	↓	↓	↓								↓				

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-21-12	1145	[signature]	ASC	1/21/12	11:45
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201139

Client: EARTH MECHANICS, INC

Address

Report Attention: Raja

Phone:

Fax:

Sampled by: R.J.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH	STLC-Lead			Remark
L-2-37-1	EA201139-1	1-20-12	1300	Soil	none	4oz jar													Test Total Lead on all sample, please save samples for future tests
L-2-37-2	-2	↓	1310	↓	↓	↓									X				
L-2-37-3	-3		1325																
L-2-37-4	-4		1345																
L-2-39-1	-5		1400																
L-2-39-2	-6		1410																
L-2-39-3	-7		1435																
L-2-39-4	-8		1450																
L-2-41-1	-9		1500												X				
L-2-41-2	-10		1510																
L-2-41-3	-11		1530																
L-2-41-4	-12	↓	1600																
L-2-47-1	-13	1-24-12	0715													X			
L-2-47-2	-14		0725													X			
L-2-47-3	-15		0740													X			
L-2-47-4	-16	↓	0800	↓	↓	↓								↓		X			

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
Leonard Jin	EMI	1-26-12	1000	[illegible]	ASC	1-26-12	1000
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, P=Plastic bottle, A=Air Bag, V=VOA vial, G=Glass bottle

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201139

Client: EARTH MECHANICS, INC

Address

Report Attention: Raja

Phone:

Fax:

Sampled by: R.Q.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	PH	STLC-Lead			Remark
L-2-49-1	EA201139-17	1-24-12	0820	Soil	None	4oz. jar										X			Test total lead on all sample, please save samples for future test
L-2-49-2	18		0830																
L-2-49-3	19		0845													X			
L-2-49-4	20		0900																
L-2-51-1	21		0920												X				
L-2-51-2	22		0930													X			
L-2-51-3	23		0940																
L-2-51-4	24		1000																
L-2-53-1	25		1020													X			
L-2-53-2	26		1030																
L-2-53-3	27		1050													X			
L-2-53-4	28		1110																
L-2-55-1	29		1120													X			
L-2-55-2	30		1125																
L-2-55-3	31		1140																
L-2-55-4	32		1200																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-28-12	1000	[signature]	AZ	1-28-12	1000
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION

CHAIN OF CUSTODY RECORD

Lab Job Number EA201139

Client: EARTH MECHANICS, INC

Address

Report Attention: Raja | Phone | Fax | Sampled by: R.Y

Project Name/No.: 11-136 | Project Site: I-5 HOV Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	CH	STLC-Lead			Remark
L-2-57-1	EA201139-33	1-24-12	1215	Soil	none	4oz. jar								↓	X				Test total lead on all sample, please save samples for future tests
L-2-57-2	34	↓	1225	↓	↓	↓								↓		X			
L-2-57-3	35		1245																
L-2-57-4	36		1310																
L-2-59-1	37		1330																
L-2-59-2	38		1340																
L-2-59-3	39		1355																
L-2-59-4	40		1415																
L-2-61-1	41		1430																
L-2-61-2	42		1440												X				
L-2-61-3	43		1455																
L-2-61-4	44		1515																
L-2-63-1	45		1530												X				
L-2-63-2	46		1540																
L-2-63-3	47		1600																
L-2-63-4	48	↓	1645	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-28-12	1000	[signature]	ABC	1-28-12	1000
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201139

Client: EARTH MECHANICS, INC

Address:

Report Attention: Raja

Phone:

Fax:

Sampled by: R. J.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-2-65-1	EA201139-49	1-25-12	0720	soil	none	4oz jar								↓					Test total lead on all samples, please save samples for future tests
L-2-65-2	50	↓	0730	↓	↓	↓													
L-2-65-3	51		0745																
L-2-65-4	52		0805																
L-2-67-1	53		0830																
L-2-67-2	54		0840																
L-2-67-3	55		0855																
L-2-67-4	56		0915																
L-2-75-1	57		0930												X				
L-2-75-2	58		0940																
L-2-75-3	59		0955																
L-2-75-4	60		1015																
L-2-79-1	61		1040																
L-2-79-2	62		1050																
L-2-79-3	63		1110																
L-2-79-4	64	↓	1130	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-28-12	1000	[signature]	ASC	1-28-12	1000

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201139

Client: EARTH MECHANICS, INC.

Address:

Report Attention: Raja | Phone: | Fax: | Sampled by: R.J.

Project Name/No.: 11-136 | Project Site: I-5 HOV Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	RH	STLC-Lead			Remark
L-2-77-1	EA201139-65	1-25-12	1140	Soil	None	4 oz. jar													Test total lead on all sample, please save samples for future tests
L-2-77-2	66		1150																
L-2-77-3	67		1210																
L-2-77-4	68		1230																
L-2-81-1	69		1300												X				
L-2-81-2	70		1310																
L-2-81-3	71		1330																
L-2-81-4	72		1350																
L-2-83-1	73		1400													X			
L-2-83-2	74		1410												X				
L-2-83-3	75		1435																
L-2-83-4	76		1450																
L-2-85-1	77		1500																
L-2-85-2	78		1510																
L-2-85-3	79		1530																
L-2-85-4	80		1550																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-28-12	1000	[signature]	AC	1-28-12	1000

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense. Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201139

Client: EARTH MECHANICS, INC.

Address:

Report Attention: Raja | Phone: | Fax: | Sampled by: R. J.

Project Name/No.: 11-136 | Project Site: I-5 HOV Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH			Test Remark
L-2-91-1	EA201139-81	1-25-12	1600	Soil	None	4oz. jar												Total Lead on all sample, please save samples for future tests
L-2-91-2	82	↓	1610	↓	↓	↓								↓				
L-2-91-3	83		1630															
L-2-91-4	84		1650															
L-2-89-1	85	1-26-12	0720															
L-2-89-2	86		0730															
L-2-89-3	87		0745															
L-2-89-4	88		0800															
L-2-93-1	89		0820												X			
L-2-93-2	90		0830															
L-2-93-3	91		0850															
L-2-93-4	92		0910															
L-2-95-1	93		0920															
L-2-95-2	94		0925															
L-2-95-3	95		0940															
L-2-95-4	96	↓	1000	↓	↓	↓								↓				

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-28-12	1000	[signature]	ASC	1-28-12	1000
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201139

Client: EARTH MECHANICS, INC.

Address

Report Attention: Raza

Phone

Fax

Sampled by: R. Y.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane

Analyses Requested: TPH-Gasoline; TPH-Diesel; 8260B (BTEX, Oxygenates); 8260B (VOCs); 8270C (SVOCs); CAM Metals; 8082 (PCBs); Total Lead (6010); PH

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	PH				Remark
L-2-97-1	EA201139-97	1-26-12	1020	Soil	None	4oz. jar													Test total lead on all sample, please save samples for future tests
L-2-97-2	98		1030																
L-2-97-3	99		1045																
L-2-97-4	100		1100																
L-2-99-1	101		1120												X				
L-2-99-2	102		1130																
L-2-99-3	103		1150																
L-2-99-4	104		1215																
L-2-101-1	105		1300																
L-2-101-2	106		1310																
L-2-101-3	107		1330																
L-2-101-4	108		1345																
L-2-102-1	109		1400																
L-2-102-2	110		1410												X				
L-2-102-3	111		1425																
L-2-102-4	112		1445																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-26-12	1000	[signature]	ASL	1-26-12	1000

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier

ALPHA SCIENTIFIC CORPORATION

CHAIN OF CUSTODY RECORD

Lab Job Number EA201139

Client: EARTH MECHANICS, INC.

Address

Report Attention: Raja

Phone

Fax

Sampled by: R. J.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (Pb)	PH			Remark
L-2-43-1	EA201139-113	1-27-12	0720	Soil	None	4oz. jar												Test total lead on all samples, please save samples for future tests
L-2-43-2	114		0730															
L-2-43-3	115		0745															
L-2-43-4	116		0805															
L-2-45-1	117		0820												X			
L-2-45-2	118		0830															
L-2-45-3	119		0845															
L-2-45-4	120		0910															

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-28-12	1000	[signature]	ASC	1-28-12	1000
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense. Distribution: WHITE with report, PINK to courier.

SEGMENT 3

BETWEEN STA. 340+00 AND STA. 408+00 ("A" LINE)

ALPHA SCIENTIFIC CORPORATION

CHAIN OF CUSTODY RECORD

Lab Job Number EA201001

Client: EARTH MECHANICS, INC

Address: 17800 Newhope Street, Suite B, Fountain Valley, CA 92708

Report Attention: RAJA

Phone: 714 751-3026

Fax:

Sampled by: R. Jie

Project Name/No.: I-5 HOV Widen

Project Site: San Clemente to Capistrano

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☒ Normal

Sample Condition: ☐ Chilled ☒ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	STLC	TCLP	pH		Remark
L-3-48-1	EA201001-1	12-27-11	1125	Soil	None	4 oz jar								✓					please test all
L-3-48-2	-2	↓	1130	↓	↓	↓								↓					sample for
L-3-48-3	3		1140																Total Lead.
L-3-48-4	4		1155																Save samples
L-3-50-1	5		1245														X		for future test
L-3-50-2	6		1250																
L-3-50-3	7		1300																
L-3-50-4	8		1315																
L-3-52-1	9		1530																
L-3-52-2	10		1540																
L-3-52-3	11		1550																
L-3-52-4	12		1615																
L-3-53-1	13		1425																
L-3-53-2	14		1430																
L-3-53-3	15		1445																
L-3-53-4	16	↓	1455	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[illegible]	EMI	1-2-12	1130	[illegible]	ASC	1/2/12	11:30
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION

CHAIN OF CUSTODY RECORD

Lab Job Number EA201001

Client: EARTH MECHANICS, INC.

Address: 17800 Newhope Street, Suite B, Fountain Valley, CA 92708

Report Attention: Raja

Phone: 714 751-3826

Fax:

Sampled by: R. Sie

Project Name/No.: 11-137

Project Site: I-5 HOV Widen.

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☒ Normal

Sample Condition: ☐ Chilled ☒ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH			Remark
L-3-54-1	EA201001-17	12/27/11	1355	Soil	None	4oz. jar								✓	X			Please test all
L-3-54-2	18	↓	1400	↓	↓	↓								↓				Sample for total
L-3-54-3	19		1410															Lead. Save
L-3-54-4	20		1420															Samples for
L-3-55-1	21		0910															future Tests
L-3-55-2	22		0920															
L-3-55-3	23		0935															
L-3-55-4	24		0950															
L-3-56-1	25		0820												X			
L-3-56-2	26		0825															
L-3-56-3	27		0835															
L-3-56-4	28		0850															
L-3-57-1	29		0745															
L-3-57-2	30		0750															
L-3-57-3	31		0800															
L-3-57-4	32	↓	0810	↓	↓	↓								↓				

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[illegible]	EMI	12/27/11	1130	[illegible]	ABC	12/27/11	11:40am
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION

CHAIN OF CUSTODY RECORD

Lab Job Number EA201001

Client: EARTH MECHANICS, INC

Address: 17800 Newhope St. Suite B, Fountain Valley, CA 92708

Report Attention: Raja

Phone: 714 751-3826

Fax:

Sampled by: R. Jie

Project Name/No.: 11-137

Project Site: I-5 HOV Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☒ Normal

Sample Condition: ☐ Chilled ☒ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-3-46-1	EA201001-33	2/28/11	0705	Soil	None	4oz. jar								✓					pls test all sample for Total Lead. save samples for future tests
L-3-46-2	34		0710																
L-3-46-3	35		0725																
L-3-46-4	36		0735																
L-3-44-1	37		0800												X				
L-3-44-2	38		0805																
L-3-44-3	39		0815																
L-3-44-4	40		0830																
L-3-40-1	41		0900																
L-3-40-2	42		0910																
L-3-40-3	43		0935																
L-3-40-4	44		0950																
L-3-36-1	45		1022												X				
L-3-36-2	46		1030																
L-3-36-3	47		1045																
L-3-36-4	48		1100																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
R. Jie	EMI	1-2-12	1130	[illegible]	ASC	1/2/12	11:50
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, P=Plastic bottle, A=Air Bag, V=VOA vial, G=Glass bottle

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201001

Client: EARTH MECHANICS, INC.

Address:

Report Attention | Phone | Fax | Sampled by: R. Joe

Project Name/No.: 11-137

Project Site: I-5 HOV Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☒ Normal

Sample Condition: ☐ Chilled ☒ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-3-34-1	EA201001-49	12/28/11	1130	Soil	None	4 oz. jar								✓	X				please Test all Sample for Total Lead prior Sample for future Tests
L-3-34-2	50	↓	1135	↓	↓	↓								↓					
L-3-34-3	51		1145																
L-3-34-4	52		1200																
L-3-32-1	53		1305												X				
L-3-32-2	54		1310																
L-3-32-3	55		1325																
L-3-32-4	56		1340																
L-3-30-1	57		1355																
L-3-30-2	58		1400																
L-3-30-3	59		1415																
L-3-30-4	60		1430																
L-3-20-1	61		1440												X				
L-3-20-2	62		1445																
L-3-20-3	63		1455																
L-3-20-4	64	↓	1510	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-2-12	1130	[signature]	ABC	1/2/12	11:30 AM

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
6760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION

CHAIN OF CUSTODY RECORD

Lab Job Number EA201001

Client: EARTH MECHANICS, INC.

Address:

Report Attention: Raja

Phone:

Fax:

Sampled by: R. Jai

Project Name/No.: 11-137

Project Site: I-5 HOV Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☒ Normal

Sample Condition: ☐ Chilled ☒ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	✓ Total Lead (6010)	pH				Remark
L-3-18-1	EA201001-65	12/28/11	1530	Soil	none	4 oz. jar								✓					Please test all sample for total lead, save samples for future tests
L-3-18-2	66	↓	1535	↓	↓	↓								↓					
L-3-18-3	67		1545																
L-3-18-4	68		1555																
L-3-16-1	69		1605																
L-3-16-2	70		1610																
L-3-16-3	71		1615																
L-3-16-4	72	↓	1640																
L-3-42-1	73	12/29/11	0720																
L-3-42-2	74	↓	0730																
L-3-42-3	75		0745																
L-3-42-4	76		0810																
L-3-38-1	77		0850																
L-3-38-2	78		0900																
L-3-38-3	79		0915																
L-3-38-4	80	↓	0940	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	12-29-11	1130	[signature]	ASC	1/4/12	11:30 Am
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201001

Client: EARTH MECHANICS, INC.

Address

Report Attention: Raja

Phone:

Fax:

Sampled by: R. Joe

Project Name/No.: 11-137

Project Site: I-5 HOV Widen

Analyses Requested: TPH-Gasoline, TPH-Diesel, 8260B (BTEX, Oxygenates), 8260B (VOCs), 8270C (SVOCs), CAM Metals, 8082 (PCBs), ✓ Total Lead (bulk), PH

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☒ Normal

Sample Condition: ☐ Chilled ☒ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	✓ Total Lead (bulk)	PH				Remark
L-3-28-1	EA201001-81	12/29/11	1020	Soil	None	4 oz. jar								✓	X				please test all sample for Total lead, save sample for future tests
L-3-28-2	82	↓	1025	↓	↓	↓								↓					
L-3-28-3	83		1040																
L-3-28-4	84		1055																
L-3-26-1	85		1110																
L-3-26-2	86		1120																
L-3-26-3	87		1135																
L-3-26-4	88		1150																
L-3-24-1	89		1240																
L-3-24-2	90		1245																
L-3-24-3	91		1300																
L-3-24-4	92		1310																
L-3-22-1	93		1315												X				
L-3-22-2	94		1320																
L-3-22-3	95		1335																
L-3-22-4	96	↓	1350	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-2-12	1130	[signature]	ASC	1/2/12	11:15 AM
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201001

Client: EARTH MECHANICS, INC

Address:

Report Attention: Raja

Phone:

Fax:

Sampled by: R. Joe

Project Name/No.: 11-137

Project Site: I-5 HOV Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☒ Normal

Sample Condition: ☐ Chilled ☒ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (Pb)	PH				Remark
L-3-14-1	EA201001-97	12/29/11	1420	Soil	None	4oz. jar								✓	X				Please test all sample for total lead. Keep sample for future tests
L-3-14-2	98	↓	1430	↓	↓	↓								↓					
L-3-14-3	99		1445																
L-3-14-4	100		1500																
L-3-12-1	101		1615																
L-3-12-2	102		1620																
L-3-12-3	103		1635																
L-3-12-4	104		1650																
L-3-10-1	105		1530																
L-3-10-2	106		1535																
L-3-10-3	107		1550																
L-3-10-4	108	↓	1605																
L-3-8-1	109	12/30/11	0720																
L-3-8-2	110		0725																
L-3-8-3	111		0745																
L-3-8-4	112	↓	0800	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-2-12	1130	[signature]	ASC	1/2/12	11:30am
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: A=Air Bag, G=Glass bottle, M=Metal Tube, P=Plastic bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201001

Client: EARTH MECHANICS, INC

Address

Report Attention: Raja

Phone:

Fax:

Sampled by: R. Joe

Project Name/No.: 11-137

Project Site: I-5 HOV Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☒ Normal

Sample Condition: ☐ Chilled ☒ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L3-6-1	EA201001-113	12/30/11	0810	Soil	None	4 oz. Jar								✓	X				Please test all sample for total lead, save samples for future tests
L3-6-2	114		0820																
L3-6-3	115		0845																
L3-6-4	116		0905																
L3-4-1	117		0930																
L3-4-2	118		0935																
L3-4-3	119		0950																
L3-4-4	120		1020																
L3-2-1	121		1130																
L3-2-2	122		1140																
L3-2-3	123		1200																
L3-2-4	124		1225																
L3-1-1	125		1345												X				
L3-1-2	126		1350																
L3-1-3	127		1405																
L3-1-4	128		1425																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[illegible]	EMI	12-2-12	1130	[illegible]	ASC	12/2/12	11:30
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, P=Plastic bottle, A=Air Bag, V=VOA vial, G=Glass bottle

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201001

Client: EARTH MECHANICS, INC

Address:

Report Attention: Raja

Phone:

Fax:

Sampled by: K.K.

Project Name/No.: 11-136

Project Site: I-5 HOV Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☒ Normal

Sample Condition: ☐ Chilled ☒ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	PH				Remark
L-2-100-1	EA201001-129	12/27/11	0730	Soil	none	4 oz jar								✓					Please test all
L-2-100-2	130		0735																sample for total
L-2-100-3	131		0750																lead. Save
L-2-100-4	132		0810																samples for
L-2-98-1	133		0830												X				future tests
L-2-98-2	134		0840																
L-2-98-3	135		0855																
L-2-98-4	136		0915																
L-2-96-1	137		0945																
L-2-96-2	138		0955																
L-2-96-3	139		1015																
L-2-96-4	140		1035																
L-2-94-1	141		1100																
L-2-94-2	142		1105																
L-2-94-3	143		1120																
L-2-94-4	144		1140																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	12-27-11	1130	[signature]	ABC	12/27/11	1130 AM
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201001

Client: EARTH MECHANICS INC.

Address

Report Attention: Raja

Phone

Fax

Sampled by: R.K.

Project Name/No.: 11-136

Project Site: I-5 HOV Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☒ Normal

Sample Condition: ☐ Chilled ☒ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-2-92-1	EA201001-145	12/27/11	1200	Soil	none	4oz jar								✓	X				Please test soil sample for total lead. Save sample for future tests
L-2-92-2	146	↓	1210	↓	↓	↓								↓					
L-2-92-3	147	↓	1230	↓	↓	↓								↓					
L-2-92-4	148	↓	1245	↓	↓	↓								↓					
L-2-90-1	149	↓	1255	↓	↓	↓								↓					
L-2-90-2	150	↓	1300	↓	↓	↓								↓					
L-2-90-3	151	↓	1315	↓	↓	↓								↓					
L-2-90-4	152	↓	1330	↓	↓	↓								↓					
L-2-86-1	153	↓	1340	↓	↓	↓								↓					
L-2-86-2	154	↓	1345	↓	↓	↓								↓					
L-2-86-3	155	↓	1400	↓	↓	↓								↓					
L-2-86-4	156	↓	1415	↓	↓	↓								↓					
L-2-87-1	157	↓	1430	↓	↓	↓								↓	X				
L-2-87-2	158	↓	1435	↓	↓	↓								↓					
L-2-87-3	159	↓	1450	↓	↓	↓								↓					
L-2-87-4	160	↓	1510	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[illegible]	EMI	12-27-11	1130	[illegible]	ABC	12/27/11	11:30 Am
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201001

Client: EARTH MECHANICS, INC.

Address

Report Attention: Raja

Phone:

Fax:

Sampled by: R.K.

Project Name/No.: 11-136

Project Site: I-5 HOV Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☒ Normal

Sample Condition: ☐ Chilled ☒ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L2-88-1	EA201001-161	12/28/11	0800	Soil	none	4 oz jar								✓	X				Please test all sample for total lead. Save sample for future tests
L2-88-2	162	↓	0805	↓	↓	↓								↓					
L2-88-3	163		0815																
L2-88-4	164		0830																
L2-82-1	165		0845																
L2-82-2	166		0850																
L2-82-3	167		0905																
L2-82-4	168		0920																
L2-78-1	169		0950												X				
L2-78-2	170		0955																
L2-78-3	171		1015																
L2-78-4	172		1040																
L2-75-1	173		1100												X				
L2-75-2	174		1110																
L2-75-3	175		1125																
L2-75-4	176	↓	1140	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
R. [illegible]	EMI	12-29-11	1130	[illegible]	ASC		

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201001

Client: EARTH MECHANICS, INC

Address

Report Attention: Reza

Phone:

Fax:

Sampled by: K.K

Project Name/No.: 11-136

Project Site: I-5 HOV Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☒ Normal

Sample Condition: ☐ Chilled ☒ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	pH				Remark
L-2-73-1	EA201001-177	12/28/11	1210	Soil	none	4oz. jar								✓					Please test all sample for total lead. Save sample for future tests
L-2-73-2	178	↓	1215	↓	↓	↓								↓					
L-2-73-3	179	↓	1230	↓	↓	↓								↓					
L-2-73-4	180	↓	1245	↓	↓	↓								↓					
L-2-71-1	181	↓	1300	↓	↓	↓								↓					
L-2-71-2	182	↓	1310	↓	↓	↓								↓					
L-2-71-3	183	↓	1325	↓	↓	↓								↓					
L-2-71-4	184	↓	1340	↓	↓	↓								↓					
L-2-69-1	185	↓	1400	↓	↓	↓								↓	X				
L-2-69-2	186	↓	1410	↓	↓	↓								↓					
L-2-69-3	187	↓	1440	↓	↓	↓								↓					
L-2-69-4	188	↓	1500	↓	↓	↓								↓					
L-2-70-1	189	12/30/11	0900	↓	↓	↓								↓					
L-2-70-2	190	↓	0905	↓	↓	↓								↓					
L-2-70-3	191	↓	0920	↓	↓	↓								↓					
L-2-70-4	192	↓	0940	↓	↓	↓								↓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[illegible]	EMI	1-2-12	1130	[illegible]	ASC	1/2/12	11:30 AM

Container types: M=Metal Tube, P=Plastic bottle, A=Air Bag, V=VOA vial, G=Glass bottle

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201001

Client: EARTH MECHANICS, INC.

Address:

Report Attention: Raja

Phone:

Fax:

Sampled by: K. K.

Project Name/No.: 11-136

Project Site: I-5 HOV Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☒ Normal

Sample Condition: ☐ Chilled ☒ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	✓ total lead (6010)	pH				Remark
L-2-62-1	EA201001-193	12/30/11	1005	Soil	none	4oz jar								✓	X				Please test all sample for total lead, save samples for future tests
L-2-62-2	194		1015																
L-2-62-3	195		1030																
L-2-62-4	196		1045																
L-2-60-1	197		1105																
L-2-60-2	198		1110																
L-2-60-3	199		1120																
L-2-60-4	200		1135																
L-2-56-1	201		1145																
L-2-56-2	202		1150																
L-2-56-3	203		1200																
L-2-56-4	204		1215																
L-2-54-1	205		1230												X				
L-2-54-2	206		1235																
L-2-54-3	207		1245																
L-2-54-4	208		1300																

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	1-2-12	1130	[signature]	BSC	1/2/12	11:30

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier.

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA201001

Client: EARTH MECHANICS, INC

Address:

Report Attention: Raja

Phone:

Fax:

Sampled by: K.K.

Project Name/No.: 11-136

Project Site: I-5 HOV Widen

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☒ Normal

Sample Condition: ☐ Chilled ☒ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	✓ Total Lead (6010)	PH				Remark
L-2-52-1	EA201001-209	12/20/10	1310	Soil	none	4 oz jar								✓					please test all
L-2-52-2	210		1305																sample for total
L-2-52-3	211		1315																lead. Save
L-2-52-4	212		1330																sample for
L-2-50-1	213		1350												X				future tests
L-2-50-2	214		1355																
L-2-50-3	215		1410																
L-2-50-4	216		1425																
L-2-31-1	217		1440												X				
L-2-31-2	218		1445																
L-2-31-3	219		1455																
L-2-31-4	220		1510																
L-2-33-1	221		1520																
L-2-33-2	222		1525																
L-2-33-3	223		1540																
L-2-33-4	224	✓	1600	✓	✓	✓								✓					

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	12-21-10	1130	[signature]	ASC	12/21/10	11:30 am
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier

YELLOW TRAFFIC STRIPE PAINT

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA202012

Client: EARTH MECHANICS, Inc.

Address:

Report Attention: Raja

Phone:

Fax:

Sampled by: R. G.

Project Name/No.: 11-136

Project Site: I-5 HOV Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No.,type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	Chromium				Remark
LP-NPF	EA202012-1	2-3-12	0930	Paint	None	4oz. jar								↓	↓				Test total lead on all sample, please save samples for future tests
LP-SPF	-2	↓	1000	↓	↓	↓								↓	↓				
LP-SPN	-3		1030																
LP-NPN	-4		1100																
LP-SHF	-5		1130																
LP-SHNL	-6		1200																
LP-NHNL	-7		1230																
LP-NHN	-8		1250																
LP-NHF	-9		1320																
LP-SEF	-10		1400																
LP-SEN	-11		1430																
LP-NEN	-12		1500																
LP-NENL	-13		1520																
LP-NEF	-14	↓	1550	↓	↓	↓								↓	↓				

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	2-7-12	1140	[signature]	ASC	2/7/12	11:40 Am
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier

ALPHA SCIENTIFIC CORPORATION
CHAIN OF CUSTODY RECORD

Lab Job Number EA202012

Client: EARTH MECHANICS, INC.

Address:

Report Attention: Raja

Phone:

Fax:

Sampled by: R. G.

Project Name/No.: 11-B6

Project Site: I-5 HOV Lane

T.A.T. Requested: ☐ 8 hrs ☐ 24 hrs ☐ 48 hrs ☐ 3 days ☑ Normal

Sample Condition: ☐ Chilled ☑ Intact ☐ Sample seals

Analyses Requested

Client Sample ID	Lab Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserv	No..type* & size of container	TPH-Gasoline	TPH-Diesel	8260B (BTEX, Oxygenates)	8260B (VOCs)	8270C (SVOCs)	CAM Metals	8082 (PCBs)	Total Lead (6010)	Chromium				Remark
LP-S-1	EA202012-15	2-5-12	2240	paint	None	4 oz. jar								↓	↓				Test total lead on all sample, please save samples for future tests
LP-S-2	-16	↓	2310	↓	↓	↓													
LP-S-3	-17		2340																
LP-S-4	-18	2-6-12	0010																
LP-S-5	-19	↓	0100																
LP-S-6	-20		0145																
LP-N-1	-21		2245																
LP-N-2	-22		2320																
LP-N-3	-23	↓	2355																
LP-N-4	-24	2-7-12	0030																
LP-N-5	-25	↓	0105																
LP-N-6	-26	↓	0145	↓	↓	↓								↓	↓				

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	EMI	2-7-12	1140	[signature]	ABC	2-7-12	11:40 AM
Relinquished by	Company	Date	Time	Received by	Company	Date	Time

Container types: M=Metal Tube, A=Air Bag, P=Plastic bottle, G=Glass bottle, V=VOA vial

Alpha Scientific Corporation
16760 Gridley Road
Cerritos, CA 90703

Email: ascorp@verizon.net
Tel: (562) 809-8880
Fax: (562) 809-8801

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.
Distribution: WHITE with report, PINK to courier

APPENDIX B

LABORATORY SOIL TEST RESULTS

Table B1. Summary of Laboratory Soil Test Results for Segment 1 (1 of 5)								
Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-1-1-1	117° 36' 37"	33° 26' 2"	0.5	5.0				
L-1-1-2			1.5	2.0				
L-1-1-3			3.0	5.1				
L-1-1-4			4.0	2.2				
L-1-2-1	117° 37' 59"	33° 26' 7"	0.5	12.3				8.13
L-1-2-2			1.5	3.2				
L-1-2-3			3.0	ND				
L-1-2-4			4.0	ND				
L-1-3-1	117° 37' 5"	33° 26' 6"	0.5	8.9				7.75
L-1-3-2			1.5	19.5				
L-1-3-3			3.0	19.0				
L-1-3-4			4.0	2.2				
L-1-4-1	117° 37' 2"	33° 26' 9"	0.5	3.0				
L-1-4-2			1.5	3.9				
L-1-4-3			3.0	11.8				
L-1-4-4			4.0	3.3				
L-1-5-1	117° 37' 7"	33° 26' 9"	0.5	25.6				
L-1-5-2			1.5	8.6				
L-1-5-3			3.0	3.9				
L-1-5-4			4.0	5.4				
L-1-6-1	117° 37' 4"	33° 26' 11"	0.5	12.4				8.42
L-1-6-2			1.5	ND				
L-1-6-3			3.0	2.6				
L-1-6-4			4.0	3.1				
L-1-7-1	117° 37' 9"	33° 26' 11"	0.5	22.1				
L-1-7-2			1.5	31.9				8.19
L-1-7-3			3.0	9.8				
L-1-7-4			4.0	6.2				
L-1-8-1	117° 37' 5"	33° 26' 13"	0.5	17.5				
L-1-8-2			1.5	7.0				
L-1-8-3			3.0	2.7				
L-1-8-4			4.0	ND				
L-1-9-1	117° 37' 11"	33° 26' 14"	0.5	67.9	2.6			
L-1-9-2			1.5	10.8				
L-1-9-3			3.0	18.3				
L-1-9-4			4.0	6.3				
L-1-10-1	117° 37' 8"	33° 26' 15"	0.5	11.1				
L-1-10-2			1.5	18.8				7.91
L-1-10-3			3.0	4.7				
L-1-10-4			4.0	ND				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B1. Summary of Laboratory Soil Test Results for Segment 1 (2 of 5)								
L-1-11-1	117° 37' 14"	33° 26' 15"	0.5	108.0	1.0			8.45
L-1-11-2			1.5	17.4				
L-1-11-3			3.0	11.9				
L-1-11-4			4.0	20.1				
L-1-12-1	117° 37' 11"	33° 26' 16"	0.5	7.9				
L-1-12-2			1.5	3.5				
L-1-12-3			3.0	7.2				
L-1-12-4			4.0	8.2				
L-1-13-1	117° 37' 17"	33° 26' 16"	0.5	18.9				
L-1-13-2			1.5	21.1				
L-1-13-3			3.0	15.2				
L-1-13-4			4.0	33.9				
L-1-14-1	#N/A	#N/A	0.5	4.6				
L-1-14-2			1.5	52.7	2.1			
L-1-14-3			3.0	52.9	0.8			
L-1-14-4			4.0	256.0	1.1			
L-1-15-1	117° 37' 12"	33° 26' 17"	0.5	6.4				
L-1-15-2			1.5	3.8				
L-1-15-3			3.0	78.9	2.5			
L-1-15-4			4.0	42.1				
L-1-16-1	117° 37' 13"	33° 26' 18"	0.5	18.7				8.21
L-1-16-2			1.5	14.2				
L-1-16-3			3.0	2.2				
L-1-16-4			4.0	ND				
L-1-17-1	117° 37' 21"	33° 26' 19"	0.5	6.6				7.97
L-1-17-2			1.5	9.9				
L-1-17-3			3.0	2.7				
L-1-17-4			4.0	ND				
L-1-18-1	117° 37' 15"	33° 26' 19"	0.5	27.7				
L-1-18-2			1.5	15.3				
L-1-18-3			3.0	22.3				
L-1-18-4			4.0	21.6				
L-1-19-1	117° 37' 20"	33° 26' 19"	0.5	91.1	3.9			
L-1-19-2			1.5	41.1				8.48
L-1-19-3			3.0	12.4				
L-1-19-4			4.0	2.7				
L-1-20-1	117° 37' 16"	33° 26' 20"	0.5	5.7				8.04
L-1-20-2			1.5	2.3				
L-1-20-3			3.0	2.4				
L-1-20-4			4.0	2.2				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B1. Summary of Laboratory Soil Test Results for Segment 1 (3 of 5)								
L-1-21-1	117° 37' 25"	33° 26' 20"	0.5	4.0				
L-1-21-2			1.5	5.6				
L-1-21-3			3.0	ND				
L-1-21-4			4.0	ND				
L-1-22-1	117° 37' 17"	33° 26' 20"	0.5	18.2				
L-1-22-2			1.5	30.2				
L-1-22-3			3.0	21.7				
L-1-22-4			4.0	17.5				
L-1-23-1	117° 37' 23"	33° 26' 20"	0.5	9.3				
L-1-23-2			1.5	9.7				
L-1-23-3			3.0	41.3				
L-1-23-4			4.0	18.4				
L-1-24-1	117° 37' 18"	33° 26' 21"	0.5	9.6				
L-1-24-2			1.5	8.7				
L-1-24-3			3.0	10.4				
L-1-24-4			4.0	8.8				
L-1-25-1	117° 37' 27"	33° 26' 22"	0.5	22.1				7.68
L-1-25-2			1.5	16.4				
L-1-25-3			3.0	3.2				
L-1-25-4			4.0	ND				
L-1-26-1	117° 37' 20"	33° 26' 22"	0.5	4.3				8
L-1-26-2			1.5	3.0				
L-1-26-3			3.0	2.1				
L-1-26-4			4.0	7.3				
L-1-27-1	117° 37' 25"	33° 26' 21"	0.5	51.6	1.7			
L-1-27-2			1.5	17.9				8.51
L-1-27-3			3.0	8.2				
L-1-27-4			4.0	11.5				
L-1-28-1	117° 37' 21"	33° 26' 24"	0.5	ND				
L-1-28-2			1.5	ND				8.87
L-1-28-3			3.0	ND				
L-1-28-4			4.0	2.4				
L-1-29-1	117° 37' 30"	33° 26' 23"	0.5	19.8				
L-1-29-2			1.5	14.5				
L-1-29-3			3.0	3.5				
L-1-29-4			4.0	7.2				
L-1-30-1	117° 37' 23"	33° 26' 24"	0.5	21.6				
L-1-30-2			1.5	2.9				
L-1-30-3			3.0	6.2				
L-1-30-4			4.0	ND				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B1. Summary of Laboratory Soil Test Results for Segment 1 (4 of 5)								
L-1-31-1	117° 37' 28"	33° 26' 23"	0.5	32.4				
L-1-31-2			1.5	4.9				
L-1-31-3			3.0	7.8				
L-1-31-4			4.0	39.0				
L-1-32-1	117° 37' 24"	33° 26' 26"	0.5	3.7				
L-1-32-2			1.5	6.6				
L-1-32-3			3.0	3.6				
L-1-32-4			4.0	3.7				
L-1-33-1	117° 37' 33"	33° 26' 25"	0.5	108.0	1.5			7.61
L-1-33-2			1.5	335.0	23.8	ND	0.18	
L-1-33-3			3.0	25.3				
L-1-33-4			4.0	3.7				
L-1-34-1	117° 37' 27"	33° 26' 25"	0.5	3.8				8.14
L-1-34-2			1.5	4.1				
L-1-34-3			3.0	124.0	2.8			
L-1-34-4			4.0	98.5	3.8			
L-1-35-1	117° 37' 32"	33° 26' 26"	0.5	12.9				
L-1-35-2			1.5	19.6				
L-1-35-3			3.0	4.7				
L-1-35-4			4.0	7.6				
L-1-36-1	117° 37' 29"	33° 26' 27"	0.5	3.9				
L-1-36-2			1.5	4.6				
L-1-36-3			3.0	7.5				
L-1-36-4			4.0	3.8				
L-1-37-1	117° 37' 34"	33° 26' 27"	0.5	82.7	1.3			
L-1-37-2			1.5	24.9				
L-1-37-3			3.0	11.3				
L-1-37-4			4.0	42.1				
L-1-38-1	117° 37' 37"	33° 26' 29"	0.5	7.9				8.07
L-1-38-2			1.5	8.4				
L-1-38-3			3.0	12.4				
L-1-38-4			4.0	8.3				
L-1-39-1	117° 37' 30"	33° 26' 29"	0.5	61.9	0.2			
L-1-39-2			1.5	5.5				
L-1-39-3			3.0	2.5				
L-1-39-4			4.0	ND				
L-1-40-1	117° 37' 34"	33° 26' 31"	0.5	13.2				
L-1-40-2			1.5	12.5				
L-1-40-3			3.0	7.2				
L-1-40-4			4.0	15.2				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B1. Summary of Laboratory Soil Test Results for Segment 1 (5 of 5)								
L-1-41-1	117° 37' 40"	33° 26' 30"	0.5	5.8				8.15
L-1-41-2			1.5	4.0				
L-1-41-3			3.0	ND				
L-1-41-4			4.0	ND				

Table B2. Summary of Laboratory Soil Test Results for Segment 2 (1 of 11)								
Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-2-1-1	117° 37' 36"	33° 26' 33"	0.5	13.7				7.2
L-2-1-2			1.5	24.3				
L-2-1-3			3.0	22.8				
L-2-1-4			4.0	16.7				
L-2-2-1	117° 37' 39"	33° 26' 33"	0.5	16.8				
L-2-2-2			1.5	7.6				
L-2-2-3			3.0	9.3				
L-2-2-4			4.0	10.5				
L-2-3-1	117° 37' 42"	33° 26' 35"	0.5	24.9				
L-2-3-2			1.5	5.4				
L-2-3-3			3.0	6.1				
L-2-3-4			4.0	5.1				
L-2-4-1	117° 37' 41"	33° 26' 35"	0.5	11.0				
L-2-4-2			1.5	12.5				
L-2-4-3			3.0	12.0				
L-2-4-4			4.0	13.1				
L-2-5-1	117° 37' 45"	33° 26' 36"	0.5	7.6				
L-2-5-2			1.5	6.9				7.2
L-2-5-3			3.0	5.7				
L-2-5-4			4.0	5.3				
L-2-6-1	117° 37' 43"	33° 26' 37"	0.5	8.5				
L-2-6-2			1.5	6.3				7.1
L-2-6-3			3.0	10.0				
L-2-6-4			4.0	7.5				
L-2-7-1	117° 37' 47"	33° 26' 38"	0.5	3.0				
L-2-7-2			1.5	3.5				
L-2-7-3			3.0	ND				
L-2-7-4			4.0	2.9				
L-2-8-1	117° 37' 45"	33° 26' 39"	0.5	6.0				7.1
L-2-8-2			1.5	4.9				
L-2-8-3			3.0	4.8				
L-2-8-4			4.0	5.7				
L-2-9-1	117° 37' 50"	33° 26' 39"	0.5	7.2				
L-2-9-2			1.5	2.7				
L-2-9-3			3.0	3.4				
L-2-9-4			4.0	ND				
L-2-10-1	117° 37' 46"	33° 26' 41"	0.5	4.4				
L-2-10-2			1.5	3.7				
L-2-10-3			3.0	3.7				
L-2-10-4			4.0	3.4				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B2. Summary of Laboratory Soil Test Results for Segment 2 (2 of 11)								
L-2-11-1	117° 37' 52"	33° 26' 41"	0.5	4.0				
L-2-11-2			1.5	4.7				
L-2-11-3			3.0	4.4				7.2
L-2-11-4			4.0	4.5				
L-2-12-1	117° 37' 49"	33° 26' 43"	0.5	5.1				
L-2-12-2			1.5	3.8				
L-2-12-3			3.0	3.2				
L-2-12-4			4.0	3.7				
L-2-13-1	117° 37' 55"	33° 26' 40"	0.5	13.5				7.3
L-2-13-2			1.5	3.2				
L-2-13-3			3.0	ND				
L-2-13-4			4.0	4.6				
L-2-14-1	117° 37' 46"	33° 26' 43"	0.5	2.1				
L-2-14-2			1.5	4.9				7.4
L-2-14-3			3.0	5.1				
L-2-14-4			4.0	2.9				
L-2-15-1	117° 37' 58"	33° 26' 44"	0.5	7.3				
L-2-15-2			1.5	3.5				
L-2-15-3			3.0	3.1				
L-2-15-4			4.0	4.2				
L-2-16-1	117° 37' 47"	33° 26' 45"	0.5	7.8				7.3
L-2-16-2			1.5	3.5				
L-2-16-3			3.0	6.8				
L-2-16-4			4.0	5.1				
L-2-17-1	117° 37' 57"	33° 26' 42"	0.5	6.6				
L-2-17-2			1.5	4.4				7.7
L-2-17-3			3.0	4.8				
L-2-17-4			4.0	4.7				
L-2-18-1	117° 37' 48"	33° 26' 46"	0.5	5.9				
L-2-18-2			1.5	4.5				
L-2-18-3			3.0	18.1				
L-2-18-4			4.0	7.0				
L-2-19-1	117° 37' 60"	33° 26' 43"	0.5	6.5				
L-2-19-2			1.5	5.2				
L-2-19-3			3.0	5.0				
L-2-19-4			4.0	7.1				
L-2-20-1	117° 37' 51"	33° 26' 45"	0.5	3.8				
L-2-20-2			1.5	8.4				
L-2-20-3			3.0	5.6				
L-2-20-4			4.0	28.4				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B2. Summary of Laboratory Soil Test Results for Segment 2 (3 of 11)								
L-2-21-1	117° 37' 60"	33° 26' 49"	0.5	13.6				7.4
L-2-21-2			1.5	3.2				
L-2-21-3			3.0	5.7				
L-2-21-4			4.0	4.0				
L-2-22-1	117° 38' 60"	33° 26' 50"	0.5	11.8				7.9
L-2-22-2			1.5	7.0				
L-2-22-3			3.0	2.6				
L-2-22-4			4.0	3.5				
L-2-23-1	117° 38' 7"	33° 26' 50"	0.5	4.1				
L-2-23-2			1.5	5.6				
L-2-23-3			3.0	3.9				
L-2-23-4			4.0	3.2				
L-2-24-1	117° 38' 3"	33° 26' 50"	0.5	7.1				
L-2-24-2			1.5	6.8				
L-2-24-3			3.0	3.3				
L-2-24-4			4.0	3.5				
L-2-25-1	117° 38' 8"	33° 26' 51"	0.5	5.4				
L-2-25-2			1.5	5.4				
L-2-25-3			3.0	6.1				
L-2-25-4			4.0	4.0				
L-2-26-1	117° 38' 6"	33° 26' 53"	0.5	7.0				
L-2-26-2			1.5	4.7				
L-2-26-3			3.0	3.9				
L-2-26-4			4.0	3.6				
L-2-27-1	117° 38' 12"	33° 26' 53"	0.5	8.7				
L-2-27-2			1.5	4.8				
L-2-27-3			3.0	5.3				7.3
L-2-27-4			4.0	6.3				
L-2-28-1	117° 38' 10"	33° 26' 54"	0.5	61.2	1.3			
L-2-28-2			1.5	18.1				7.6
L-2-28-3			3.0	18.9				
L-2-28-4			4.0	16.8				
L-2-29-1	117° 38' 15"	33° 26' 55"	0.5	20.2				
L-2-29-2			1.5	6.6				
L-2-29-3			3.0	5.6				
L-2-29-4			4.0	6.6				
L-2-30-1	117° 38' 13"	33° 26' 55"	0.5	446.0	1.3			
L-2-30-2			1.5	67.4	1.3			
L-2-30-3			3.0	61.7	1.7			
L-2-30-4			4.0	66.2	1.3			

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B2. Summary of Laboratory Soil Test Results for Segment 2 (4 of 11)								
L-2-31-1	117° 38' 17"	33° 26' 56"	0.5	20.0				6.7
L-2-31-2			1.5	24.9				
L-2-31-3			3.0	5.4				
L-2-31-4			4.0	3.8				
L-2-32-1	117° 38' 15"	33° 26' 58"	0.5	44.8				
L-2-32-2			1.5	6.3				
L-2-32-3			3.0	14.3				
L-2-32-4			4.0	14.6				
L-2-33-1	117° 38' 21"	33° 26' 57"	0.5	11.1				
L-2-33-2			1.5	3.6				
L-2-33-3			3.0	ND				
L-2-33-4			4.0	ND				
L-2-34-1	117° 38' 17"	33° 26' 60"	0.5	282.0	16.1	ND	ND	7.7
L-2-34-2			1.5	15.8				
L-2-34-3			3.0	6.2				
L-2-34-4			4.0	5.3				
L-2-35-1	117° 38' 23"	33° 26' 59"	0.5	21.8				
L-2-35-2			1.5	4.4				
L-2-35-3			3.0	5.5				
L-2-35-4			4.0	4.4				
L-2-36-1	117° 38' 20"	33° 27' 2"	0.5	8.1				
L-2-36-2			1.5	2.8				
L-2-36-3			3.0	3.4				
L-2-36-4			4.0	2.3				
L-2-37-1	117° 38' 26"	33° 27' 1"	0.5	11.4				
L-2-37-2			1.5	3.2				7.2
L-2-37-3			3.0	4.2				
L-2-37-4			4.0	3.5				
L-2-38-1	117° 38' 23"	33° 27' 4"	0.5	4.7				
L-2-38-2			1.5	4.6				
L-2-38-3			3.0	51.2	0.1			
L-2-38-4			4.0	49.2				
L-2-39-1	117° 38' 28"	33° 27' 3"	0.5	26.0				
L-2-39-2			1.5	5.9				
L-2-39-3			3.0	6.4				
L-2-39-4			4.0	4.7				
L-2-40-1	117° 38' 26"	33° 27' 5"	0.5	9.9				
L-2-40-2			1.5	13.0				7.1
L-2-40-3			3.0	6.0				
L-2-40-4			4.0	33.3				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B2. Summary of Laboratory Soil Test Results for Segment 2 (5 of 11)								
L-2-41-1	117° 38' 31"	33° 27' 6"	0.5	6.6				
L-2-41-2			1.5	9.6				
L-2-41-3			3.0	7.0				
L-2-41-4			4.0	5.3				
L-2-42-1	117° 38' 29"	33° 27' 7"	0.5	91.6	3.1			7.5
L-2-42-2			1.5	55.9	3.4			
L-2-42-3			3.0	7.6				
L-2-42-4			4.0	4.9				
L-2-43-1	117° 38' 34"	33° 27' 8"	0.5	9.0				
L-2-43-2			1.5	12.9				
L-2-43-3			3.0	18.0				
L-2-43-4			4.0	13.2				
L-2-44-1	117° 38' 32"	33° 27' 9"	0.5	56.4	1.8			
L-2-44-2			1.5	119.0	5.8	ND	ND	7.1
L-2-44-3			3.0	7.9				
L-2-44-4			4.0	3.4				
L-2-45-1	117° 38' 37"	33° 27' 9"	0.5	27.3				8.5
L-2-45-2			1.5	6.4				
L-2-45-3			3.0	14.2				
L-2-45-4			4.0	10.1				
L-2-46-1	117° 38' 34"	33° 27' 10"	0.5	71.5	1.3			
L-2-46-2			1.5	25.7				
L-2-46-3			3.0	3.9				
L-2-46-4			4.0	6.2				
L-2-47-1	117° 38' 40"	33° 27' 11"	0.5	87.7	4.5			
L-2-47-2			1.5	118.0	7.7	ND	ND	
L-2-47-3			3.0	106.0	5.5	ND	ND	
L-2-47-4			4.0	73.5	5.3	ND	ND	
L-2-48-1	117° 38' 38"	33° 27' 12"	0.5	119.0	2.6			
L-2-48-2			1.5	7.2				
L-2-48-3			3.0	4.4				
L-2-48-4			4.0	6.2				
L-2-49-1	117° 38' 43"	33° 27' 13"	0.5	65.5	0.8			
L-2-49-2			1.5	22.3				
L-2-49-3			3.0	510.0	4.1			
L-2-49-4			4.0	18.1				
L-2-50-1	117° 38' 41"	33° 27' 13"	0.5	18.5				6.1
L-2-50-2			1.5	4.7				
L-2-50-3			3.0	3.7				
L-2-50-4			4.0	ND				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B2. Summary of Laboratory Soil Test Results for Segment 2 (6 of 11)								
L-2-51-1	117° 38' 45"	33° 27' 14"	0.5	18.0				7.6
L-2-51-2			1.5	91.5	1.8			
L-2-51-3			3.0	5.4				
L-2-51-4			4.0	3.7				
L-2-52-1	117° 38' 44"	33° 27' 15"	0.5	8.7				
L-2-52-2			1.5	6.1				
L-2-52-3			3.0	6.3				
L-2-52-4			4.0	3.5				
L-2-53-1	117° 38' 49"	33° 27' 15"	0.5	225.0	16.1	ND	ND	
L-2-53-2			1.5	26.8				
L-2-53-3			3.0	53.1	1.1			
L-2-53-4			4.0	11.8				
L-2-54-1	117° 38' 46"	33° 27' 16"	0.5	5.1				6.2
L-2-54-2			1.5	271.0	6.9	ND	ND	
L-2-54-3			3.0	2.8				
L-2-54-4			4.0	4.0				
L-2-55-1	117° 38' 53"	33° 27' 17"	0.5	191.0	22.0	ND	ND	
L-2-55-2			1.5	8.9				
L-2-55-3			3.0	2.6				
L-2-55-4			4.0	2.7				
L-2-56-1	117° 38' 51"	33° 27' 18"	0.5	5.1				
L-2-56-2			1.5	3.8				
L-2-56-3			3.0	4.3				
L-2-56-4			4.0	4.8				
L-2-57-1	117° 38' 56"	33° 27' 18"	0.5	2.7				7.7
L-2-57-2			1.5	79.6	4.6			
L-2-57-3			3.0	12.8				
L-2-57-4			4.0	7.6				
L-2-58-1	117° 38' 53"	33° 27' 19"	0.5	14.7				
L-2-58-2			1.5	3.1				
L-2-58-3			3.0	5.5				
L-2-58-4			4.0	6.4				
L-2-59-1	117° 38' 60"	33° 27' 19"	0.5	7.2				
L-2-59-2			1.5	19.7				
L-2-59-3			3.0	13.8				
L-2-59-4			4.0	4.1				
L-2-60-1	117° 39' 56"	33° 27' 20"	0.5	11.1				
L-2-60-2			1.5	4.1				
L-2-60-3			3.0	4.8				
L-2-60-4			4.0	5.2				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B2. Summary of Laboratory Soil Test Results for Segment 2 (7 of 11)								
L-2-61-1	117° 38' 2"	33° 27' 21"	0.5	10.1				
L-2-61-2			1.5	25.2				7.5
L-2-61-3			3.0	5.8				
L-2-61-4			4.0	6.3				
L-2-62-1	117° 39' 60"	33° 27' 21"	0.5	56.7	0.9			7.1
L-2-62-2			1.5	18.0				
L-2-62-3			3.0	38.4				
L-2-62-4			4.0	13.4				
L-2-63-1	117° 39' 3"	33° 27' 22"	0.5	8.7				7.7
L-2-63-2			1.5	13.3				
L-2-63-3			3.0	3.2				
L-2-63-4			4.0	3.1				
L-2-64-1	117° 39' 3"	33° 27' 23"	0.5	7.8				
L-2-64-2			1.5	3.8				
L-2-64-3			3.0	4.5				
L-2-64-4			4.0	10.7				
L-2-65-1	117° 39' 8"	33° 27' 23"	0.5	26.3				
L-2-65-2			1.5	12.6				
L-2-65-3			3.0	4.5				
L-2-65-4			4.0	9.7				
L-2-66-1	117° 39' 5"	33° 27' 25"	0.5	7.3				
L-2-66-2			1.5	2.4				
L-2-66-3			3.0	4.6				
L-2-66-4			4.0	2.2				
L-2-67-1	117° 39' 12"	33° 27' 25"	0.5	3.2				
L-2-67-2			1.5	2.4				
L-2-67-3			3.0	ND				
L-2-67-4			4.0	3.4				
L-2-68-1	117° 39' 9"	33° 27' 27"	0.5	17.7				
L-2-68-2			1.5	4.7				
L-2-68-3			3.0	8.6				
L-2-68-4			4.0	4.7				
L-2-69-1	117° 39' 15"	33° 27' 27"	0.5	3.9				6.6
L-2-69-2			1.5	5.2				
L-2-69-3			3.0	4.4				
L-2-69-4			4.0	3.1				
L-2-70-1	117° 39' 11"	33° 27' 27"	0.5	11.8				
L-2-70-2			1.5	2.4				
L-2-70-3			3.0	2.3				
L-2-70-4			4.0	ND				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B2. Summary of Laboratory Soil Test Results for Segment 2 (8 of 11)								
L-2-71-1	117° 39' 18"	33° 27' 28"	0.5	305.0	11.2	ND	ND	
L-2-71-2			1.5	15.4				
L-2-71-3			3.0	2.4				
L-2-71-4			4.0	2.7				
L-2-72-1	117° 39' 14"	33° 27' 28"	0.5	16.9				
L-2-72-2			1.5	2.1				
L-2-72-3			3.0	3.5				
L-2-72-4			4.0	3.2				
L-2-73-1	117° 39' 17"	33° 27' 29"	0.5	5.3				
L-2-73-2			1.5	ND				
L-2-73-3			3.0	ND				
L-2-73-4			4.0	2.3				
L-2-74-1	117° 39' 15"	33° 27' 31"	0.5	7.3				
L-2-74-2			1.5	9.6				
L-2-74-3			3.0	6.8				
L-2-74-4			4.0	3.6				
L-2-75-1	117° 39' 16"	33° 27' 28"	0.5	10.9				6.6
L-2-75-2			1.5	2.7				
L-2-75-3			3.0	4.4				
L-2-75-4			4.0	3.2				
L-2-76-1	117° 39' 20"	33° 27' 30"	0.5	14.1				7.6
L-2-76-2			1.5	2.3				
L-2-76-3			3.0	4.5				
L-2-76-4			4.0	5.0				
L-2-77-1	117° 39' 19"	33° 27' 30"	0.5	35.2				
L-2-77-2			1.5	4.6				
L-2-77-3			3.0	5.0				
L-2-77-4			4.0	2.1				
L-2-78-1	117° 39' 18"	33° 27' 30"	0.5	70.6	2.6			6.7
L-2-78-2			1.5	10.2				
L-2-78-3			3.0	7.3				
L-2-78-4			4.0	9.6				
L-2-79-1	117° 39' 23"	33° 27' 34"	0.5	4.0				
L-2-79-2			1.5	2.4				
L-2-79-3			3.0	3.4				
L-2-79-4			4.0	6.0				
L-2-80-1	117° 39' 16"	33° 27' 31"	0.5	9.5				
L-2-80-2			1.5	4.0				
L-2-80-3			3.0	3.4				
L-2-80-4			4.0	21.0				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B2. Summary of Laboratory Soil Test Results for Segment 2 (9 of 11)								
L-2-81-1	117° 39' 22"	33° 27' 31"	0.5	4.9				7.9
L-2-81-2			1.5	4.0				
L-2-81-3			3.0	2.9				
L-2-81-4			4.0	3.9				
L-2-82-1	117° 39' 18"	33° 27' 32"	0.5	26.1				
L-2-82-2			1.5	20.6				
L-2-82-3			3.0	18.4				
L-2-82-4			4.0	16.0				
L-2-83-1	117° 39' 26"	33° 27' 32"	0.5	59.4	1.6			
L-2-83-2			1.5	5.8				8.0
L-2-83-3			3.0	3.5				
L-2-83-4			4.0	2.4				
L-2-84-1	117° 39' 20"	33° 27' 33"	0.5	8.2				
L-2-84-2			1.5	3.7				
L-2-84-3			3.0	2..4				
L-2-84-4			4.0	4.1				
L-2-85-1	117° 39' 24"	33° 27' 34"	0.5	10.3				
L-2-85-2			1.5	4.3				
L-2-85-3			3.0	2.1				
L-2-85-4			4.0	2.4				
L-2-86-1	117° 39' 23"	33° 27' 34"	0.5	18.8				
L-2-86-2			1.5	141.0	4.1			
L-2-86-3			3.0	33.2				
L-2-86-4			4.0	21.4				
L-2-87-1	117° 39' 21"	33° 27' 35"	0.5	31.7				7.2
L-2-87-2			1.5	9.6				
L-2-87-3			3.0	ND				
L-2-87-4			4.0	3.3				
L-2-88-1	117° 39' 24"	33° 27' 34"	0.5	3.5				6.9
L-2-88-2			1.5	ND				
L-2-88-3			3.0	ND				
L-2-88-4			4.0	ND				
L-2-89-1	117° 39' 29"	33° 27' 36"	0.5	3.8				
L-2-89-2			1.5	2.1				
L-2-89-3			3.0	2.7				
L-2-89-4			4.0	ND				
L-2-90-1	117° 39' 27"	33° 27' 34"	0.5	4.2				
L-2-90-2			1.5	12.3				
L-2-90-3			3.0	8.1				
L-2-90-4			4.0	24.2				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B2. Summary of Laboratory Soil Test Results for Segment 2 (10 of 11)								
L-2-91-1	117° 39' 27"	33° 27' 35"	0.5	8.4				
L-2-91-2			1.5	3.6				
L-2-91-3			3.0	ND				
L-2-91-4			4.0	2.5				
L-2-92-1	117° 39' 26"	33° 27' 35"	0.5	85.3	2.2			6.8
L-2-92-2			1.5	38.2				
L-2-92-3			3.0	32.5				
L-2-92-4			4.0	47.2				
L-2-93-1	117° 39' 30"	33° 27' 37"	0.5	9.6				7.7
L-2-93-2			1.5	2.7				
L-2-93-3			3.0	2.2				
L-2-93-4			4.0	2.7				
L-2-94-1	117° 39' 29"	33° 27' 37"	0.5	12.5				
L-2-94-2			1.5	15.9				
L-2-94-3			3.0	21.6				
L-2-94-4			4.0	11.6				
L-2-95-1	117° 39' 34"	33° 27' 38"	0.5	19.2				
L-2-95-2			1.5	6.8				
L-2-95-3			3.0	2.6				
L-2-95-4			4.0	2.9				
L-2-96-1	117° 39' 31"	33° 27' 38"	0.5	68.0	4.6			
L-2-96-2			1.5	77.9	3.3			
L-2-96-3			3.0	80.1	2.4			
L-2-96-4			4.0	74.9	2.4			
L-2-97-1	117° 39' 38"	33° 27' 39"	0.5	4.0				
L-2-97-2			1.5	ND				
L-2-97-3			3.0	3.3				
L-2-97-4			4.0	2.9				
L-2-98-1	117° 39' 36"	33° 27' 40"	0.5	41.8				6.3
L-2-98-2			1.5	48.1				
L-2-98-3			3.0	35.9				
L-2-98-4			4.0	22.7				
L-2-99-1	117° 39' 40"	33° 27' 41"	0.5	28.8				7.9
L-2-99-2			1.5	20.8				
L-2-99-3			3.0	9.7				
L-2-99-4			4.0	3.9				
L-2-100-1	117° 39' 38"	33° 27' 41"	0.5	40.1				
L-2-100-2			1.5	27.6				
L-2-100-3			3.0	9.8				
L-2-100-4			4.0	12.2				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B2. Summary of Laboratory Soil Test Results for Segment 2 (11 of 11)								
L-2-101-1	117° 39' 43"	33° 27' 43"	0.5	16.3				
L-2-101-2			1.5	4.2				
L-2-101-3			3.0	2.2				
L-2-101-4			4.0	2.3				
L-2-102-1	117° 39' 41"	33° 27' 44"	0.5	33.0				
L-2-102-2			1.5	9.9				8.3
L-2-102-3			3.0	2.4				
L-2-102-4			4.0	2.9				

Table B3. Summary of Laboratory Soil Test Results for Segment 3 (1 of 6)								
Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
L-3-1-1	117° 39' 42"	33° 27' 45"	0.5	48.7				6.95
L-3-1-2			1.5	20.5				
L-3-1-3			3.0	5.8				
L-3-1-4			4.0	4.6				
L-3-2-1	117° 39' 44"	33° 27' 44"	0.5	14.8				
L-3-2-2			1.5	21.2				
L-3-2-3			3.0	15.1				
L-3-2-4			4.0	21.9				
L-3-3-1	117° 39' 46"	33° 27' 48"	0.5	68.4	1.1			6.12
L-3-3-2			1.5	13.2				
L-3-3-3			3.0	8.4				
L-3-3-4			4.0	18.6				
L-3-4-1	117° 39' 47"	33° 27' 48"	0.5	77.9	3.2			
L-3-4-2			1.5	15.5				
L-3-4-3			3.0	14.9				
L-3-4-4			4.0	8.4				
L-3-5-1	117° 39' 48"	33° 27' 50"	0.5	39.4				
L-3-5-2			1.5	14.3				
L-3-5-3			3.0	29.6				
L-3-5-4			4.0	33.9				
L-3-6-1	117° 39' 51"	33° 27' 47"	0.5	7.5				6.89
L-3-6-2			1.5	6.5				
L-3-6-3			3.0	2.9				
L-3-6-4			4.0	4.8				
L-3-7-1	117° 39' 51"	33° 27' 50"	0.5	281.0	6.0	ND	ND	6.03
L-3-7-2			1.5	12.6				
L-3-7-3			3.0	8.2				
L-3-7-4			4.0	9.8				
L-3-8-1	117° 39' 52"	33° 27' 49"	0.5	91.9	2.1			
L-3-8-2			1.5	13.1				
L-3-8-3			3.0	3.8				
L-3-8-4			4.0	16.0				
L-3-9-1	117° 39' 53"	33° 27' 51"	0.5	1600.0	31.9	0.8	0.10J	
L-3-9-2			1.5	67.9	1.4			
L-3-9-3			3.0	27.0				
L-3-9-4			4.0	21.0				
L-3-10-1	117° 39' 54"	33° 27' 51"	0.5	65.9	2.2			
L-3-10-2			1.5	70.3	2.2			
L-3-10-3			3.0	15.4				
L-3-10-4			4.0	11.1				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B3. Summary of Laboratory Soil Test Results for Segment 3 (2 of 6)								
L-3-11-1	117° 39' 57"	33° 27' 52"	0.5	487.0	19.0	0.46	ND	
L-3-11-2			1.5	8.3				
L-3-11-3			3.0	62.9	1.5			
L-3-11-4			4.0	10.2				
L-3-12-1	117° 39' 55"	33° 27' 53"	0.5	33.9				
L-3-12-2			1.5	55.9	0.7			
L-3-12-3			3.0	8.6				
L-3-12-4			4.0	5.2				
L-3-13-1	117° 39' 60"	33° 27' 53"	0.5	65.6	2.6			
L-3-13-2			1.5	26.5				
L-3-13-3			3.0	34.5				
L-3-13-4			4.0	26.8				
L-3-14-1	117° 40' 57"	33° 27' 55"	0.5	12.1				6.07
L-3-14-2			1.5	16.2				
L-3-14-3			3.0	14.5				
L-3-14-4			4.0	16.1				
L-3-15-1	117° 39' 2"	33° 27' 54"	0.5	63.4	1.1			
L-3-15-2			1.5	6.1				
L-3-15-3			3.0	39.7				
L-3-15-4			4.0	13.5				
L-3-16-1	117° 40' 58"	33° 27' 57"	0.5	34.1				
L-3-16-2			1.5	30.7				
L-3-16-3			3.0	10.8				
L-3-16-4			4.0	14.0				
L-3-17-1	117° 39' 5"	33° 27' 57"	0.5	66.4	1.4			
L-3-17-2			1.5	8.3				
L-3-17-3			3.0	8.4				
L-3-17-4			4.0	3.7				
L-3-18-1	117° 40' 60"	33° 27' 58"	0.5	75.9	2.5			
L-3-18-2			1.5	9.6				
L-3-18-3			3.0	3.3				
L-3-18-4			4.0	3.8				
L-3-19-1	117° 40' 8"	33° 27' 59"	0.5	137.0	4.5			6.4
L-3-19-2			1.5	5.7				
L-3-19-3			3.0	3.9				
L-3-19-4			4.0	4.2				
L-3-20-1	117° 40' 3"	33° 27' 57"	0.5	290.0	12.3	0.22J	ND	6.91
L-3-20-2			1.5	12.9				
L-3-20-3			3.0	7.8				
L-3-20-4			4.0	22.2				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B3. Summary of Laboratory Soil Test Results for Segment 3 (3 of 6)								
L-3-21-1	117° 40' 8"	33° 27' 59"	0.5	27.7				5.81
L-3-21-2			1.5	4.3				
L-3-21-3			3.0	2.9				
L-3-21-4			4.0	3.3				
L-3-22-1	117° 40' 0"	33° 27' 58"	0.5	29.8				6.83
L-3-22-2			1.5	8.6				
L-3-22-3			3.0	4.2				
L-3-22-4			4.0	4.3				
L-3-23-1	117° 40' 12"	33° 27' 57"	0.5	54.8	1.0			
L-3-23-2			1.5	15.8				
L-3-23-3			3.0	10.3				
L-3-23-4			4.0	5.1				
L-3-24-1	117° 40' 3"	33° 27' 56"	0.5	166.0	2.0			
L-3-24-2			1.5	13.8				
L-3-24-3			3.0	4.0				
L-3-24-4			4.0	5.0				
L-3-25-1	117° 40' 15"	33° 27' 58"	0.5	132.0	4.6			
L-3-25-2			1.5	12.6				
L-3-25-3			3.0	21.3				
L-3-25-4			4.0	12.6				
L-3-26-1	117° 40' 4"	33° 27' 54"	0.5	451.0	39.0	0.31J	ND	
L-3-26-2			1.5	27.3				
L-3-26-3			3.0	12.1				
L-3-26-4			4.0	38.8				
L-3-27-1	117° 40' 17"	33° 28' 1"	0.5	385.0	19.0	0.49	ND	6.94
L-3-27-2			1.5	24.9				
L-3-27-3			3.0	26.3				
L-3-27-4			4.0	164.0	6.0	ND	ND	
L-3-28-1	117° 40' 8"	33° 27' 51"	0.5	122.0	6.9	ND	ND	7.03
L-3-28-2			1.5	12.7				
L-3-28-3			3.0	9.4				
L-3-28-4			4.0	1.6				
L-3-29-1	117° 40' 20"	33° 28' 2"	0.5	68.4	1.3			
L-3-29-2			1.5	245.0	14.7	ND	ND	
L-3-29-3			3.0	9.7				
L-3-29-4			4.0	3.4				
L-3-30-1	117° 40' 12"	33° 28' 0"	0.5	82.4	2.6			
L-3-30-2			1.5	20.7				
L-3-30-3			3.0	5.2				
L-3-30-4			4.0	7.4				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B3. Summary of Laboratory Soil Test Results for Segment 3 (4 of 6)								
L-3-31-1	117° 40' 11"	33° 28' 5"	0.5	7.9				
L-3-31-2			1.5	3.8				
L-3-31-3			3.0	3.6				
L-3-31-4			4.0	4.7				
L-3-32-1	117° 40' 13"	33° 28' 1"	0.5	4.3				6.25
L-3-32-2			1.5	6.5				
L-3-32-3			3.0	5.0				
L-3-32-4			4.0	12.7				
L-3-33-1	117° 40' 14"	33° 28' 6"	0.5	4.2				6.06
L-3-33-2			1.5	ND				
L-3-33-3			3.0	2.5				
L-3-33-4			4.0	2.8				
L-3-34-1	117° 40' 16"	33° 28' 0"	0.5	20.4				7.16
L-3-34-2			1.5	4.3				
L-3-34-3			3.0	2.5				
L-3-34-4			4.0	2.6				
L-3-35-1	117° 40' 16"	33° 28' 4"	0.5	16.4				6.1
L-3-35-2			1.5	94.9	0.5			
L-3-35-3			3.0	5.9				
L-3-35-4			4.0	3.2				
L-3-36-1	117° 40' 15"	33° 28' 3"	0.5	36.4				6.4
L-3-36-2			1.5	34.6				
L-3-36-3			3.0	7.5				
L-3-36-4			4.0	27.0				
L-3-37-1	117° 40' 17"	33° 28' 5"	0.5	255.0	8.3	0.26J	ND	
L-3-37-2			1.5	13.8				
L-3-37-3			3.0	4.2				
L-3-37-4			4.0	2.9				
L-3-38-1	117° 40' 17"	33° 28' 1"	0.5	11.2				
L-3-38-2			1.5	22.2				
L-3-38-3			3.0	29.9				
L-3-38-4			4.0	9.6				
L-3-39-1	117° 40' 19"	33° 28' 7"	0.5	2.9				
L-3-39-2			1.5	ND				
L-3-39-3			3.0	ND				
L-3-39-4			4.0	2.2				
L-3-40-1	117° 40' 20"	33° 28' 4"	0.5	5.2				
L-3-40-2			1.5	4.2				
L-3-40-3			3.0	6.2				
L-3-40-4			4.0	3.9				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B3. Summary of Laboratory Soil Test Results for Segment 3 (5 of 6)								
L-3-41-1	117° 40' 20"	33° 28' 7"	0.5	17.1				6.5
L-3-41-2			1.5	3.9				
L-3-41-3			3.0	9.3				
L-3-41-4			4.0	3.3				
L-3-42-1	117° 40' 21"	33° 28' 4"	0.5	6.8				
L-3-42-2			1.5	101.0	ND			
L-3-42-3			3.0	19.7				
L-3-42-4			4.0	6.8				
L-3-43-1	117° 40' 21"	33° 28' 9"	0.5	10.1				
L-3-43-2			1.5	2.4				
L-3-43-3			3.0	3.0				
L-3-43-4			4.0	2.6				
L-3-44-1	117° 40' 23"	33° 28' 6"	0.5	83.3	2.2			6.36
L-3-44-2			1.5	13.1				
L-3-44-3			3.0	4.2				
L-3-44-4			4.0	3.0				
L-3-45-1	117° 40' 23"	33° 28' 12"	0.5	21.9				
L-3-45-2			1.5	5.8				
L-3-45-3			3.0	3.7				
L-3-45-4			4.0	2.1				
L-3-46-1	117° 40' 25"	33° 28' 9"	0.5	346.0	10.3	ND	ND	
L-3-46-2			1.5	18.5				
L-3-46-3			3.0	17.9				
L-3-46-4			4.0	32.3				
L-3-47-1	117° 40' 25"	33° 28' 15"	0.5	46.3				6.38
L-3-47-2			1.5	4.8				
L-3-47-3			3.0	3.9				
L-3-47-4			4.0	3.2				
L-3-48-1	117° 40' 27"	33° 28' 12"	0.5	8.8				
L-3-48-2			1.5	5.2				
L-3-48-3			3.0	4.6				
L-3-48-4			4.0	9.4				
L-3-49-1	117° 40' 28"	33° 28' 17"	0.5	319.0	11.5	0.53	ND	
L-3-49-2			1.5	6.4				
L-3-49-3			3.0	4.8				
L-3-49-4			4.0	3.4				
L-3-50-1	117° 40' 27"	33° 28' 14"	0.5	175.0	3.8			6.89
L-3-50-2			1.5	4.9				
L-3-50-3			3.0	2.1				
L-3-50-4			4.0	ND				

Sample ID	Latitude (Deg, Min, Sec)	Longitude (Deg, Min, Sec)	Sample Depth (ft)	Total Lead (mg/kg)	Wet-Citric (mg/l)	DI-WET (mg/l)	TCLP (mg/l)	pH
Table B3. Summary of Laboratory Soil Test Results for Segment 3 (6 of 6)								
L-3-51-1	117° 40' 29"	33° 28' 20"	0.5	68.1	2.6			6.06
L-3-51-2			1.5	11.0				
L-3-51-3			3.0	6.7				
L-3-51-4			4.0	4.7				
L-3-52-1	117° 40' 28"	33° 28' 17"	0.5	243.0	7.9	ND	ND	
L-3-52-2			1.5	46.6				
L-3-52-3			3.0	19.8				
L-3-52-4			4.0	47.4				
L-3-53-1	117° 40' 30"	33° 28' 20"	0.5	64.0	1.7			
L-3-53-2			1.5	80.6	2.5			
L-3-53-3			3.0	25.9				
L-3-53-4			4.0	17.3				
L-3-54-1	117° 40' 30"	33° 28' 23"	0.5	331.0	14.3	ND	ND	7.16
L-3-54-2			1.5	23.1				
L-3-54-3			3.0	5.9				
L-3-54-4			4.0	9.5				
L-3-55-1	117° 40' 30"	33° 28' 26"	0.5	80.2	4.7			
L-3-55-2			1.5	28.9				
L-3-55-3			3.0	16.5				
L-3-55-4			4.0	15.9				
L-3-56-1	117° 40' 30"	33° 28' 29"	0.5	922.0	42.3	0.6	0.15J	7.05
L-3-56-2			1.5	30.3				
L-3-56-3			3.0	20.0				
L-3-56-4			4.0	91.4	2.6			
L-3-57-1	117° 40' 29"	33° 28' 32"	0.5	355.0	15.4	0.30J	ND	
L-3-57-2			1.5	87.3	3.5			
L-3-57-3			3.0	5.6				
L-3-57-4			4.0	21.1				

MDL : Method Detection Limit;
PQL : Practical Quantitation Limit;
J : Trace Concentration. The Result is Between MDL and PQL

SEGMENT 1

BETWEEN STA. 163+00 AND STA. 210+00 ("A" LINE)

Alpha Scientific Corporation
Environmental Laboratories

Mr. Raja S. Pirathiviraj
Earth Mechanics Inc.
17800 Newhope Street, Suite B
Fountain Valley, CA 92708

Project: 11-135/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Sample Date: 01-27-2012 to 02-03-2012
Lab Job No.: EA201140 to EA202009

Dear Mr. Pirathiviraj:

Enclosed please find the analytical report for the sample(s) received by Alpha Scientific Corporation from 01-28-2012 to 02-04-2012 and analyzed by the following EPA methods:

EPA 6010B (Total Lead)
EPA 6010B (STLC Pb)
EPA 6010B (TCLP Pb)
EPA 6010B (DI Water STLC Pb)
EPA 9045 (Soil pH)

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled, intact) and with Chain of Custody record forms attached.

Alpha Scientific Corporation is a CA DHS certified laboratory (Certificate Number 2633). Thank you for giving us the opportunity to serve you. Please feel free to call me at (562) 809-8880 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph.D.
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-135/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201140 to EA202009

Date Sampled: 01-27-2012 to 02-03-2012
Date Received: 01-28-2012 to 02-04-2012
Date Digested: 01-31-2012 to 02-07-2012
Date Analyzed: 02-01-2012 to 02-09-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-1-01-1	EA202009-33	5	2
L-1-01-2	EA202009-34	2	2
L-1-01-3	EA202009-35	5.1	2
L-1-01-4	EA202009-36	2.2	2
L-1-02-1	EA202009-29	12.3	2
L-1-02-2	EA202009-30	3.2	2
L-1-02-3	EA202009-31	ND	2
L-1-02-4	EA202009-32	ND	2
L-1-03-1	EA202009-37	8.9	2
L-1-03-2	EA202009-38	19.5	2
L-1-03-3	EA202009-39	19	2
L-1-03-4	EA202009-40	2.2	2
L-1-04-1	EA202009-25	3	2
L-1-04-2	EA202009-26	3.9	2
L-1-04-3	EA202009-27	11.8	2
L-1-04-4	EA202009-28	3.3	2
L-1-05-1	EA202009-41	25.6	2
L-1-05-2	EA202009-42	8.6	2
L-1-05-3	EA202009-43	3.9	2
L-1-05-4	EA202009-44	5.4	2
L-1-06-1	EA202009-21	12.4	2
L-1-06-2	EA202009-22	ND	2
L-1-06-3	EA202009-23	2.6	2
L-1-06-4	EA202009-24	3.1	2
L-1-07-1	EA202009-45	22.1	2
L-1-07-2	EA202009-46	31.9	2
L-1-07-3	EA202009-47	9.8	2
L-1-07-4	EA202009-48	6.2	2
L-1-08-1	EA202009-17	17.5	2
L-1-08-2	EA202009-18	7	2
L-1-08-3	EA202009-19	2.7	2
L-1-08-4	EA202009-20	ND	2
L-1-09-1	EA202009-49	67.9	2
L-1-09-2	EA202009-50	10.8	2
L-1-09-3	EA202009-51	18.3	2
L-1-09-4	EA202009-52	6.3	2
L-1-10-1	EA202009-13	11.1	2
L-1-10-2	EA202009-14	18.8	2
L-1-10-3	EA202009-15	4.7	2
L-1-10-4	EA202009-16	ND	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-135/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201140 to EA202009

Date Sampled: 01-27-2012 to 02-03-2012
Date Received: 01-28-2012 to 02-04-2012
Date Digested: 01-31-2012 to 02-07-2012
Date Analyzed: 02-01-2012 to 02-09-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-1-11-1	EA202009-53	108	2
L-1-11-2	EA202009-54	17.4	2
L-1-11-3	EA202009-55	11.9	2
L-1-11-4	EA202009-56	20.1	2
L-1-12-1	EA202009-9	7.9	2
L-1-12-2	EA202009-10	3.5	2
L-1-12-3	EA202009-11	7.2	2
L-1-12-4	EA202009-12	8.2	2
L-1-13-1	EA202009-57	18.9	2
L-1-13-2	EA202009-58	21.1	2
L-1-13-3	EA202009-59	15.2	2
L-1-13-4	EA202009-60	33.9	2
L-1-14-1	EA202009-117	4.6	2
L-1-14-2	EA202009-118	52.7	2
L-1-14-3	EA202009-119	52.9	2
L-1-14-4	EA202009-120	256	2
L-1-15-1	EA202009-121	6.4	2
L-1-15-2	EA202009-122	3.8	2
L-1-15-3	EA202009-123	78.9	2
L-1-15-4	EA202009-124	42.1	2
L-1-16-1	EA202009-5	18.7	2
L-1-16-2	EA202009-6	14.2	2
L-1-16-3	EA202009-7	2.2	2
L-1-16-4	EA202009-8	ND	2
L-1-17-1	EA202009-61	6.6	2
L-1-17-2	EA202009-62	9.9	2
L-1-17-3	EA202009-63	2.7	2
L-1-17-4	EA202009-64	ND	2
L-1-18-1	EA202009-113	27.7	2
L-1-18-2	EA202009-114	15.3	2
L-1-18-3	EA202009-115	22.3	2
L-1-18-4	EA202009-116	21.6	2
L-1-19-1	EA202009-125	91.1	2
L-1-19-2	EA202009-126	41.1	2
L-1-19-3	EA202009-127	12.4	2
L-1-19-4	EA202009-128	2.7	2
L-1-20-1	EA202009-1	5.7	2
L-1-20-2	EA202009-2	2.3	2
L-1-20-3	EA202009-3	2.4	2
L-1-20-4	EA202009-4	2.2	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-135/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201140 to EA202009

Date Sampled: 01-27-2012 to 02-03-2012
Date Received: 01-28-2012 to 02-04-2012
Date Digested: 01-31-2012 to 02-07-2012
Date Analyzed: 02-01-2012 to 02-09-2012

EPA 6010B for Total Lead

Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-1-21-1	EA202009-65	4	2
L-1-21-2	EA202009-66	5.6	2
L-1-21-3	EA202009-67	ND	2
L-1-21-4	EA202009-68	ND	2
L-1-22-1	EA202009-109	18.2	2
L-1-22-2	EA202009-110	30.2	2
L-1-22-3	EA202009-111	21.7	2
L-1-22-4	EA202009-112	17.5	2
L-1-23-1	EA202009-129	9.3	2
L-1-23-2	EA202009-130	9.7	2
L-1-23-3	EA202009-131	41.3	2
L-1-23-4	EA202009-132	18.4	2
L-1-24-1	EA201140-21	9.6	2
L-1-24-2	EA201140-22	8.7	2
L-1-24-3	EA201140-23	10.4	2
L-1-24-4	EA201140-24	8.8	2
L-1-25-1	EA202009-69	22.1	2
L-1-25-2	EA202009-70	16.4	2
L-1-25-3	EA202009-71	3.2	2
L-1-25-4	EA202009-72	ND	2
L-1-26-1	EA202009-105	4.3	2
L-1-26-2	EA202009-106	3	2
L-1-26-3	EA202009-107	2.1	2
L-1-26-4	EA202009-108	7.3	2
L-1-27-1	EA202009-133	51.6	2
L-1-27-2	EA202009-134	17.9	2
L-1-27-3	EA202009-135	8.2	2
L-1-27-4	EA202009-136	11.5	2
L-1-28-1	EA201140-17	ND	2
L-1-28-2	EA201140-18	ND	2
L-1-28-3	EA201140-19	ND	2
L-1-28-4	EA201140-20	2.4	2
L-1-29-1	EA202009-73	19.8	2
L-1-29-2	EA202009-74	14.5	2
L-1-29-3	EA202009-75	3.5	2
L-1-29-4	EA202009-76	7.2	2
L-1-30-1	EA202009-101	21.6	2
L-1-30-2	EA202009-102	2.9	2
L-1-30-3	EA202009-103	6.2	2
L-1-30-4	EA202009-104	ND	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-135/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201140 to EA202009

Date Sampled: 01-27-2012 to 02-03-2012
Date Received: 01-28-2012 to 02-04-2012
Date Digested: 01-31-2012 to 02-07-2012
Date Analyzed: 02-01-2012 to 02-09-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-1-31-1	EA202009-137	32.4	2
L-1-31-2	EA202009-138	4.9	2
L-1-31-3	EA202009-139	7.8	2
L-1-31-4	EA202009-140	39	2
L-1-32-1	EA201140-13	3.7	2
L-1-32-2	EA201140-14	6.6	2
L-1-32-3	EA201140-15	3.6	2
L-1-32-4	EA201140-16	3.7	2
L-1-33-1	EA202009-77	108	2
L-1-33-2	EA202009-78	335	2
L-1-33-3	EA202009-79	25.3	2
L-1-33-4	EA202009-80	3.7	2
L-1-34-1	EA202009-97	3.8	2
L-1-34-2	EA202009-98	4.1	2
L-1-34-3	EA202009-99	124	2
L-1-34-4	EA202009-100	98.5	2
L-1-35-1	EA202009-81	12.9	2
L-1-35-2	EA202009-82	19.6	2
L-1-35-3	EA202009-83	4.7	2
L-1-35-4	EA202009-84	7.6	2
L-1-36-1	EA201140-9	3.9	2
L-1-36-2	EA201140-10	4.6	2
L-1-36-3	EA201140-11	7.5	2
L-1-36-4	EA201140-12	3.8	2
L-1-37-1	EA202009-85	82.7	2
L-1-37-2	EA202009-86	24.9	2
L-1-37-3	EA202009-87	11.3	2
L-1-37-4	EA202009-88	42.1	2
L-1-38-1	EA201140-5	7.9	2
L-1-38-2	EA201140-6	8.4	2
L-1-38-3	EA201140-7	12.4	2
L-1-38-4	EA201140-8	8.3	2

ND: Not Detected (at the specified limit).

Client: Earth Mechanics Inc.
Project: 11-135/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201140 to EA202009

Date Sampled: 01-27-2012 to 02-03-2012
Date Received: 01-28-2012 to 02-04-2012
Date Digested: 01-31-2012 to 02-07-2012
Date Analyzed: 02-01-2012 to 02-09-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-1-39-1	EA202009-89	61.9	2
L-1-39-2	EA202009-90	5.5	2
L-1-39-3	EA202009-91	2.5	2
L-1-39-4	EA202009-92	ND	2
L-1-40-1	EA201140-1	13.2	2
L-1-40-2	EA201140-2	12.5	2
L-1-40-3	EA201140-3	7.2	2
L-1-40-4	EA201140-4	15.2	2
L-1-41-1	EA202009-93	5.8	2
L-1-41-2	EA202009-94	4	2
L-1-41-3	EA202009-95	ND	2
L-1-41-4	EA202009-96	ND	2

ND: Not Detected (at the specified limit).

Client: Earth Mechanics Inc.
Project: 11-135/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil

Lab Job No.: EA202009

Date Sampled: 01-27 to 02-03-2012
Date Received: 2/4/2012
Date Analyzed: 2/17/2012

EPA 6010B (Pb, STLC)
Reporting Units: mg/L (ppm)

Sample ID	Lab ID	Lead, STLC	MDL	PQL
Extraction Blank		ND	0.1	0.2
L-1-09-1	EA202009-49	2.6	0.1	0.2
L-1-11-1	EA202009-53	0.96	0.1	0.2
L-1-14-2	EA202009-118	2.1	0.1	0.2
L-1-14-3	EA202009-119	0.8	0.1	0.2
L-1-14-4	EA202009-120	1.1	0.1	0.2
L-1-15-3	EA202009-123	2.5	0.1	0.2
L-1-19-1	EA202009-125	3.9	0.1	0.2
L-1-27-1	EA202009-133	1.7	0.1	0.2
L-1-33-1	EA202009-77	1.5	0.1	0.2
L-1-33-2	EA202009-78	23.8	0.1	0.2
L-1-34-3	EA202009-99	2.8	0.1	0.2
L-1-34-4	EA202009-100	3.8	0.1	0.2
L-1-37-1	EA202009-85	1.3	0.1	0.2
L-1-39-1	EA202009-89	0.15	0.1	0.2

Prep Method: Extraction Procedures, STLC Metals, Title 22, Cal Wet 66700, 48 hours (02-14 to 02-16-2012).

MDL: Method Detection Limit;
PQL: Practical Quantitation Limit
ND: Not Detected (below MDL).

Alpha Scientific Corporation
Environmental Laboratories

Client:	Earth Mechanics Inc.	Lab Job No.:	EA202009
Project:	11-135/I-5 HOV Improvement		
Project Site:	San Clemente to Capistrono	Date Sampled:	01-27 to 02-03-2012
Matrix:	Soil	Date Received:	2/4/2012
		Date Analyzed:	2/28/2012

EPA 6010B (Pb, TCLP)

Reporting Units: mg/L (ppm)

Sample ID	Lab ID	Lead, TCLP	MDL	PQL
Extraction Blank		ND	0.1	0.2
L-1-33-2	EA202009-78	0.18	0.1	0.2

Prep Method: EPA Method 1131, 18 hours (02-24 to 02-25-2012)

EPA 6010B (Pb, STLC-DI Water Extraction)

Reporting Units: mg/L (ppm)

Sample ID	Lab ID	Lead, DI-WET	MDL	PQL
Extraction Blank		ND	0.1	0.2
L-1-33-2	EA202009-78	0.18	0.1	0.2

Prep Method: STLC Metals, Title 22, Cal Wet 66700, 48 hours (02-24 to 02-26-2012).
DI water is used in the extraction instead of the normal STLC solution.

MDL: Method Detection Limit;
PQL: Practical Quantitation Limit;
J: Trace concentration. The result is between MDL and PQL

Client:	Earth Mechanics Inc.	Lab Job No.:	EA201140 to EA202009
Project:	11-135/I-5 HOV Improvement		
Project Site:	San Clemente to Capistrono	Date Sampled:	01-27-2012 to 02-03-2012
Matrix:	Soil	Date Received:	01-28-2012 to 02-04-2012
		Date Analyzed:	02-02-2012 to 02-09-2012

EPA Method 9045 (Soil pH)

Reporting Units: pH Unit

Sample ID	Lab ID	pH	Reporting Limit
L-1-02-1	EA202009-29	8.13	---
L-1-03-1	EA202009-37	7.75	---
L-1-06-1	EA202009-21	8.42	---
L-1-07-2	EA202009-46	8.19	---
L-1-10-2	EA202009-14	7.91	---
L-1-11-1	EA202009-53	8.45	---
L-1-16-1	EA202009-5	8.21	---
L-1-17-1	EA202009-61	7.97	---
L-1-19-2	EA202009-126	8.48	---
L-1-20-1	EA202009-1	8.04	---
L-1-25-1	EA202009-69	7.68	---
L-1-26-1	EA202009-105	8.00	---
L-1-27-2	EA202009-134	8.51	---
L-1-28-2	EA201140-18	8.87	---
L-1-33-1	EA202009-77	7.61	---
L-1-34-1	EA202009-97	8.14	---
L-1-38-1	EA201140-5	8.07	---
L-1-41-1	EA202009-93	8.15	---

SEGMENT 2

BETWEEN STA. 210+00 AND STA. 340+00 ("A" LINE)

Alpha Scientific Corporation
Environmental Laboratories

Mr. Raja S. Pirathiviraj
Earth Mechanics Inc.
17800 Newhope Street, Suite B
Fountain Valley, CA 92708

Project: 11-136/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Sample Date: 12-27-2011 to 01-27-2012
Lab Job No.: EA201001 to EA201139

Dear Mr. Pirathiviraj:

Enclosed please find the analytical report for the sample(s) received by Alpha Scientific Corporation from 01-02-2012 to 01-28-2012 and analyzed by the following EPA methods:

EPA 6010B (Total Lead)
EPA 6010B (STLC Pb)
EPA 6010B (TCLP Pb)
EPA 6010B (DI Water STLC Pb)
EPA 9045 (Soil pH)

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled, intact) and with Chain of Custody record forms attached.

Alpha Scientific Corporation is a CA DHS certified laboratory (Certificate Number 2633). Thank you for giving us the opportunity to serve you. Please feel free to call me at (562) 809-8880 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph.D.
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-136/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201139

Date Sampled: 12-27-2011 to 01-27-2012
Date Received: 01-02-2012 to 01-28-2012
Date Digested: 01-02-2012 to 01-31-2012
Date Analyzed: 01-06-2012 to 02-02-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-2-01-1	EA201089-89	13.7	2
L-2-01-2	EA201089-90	24.3	2
L-2-01-3	EA201089-91	22.8	2
L-2-01-4	EA201089-92	16.7	2
L-2-02-1	EA201089-85	16.8	2
L-2-02-2	EA201089-86	7.6	2
L-2-02-3	EA201089-87	9.3	2
L-2-02-4	EA201089-88	10.5	2
L-2-03-1	EA201089-93	24.9	2
L-2-03-2	EA201089-94	5.4	2
L-2-03-3	EA201089-95	6.1	2
L-2-03-4	EA201089-96	5.1	2
L-2-04-1	EA201089-81	11	2
L-2-04-2	EA201089-82	12.5	2
L-2-04-3	EA201089-83	12	2
L-2-04-4	EA201089-84	13.1	2
L-2-05-1	EA201089-97	7.6	2
L-2-05-2	EA201089-98	6.9	2
L-2-05-3	EA201089-99	5.7	2
L-2-05-4	EA201089-100	5.3	2
L-2-06-1	EA201089-77	8.5	2
L-2-06-2	EA201089-78	6.3	2
L-2-06-3	EA201089-79	10	2
L-2-06-4	EA201089-80	7.5	2
L-2-07-1	EA201089-101	3	2
L-2-07-2	EA201089-102	3.5	2
L-2-07-3	EA201089-103	ND	2
L-2-07-4	EA201089-104	2.9	2
L-2-08-1	EA201089-73	6	2
L-2-08-2	EA201089-74	4.9	2
L-2-08-3	EA201089-75	4.8	2
L-2-08-4	EA201089-76	5.7	2
L-2-09-1	EA201089-113	7.2	2
L-2-09-2	EA201089-114	2.7	2
L-2-09-3	EA201089-115	3.4	2
L-2-09-4	EA201089-116	ND	2
L-2-10-1	EA201089-69	4.4	2
L-2-10-2	EA201089-70	3.7	2
L-2-10-3	EA201089-71	3.7	2
L-2-10-4	EA201089-72	3.4	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-136/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201139

Date Sampled: 12-27-2011 to 01-27-2012
Date Received: 01-02-2012 to 01-28-2012
Date Digested: 01-02-2012 to 01-31-2012
Date Analyzed: 01-06-2012 to 02-02-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-2-11-1	EA201089-117	4	2
L-2-11-2	EA201089-118	4.7	2
L-2-11-3	EA201089-119	4.4	2
L-2-11-4	EA201089-120	4.5	2
L-2-12-1	EA201089-65	5.1	2
L-2-12-2	EA201089-66	3.8	2
L-2-12-3	EA201089-67	3.2	2
L-2-12-4	EA201089-68	3.7	2
L-2-13-1	EA201089-105	13.5	2
L-2-13-2	EA201089-106	3.2	2
L-2-13-3	EA201089-107	ND	2
L-2-13-4	EA201089-108	4.6	2
L-2-14-1	EA201089-61	2.1	2
L-2-14-2	EA201089-62	4.9	2
L-2-14-3	EA201089-63	5.1	2
L-2-14-4	EA201089-64	2.9	2
L-2-15-1	EA201089-109	7.3	2
L-2-15-2	EA201089-110	3.5	2
L-2-15-3	EA201089-111	3.1	2
L-2-15-4	EA201089-112	4.2	2
L-2-16-1	EA201089-57	7.8	2
L-2-16-2	EA201089-58	3.5	2
L-2-16-3	EA201089-59	6.8	2
L-2-16-4	EA201089-60	5.1	2
L-2-17-1	EA201089-121	6.6	2
L-2-17-2	EA201089-122	4.4	2
L-2-17-3	EA201089-123	4.8	2
L-2-17-4	EA201089-124	4.7	2
L-2-18-1	EA201089-53	5.9	2
L-2-18-2	EA201089-54	4.5	2
L-2-18-3	EA201089-55	18.1	2
L-2-18-4	EA201089-56	7	2
L-2-19-1	EA201089-125	6.5	2
L-2-19-2	EA201089-126	5.2	2
L-2-19-3	EA201089-127	5	2
L-2-19-4	EA201089-128	7.1	2
L-2-20-1	EA201089-49	3.8	2
L-2-20-2	EA201089-50	8.4	2
L-2-20-3	EA201089-51	5.6	2
L-2-20-4	EA201089-52	28.4	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-136/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201139

Date Sampled: 12-27-2011 to 01-27-2012
Date Received: 01-02-2012 to 01-28-2012
Date Digested: 01-02-2012 to 01-31-2012
Date Analyzed: 01-06-2012 to 02-02-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-2-21-1	EA201089-145	13.6	2
L-2-21-2	EA201089-146	3.2	2
L-2-21-3	EA201089-147	5.7	2
L-2-21-4	EA201089-148	4	2
L-2-22-1	EA201089-45	11.8	2
L-2-22-2	EA201089-46	7	2
L-2-22-3	EA201089-47	2.6	2
L-2-22-4	EA201089-48	3.5	2
L-2-23-1	EA201089-149	4.1	2
L-2-23-2	EA201089-150	5.6	2
L-2-23-3	EA201089-151	3.9	2
L-2-23-4	EA201089-152	3.2	2
L-2-24-1	EA201089-41	7.1	2
L-2-24-2	EA201089-42	6.8	2
L-2-24-3	EA201089-43	3.3	2
L-2-24-4	EA201089-44	3.5	2
L-2-25-1	EA201089-153	5.4	2
L-2-25-2	EA201089-154	5.4	2
L-2-25-3	EA201089-155	6.1	2
L-2-25-4	EA201089-156	4	2
L-2-26-1	EA201089-37	7	2
L-2-26-2	EA201089-38	4.7	2
L-2-26-3	EA201089-39	3.9	2
L-2-26-4	EA201089-40	3.6	2
L-2-27-1	EA201089-157	8.7	2
L-2-27-2	EA201089-158	4.8	2
L-2-27-3	EA201089-159	5.3	2
L-2-27-4	EA201089-160	6.3	2
L-2-28-1	EA201089-1	61.2	2
L-2-28-2	EA201089-2	18.1	2
L-2-28-3	EA201089-3	18.9	2
L-2-28-4	EA201089-4	16.8	2
L-2-29-1	EA201089-161	20.2	2
L-2-29-3	EA201089-163	5.6	2
L-2-29-4	EA201089-164	6.6	2
L-2-29-6	EA201089-162	6.6	2
L-2-30-1	EA201089-5	446	2
L-2-30-2	EA201089-6	67.4	2
L-2-30-3	EA201089-7	61.7	2
L-2-30-4	EA201089-8	66.2	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-136/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201139

Date Sampled: 12-27-2011 to 01-27-2012
Date Received: 01-02-2012 to 01-28-2012
Date Digested: 01-02-2012 to 01-31-2012
Date Analyzed: 01-06-2012 to 02-02-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-2-31-1	EA201001-217	20	2
L-2-31-2	EA201001-218	24.9	2
L-2-31-3	EA201001-219	5.4	2
L-2-31-4	EA201001-220	3.8	2
L-2-32-1	EA201089-9	44.8	2
L-2-32-2	EA201089-10	6.3	2
L-2-32-3	EA201089-11	14.3	2
L-2-32-4	EA201089-12	14.6	2
L-2-33-1	EA201001-221	11.1	2
L-2-33-2	EA201001-222	3.6	2
L-2-33-3	EA201001-223	ND	2
L-2-33-4	EA201001-224	ND	2
L-2-34-1	EA201089-13	282	2
L-2-34-2	EA201089-14	15.8	2
L-2-34-3	EA201089-15	6.2	2
L-2-34-4	EA201089-16	5.3	2
L-2-35-1	EA201089-165	21.8	2
L-2-35-2	EA201089-166	4.4	2
L-2-35-3	EA201089-167	5.5	2
L-2-35-4	EA201089-168	4.4	2
L-2-36-1	EA201089-17	8.1	2
L-2-36-2	EA201089-18	2.8	2
L-2-36-3	EA201089-19	3.4	2
L-2-36-4	EA201089-20	2.3	2
L-2-37-1	EA201139-1	11.4	2
L-2-37-2	EA201139-2	3.2	2
L-2-37-3	EA201139-3	4.2	2
L-2-37-4	EA201139-4	3.5	2
L-2-38-1	EA201089-21	4.7	2
L-2-38-2	EA201089-22	4.6	2
L-2-38-3	EA201089-23	51.2	2
L-2-38-4	EA201089-24	49.2	2
L-2-39-1	EA201139-5	26	2
L-2-39-2	EA201139-6	5.9	2
L-2-39-3	EA201139-7	6.4	2
L-2-39-4	EA201139-8	4.7	2
L-2-40-1	EA201089-25	9.9	2
L-2-40-2	EA201089-26	13	2
L-2-40-3	EA201089-27	6	2
L-2-40-4	EA201089-28	33.3	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-136/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201139

Date Sampled: 12-27-2011 to 01-27-2012
Date Received: 01-02-2012 to 01-28-2012
Date Digested: 01-02-2012 to 01-31-2012
Date Analyzed: 01-06-2012 to 02-02-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-2-41-1	EA201139-9	6.6	2
L-2-41-2	EA201139-10	9.6	2
L-2-41-3	EA201139-11	7	2
L-2-41-4	EA201139-12	5.3	2
L-2-42-1	EA201089-29	91.6	2
L-2-42-2	EA201089-30	55.9	2
L-2-42-3	EA201089-31	7.6	2
L-2-42-4	EA201089-32	4.9	2
L-2-43-1	EA201139-113	9	2
L-2-43-2	EA201139-114	12.9	2
L-2-43-3	EA201139-115	18	2
L-2-43-4	EA201139-116	13.2	2
L-2-44-1	EA201089-33	56.4	2
L-2-44-2	EA201089-34	119	2
L-2-44-3	EA201089-35	7.9	2
L-2-44-4	EA201089-36	3.4	2
L-2-45-1	EA201139-117	27.3	2
L-2-45-2	EA201139-118	6.4	2
L-2-45-3	EA201139-119	14.2	2
L-2-45-4	EA201139-120	10.1	2
L-2-46-1	EA201027-21	71.5	2
L-2-46-2	EA201027-22	25.7	2
L-2-46-3	EA201027-23	3.9	2
L-2-46-4	EA201027-24	6.2	2
L-2-47-1	EA201139-13	87.7	2
L-2-47-2	EA201139-14	118	2
L-2-47-3	EA201139-15	106	2
L-2-47-4	EA201139-16	73.5	2
L-2-48-1	EA201027-17	119	2
L-2-48-2	EA201027-18	7.2	2
L-2-48-3	EA201027-19	4.4	2
L-2-48-4	EA201027-20	6.2	2
L-2-49-1	EA201139-17	65.5	2
L-2-49-2	EA201139-18	22.3	2
L-2-49-3	EA201139-19	510	2
L-2-49-4	EA201139-20	18.1	2
L-2-50-1	EA201001-213	18.5	2
L-2-50-2	EA201001-214	4.7	2
L-2-50-3	EA201001-215	3.7	2
L-2-50-4	EA201001-216	ND	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-136/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201139

Date Sampled: 12-27-2011 to 01-27-2012
Date Received: 01-02-2012 to 01-28-2012
Date Digested: 01-02-2012 to 01-31-2012
Date Analyzed: 01-06-2012 to 02-02-2012

EPA 6010B for Total Lead

Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-2-51-1	EA201139-21	18	2
L-2-51-2	EA201139-22	91.5	2
L-2-51-3	EA201139-23	5.4	2
L-2-51-4	EA201139-24	3.7	2
L-2-52-1	EA201001-209	8.7	2
L-2-52-2	EA201001-210	6.1	2
L-2-52-3	EA201001-211	6.3	2
L-2-52-4	EA201001-212	3.5	2
L-2-53-1	EA201139-25	225	2
L-2-53-2	EA201139-26	26.8	2
L-2-53-3	EA201139-27	53.1	2
L-2-53-4	EA201139-28	11.8	2
L-2-54-1	EA201001-205	5.1	2
L-2-54-2	EA201001-206	271	2
L-2-54-3	EA201001-207	2.8	2
L-2-54-4	EA201001-208	4	2
L-2-55-1	EA201139-29	191	2
L-2-55-2	EA201139-30	8.9	2
L-2-55-3	EA201139-31	2.6	2
L-2-55-4	EA201139-32	2.7	2
L-2-56-1	EA201001-201	5.1	2
L-2-56-2	EA201001-202	3.8	2
L-2-56-3	EA201001-203	4.3	2
L-2-56-4	EA201001-204	4.8	2
L-2-57-1	EA201139-33	2.7	2
L-2-57-2	EA201139-34	79.6	2
L-2-57-3	EA201139-35	12.8	2
L-2-57-4	EA201139-36	7.6	2
L-2-58-1	EA201027-13	14.7	2
L-2-58-2	EA201027-14	3.1	2
L-2-58-3	EA201027-15	5.5	2
L-2-58-4	EA201027-16	6.4	2
L-2-59-1	EA201139-37	7.2	2
L-2-59-2	EA201139-38	19.7	2
L-2-59-3	EA201139-39	13.8	2
L-2-59-4	EA201139-40	4.1	2
L-2-60-1	EA201001-197	11.1	2
L-2-60-2	EA201001-198	4.1	2
L-2-60-3	EA201001-199	4.8	2
L-2-60-4	EA201001-200	5.2	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-136/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201139

Date Sampled: 12-27-2011 to 01-27-2012
Date Received: 01-02-2012 to 01-28-2012
Date Digested: 01-02-2012 to 01-31-2012
Date Analyzed: 01-06-2012 to 02-02-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-2-61-1	EA201139-41	10.1	2
L-2-61-2	EA201139-42	25.2	2
L-2-61-3	EA201139-43	5.8	2
L-2-61-4	EA201139-44	6.3	2
L-2-62-1	EA201001-193	56.7	2
L-2-62-2	EA201001-194	18	2
L-2-62-3	EA201001-195	38.4	2
L-2-62-4	EA201001-196	13.4	2
L-2-63-1	EA201139-45	8.7	2
L-2-63-2	EA201139-46	13.3	2
L-2-63-3	EA201139-47	3.2	2
L-2-63-4	EA201139-48	3.1	2
L-2-64-1	EA201027-9	7.8	2
L-2-64-2	EA201027-10	3.8	2
L-2-64-3	EA201027-11	4.5	2
L-2-64-4	EA201027-12	10.7	2
L-2-65-1	EA201139-49	26.3	2
L-2-65-2	EA201139-50	12.6	2
L-2-65-3	EA201139-51	4.5	2
L-2-65-4	EA201139-52	9.7	2
L-2-66-1	EA201027-5	7.3	2
L-2-66-2	EA201027-6	2.4	2
L-2-66-3	EA201027-7	4.6	2
L-2-66-4	EA201027-8	2.2	2
L-2-67-1	EA201139-53	3.2	2
L-2-67-2	EA201139-54	2.4	2
L-2-67-3	EA201139-55	ND	2
L-2-67-4	EA201139-56	3.4	2
L-2-68-1	EA201027-1	17.7	2
L-2-68-2	EA201027-2	4.7	2
L-2-68-3	EA201027-3	8.6	2
L-2-68-4	EA201027-4	4.7	2
L-2-69-1	EA201001-185	3.9	2
L-2-69-2	EA201001-186	5.2	2
L-2-69-3	EA201001-187	4.4	2
L-2-69-4	EA201001-188	3.1	2
L-2-70-1	EA201001-189	11.8	2
L-2-70-2	EA201001-190	2.4	2
L-2-70-3	EA201001-191	2.3	2
L-2-70-4	EA201001-192	ND	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-136/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201139

Date Sampled: 12-27-2011 to 01-27-2012
Date Received: 01-02-2012 to 01-28-2012
Date Digested: 01-02-2012 to 01-31-2012
Date Analyzed: 01-06-2012 to 02-02-2012

EPA 6010B for Total Lead

Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-2-71-1	EA201001-181	305	2
L-2-71-2	EA201001-182	15.4	2
L-2-71-3	EA201001-183	2.4	2
L-2-71-4	EA201001-184	2.7	2
L-2-72-1	EA201089-141	16.9	2
L-2-72-2	EA201089-142	2.1	2
L-2-72-3	EA201089-143	3.5	2
L-2-72-4	EA201089-144	3.2	2
L-2-73-1	EA201001-177	5.3	2
L-2-73-2	EA201001-178	ND	2
L-2-73-3	EA201001-179	ND	2
L-2-73-4	EA201001-180	2.3	2
L-2-75-1	EA201001-173	7.3	2
L-2-75-1	EA201139-57	10.9	2
L-2-75-2	EA201001-174	9.6	2
L-2-75-2	EA201139-58	2.7	2
L-2-75-3	EA201001-175	6.8	2
L-2-75-3	EA201139-59	4.4	2
L-2-75-4	EA201001-176	3.6	2
L-2-75-4	EA201139-60	3.2	2
L-2-76-1	EA201089-137	14.1	2
L-2-76-2	EA201089-138	2.3	2
L-2-76-3	EA201089-139	4.5	2
L-2-76-4	EA201089-140	5	2
L-2-77-1	EA201139-65	35.2	2
L-2-77-2	EA201139-66	4.6	2
L-2-77-3	EA201139-67	5	2
L-2-77-4	EA201139-68	2.1	2
L-2-78-1	EA201001-169	70.6	2
L-2-78-2	EA201001-170	10.2	2
L-2-78-3	EA201001-171	7.3	2
L-2-78-4	EA201001-172	9.6	2
L-2-79-1	EA201139-61	4	2
L-2-79-2	EA201139-62	2.4	2
L-2-79-3	EA201139-63	3.4	2
L-2-79-4	EA201139-64	6	2
L-2-80-1	EA201089-133	9.5	2
L-2-80-2	EA201089-134	4	2
L-2-80-3	EA201089-135	3.4	2
L-2-80-4	EA201089-136	21	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-136/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201139

Date Sampled: 12-27-2011 to 01-27-2012
Date Received: 01-02-2012 to 01-28-2012
Date Digested: 01-02-2012 to 01-31-2012
Date Analyzed: 01-06-2012 to 02-02-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-2-81-1	EA201139-69	4.9	2
L-2-81-2	EA201139-70	4	2
L-2-81-3	EA201139-71	2.9	2
L-2-81-4	EA201139-72	3.9	2
L-2-82-1	EA201001-165	26.1	2
L-2-82-2	EA201001-166	20.6	2
L-2-82-3	EA201001-167	18.4	2
L-2-82-4	EA201001-168	16	2
L-2-83-1	EA201139-73	59.4	2
L-2-83-2	EA201139-74	5.8	2
L-2-83-3	EA201139-75	3.5	2
L-2-83-4	EA201139-76	2.4	2
L-2-84-1	EA201089-129	8.2	2
L-2-84-2	EA201089-130	3.7	2
L-2-84-3	EA201089-131	2..4	2
L-2-84-4	EA201089-132	4.1	2
L-2-85-1	EA201139-77	10.3	2
L-2-85-2	EA201139-78	4.3	2
L-2-85-3	EA201139-79	2.1	2
L-2-85-4	EA201139-80	2.4	2
L-2-86-1	EA201001-153	18.8	2
L-2-86-2	EA201001-154	141	2
L-2-86-3	EA201001-155	33.2	2
L-2-86-4	EA201001-156	21.4	2
L-2-87-1	EA201001-157	31.7	2
L-2-87-2	EA201001-158	9.6	2
L-2-87-3	EA201001-159	ND	2
L-2-87-4	EA201001-160	3.3	2
L-2-88-1	EA201001-161	3.5	2
L-2-88-2	EA201001-162	ND	2
L-2-88-3	EA201001-163	ND	2
L-2-88-4	EA201001-164	ND	2
L-2-89-1	EA201139-85	3.8	2
L-2-89-2	EA201139-86	2.1	2
L-2-89-3	EA201139-87	2.7	2
L-2-89-4	EA201139-88	ND	2
L-2-90-1	EA201001-149	4.2	2
L-2-90-2	EA201001-150	12.3	2
L-2-90-3	EA201001-151	8.1	2
L-2-90-4	EA201001-152	24.2	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-136/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201139

Date Sampled: 12-27-2011 to 01-27-2012
Date Received: 01-02-2012 to 01-28-2012
Date Digested: 01-02-2012 to 01-31-2012
Date Analyzed: 01-06-2012 to 02-02-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-2-91-1	EA201139-81	8.4	2
L-2-91-2	EA201139-82	3.6	2
L-2-91-3	EA201139-83	ND	2
L-2-91-4	EA201139-84	2.5	2
L-2-92-1	EA201001-145	85.3	2
L-2-92-2	EA201001-146	38.2	2
L-2-92-3	EA201001-147	32.5	2
L-2-92-4	EA201001-148	47.2	2
L-2-93-1	EA201139-89	9.6	2
L-2-93-2	EA201139-90	2.7	2
L-2-93-3	EA201139-91	2.2	2
L-2-93-4	EA201139-92	2.7	2
L-2-94-1	EA201001-141	12.5	2
L-2-94-2	EA201001-142	15.9	2
L-2-94-3	EA201001-143	21.6	2
L-2-94-4	EA201001-144	11.6	2
L-2-95-1	EA201139-93	19.2	2
L-2-95-2	EA201139-94	6.8	2
L-2-95-3	EA201139-95	2.6	2
L-2-95-4	EA201139-96	2.9	2
L-2-96-1	EA201001-137	68	2
L-2-96-2	EA201001-138	77.9	2
L-2-96-3	EA201001-139	80.1	2
L-2-96-4	EA201001-140	74.9	2
L-2-97-1	EA201139-97	4	2
L-2-97-2	EA201139-98	ND	2
L-2-97-3	EA201139-99	3.3	2
L-2-97-4	EA201139-100	2.9	2
L-2-98-1	EA201001-133	41.8	2
L-2-98-2	EA201001-134	48.1	2
L-2-98-3	EA201001-135	35.9	2
L-2-98-4	EA201001-136	22.7	2
L-2-99-1	EA201139-101	28.8	2
L-2-99-2	EA201139-102	20.8	2
L-2-99-3	EA201139-103	9.7	2
L-2-99-4	EA201139-104	3.9	2
L-2-100-1	EA201001-129	40.1	2
L-2-100-2	EA201001-130	27.6	2
L-2-100-3	EA201001-131	9.8	2
L-2-100-4	EA201001-132	12.2	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-136/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201139

Date Sampled: 12-27-2011 to 01-27-2012
Date Received: 01-02-2012 to 01-28-2012
Date Digested: 01-02-2012 to 01-31-2012
Date Analyzed: 01-06-2012 to 02-02-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-2-101-1	EA201139-105	16.3	2
L-2-101-2	EA201139-106	4.2	2
L-2-101-3	EA201139-107	2.2	2
L-2-101-4	EA201139-108	2.3	2
L-2-102-1	EA201139-109	33	2
L-2-102-2	EA201139-110	9.9	2
L-2-102-3	EA201139-111	2.4	2
L-2-102-4	EA201139-112	2.9	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client:	Earth Mechanics Inc.	Lab Job No.:	EA201001 to EA201139
Project:	11-136/I-5 HOV Improvement		
Project Site:	San Clemente to Capistrono	Date Sampled:	12-27-2011 to 01-27-2012
Matrix:	Soil	Date Received:	01-02-2012 to 01-28-2012
		Date Analyzed:	01-24-2012 to 02-06-2012

EPA 6010B (Pb, STLC)
Reporting Units: mg/L (ppm)

Sample ID	Lab ID	Lead, STLC	MDL	PQL
Extraction Blank		ND	0.1	0.2
L-2-28-1	EA201089-1	1.3	0.1	0.2
L-2-30-1	EA201089-5	1.3	0.1	0.2
L-2-30-2	EA201089-6	1.7	0.1	0.2
L-2-30-3	EA201089-7	1.3	0.1	0.2
L-2-30-4	EA201089-8	1.4	0.1	0.2
L-2-34-1	EA201089-13	16.1	0.1	0.2
L-2-38-3	EA201089-23	0.13	0.1	0.2
L-2-42-1	EA201089-29	3.1	0.1	0.2
L-2-42-2	EA201089-30	3.4	0.1	0.2
L-2-44-1	EA201089-33	1.8	0.1	0.2
L-2-44-2	EA201089-34	5.8	0.1	0.2
L-2-46-1	EA201027-21	1.3	0.1	0.2
L-2-47-1	EA201139-13	4.5	0.1	0.2
L-2-47-2	EA201139-14	7.7	0.1	0.2
L-2-47-3	EA201139-15	5.5	0.1	0.2
L-2-47-4	EA201139-16	5.3	0.1	0.2
L-2-48-1	EA201027-17	2.6	0.1	0.2
L-2-49-1	EA201139-17	0.84	0.1	0.2
L-2-49-3	EA201139-19	4.1	0.1	0.2
L-2-51-2	EA201139-22	1.8	0.1	0.2
L-2-53-1	EA201139-25	16.1	0.1	0.2
L-2-53-3	EA201139-27	1.1	0.1	0.2
L-2-54-2	EA201001-206	6.9	0.1	0.2
L-2-55-1	EA201139-29	22	0.1	0.2
L-2-57-2	EA201139-34	4.6	0.1	0.2
L-2-62-1	EA201001-193	0.9	0.1	0.2
L-2-71-1	EA201001-181	11.2	0.1	0.2
L-2-78-1	EA201001-169	2.6	0.1	0.2
L-2-83-1	EA201139-73	1.6	0.1	0.2
L-2-86-2	EA201001-154	4.1	0.1	0.2
L-2-92-1	EA201001-145	2.2	0.1	0.2
L-2-96-1	EA201001-137	4.6	0.1	0.2
L-2-96-2	EA201001-138	3.3	0.1	0.2
L-2-96-3	EA201001-139	2.4	0.1	0.2
L-2-96-4	EA201001-140	2.4	0.1	0.2

Prep Method: Extraction Procedures, STLC Metals, Title 22, Cal Wet 66700, 48 hours.

MDL: Method Detection Limit;
PQL: Practical Quantitation Limit
ND: Not Detected (below MDL).

Client:	Earth Mechanics Inc.	Lab Job No.:	EA201001 to EA201139
Project:	11-136/I-5 HOV Improvement		
Project Site:	San Clemente to Capistrono	Date Sampled:	12-27-2011 to 01-27-2012
Matrix:	Soil	Date Received:	01-02-2012 to 01-28-2012
		Date Analyzed:	02-27&28-2012

EPA 6010B (Pb, TCLP)

Reporting Units: mg/L (ppm)

Sample ID	Lab ID	Lead, TCLP	MDL	PQL
Extraction Blank		ND	0.1	0.2
L-2-34-1	EA201089-13	ND	0.1	0.2
L-2-44-2	EA201089-34	ND	0.1	0.2
L-2-47-2	EA201139-14	ND	0.1	0.2
L-2-47-3	EA201139-15	ND	0.1	0.2
L-2-47-4	EA201139-16	ND	0.1	0.2
L-2-53-1	EA201139-25	ND	0.1	0.2
L-2-54-2	EA201001-206	ND	0.1	0.2
L-2-55-1	EA201139-29	ND	0.1	0.2
L-2-71-1	EA201001-181	ND	0.1	0.2

Prep Method: EPA Method 1131, 18 hours (02-24 to 02-25-2012)

EPA 6010B (Pb, STLC-DI Water Extraction)

Reporting Units: mg/L (ppm)

Sample ID	Lab ID	Lead, DI-WET	MDL	PQL
Extraction Blank		ND	0.2	0.4
L-2-34-1	EA201089-13	ND	0.2	0.4
L-2-44-2	EA201089-34	ND	0.2	0.4
L-2-47-2	EA201139-14	ND	0.2	0.4
L-2-47-3	EA201139-15	ND	0.2	0.4
L-2-47-4	EA201139-16	ND	0.2	0.4
L-2-53-1	EA201139-25	ND	0.2	0.4
L-2-54-2	EA201001-206	ND	0.2	0.4
L-2-55-1	EA201139-29	ND	0.2	0.4
L-2-71-1	EA201001-181	ND	0.2	0.4

Prep Method: STLC Metals, Title 22, Cal Wet 66700, 48 hours (02-24 to 02-26-2012).
DI water is used in the extraction instead of the normal STLC solution.

MDL: Method Detection Limit;
PQL: Practical Quantitation Limit;
J: Trace concentration. The result is between MDL and PQL

Alpha Scientific Corporation
Environmental Laboratories

Client:	Earth Mechanics Inc.	Lab Job No.:	EA201001 to EA201139
Project:	11-136/I-5 HOV Improvement		
Project Site:	San Clemente to Capistrono	Date Sampled:	12-27-2011 to 01-27-2012
Matrix:	Soil	Date Received:	01-02-2012 to 01-28-2012
		Date Analyzed:	01-04-2012 to 02-02-2012

EPA Method 9045 (Soil pH)

Reporting Units: pH Unit

Sample ID	Lab ID	pH	Reporting Limit
L-2-01-1	EA201089-89	7.17	---
L-2-05-2	EA201089-98	7.22	---
L-2-06-2	EA201089-78	7.06	---
L-2-08-1	EA201089-73	7.14	---
L-2-11-3	EA201089-119	7.20	---
L-2-13-1	EA201089-105	7.29	---
L-2-14-2	EA201089-62	7.37	---
L-2-16-1	EA201089-57	7.27	---
L-2-17-2	EA201089-122	7.65	---
L-2-21-1	EA201089-145	7.41	---
L-2-22-1	EA201089-45	7.89	---
L-2-27-3	EA201089-159	7.28	---
L-2-28-2	EA201089-2	7.61	---
L-2-31-1	EA201001-217	6.67	---
L-2-34-1	EA201089-13	7.72	---
L-2-37-2	EA201139-2	7.15	---
L-2-40-2	EA201089-26	7.05	---
L-2-42-1	EA201139-9	7.46	---
L-2-44-2	EA201089-34	7.08	---
L-2-45-1	EA201139-117	8.53	---
L-2-50-1	EA201001-213	6.13	---
L-2-51-1	EA201139-21	7.55	---
L-2-54-1	EA201001-205	6.24	---
L-2-57-1	EA201139-33	7.68	---
L-2-61-2	EA201139-42	7.50	---
L-2-62-1	EA201001-193	7.08	---
L-2-63-1	EA201139-45	7.70	---
L-2-69-1	EA201001-185	6.61	---
L-2-75-1	EA201001-173	6.56	---
L-2-75-1	EA201139-57	7.92	---
L-2-76-1	EA201089-137	7.58	---
L-2-78-1	EA201001-169	6.71	---
L-2-81-1	EA201139-69	7.90	---
L-2-83-2	EA201139-74	7.99	---
L-2-87-1	EA201001-157	7.16	---
L-2-88-1	EA201001-161	6.87	---
L-2-92-1	EA201001-145	6.81	---
L-2-93-1	EA201139-89	7.66	---
L-2-98-1	EA201001-133	6.34	---
L-2-99-1	EA201139-101	7.86	---
L-2-102-2	EA201139-110	8.27	---

SEGMENT 3

BETWEEN STA. 340+00 AND STA. 408+00 ("A" LINE)

Alpha Scientific Corporation
Environmental Laboratories

Mr. Raja S. Pirathiviraj
Earth Mechanics Inc.
17800 Newhope Street, Suite B
Fountain Valley, CA 92708

Project: 11-137/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Sample Date: 12-27-2011 to 01-06-2012
Lab Job No.: EA201001 to EA201027

Dear Mr. Pirathiviraj:

Enclosed please find the analytical report for the sample(s) received by Alpha Scientific Corporation from 01-02-2012 to 01-07-2012 and analyzed by the following EPA methods:

EPA 6010B (Total Lead)
EPA 6010B (STLC Pb)
EPA 6010B (TCLP Pb)
EPA 6010B (DI Water STLC Pb)
EPA 9045 (Soil pH)

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled, intact) and with Chain of Custody record forms attached.

Alpha Scientific Corporation is a CA DHS certified laboratory (Certificate Number 2633). Thank you for giving us the opportunity to serve you. Please feel free to call me at (562) 809-8880 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph.D.
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-137/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201027

Date Sampled: 12-27-2011 to 01-06-2012
Date Received: 01-02-2012 to 01-07-2012
Date Digested: 01-02-2012 to 01-12-2012
Date Analyzed: 01-06-2012 to 01-19-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-3-01-1	EA201001-125	48.7	2
L-3-01-2	EA201001-126	20.5	2
L-3-01-3	EA201001-127	5.8	2
L-3-01-4	EA201001-128	4.6	2
L-3-02-1	EA201001-121	14.8	2
L-3-02-2	EA201001-122	21.2	2
L-3-02-3	EA201001-123	15.1	2
L-3-02-4	EA201001-124	21.9	2
L-3-03-1	EA201027-37	68.4	2
L-3-03-2	EA201027-38	13.2	2
L-3-03-3	EA201027-39	8.4	2
L-3-03-4	EA201027-40	18.6	2
L-3-04-1	EA201001-117	77.9	2
L-3-04-2	EA201001-118	15.5	2
L-3-04-3	EA201001-119	14.9	2
L-3-04-4	EA201001-120	8.4	2
L-3-05-1	EA201027-33	39.4	2
L-3-05-2	EA201027-34	14.3	2
L-3-05-3	EA201027-35	29.6	2
L-3-05-4	EA201027-36	33.9	2
L-3-06-1	EA201001-113	7.5	2
L-3-06-2	EA201001-114	6.5	2
L-3-06-3	EA201001-115	2.9	2
L-3-06-4	EA201001-116	4.8	2
L-3-07-1	EA201027-25	281	2
L-3-07-2	EA201027-26	12.6	2
L-3-07-3	EA201027-27	8.2	2
L-3-07-4	EA201027-28	9.8	2
L-3-08-1	EA201001-109	91.9	2
L-3-08-2	EA201001-110	13.1	2
L-3-08-3	EA201001-111	3.8	2
L-3-08-4	EA201001-112	16.0	2
L-3-09-1	EA201027-29	1,600	2
L-3-09-2	EA201027-30	67.9	2
L-3-09-3	EA201027-31	27.0	2
L-3-09-4	EA201027-32	21.0	2
L-3-10-1	EA201001-105	65.9	2
L-3-10-2	EA201001-106	70.3	2
L-3-10-3	EA201001-107	15.4	2
L-3-10-4	EA201001-108	11.1	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-137/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201027

Date Sampled: 12-27-2011 to 01-06-2012
Date Received: 01-02-2012 to 01-07-2012
Date Digested: 01-02-2012 to 01-12-2012
Date Analyzed: 01-06-2012 to 01-19-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-3-11-1	EA201027-41	487	2
L-3-11-2	EA201027-42	8.3	2
L-3-11-3	EA201027-43	62.9	2
L-3-11-4	EA201027-44	10.2	2
L-3-12-1	EA201001-101	33.9	2
L-3-12-2	EA201001-102	55.9	2
L-3-12-3	EA201001-103	8.6	2
L-3-12-4	EA201001-104	5.2	2
L-3-13-1	EA201027-45	65.6	2
L-3-13-2	EA201027-46	26.5	2
L-3-13-3	EA201027-47	34.5	2
L-3-13-4	EA201027-48	26.8	2
L-3-14-1	EA201001-97	12.1	2
L-3-14-2	EA201001-98	16.2	2
L-3-14-3	EA201001-99	14.5	2
L-3-14-4	EA201001-100	16.1	2
L-3-15-1	EA201027-49	63.4	2
L-3-15-2	EA201027-50	6.1	2
L-3-15-3	EA201027-51	39.7	2
L-3-15-4	EA201027-52	13.5	2
L-3-16-1	EA201001-69	34.1	2
L-3-16-2	EA201001-70	30.7	2
L-3-16-3	EA201001-71	10.8	2
L-3-16-4	EA201001-72	14	2
L-3-17-1	EA201027-69	66.4	2
L-3-17-2	EA201027-70	8.3	2
L-3-17-3	EA201027-71	8.4	2
L-3-17-4	EA201027-72	3.7	2
L-3-18-1	EA201001-65	75.9	2
L-3-18-2	EA201001-66	9.6	2
L-3-18-3	EA201001-67	3.3	2
L-3-18-4	EA201001-68	3.8	2
L-3-19-1	EA201027-53	137	2
L-3-19-2	EA201027-54	5.7	2
L-3-19-3	EA201027-55	3.9	2
L-3-19-4	EA201027-56	4.2	2
L-3-20-1	EA201001-61	290	2
L-3-20-2	EA201001-62	12.9	2
L-3-20-3	EA201001-63	7.8	2
L-3-20-4	EA201001-64	22.2	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-137/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201027

Date Sampled: 12-27-2011 to 01-06-2012
Date Received: 01-02-2012 to 01-07-2012
Date Digested: 01-02-2012 to 01-12-2012
Date Analyzed: 01-06-2012 to 01-19-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-3-21-1	EA201027-65	27.7	2
L-3-21-2	EA201027-66	4.3	2
L-3-21-3	EA201027-67	2.9	2
L-3-21-4	EA201027-68	3.3	2
L-3-22-1	EA201001-93	29.8	2
L-3-22-2	EA201001-94	8.6	2
L-3-22-3	EA201001-95	4.2	2
L-3-22-4	EA201001-96	4.3	2
L-3-23-1	EA201027-57	54.8	2
L-3-23-2	EA201027-58	15.8	2
L-3-23-3	EA201027-59	10.3	2
L-3-23-4	EA201027-60	5.1	2
L-3-24-1	EA201001-89	166	2
L-3-24-2	EA201001-90	13.8	2
L-3-24-3	EA201001-91	4.0	2
L-3-24-4	EA201001-92	5.0	2
L-3-25-1	EA201027-61	132	2
L-3-25-2	EA201027-62	12.6	2
L-3-25-3	EA201027-63	21.3	2
L-3-25-4	EA201027-64	12.6	2
L-3-26-1	EA201001-85	451	2
L-3-26-2	EA201001-86	27.3	2
L-3-26-3	EA201001-87	12.1	2
L-3-26-4	EA201001-88	38.8	2
L-3-27-1	EA201027-73	385	2
L-3-27-2	EA201027-74	24.9	2
L-3-27-3	EA201027-75	26.3	2
L-3-27-4	EA201027-76	164	2
L-3-28-1	EA201001-81	122	2
L-3-28-2	EA201001-82	12.7	2
L-3-28-3	EA201001-83	9.4	2
L-3-28-4	EA201001-84	1.6	2
L-3-29-1	EA201027-77	68.4	2
L-3-29-2	EA201027-78	245	2
L-3-29-3	EA201027-79	9.7	2
L-3-29-4	EA201027-80	3.4	2
L-3-30-1	EA201001-57	82.4	2
L-3-30-2	EA201001-58	20.7	2
L-3-30-3	EA201001-59	5.2	2
L-3-30-4	EA201001-60	7.4	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-137/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201027

Date Sampled: 12-27-2011 to 01-06-2012
Date Received: 01-02-2012 to 01-07-2012
Date Digested: 01-02-2012 to 01-12-2012
Date Analyzed: 01-06-2012 to 01-19-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-3-31-1	EA201027-85	7.9	2
L-3-31-2	EA201027-86	3.8	2
L-3-31-3	EA201027-87	3.6	2
L-3-31-4	EA201027-88	4.7	2
L-3-32-1	EA201001-53	4.3	2
L-3-32-2	EA201001-54	6.5	2
L-3-32-3	EA201001-55	5	2
L-3-32-4	EA201001-56	12.7	2
L-3-33-1	EA201027-89	4.2	2
L-3-33-2	EA201027-90	ND	2
L-3-33-3	EA201027-91	2.5	2
L-3-33-4	EA201027-92	2.8	2
L-3-34-1	EA201001-49	20.4	2
L-3-34-2	EA201001-50	4.3	2
L-3-34-3	EA201001-51	2.5	2
L-3-34-4	EA201001-52	2.6	2
L-3-35-1	EA201027-81	16.4	2
L-3-35-2	EA201027-82	94.9	2
L-3-35-3	EA201027-83	5.9	2
L-3-35-4	EA201027-84	3.2	2
L-3-36-1	EA201001-45	36.4	2
L-3-36-2	EA201001-46	34.6	2
L-3-36-3	EA201001-47	7.5	2
L-3-36-4	EA201001-48	27	2
L-3-37-1	EA201027-113	255	2
L-3-37-2	EA201027-114	13.8	2
L-3-37-3	EA201027-115	4.2	2
L-3-37-4	EA201027-116	2.9	2
L-3-38-1	EA201001-77	11.2	2
L-3-38-2	EA201001-78	22.2	2
L-3-38-3	EA201001-79	29.9	2
L-3-38-4	EA201001-80	9.6	2
L-3-39-1	EA201027-93	2.9	2
L-3-39-2	EA201027-94	ND	2
L-3-39-3	EA201027-95	ND	2
L-3-39-4	EA201027-96	2.2	2
L-3-40-1	EA201001-41	5.2	2
L-3-40-2	EA201001-42	4.2	2
L-3-40-3	EA201001-43	6.2	2
L-3-40-4	EA201001-44	3.9	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-137/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201027

Date Sampled: 12-27-2011 to 01-06-2012
Date Received: 01-02-2012 to 01-07-2012
Date Digested: 01-02-2012 to 01-12-2012
Date Analyzed: 01-06-2012 to 01-19-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-3-41-1	EA201027-117	17.1	2
L-3-41-2	EA201027-118	3.9	2
L-3-41-3	EA201027-119	9.3	2
L-3-41-4	EA201027-120	3.3	2
L-3-42-1	EA201001-73	6.8	2
L-3-42-2	EA201001-74	101	2
L-3-42-3	EA201001-75	19.7	2
L-3-42-4	EA201001-76	6.8	2
L-3-43-1	EA201027-121	10.1	2
L-3-43-2	EA201027-122	2.4	2
L-3-43-3	EA201027-123	3.0	2
L-3-43-4	EA201027-124	2.6	2
L-3-44-1	EA201001-37	83.3	2
L-3-44-2	EA201001-38	13.1	2
L-3-44-3	EA201001-39	4.2	2
L-3-44-4	EA201001-40	3.0	2
L-3-45-1	EA201027-97	21.9	2
L-3-45-2	EA201027-98	5.8	2
L-3-45-3	EA201027-99	3.7	2
L-3-45-4	EA201027-100	2.1	2
L-3-46-1	EA201001-33	346	2
L-3-46-2	EA201001-34	18.5	2
L-3-46-3	EA201001-35	17.9	2
L-3-46-4	EA201001-36	32.3	2
L-3-47-1	EA201027-101	46.3	2
L-3-47-2	EA201027-102	4.8	2
L-3-47-3	EA201027-103	3.9	2
L-3-47-4	EA201027-104	3.2	2
L-3-48-1	EA201001-1	8.8	2
L-3-48-2	EA201001-2	5.2	2
L-3-48-3	EA201001-3	4.6	2
L-3-48-4	EA201001-4	9.4	2
L-3-49-1	EA201027-105	319	2
L-3-49-2	EA201027-106	6.4	2
L-3-49-3	EA201027-107	4.8	2
L-3-49-4	EA201027-108	3.4	2
L-3-50-1	EA201001-5	175	2
L-3-50-2	EA201001-6	4.9	2
L-3-50-3	EA201001-7	2.1	2
L-3-50-4	EA201001-8	ND	2

ND: Not Detected (at the specified limit).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-137/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil
Digestion Method: EPA 3050B

Lab Job No.: EA201001 to EA201027

Date Sampled: 12-27-2011 to 01-06-2012
Date Received: 01-02-2012 to 01-07-2012
Date Digested: 01-02-2012 to 01-12-2012
Date Analyzed: 01-06-2012 to 01-19-2012

EPA 6010B for Total Lead
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead	Reporting Limit
Method Blank		ND	2
L-3-51-1	EA201027-109	68.1	2
L-3-51-2	EA201027-110	11.0	2
L-3-51-3	EA201027-111	6.7	2
L-3-51-4	EA201027-112	4.7	2
L-3-52-1	EA201001-9	243	2
L-3-52-2	EA201001-10	46.6	2
L-3-52-3	EA201001-11	19.8	2
L-3-52-4	EA201001-12	47.4	2
L-3-53-1	EA201001-13	64.0	2
L-3-53-2	EA201001-14	80.6	2
L-3-53-3	EA201001-15	25.9	2
L-3-53-4	EA201001-16	17.3	2
L-3-54-1	EA201001-17	331	2
L-3-54-2	EA201001-18	23.1	2
L-3-54-3	EA201001-19	5.9	2
L-3-54-4	EA201001-20	9.5	2
L-3-55-1	EA201001-21	80.2	2
L-3-55-2	EA201001-22	28.9	2
L-3-55-3	EA201001-23	16.5	2
L-3-55-4	EA201001-24	15.9	2
L-3-56-1	EA201001-25	922	2
L-3-56-2	EA201001-26	30.3	2
L-3-56-3	EA201001-27	20.0	2
L-3-56-4	EA201001-28	91.4	2
L-3-57-1	EA201001-29	355	2
L-3-57-2	EA201001-30	87.3	2
L-3-57-3	EA201001-31	5.6	2
L-3-57-4	EA201001-32	21.1	2

ND: Not Detected (at the specified limit).

Client: Earth Mechanics Inc.
Project: 11-137/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil

Lab Job No.: EA201001 to EA201027

Date Sampled: 12-27-2011 to 01-06-2012
Date Received: 01-02-2012 to 01-07-2012
Date Analyzed: 01-24-2012 to 02-06-2012

EPA 6010B (Pb, STLC)
Reporting Units: mg/L (ppm)

Sample ID	Lab ID	Lead, STLC	MDL	PQL
Extraction Blank		ND	0.1	0.2
L-3-03-1	EA201027-37	1.1	0.1	0.2
L-3-04-1	EA201001-117	3.2	0.1	0.2
L-3-07-1	EA201027-25	6.0	0.1	0.2
L-3-08-1	EA201001-109	2.1	0.1	0.2
L-3-09-1	EA201027-29	31.9	0.1	0.2
L-3-09-2	EA201027-30	1.4	0.1	0.2
L-3-10-1	EA201001-105	2.2	0.1	0.2
L-3-10-2	EA201001-106	2.2	0.1	0.2
L-3-11-1	EA201027-41	19.0	0.1	0.2
L-3-11-3	EA201027-43	1.5	0.1	0.2
L-3-12-2	EA201001-102	0.7	0.1	0.2
L-3-13-1	EA201027-45	2.6	0.1	0.2
L-3-15-1	EA201027-49	1.1	0.1	0.2
L-3-17-1	EA201027-69	1.4	0.1	0.2
L-3-18-1	EA201001-65	2.5	0.1	0.2
L-3-19-1	EA201027-53	4.5	0.1	0.2
L-3-20-1	EA201001-61	12.3	0.1	0.2
L-3-23-1	EA201027-57	0.95	0.1	0.2
L-3-24-1	EA201001-89	2.0	0.1	0.2
L-3-25-1	EA201027-61	4.6	0.1	0.2
L-3-26-1	EA201001-85	39.0	0.1	0.2
L-3-27-1	EA201027-73	19.0	0.1	0.2
L-3-27-4	EA201027-76	6.0	0.1	0.2
L-3-28-1	EA201001-81	6.9	0.1	0.2
L-3-29-1	EA201027-77	1.3	0.1	0.2
L-3-29-2	EA201027-78	14.7	0.1	0.2
L-3-30-1	EA201001-57	2.6	0.1	0.2
L-3-35-2	EA201027-82	0.5	0.1	0.2
L-3-37-1	EA201027-113	8.3	0.1	0.2
L-3-42-2	EA201001-74	ND	0.1	0.2
L-3-44-1	EA201001-37	2.2	0.1	0.2
L-3-46-1	EA201001-33	10.3	0.1	0.2
L-3-49-1	EA201027-105	11.5	0.1	0.2

Prep Method: Extraction Procedures, STLC Metals, Title 22, Cal Wet 66700, 48 hours.

MDL: Method Detection Limit;
PQL: Practical Quantitation Limit
ND: Not Detected (below MDL).

Alpha Scientific Corporation
Environmental Laboratories

Client: Earth Mechanics Inc.
Project: 11-137/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil

Lab Job No.: EA201001 to EA201027

Date Sampled: 12-27-2011 to 01-06-2012
Date Received: 01-02-2012 to 01-07-2012
Date Analyzed: 01-24-2012 to 02-06-2012

EPA 6010B (Pb, STLC)
Reporting Units: mg/L (ppm)

Sample ID	Lab ID	Lead, STLC	MDL	PQL
Extraction Blank		ND	0.1	0.2
L-3-50-1	EA201001-5	3.8	0.1	0.2
L-3-51-1	EA201027-109	2.6	0.1	0.2
L-3-52-1	EA201001-9	7.9	0.1	0.2
L-3-53-1	EA201001-13	1.7	0.1	0.2
L-3-53-2	EA201001-14	2.5	0.1	0.2
L-3-54-1	EA201001-17	14.3	0.1	0.2
L-3-55-1	EA201001-21	4.7	0.1	0.2
L-3-56-1	EA201001-25	42.3	0.1	0.2
L-3-56-4	EA201001-28	2.6	0.1	0.2
L-3-57-1	EA201001-29	15.4	0.1	0.2
L-3-57-2	EA201001-30	3.5	0.1	0.2

Prep Method: Extraction Procedures, STLC Metals, Title 22, Cal Wet 66700, 48 hours.

MDL: Method Detection Limit;
PQL: Practical Quantitation Limit
ND: Not Detected (below MDL).

Client:	Earth Mechanics Inc.	Lab Job No.:	EA201001 to EA201027
Project:	11-137/I-5 HOV Improvement		
Project Site:	San Clemente to Capistrono	Date Sampled:	12-27-2011 to 01-06-2012
Matrix:	Soil	Date Received:	01-02-2012 to 01-07-2012
		Date Analyzed:	01-24-2012 to 02-06-2012

EPA 6010B (Pb, TCLP)

Reporting Units: mg/L (ppm)

Sample ID	Lab ID	Lead, TCLP	MDL	PQL
Extraction Blank		ND	0.1	0.2
L-3-07-1	EA201027-25	ND	0.1	0.2
L-3-09-1	EA201027-29	0.10J	0.1	0.2
L-3-11-1	EA201027-41	ND	0.1	0.2
L-3-20-1	EA201001-61	ND	0.1	0.2
L-3-26-1	EA201001-85	ND	0.1	0.2
L-3-27-1	EA201027-73	ND	0.1	0.2
L-3-27-4	EA201027-76	ND	0.1	0.2
L-3-28-1	EA201001-81	ND	0.1	0.2
L-3-29-2	EA201027-78	ND	0.1	0.2
L-3-37-1	EA201027-113	ND	0.1	0.2
L-3-46-1	EA201001-33	ND	0.1	0.2
L-3-49-1	EA201027-105	ND	0.1	0.2
L-3-52-1	EA201001-9	ND	0.1	0.2
L-3-54-1	EA201001-17	ND	0.1	0.2
L-3-56-1	EA201001-25	0.15J	0.1	0.2
L-3-57-1	EA201001-29	ND	0.1	0.2

Prep Method: EPA Method 1131, 18 hours (02-24 to 02-25-2012)

Client:	Earth Mechanics Inc.	Lab Job No.:	EA201001 to EA201027
Project:	11-137/I-5 HOV Improvement		
Project Site:	San Clemente to Capistrono	Date Sampled:	12-27-2011 to 01-06-2012
Matrix:	Soil	Date Received:	01-02-2012 to 01-07-2012
		Date Analyzed:	01-24-2012 to 02-06-2012

EPA 6010B (Pb, STLC-DI Water Extraction)

Reporting Units: mg/L (ppm)

Sample ID	Lab ID	Lead, DI-WET	MDL	PQL
Extraction Blank		ND	0.2	0.4
L-3-07-1	EA201027-25	ND	0.2	0.4
L-3-09-1	EA201027-29	0.8	0.2	0.4
L-3-11-1	EA201027-41	0.46	0.2	0.4
L-3-20-1	EA201001-61	0.22J	0.2	0.4
L-3-26-1	EA201001-85	0.31J	0.2	0.4
L-3-27-1	EA201027-73	0.49	0.2	0.4
L-3-27-4	EA201027-76	ND	0.2	0.4
L-3-28-1	EA201001-81	ND	0.2	0.4
L-3-29-2	EA201027-78	ND	0.2	0.4
L-3-37-1	EA201027-113	0.26J	0.2	0.4
L-3-46-1	EA201001-33	ND	0.2	0.4
L-3-49-1	EA201027-105	0.53	0.2	0.4
L-3-52-1	EA201001-9	ND	0.2	0.4
L-3-54-1	EA201001-17	ND	0.2	0.4
L-3-56-1	EA201001-25	0.6	0.2	0.4
L-3-57-1	EA201001-29	0.30J	0.2	0.4

Prep Method: STLC Metals, Title 22, Cal Wet 66700, 48 hours (02-24 to 02-26-2012).
DI water is used in the extraction instead of the normal STLC solution.

MDL: Method Detection Limit;
PQL: Practical Quantitation Limit;
J: Trace concentration. The result is between MDL and PQL

Client: Earth Mechanics Inc.
Project: 11-137/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Soil

Lab Job No.: EA201001 to EA201027

Date Sampled: 12-27-2011 to 01-06-2012
Date Received: 01-02-2012 to 01-07-2012
Date Analyzed: 01-24-2012 to 02-06-2012

EPA Method 9045 (Soil pH)
Reporting Units: pH Unit

Sample ID	Lab ID	pH	Reporting Limit
L-3-01-1	EA201001-125	6.95	---
L-3-03-1	EA201027-37	6.12	---
L-3-06-1	EA201001-113	6.89	---
L-3-07-1	EA201027-25	6.03	---
L-3-14-1	EA201001-97	6.07	---
L-3-19-1	EA201027-53	6.4	---
L-3-20-1	EA201001-61	6.91	---
L-3-21-1	EA201027-65	5.81	---
L-3-22-1	EA201001-93	6.83	---
L-3-27-1	EA201027-73	6.94	---
L-3-28-1	EA201001-81	7.03	---
L-3-33-1	EA201027-89	6.06	---
L-3-34-1	EA201001-49	7.16	---
L-3-35-1	EA201027-81	6.1	---
L-3-36-1	EA201001-45	6.4	---
L-3-41-1	EA201027-117	6.5	---
L-3-44-1	EA201001-37	6.36	---
L-3-47-1	EA201027-101	6.38	---
L-3-50-1	EA201001-5	6.89	---
L-3-51-1	EA201027-109	6.06	---
L-3-54-1	EA201001-17	7.16	---
L-3-56-1	EA201001-25	7.05	---

YELLOW TRAFFIC STRIPE PAINT

Alpha Scientific Corporation
Environmental Laboratories

02-28-2012

Mr. Raja S. Pirathiviraj
Earth Mechanics Inc.
17800 Newhope Street, Suite B
Fountain Valley, CA 92708

Project: 11-135 & 11-136/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Sample Date: 02-03/05/06/07-2012
Lab Job No.: EA202012

Dear Mr. Pirathiviraj:

Enclosed please find the analytical report for the sample(s) received by Alpha Scientific Corporation on 02-07-2012 and analyzed by the following EPA methods:

EPA 6010B (Total Lead)
EPA 6010B (Total Chromium)
EPA 6010B (STLC Pb & Cr)
EPA 6010B (TCLP Pb & Cr)
EPA 6010B (DI Water STLC Pb & Cr)
EPA 9045C (pH)

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled, intact) and with a chain of custody record attached.

Alpha Scientific Corporation is a CA DHS certified laboratory (Certificate Number 2633). Thank you for giving us the opportunity to serve you. Please feel free to call me at (562) 809-8880 if our laboratory can be of further service to you.

Sincerely,

Roger Wang, Ph.D.
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.

Client: Earth Mechanics Inc.
Project: 11-135 & 11-136/I-5 HOV Improvement
Project Site: San Clemente to Capistrono
Matrix: Paint
Digestion Method:EPA 3050B
Batch No.: 0209-MS2

Lab Job No.: EA202012

Date Sampled: 02-03-2012
Date Received: 02-07-2012
Date Digested: 02-07-2012
Date Analyzed: 02-09-2012
Date Reported: 02-13-2012

EPA 6010B for Total Lead & Chromium
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead (Pb)	Chromium (Cr)	Reporting Limit
Method Blank		ND	ND	2
LP-NPF	EA202012-1	234	81.2	2
LP-SPF	EA202012-2	2.8	ND	2
LP-SPN	EA202012-3	114	46.3	2
LP-NPN	EA202012-4	11,600	2,870	2
LP-SHF	EA202012-5	119	38.6	2
LP-SHNL	EA202012-6	217	54.5	2
LP-NHNL	EA202012-7	342	125	2
LP-NHN	EA202012-8	384	89.5	2
LP-NHF	EA202012-9	199	59.2	2
LP-SEF	EA202012-10	222	67.5	2
LP-SEN	EA202012-11	4,650	1,320	2
LP-NEN	EA202012-12	332	107	2
LP-NENL	EA202012-13	9,620	1,620	2
LP-NEF	EA202012-14	2,610	633	2

ND: Not Detected (at the specified limit).

Client:	Earth Mechanics Inc.	Lab Job No.:	EA202012
Project:	11-135 & 11-136/I-5 HOV Improvement		
Project Site:	San Clemente to Capistrono	Date Sampled:	02-05/06/07-2012
Matrix:	Paint	Date Received:	02-07-2012
Digestion Method:	EPA 3050B	Date Digested:	02-07-2012
Batch No.:	0209-MS2/0210-MS1	Date Analyzed:	02-09/10-2012
		Date Reported:	02-13-2012

EPA 6010B for Total Lead & Chromium
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Total Lead (Pb)	Chromium (Cr)	Reporting Limit
Method Blank		ND	ND	2
LP-S-1	EA202012-15	10.2	6.5	2
LP-S-2	EA202012-16	7.0	ND	2
LP-S-3	EA202012-17	14.8	2.5	2
LP-S-4	EA202012-18	7.1	ND	2
LP-S-5	EA202012-19	9.1	10.4	2
LP-S-6	EA202012-20	8.2	3.1	2
LP-N-1	EA202012-21	1,470	328	2
LP-N-2	EA202012-22	4.9	ND	2
LP-N-3	EA202012-23	526	105	2
LP-N-4	EA202012-24	2,540	672	2
LP-N-5	EA202012-25	15.6	5.6	2
LP-N-6	EA202012-26	129	37.7	2
				2

ND: Not Detected (at the specified limit).

Client:	Earth Mechanics Inc.	Lab Job No.:	EA202012A
Project:	11-135 & 11-136/I-5 HOV Improvement		
Project Site:	San Clemente to Capistrono	Date Sampled:	02-03/05/06/07-2012
Matrix:	Paint	Date Received:	02-07-2012
Batch No. for 6010B:	0217-MS2	Date Analyzed:	02-17-2012
		Date Reported:	02-20-2012

EPA 6010B (Pb & Cr, STLC)
Reporting Unit: mg/L (ppm)

Sample ID	Lab ID	Lead, STLC	Chromium, STLC
MDL		0.1	0.1
PQL		0.2	0.2
Extraction Blank		ND	ND
LP-NPF	EA202012-1	0.62	1.9
LP-SPN	EA202012-3	1.40	NA
LP-NPN	EA202012-4	3.2	10.1
LP-SHF	EA202012-5	0.56	NA
LP-SHNL	EA202012-6	0.86	3.6
LP-NHNL	EA202012-7	1.4	4.0
LP-NHN	EA202012-8	0.81	2.7
LP-NHF	EA202012-9	0.51	2.0
LP-SEF	EA202012-10	0.67	1.4
LP-SEN	EA202012-11	4.6	8.9
LP-NEN	EA202012-12	0.69	1.5
5.7LP-NENL	EA202012-13	4.3	7.5
LP-N-1	EA202012-21	5.7	5.2
LP-N-3	EA202012-23	0.64	1.5
LP-N-4	EA202012-24	2.9	5.2
LP-N-6	EA202012-26	0.30	NA

Note: Sample Preparation: Extraction Procedures, STLC Metals, Title 22, Cal Wet 66700, 48 hours (02-14 to 02-16-2012).
MDL: Method Detection Limit;
PQL: Practical Quantitation Limit
ND: Not Detected (at the specified limit).
NA: Not Applicable.

Client:	Earth Mechanics Inc.	Lab Job No.:	EA202012A
Project:	11-135 & 11-136/I-5 HOV Improvement		
Project Site:	San Clemente to Capistrono	Date Sampled:	02-03-2012
Matrix:	Paint	Date Received:	02-07-2012
Batch No. for 6010B:	0223-MS1	Date Analyzed:	02-23-2012
		Date Reported:	02-23-2012

EPA 6010B (Pb & Cr, STLC)
Reporting Unit: mg/L (ppm)

Sample ID	Lab ID	Lead, STLC	Chromium, STLC
MDL		0.1	0.1
PQL		0.2	0.2
Extraction Blank		ND	ND
LP-NEF	EA202012-14	3.1	13.9

Note: Sample Preparation: Extraction Procedures, STLC Metals, Title 22, Cal Wet 66700, 48 hours (02-21 to 02-23-2012).
MDL: Method Detection Limit;
PQL: Practical Quantitation Limit
ND: Not Detected (at the specified limit).

Client:	Earth Mechanics Inc.	Lab Job No.:	EA202012B
Project:	11-135 & 11-136/I-5 HOV Improvement		
Project Site:	San Clemente to Capistrono	Date Sampled:	02-03-2012
Matrix:	Paint	Date Received:	02-07-2012
Batch No.:	0228-MS1	Date Analyzed:	02-28-2012
		Date Reported:	02-28-2012

EPA 6010B for Lead & Chromium, TCLP
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Lead, TCLP	Chromium, TCLP	Reporting Limit
Extraction Blank		ND	ND	0.1
LP-NPN	EA202012-4	ND	ND	0.1
LP-SEN	EA202012-11	ND	ND	0.1
LP-NENL	EA202012-13	ND	ND	0.1
LP-NEF	EA202012-14	ND	ND	0.1
LP-N-1	EA202012-21	ND	ND	0.1
LP-N-4	EA202012-24	ND	ND	0.1

Prep Method: EPA Method 1131, 18 hours (02-24 to 02-25-2012).

ND: Not Detected (at the specified limit).
MDL: Method Detection Limit;
PQL: Practical Quantitation Limit;
J: Trace concentration. The result is between MDL and PQL

Client:	Earth Mechanics Inc.	Lab Job No.:	EA202012B
Project:	11-135 & 11-136/I-5 HOV Improvement		
Project Site:	San Clemente to Capistrono	Date Sampled:	02-03-2012
Matrix:	Paint	Date Received:	02-07-2012
Batch No.:	0312-MS1	Date Analyzed:	03-12-2012
		Date Reported:	03-12-2012

EPA 6010B for Lead & Chromium, STLC-DI Water Extraction
Reporting Units: mg/kg (ppm)

Sample ID	Lab ID	Lead, DI-WET	Chromium, DI-WET	Reporting Limit
Extraction Blank		ND	ND	0.2
LP-NPN	EA202012-4	NA	ND	0.2
LP-SEN	EA202012-11	ND	ND	0.2
LP-NENL	EA202012-13	0.40	0.48	0.2
LP-NEF	EA202012-14	NA	0.41	0.2
LP-N-1	EA202012-21	ND	ND	0.2
LP-N-4	EA202012-24	NA	ND	0.2

Note: Sample Preparation: Extraction Procedures, STLC Metals, Title 22, Cal Wet 66700, 48 hours (02-19 to 02-21-2012). DI water is used in the extraction instead of the normal STLC solution.

MDL: Method Detection Limit;
PQL: Practical Quantitation Limit;
J: Trace concentration. The result is between MDL and PQL;
ND: Not Detected (at the specified limit).
NA: Not Analyzed.

Client:	Earth Mechanics Inc.	Lab Job No.:	EA202012B
Project:	11-135 & 11-136/I-5 HOV Improvement		
Project Site:	San Clemente to Capistrono	Date Sampled:	02-03-2012
Matrix:	Paint	Date Received:	02-07-2012
Batch No.:	0224-pH1	Date Analyzed:	02-24-2012
		Date Reported:	02-28-2012

EPA 9045C (pH)
Reporting Units: pH Unit

Sample ID	Lab ID	pH	Reporting Limit
LP-NPF	EA202012-1	7.34	------
LP-SPF	EA202012-2	7.30	------
LP-SPN	EA202012-3	7.30	------
LP-NPN	EA202012-4	7.26	------
LP-SHF	EA202012-5	7.26	------
LP-SHNL	EA202012-6	7.42	------
LP-NHNL	EA202012-7	7.27	------
LP-NHN	EA202012-8	7.52	------
LP-NHF	EA202012-9	7.35	------
LP-SEF	EA202012-10	7.40	------
LP-SEN	EA202012-11	7.35	------
LP-NEN	EA202012-12	7.37	------
LP-NENL	EA202012-13	7.14	------
LP-NEF	EA202012-14	7.55	------

ND: Not Detected (at the specified limit).

Client:	Earth Mechanics Inc.	Lab Job No.:	EA202012B
Project:	11-135 & 11-136/I-5 HOV Improvement		
Project Site:	San Clemente to Capistrono	Date Sampled:	02-03-2012
Matrix:	Paint	Date Received:	02-07-2012
Batch No.:	0224-pH2	Date Analyzed:	02-24-2012
		Date Reported:	02-28-2012

EPA 9045C (pH)
Reporting Units: pH Unit

Sample ID	Lab ID	pH	Reporting Limit
LP-S-1	EA202012-15	7.38	------
LP-S-2	EA202012-16	7.42	------
LP-S-3	EA202012-17	7.50	------
LP-S-4	EA202012-18	7.37	------
LP-S-5	EA202012-19	7.36	------
LP-S-6	EA202012-20	7.49	------
LP-N-1	EA202012-21	7.34	------
LP-N-2	EA202012-22	7.38	------
LP-N-3	EA202012-23	7.44	------
LP-N-4	EA202012-24	7.36	------
LP-N-5	EA202012-25	7.35	------
LP-N-6	EA202012-26	7.37	------

APPENDIX C

STATISTICAL CALCULATIONS

SEGMENT 1

BETWEEN STA. 163+00 AND STA. 210+00 ("A" LINE)

General UCL Statistics for Full Data Sets

User Selected Options

From File	X:\Projects\2011\11-137 - TRC, I-5 HOV Widening - Segment 3\ADL\I-HOV Worksheet.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Region I

General Statistics

Number of Valid Observations	164	Number of Distinct Observations	115

Raw Statistics		Log-transformed Statistics	
Minimum	2	Minimum of Log Data	0.693
Maximum	335	Maximum of Log Data	5.814
Mean	19.13	Mean of log Data	2.182
Median	8.05	SD of log Data	1.131
SD	37.89		
Coefficient of Variation	1.98		
Skewness	5.567		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Lilliefors Test Statistic	0.326	Lilliefors Test Statistic	0.0939
Lilliefors Critical Value	0.0692	Lilliefors Critical Value	0.0692
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	24.03	95% H-UCL	20.56
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	24.8
95% Adjusted-CLT UCL	25.37	97.5% Chebyshev (MVUE) UCL	28.3
95% Modified-t UCL	24.24	99% Chebyshev (MVUE) UCL	35.18

Gamma Distribution Test		Data Distribution
k star (bias corrected)	0.765	Data do not follow a Discernable Distribution (0.05)
Theta Star	25.01	
nu star	250.9	
Approximate Chi Square Value (.05)	215.3	**Nonparametric Statistics**
Adjusted Level of Significance	0.0485	95% CLT UCL 24
Adjusted Chi Square Value	215	95% Jackknife UCL 24.03
		95% Standard Bootstrap UCL 23.83
Anderson-Darling Test Statistic	6.998	95% Bootstrap-t UCL 26.85
Anderson-Darling 5% Critical Value	0.795	95% Hall's Bootstrap UCL 31.39
Kolmogorov-Smirnov Test Statistic	0.149	95% Percentile Bootstrap UCL 24.36
Kolmogorov-Smirnov 5% Critical Value	0.0758	95% BCA Bootstrap UCL 25.82
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 32.03
		97.5% Chebyshev(Mean, Sd) UCL 37.61
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 48.57
95% Approximate Gamma UCL	22.3	
95% Adjusted Gamma UCL	22.33	

Potential UCL to Use	Use 97.5% Chebyshev (Mean, Sd) UCL	37.61

SEGMENT 2

BETWEEN STA. 210+00 AND STA. 340+00 ("A" LINE)

General UCL Statistics for Full Data Sets

User Selected Options

From File	X:\Projects\2011\11-137 - TRC, I-5 HOV Widening - Segment 3\ADL\I-HOV Worksheet.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Region IIA

General Statistics

Number of Valid Observations	176	Number of Distinct Observations	105

Raw Statistics		Log-transformed Statistics	
Minimum	2	Minimum of Log Data	0.693
Maximum	446	Maximum of Log Data	6.1
Mean	14.62	Mean of log Data	2.005
Median	5.95	SD of log Data	0.889
SD	40.84		
Coefficient of Variation	2.794		
Skewness	8.519		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Lilliefors Test Statistic	0.379	Lilliefors Test Statistic	0.16
Lilliefors Critical Value	0.0668	Lilliefors Critical Value	0.0668
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	19.71	95% H-UCL	12.67
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	14.76
95% Adjusted-CLT UCL	21.8	97.5% Chebyshev (MVUE) UCL	16.38
95% Modified-t UCL	20.04	99% Chebyshev (MVUE) UCL	19.58

Gamma Distribution Test		Data Distribution	
k star (bias corrected)	0.857	Data do not follow a Discernable Distribution (0.05)	
Theta Star	17.07		
nu star	301.5		
Approximate Chi Square Value (.05)	262.3	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0486	95% CLT UCL	19.68
Adjusted Chi Square Value	262	95% Jackknife UCL	19.71
		95% Standard Bootstrap UCL	19.71
Anderson-Darling Test Statistic	16.97	95% Bootstrap-t UCL	28.85
Anderson-Darling 5% Critical Value	0.79	95% Hall's Bootstrap UCL	43.14
Kolmogorov-Smirnov Test Statistic	0.239	95% Percentile Bootstrap UCL	20.26
Kolmogorov-Smirnov 5% Critical Value	0.0723	95% BCA Bootstrap UCL	22.58
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	28.04
		97.5% Chebyshev(Mean, Sd) UCL	33.85
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	45.25
95% Approximate Gamma UCL	16.8		
95% Adjusted Gamma UCL	16.82		

Potential UCL to Use	Use 95% Chebyshev (Mean, Sd) UCL	28.04

General UCL Statistics for Full Data Sets

User Selected Options	
From File	X:\Projects\2011\11-137 - TRC, I-5 HOV Widening - Segment 3\ADL\I-HOV Worksheet.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Region IIB

General Statistics

Number of Valid Observations	8	Number of Distinct Observations	8

Raw Statistics		Log-transformed Statistics	
Minimum	3.4	Minimum of Log Data	1.224
Maximum	119	Maximum of Log Data	4.779
Mean	71.49	Mean of log Data	3.788
Median	80.6	SD of log Data	1.365
SD	45.96		
Coefficient of Variation	0.643		
Skewness	-0.634		

Warning: There are only 8 Values in this data

Note: It should be noted that even though bootstrap methods may be performed on this data set, the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.883	Shapiro Wilk Test Statistic	0.75
Shapiro Wilk Critical Value	0.818	Shapiro Wilk Critical Value	0.818
Data appear Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	

Assuming Normal Distribution		Assuming Lognormal Distribution	
95% Student's-t UCL	102.3	95% H-UCL	1071
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	293.9
95% Adjusted-CLT UCL	94.33	97.5% Chebyshev (MVUE) UCL	380.5
95% Modified-t UCL	101.7	99% Chebyshev (MVUE) UCL	550.5

Gamma Distribution Test		Data Distribution	
k star (bias corrected)	0.82	Data appear Normal at 5% Significance Level	
Theta Star	87.22		
nu star	13.11		
Approximate Chi Square Value (.05)	5.969	Nonparametric Statistics	
Adjusted Level of Significance	0.0195	95% CLT UCL	98.21
Adjusted Chi Square Value	4.806	95% Jackknife UCL	102.3
		95% Standard Bootstrap UCL	95.93
Anderson-Darling Test Statistic	0.845	95% Bootstrap-t UCL	98.38
Anderson-Darling 5% Critical Value	0.733	95% Hall's Bootstrap UCL	91.72
Kolmogorov-Smirnov Test Statistic	0.277	95% Percentile Bootstrap UCL	95.4

Kolmogorov-Smirnov 5% Critical Value	0.301	95% BCA Bootstrap UCL	93.78
Data follow Appr. Gamma Distribution at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	142.3
		97.5% Chebyshev(Mean, Sd) UCL	173
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	233.2
95% Approximate Gamma UCL	157		
95% Adjusted Gamma UCL	195.1		
Potential UCL to Use		Use 95% Student's-t UCL	102.3

General UCL Statistics for Full Data Sets

User Selected Options

From File	X:\Projects\2011\11-137 - TRC, I-5 HOV Widening - Segment 3\ADL\I-HOV Worksheet.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Region IIC

General Statistics

Number of Valid Observations	20	Number of Distinct Observations	18

Raw Statistics		Log-transformed Statistics	
Minimum	2	Minimum of Log Data	0.693
Maximum	510	Maximum of Log Data	6.234
Mean	50.38	Mean of log Data	2.702
Median	12.6	SD of log Data	1.468
SD	113.2		
Coefficient of Variation	2.248		
Skewness	3.882		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.448	Shapiro Wilk Test Statistic	0.917
Shapiro Wilk Critical Value	0.905	Shapiro Wilk Critical Value	0.905
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	94.16	95% H-UCL	133
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	107.4
95% Adjusted-CLT UCL	115.5	97.5% Chebyshev (MVUE) UCL	136.7
95% Modified-t UCL	97.83	99% Chebyshev (MVUE) UCL	194.2

Gamma Distribution Test		Data Distribution	
k star (bias corrected)	0.474	Data appear Lognormal at 5% Significance Level	
Theta Star	106.2		
nu star	18.97		
Approximate Chi Square Value (.05)	10.1	**Nonparametric Statistics**	
Adjusted Level of Significance	0.038	95% CLT UCL	92.03
Adjusted Chi Square Value	9.589	95% Jackknife UCL	94.16
		95% Standard Bootstrap UCL	91.23
Anderson-Darling Test Statistic	1.5	95% Bootstrap-t UCL	187.3
Anderson-Darling 5% Critical Value	0.801	95% Hall's Bootstrap UCL	231.1
Kolmogorov-Smirnov Test Statistic	0.232	95% Percentile Bootstrap UCL	96.55
Kolmogorov-Smirnov 5% Critical Value	0.205	95% BCA Bootstrap UCL	125.9
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	160.8
		97.5% Chebyshev(Mean, Sd) UCL	208.5
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	302.3
95% Approximate Gamma UCL	94.65		
95% Adjusted Gamma UCL	99.68		

Potential UCL to Use	Use 95% Chebyshev (MVUE) UCL	107.4

General UCL Statistics for Full Data Sets

User Selected Options

From File	X:\Projects\2011\11-137 - TRC, I-5 HOV Widening - Segment 3\ADL\I-HOV Worksheet.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Region IID

General Statistics

Number of Valid Observations	16	Number of Distinct Observations	16

Raw Statistics		Log-transformed Statistics	
Minimum	2.6	Minimum of Log Data	0.956
Maximum	271	Maximum of Log Data	5.602
Mean	51.84	Mean of log Data	2.578
Median	7.5	SD of log Data	1.631
SD	90.01		
Coefficient of Variation	1.736		
Skewness	1.808		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.6	Shapiro Wilk Test Statistic	0.839
Shapiro Wilk Critical Value	0.887	Shapiro Wilk Critical Value	0.887
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	91.29	95% H-UCL	244.5
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	129.8
95% Adjusted-CLT UCL	99.72	97.5% Chebyshev (MVUE) UCL	167.7
95% Modified-t UCL	92.98	99% Chebyshev (MVUE) UCL	242

Gamma Distribution Test		Data Distribution	
k star (bias corrected)	0.422	Data do not follow a Discernable Distribution (0.05)	
Theta Star	122.8		
nu star	13.51		
Approximate Chi Square Value (.05)	6.236	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0335	95% CLT UCL	88.85
Adjusted Chi Square Value	5.682	95% Jackknife UCL	91.29
		95% Standard Bootstrap UCL	86.75
Anderson-Darling Test Statistic	1.735	95% Bootstrap-t UCL	113.6
Anderson-Darling 5% Critical Value	0.803	95% Hall's Bootstrap UCL	81.94
Kolmogorov-Smirnov Test Statistic	0.305	95% Percentile Bootstrap UCL	90.09
Kolmogorov-Smirnov 5% Critical Value	0.228	95% BCA Bootstrap UCL	97.21
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	149.9
		97.5% Chebyshev(Mean, Sd) UCL	192.4
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	275.7
95% Approximate Gamma UCL	112.3		
95% Adjusted Gamma UCL	123.2		

Potential UCL to Use	Use 99% Chebyshev (Mean, Sd) UCL	275.7

Recommended UCL exceeds the maximum observation

General UCL Statistics for Full Data Sets

User Selected Options

From File	X:\Projects\2011\11-137 - TRC, I-5 HOV Widening - Segment 3\ADL\I-HOV Worksheet.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Region IIE

General Statistics

Number of Valid Observations	188	Number of Distinct Observations	116

Raw Statistics		Log-transformed Statistics	
Minimum	2	Minimum of Log Data	0.693
Maximum	305	Maximum of Log Data	5.72
Mean	14.84	Mean of log Data	1.991
Median	5.2	SD of log Data	1.062
SD	28.62		
Coefficient of Variation	1.929		
Skewness	6.53		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Lilliefors Test Statistic	0.327	Lilliefors Test Statistic	0.132
Lilliefors Critical Value	0.0646	Lilliefors Critical Value	0.0646
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	18.29	95% H-UCL	15.27
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	18.15
95% Adjusted-CLT UCL	19.33	97.5% Chebyshev (MVUE) UCL	20.45
95% Modified-t UCL	18.45	99% Chebyshev (MVUE) UCL	24.99

Gamma Distribution Test		Data Distribution	
k star (bias corrected)	0.826	Data do not follow a Discernable Distribution (0.05)	
Theta Star	17.96		
nu star	310.6		
Approximate Chi Square Value (.05)	270.8	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0487	95% CLT UCL	18.27
Adjusted Chi Square Value	270.5	95% Jackknife UCL	18.29
		95% Standard Bootstrap UCL	18.25
Anderson-Darling Test Statistic	10.26	95% Bootstrap-t UCL	20.14
Anderson-Darling 5% Critical Value	0.792	95% Hall's Bootstrap UCL	31.61
Kolmogorov-Smirnov Test Statistic	0.172	95% Percentile Bootstrap UCL	18.5
Kolmogorov-Smirnov 5% Critical Value	0.0692	95% BCA Bootstrap UCL	20.05
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	23.93
		97.5% Chebyshev(Mean, Sd) UCL	27.87
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	35.6
95% Approximate Gamma UCL	17.02		
95% Adjusted Gamma UCL	17.04		

Potential UCL to Use	Use 97.5% Chebyshev (Mean, Sd) UCL	27.87

SEGMENT 3

BETWEEN STA. 340+00 AND STA. 408+00 ("A" LINE)

General UCL Statistics for Full Data Sets

User Selected Options

From File	X:\Projects\2011\11-137 - TRC, I-5 HOV Widening - Segment 3\ADL\I-HOV Worksheet.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Region IIIB

General Statistics

Number of Valid Observations	12	Number of Distinct Observations	12

Raw Statistics

Minimum	8.2
Maximum	1600
Mean	216.3
Median	24
SD	459.7
Coefficient of Variation	2.125
Skewness	2.924

Log-transformed Statistics

Minimum of Log Data	2.104
Maximum of Log Data	7.378
Mean of log Data	3.772
SD of log Data	1.778

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.528
Shapiro Wilk Critical Value	0.859

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.865
Shapiro Wilk Critical Value	0.859

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	454.7

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL	554.3
95% Modified-t UCL	473.3

Assuming Lognormal Distribution

95% H-UCL	2338
95% Chebyshev (MVUE) UCL	560.5
97.5% Chebyshev (MVUE) UCL	732.7
99% Chebyshev (MVUE) UCL	1071

Gamma Distribution Test

k star (bias corrected)	0.362
Theta Star	597.5
nu star	8.689
Approximate Chi Square Value (.05)	3.14
Adjusted Level of Significance	0.029
Adjusted Chi Square Value	2.653
Anderson-Darling Test Statistic	1.163
Anderson-Darling 5% Critical Value	0.803
Kolmogorov-Smirnov Test Statistic	0.28
Kolmogorov-Smirnov 5% Critical Value	0.262

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	598.6
95% Adjusted Gamma UCL	708.6

Data Distribution

Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	434.6
95% Jackknife UCL	454.7
95% Standard Bootstrap UCL	421.1
95% Bootstrap-t UCL	1240
95% Hall's Bootstrap UCL	1281
95% Percentile Bootstrap UCL	455.2
95% BCA Bootstrap UCL	596.4
95% Chebyshev(Mean, Sd) UCL	794.8
97.5% Chebyshev(Mean, Sd) UCL	1045
99% Chebyshev(Mean, Sd) UCL	1537

Potential UCL to Use	Use 99% Chebyshev (MVUE) UCL 1071

General UCL Statistics for Full Data Sets

User Selected Options

From File	X:\Projects\2011\11-137 - TRC, I-5 HOV Widening - Segment 3\ADL\I-HOV Worksheet.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Region IIIC

General Statistics

Number of Valid Observations	184	Number of Distinct Observations	142

Raw Statistics		Log-transformed Statistics	
Minimum	1.6	Minimum of Log Data	0.47
Maximum	922	Maximum of Log Data	6.827
Mean	44.35	Mean of log Data	2.652
Median	11.65	SD of log Data	1.379
SD	100.3		
Coefficient of Variation	2.262		
Skewness	5.074		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Lilliefors Test Statistic	0.335	Lilliefors Test Statistic	0.0888
Lilliefors Critical Value	0.0653	Lilliefors Critical Value	0.0653
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	56.57	95% H-UCL	47.37
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	58.34
95% Adjusted-CLT UCL	59.47	97.5% Chebyshev (MVUE) UCL	67.86
95% Modified-t UCL	57.04	99% Chebyshev (MVUE) UCL	86.55

Gamma Distribution Test		Data Distribution	
k star (bias corrected)	0.544	Data do not follow a Discernable Distribution (0.05)	
Theta Star	81.56		
nu star	200.1		
Approximate Chi Square Value (.05)	168.4	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0487	95% CLT UCL	56.51
Adjusted Chi Square Value	168.2	95% Jackknife UCL	56.57
		95% Standard Bootstrap UCL	56.43
Anderson-Darling Test Statistic	11.52	95% Bootstrap-t UCL	61.14
Anderson-Darling 5% Critical Value	0.816	95% Hall's Bootstrap UCL	63.05
Kolmogorov-Smirnov Test Statistic	0.175	95% Percentile Bootstrap UCL	57.43
Kolmogorov-Smirnov 5% Critical Value	0.0715	95% BCA Bootstrap UCL	60.24
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	76.58
		97.5% Chebyshev(Mean, Sd) UCL	90.53
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	117.9
95% Approximate Gamma UCL	52.71		
95% Adjusted Gamma UCL	52.78		

Potential UCL to Use	Use 97.5% Chebyshev (Mean, Sd) UCL	90.53

APPENDIX D

CALTRANS APPROVAL MEMORANDUM

DEPARTMENT OF TRANSPORTATION
3347 MICHELSON DRIVE, SUITE 100
IRVINE, CA 92612-8894
PHONE (949) 724-2738
FAX (949) 756-7633
TTY 711

Flex your power!
Be energy efficient!

June 5, 2012

File: Ora-5
EA: 0F96A1, 0F96C1, 0F96E1
PM: 3.0/8.7

Earth Mechanics, Inc.
17800 Newhope Street, Suite B
Fountain Valley, CA 92708

Attention: Mr. Lino Cheang, GE
Project Manager

Subject: Aerially Deposited Lead Report Review, Interstate 5, HOV Widening, Segments 1, 2, and 3, Dana Point, San Clemente, and San Juan Capistrano, Orange County CA.

Reference;

Aerially Deposited Lead Investigation, Interstate 5, HOV Improvement Project, Segments 1, 2, and 3, Cities of San Clemente, Dana Point, and Juan Capistrano, Orange County CA, Prepared by Earth Mechanics, Inc. dated, April 30, 2012.

Dear Mr. Cheang:

We have reviewed the above referenced document and it meets our approval. Please prepare related SSPs and submit for approval.

If you have any questions, please do not hesitate to call Mr. David Yaghoubi of my staff at (949) 756-7828.

Sincerely,

R Aurasteh

Reza Aurasteh, P.E. PhD. Chief
Department of Transportation, District 12
Environmental Engineering

Kamran Mazhar, Branch Chief, Design F
Mohamad Sadiq, Project Engineer
David Yaghoubi, Environmental Engineering