FOR CONTRACT No. 07-4T4404
PROJECT ID 0700021046

INFORMATION HANDOUT

LEAD SITE INVESTIGATION REPORT, ROUTE 110

LEAD SITE INVESTIGATION REPORT, ROUTE 605

AERIAL DEPOSITED LEAD INVESTIGATION REPORT, ROUTES 57, 60, AND 210

ROUTE: 07-LA-5, 57, 110, 405, 605 - PM Var

LEAD SITE INVESTIGATION REPORT
ROUTE 110 KP 9.01/10.46 (PM 5.45/6.52)
SEPULVEDA BOULEVARD TO
223RD STREET OVERCROSSING
SOUNDWALL PROJECT
LOS ANGELES COUNTY, CALIFORNIA
TASK ORDER NO. 07-020480-8E
STATEWIDE CONTRACT NO. 43A0012

PREPARED FOR:

Office of Environmental Engineering Feasibility Studies
Caltrans, District 7
120 South Spring Street, 3-4G
Los Angeles, California 90012-3606

PREPARED BY:

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June 29, 2001
Revised August 10, 2001
Project No. 202914001

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Mr. Steve Chan
Office of Environmental Engineering and Feasibility Studies
Caltrans, District 7
120 South Spring Street, 3-4G
Los Angeles, California 90012-3606

Subject: Lead Site Investigation Report
Route 110 KP 9.01/10.46 (PM 5.45/6.52)
Sepulveda Boulevard to 223rd Street Overcrossing
Soundwall Project
Los Angeles County, California
Task Order No. 07-020480-8E
Statewide Contract No. 43A0012

Dear Mr. Chan:

In accordance with Caltrans Contract No. 43A0012, Task Order No. 07-020480-8E, and our workplan dated March 14, 2001, Ninyo & Moore has conducted a Lead Site Investigation at the above-referenced site. The following report documents our methodologies, findings, and conclusions.

We appreciate the opportunity to be of service to you on this project. Should you have any questions, please contact the undersigned at your convenience.

Sincerely,
NINYO & MOORE

Frank Gugger
Senior Staff Environmental Geologist

David I. Shaler, R.G., R.E.A.
Senior Project Environmental Geologist

FG/DIS/kl

Distribution: (5) Addressee

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1. INTRODUCTION

Caltrans has authorized Ninyo and Moore to conduct a lead site investigation of proposed soundwalls located along the 110 Freeway from Sepulveda Boulevard to the 223rd Street Over-crossing. The purpose of the lead site investigation was to evaluate surface and subsurface soil at the proposed soundwall locations for concentrations of aerially deposited lead (ADL) that may exceed acceptable regulatory limits on the California Department of Transportation (Caltrans) right-of-way. The information obtained from the limited soil sampling and laboratory testing was used to determine the method of re-use or disposal of soil excavated during the proposed construction at the site. The data was also used to inform Caltrans of potential health and safety issues for workers at the site during construction activities. A prework task order meeting took place February 26, 2001. Ninyo and Moore prepared a health and safety plan a copy of which was included in our final work plan dated March 14, 2001.

2. INVESTIGATIVE SUMMARY

Ninyo & Moore collected soil samples at proposed soundwall locations from landscaped shoulders along northbound (NB) and southbound (SB) sides of Route 110 (Rte. 110) in Los Angeles County (Figure 1). Soil samples were collected at the surface, 0.3 meter, 0.61 meter, and 0.91 meter below surface grade (bsg) at 21 locations. Five of the 80 soil samples collected contained concentrations of lead which exceeded the California Total Threshold Limit Concentration (TTLC) for lead, or 1,000 milligrams per kilogram (mg/kg). Seven soil samples exceeded the 350-mg/kg limit provided in the September 22, 2000 California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC) variance to Caltrans District 7 (variance). Thirty soil samples contained concentrations of lead less than the TTLC, but more than 10 times the California Soluble Threshold Limit Concentration (STLC) for lead, five milligrams per liter (mg/l). These 30 soil samples were analyzed for soluble lead by the Waste Extraction Test (WET). Seventeen of these samples contained more than 5 mg/l of soluble lead. Each of these 17 samples was subsequently analyzed for soluble lead using the de-ionized water (DI-WET) extraction. Two of the 17 samples contained more than 0.5 mg/l lead using the DI-WET method.

3. PROJECT DESCRIPTION

3.1. Site Description

The site is located at the Rte. 110 freeway between the Sepulveda Boulevard Overcrossing (KP/MP: 8.77/5.45) and the 223rd Street Overcrossing (KP/MP: 10.49/6.52) in Los Angeles County. The site length is approximately 0.75 mile on the NB direction and 0.45 mile on the SB direction. The Lead Site Investigation (LSI) evaluated the presence of lead at seven proposed soundwall locations on the NB and SB directions of Rte. 110.

The seven soundwall locations are described as follows:

Northbound (NB) Direction

- **SW-147:** The wall starts at station 146+83.70 (approximately 24m from gore nose of NB Sepulveda Boulevard on ramp) and ends at station 152+40 (approximately 260m south of 228th Street Overcrossing). The wall will be constructed 2.1m from the existing concrete gutter and 3m from existing edge of travel way (ETW).

- **SW-150:** The wall starts at station 152+20 (approximately 280m south of 228th Street Overcrossing) and ends at station 153+90.93 (approximately 120m south of 228th Street Overcrossing). The wall will be constructed at the right-of-way (R/W) line, approximately 0.61m from the existing fence line (toward the freeway side) above the existing embankment slope.

- **SW-155:** The wall starts at station 155+33.70 (approximately at 228th Street Overcrossing northeast abutment) and ends at station 157+30 (approximately 230m north of 228th Street Overcrossing). The wall will be constructed at the R/W line, approximately 0.61m from the existing fence line (toward the freeway side) above the existing embankment slope.

- **SW-158:** The wall starts at station 158+30 (approximately 290m south of 223rd Street Overcrossing) and ends at station 161+20 (approximately at 223rd Street Overcrossing southeast abutment). The wall will be constructed at the R/W line, approximately 0.61m from the existing fence line (toward the freeway side) above the existing embankment slope.

Southbound (SB) Direction

- **SW-151:** The wall starts at station 151+50.70 (approximately 370m south of 228th Street Overcrossing) and ends at station 152+82.89 (approximately 240m south of 228th

Street Overcrossing). The wall will be constructed 2.1m from the existing concrete gutter and 3m from existing ETW.

- **SW-152:** The wall starts at station 152+62.89 (approximately 260m south of 228th Street Overcrossing) and ends at station 155+17.5 (approximately at 228th Street Overcrossing southwest abutment). The wall will be constructed at the R/W line, approximately 0.61m from the existing fence line (toward the freeway side) above the existing embankment slope.

- **SW-156:** The wall starts at station 155+34.29 (approximately at 228th Street Overcrossing northwest abutment) and ends at station 158+56.50 (approximately 260m south of 223rd Street Overcrossing). The wall will be constructed at the R/W line, approximately 0.61m from the existing fence line (toward the freeway side) above the existing embankment slope.

3.2. Purpose

The purpose of the Task Order (TO) was to evaluate surface and subsurface soil at the proposed soundwall locations for concentrations of ADL, that may exceed acceptable regulatory limits on the Caltrans right-of-way.

3.3. Limitations

The LSI was conducted in accordance with Contract No. 43A0012, Task Order No. 07-020480-8E, and our work plan dated March 14, 2001.

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Please note that this study did not include an evaluation of geotechnical conditions or potential geologic hazards.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information or has questions regarding the content, interpretations presented, or completeness of this document.

Our conclusions, recommendations and opinions are based on an analysis of the observed site conditions and the referenced literature. It should be understood that the conditions of a site can change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

4. INVESTIGATIVE METHODS

Work procedures were conducted in accordance with Task Order No. 07-020480-8E and our work plan dated March 14, 2001.

4.1. Hand Auger Sampling

Ninyo & Moore hand augured 21 soil borings at the approximate locations shown on Figures 2 through 5.

Soil samples were collected at the surface, 0.3m, 0.61m and 0.91m bsg at each boring. Collapsing sand or large cobbles were encountered in two hand auger locations, E8-147-5 and E8-156-4. As a result, soil samples were not collected at 0.3m, 0.61m, or 0.91m in E8-147-5, and no soil sample was collected from 0.91m in E8-156-4.

4.2. Sample Analysis

Soil samples were transferred under chain-of-custody protocol to Associated Laboratories, Inc. (Associated) of Orange, California. Eighty soil samples were submitted to the laboratory for chemical analysis of total lead (TTLC) by EPA test method 7420. Thirty soil samples containing lead at concentrations greater than 50 mg/kg and less than 1,000 mg/kg total lead were further analyzed for soluble lead (STLC) by EPA Test Method 7240 following a citric acid extraction (Title 22 extraction). Seventeen of the 30 samples containing soluble lead at concentrations exceeding the STLC of 5.0 mg/l were further analyzed for

soluble lead following a DI-WET extraction by DTSC method. Five samples containing total lead exceeding lead concentrations of 1,000 mg/kg were analyzed for lead using Toxicity Characteristic Leaching Procedure (TCLP) EPA Method 1311. Nine samples (10 percent of the soil samples) were analyzed for pH by EPA Test Method 9045. The laboratory results are included in Table 1.

4.3. Global Positioning System (GPS) Data

Hand Auger location data (latitude and longitude) and soil sample analytical data were entered into the Caltrans Haz Geographical Information Systems (GIS) excel spreadsheets and are included in Appendix B.

5. INVESTIGATIVE RESULTS AND FIELD OBSERVATIONS

Soil sample analytical results are summarized in Table 1. Five of the 80 soil samples contained total lead at concentrations greater than 1,000 mg/kg. These lead concentrations are considered hazardous according to the California Code of Regulations (CCR), Title 22. Seven of the 80 soil samples contained lead at concentrations exceeding 350 mg/kg, the limit provided by the variance.

Thirty of the 80 soil samples collected contained total lead greater than 50 mg/kg and less than 1,000 mg/kg (Table 1). When analyzed for soluble lead (WET), 17 of 30 samples contained concentrations of soluble lead exceeding 5 mg/l. These 17 samples were additionally analyzed for soluble lead using the DI-WET extraction. Two of the 17 samples (8E-147-4-3 and 8E-147-6-SF) contained concentrations greater than 0.5 mg/l lead by the DI-WET method. All samples with TTLC greater than 1,000 mg/kg were analyzed for lead using TCLP. TCLP concentrations ranged from under the laboratory detection limit (<0.1 mg/l) to 1.01 mg/l.

The pH of the nine samples analyzed ranged from 7.27 to 8.73.

Soil encountered during the investigation consisted primarily of silty sand.

5.1. Northbound Direction

Of 13 surface samples, two contained concentrations of total lead greater than 350 mg/kg; these same samples also contained more that 1,000 mg/kg total lead. Nine of 13 surface samples contained concentrations of total lead greater than 50 and less than 1,000 mg/kg. Eight of these nine samples contained concentrations of soluble lead greater than 5 mg/l. Of these eight, one contained a concentration of soluble (DI) lead greater than 0.5 mg/l.

Of 12 0.3 meter samples, none contained greater than 1,000 mg/kg total lead; one contained greater than 350 mg/kg total lead. Seven of 12 samples contained concentrations of total lead greater than 50 and less than 1,000 mg/kg total lead. Of these seven, four contained greater than 5.0 mg/l of soluble lead and one of these four contained a concentration of soluble (DI) lead greater than 0.5 mg/l.

Of 12 0.61 meter samples, one sample contained greater than 350 mg/kg and 1,000 mg/kg of total lead. Two of 12 samples contained greater than 50 and less than 1,000 mg/kg of total lead. Of these two, one contained more that 5 mg/l of soluble lead with one analysis pending. The one sample analyzed for soluble lead contained less than 0.5 mg/l of soluble (DI) lead.

Of 12 0.91 meter samples, none contained greater than 1,000 mg/kg total lead; one contained greater than 350 mg/kg lead. Of 12 samples, four contained between 50 and 1,000 mg/kg lead. Of these four, none contained greater than 5 mg/l soluble lead.

5.2. Southbound Direction

Of eight surface samples, two contained greater than 350 and 1,000 mg/kg total lead. Of eight samples, four contained between 50 and 1000 mg/kg total lead. Of these four, two contained greater than 5 mg/l soluble lead. Of these two, both contained less than 0.5 mg/l soluble (DI) lead.

Of eight 0.3 meter samples no samples contained greater than 350 mg/kg total lead. Three sample contained between 50 and 1000 mg/kg total lead. Of these three, one contained more than 5 mg/l soluble lead; this sample also contained 0.5 mg/l soluble (DI) lead.

Of eight 0.61 meter samples, none contained greater than 350 mg/kg total lead. One of eight samples contained between 50 and 1,000 mg/kg lead. This sample contained less than 5 mg/l soluble lead.

Of seven 0.7 meter samples, none contained more than 50 mg/kg lead.

6. STATISTICAL EVALUATION

The data analysis package is presented in Appendix C. Per your June 13, 2001 discussion with Mr. Frank Gugger of Ninyo & Moore, our statistical analyses was performed on five sets of soundwalls as shown on Tables 1 and 2. Per your May 10, 2001 comments to our draft report, we initially combined all depth layers for statistical analyses. If the resulting upper confidence limits of the mean concentration (UCLs) exceeded the regulatory limits, the first layer (surface) was removed and the statistical analyses re-run on the remaining layers. As required by the TO, 90 percent and 95 percent UCLs were calculated using procedures outlined in Chapter 9 of EPA's SW-846 rather than the Supplemental Guidance to RAGS method described in the contract.

As shown on Figures C-1 and C-2, the correlation coefficient between total and soluble concentrations was 0.3268 for the NB side and 0.4591 for the SB side. Samples analyzed from NB borings 8E-147-1 and 8E-147-2 seem to belong to another sample population. These four samples have not been taken into the correlation calculation. Sample 8E-147-6-SF (NB) was identified as an outlier and not used for the correlation calculation.

The correlation function between total lead and soluble lead for the NB side was $y = 0.0468x$ and for the SB side $y = 0.0355x$ (Figures C-1 and C-2).

Due to the low correlation coefficient, Ninyo & Moore asked the laboratory to review their sample preparation procedures. The laboratory assured Ninyo & Moore that Caltrans requirements,

specifically those describing homogenization of sample and aliquot prior to testing, were adhered to and that the total and soluble lead results are considered valid.

The analytical data are summarized in Tables C-1 through C-6. The upper, boxed portions of Tables C-1 through C-6 are the subsets of data for the NB and SB directions at each depth, and for the combined data in each location.

Inspection of the entire data set showed that the data were not normally distributed, but were skewed to the right. A normal distribution histogram is shown in Figure C-2 in Appendix C. In general, first the mean and variance of the total lead results for each data set were calculated. These values are shown in Tables C-1 through C-6 on the second and third lines under the bold "total lead" heading. In all, the mean was less than the variance. For the total lead concentrations, the difference between the mean and variance was generally one to several orders of magnitude. In accordance with SW-846, the data were transformed with an arcsine transformation and the subsequent calculations were done with the transformed data. To transform the data, first the data were converted to percentages in accordance with SW-846. The converted data are listed in the upper, boxed section of the tables under the heading "total lead, % of maximum" (for these tables, 1.000 represents 100 percent).

The arcsine-transformed data are listed in the right column of the boxed portion of each table. Statistical "t" values were established for 90 percent and 95 percent UCLs based on the degrees of freedom of each data set, and 90 percent and 95 percent UCLs were calculated for each data set. The calculated values were "back transformed" to convert them to concentration values. These are listed at the bottom of each of the tables.

For the 90 percent and 95 percent UCLs of total lead, the corresponding soluble concentrations of lead were estimated using the correlation shown in Figure C-1.

The results of the statistical analyses are summarized as follows:

Table T1 – Summary of Statistical Analyses

			Total Lead		Soluble Lead	
Section	**NB/SB**	**Depth Meters**	**90% UCL mg/kg**	**95% UCL mg/kg**	**90% UCL mg/l**	**95% UCL mg/l**
Soundwall 147	NB	Surface to 0.91*	855	939	40	44
Soundwall 150 and 155	NB	Surface to 0.91	52	57	2.4	2.7
Soundwall 158	NB	Surface to 0.91	131	142	6	7
Soundwall 151 and 152	SB	Surface	5999	6665	213	237
Soundwall 151 and 152	SB	0.15 to 0.91	82	92	2.9	3.3
Soundwall 156	SB	Surface to 0.91	35	39	1.2	1.4

Notes:
NB = Northbound side of freeway
SB = Southbound side of freeway
* Total lead concentrations also exceed 350 mg/kg with surface layer excluded.

7. DATA EVALUATION AND DISCUSSION

Based upon the analytical results and subsequent statistical analysis, we have concluded the following:

Northbound

- The mean concentration (90 and 95 percent UCL) of lead in soil from the surface to 0.91 meters exceeds 350 mg/kg for soundwall 147. The mean concentration (90 and 95 percent UCL) of lead in soil at soundwall 150/155 and soundwall 158 (surface to 0.91 meter) is less than 350 mg/kg.

Southbound

- The mean concentration (90 and 95 percent UCL) of total lead in soil at the surface at soundwall 151/152 is greater than 350 mg/kg. The mean concentration (90 and 95 percent UCL) of total lead from 0.3 to 0.91 at soundwall 151/152 and at all depths at soundwall 156 is less than 350 mg/kg.

All soil pH results were greater than 5.0.

TCLP concentrations for samples containing total lead greater than 1,000 mg/kg ranged from not detected to 1.01 mg/l.

8. RECOMMENDATIONS

Based on the findings of this study, we present the following recommendations in accordance with the variance:

Table T2 – Recommendations

Location	Depth Meters	Soil Type	Recommended Handling
Soundwall 147	Surface to 0.91	Z-2	Hazardous, Class 1 Disposal Site, all other Title 22 CCR requirements apply.
Soundwall 150 and 155	Surface to 0.91	X	Non-hazardous, no restriction.
Soundwall 158	Surface to 0.91	Y	Hazardous, variance applies. Use material on job-site, beneath soft or hard cover. Place at minimum of 5 feet above maximum water table elevation and cover with at least 1 foot non-hazardous soil.
Soundwall 151 and 152	Surface	Z-2	Hazardous, Class 1 Disposal Site, all other Title 22 CCR requirements apply.
Soundwall 151 and 152	0.15 to 0.91	X	Non-hazardous, no restriction.
Soundwall 156	Surface to 0.91	X	Non-hazardous, no restriction.

TABLE 1 - SOIL SAMPLE RESULTS

Contractor Borehole ID	Sample No.	Sample Depth Meters	Total Lead mg/kg	Method Detection Limit mg/kg	Soluble Lead mg/l	Method Detection Limit mg/l	DI-WET Lead mg/l	Method Detection Limit mg/l	TCLP Lead mg/L	Method Detection Limit mg/l	pH
Northbound											
8E-147-1	8E-147-1-SF	0	1,500.0	50.0	--	--	--	--	0.39	0.1	--
8E-147-1	8E-147-1-3	0.3	811.0	50.0	5.73	0.2	ND	0.2	--	--	--
8E-147-1	8E-147-1-6	0.61	2,000.0	50.0	--	--	--	--	0.5	0.1	--
8E-147-1	8E-147-1-9	0.91	602.0	50.0	3.04	0.2	--	--	--	--	--
8E-147-2	8E-147-2-SF	0	346.0	10.0	1.30	0.2	--	--	--	--	--
8E-147-2	8E-147-2-3	0.3	177.0	10.0	1.28	0.2	--	--	--	--	--
8E-147-2	8E-147-2-6	0.61	21.8	10.0	--	--	--	--	--	--	--
8E-147-2	8E-147-2-9	0.91	41.4	10.0	--	--	--	--	--	--	--
8E-147-3	8E-147-3-SF	0	237.0	10.0	10.7	2.0	ND	0.2	--	--	--
8E-147-3	8E-147-3-3	0.3	155.0	10.0	5.60	0.2	ND	0.2	--	--	8.37
8E-147-3	8E-147-3-6	0.61	219.0	10.0	6.81	0.2	ND	0.2	--	--	--
8E-147-3	8E-147-3-9	0.91	74.8	10.0	0.78	0.2	--	--	--	--	--
8E-147-4	8E-147-4-SF	0	340.0	10.0	13.9	2.0	ND	0.2	--	--	--
8E-147-4	8E-147-4-3	0.3	218.0	10.0	26.6	2.0	0.60	0.2	--	--	--
8E-147-4	8E-147-4-6	0.61	262.0	10.0	11.5	2.0	ND	0.2	--	--	8.54
8E-147-4	8E-147-4-9	0.91	63.2	10.0	1.5	0.2	--	--	--	--	--
8E-147-5	8E-147-5-SF	0	2,730.0	100.0	--	--	--	--	1.01	0.1	--
8E-147-6	8E-147-6-SF	0	334.0	50.0	76.5	2.0	0.96	0.2	--	--	--
8E-147-6	8E-147-6-3	0.3	98.0	10.0	3.52	0.2	--	--	--	--	--
8E-147-6	8E-147-6-6	0.61	43.8	10.0	--	--	--	--	--	--	--
8E-147-6	8E-147-6-9	0.91	44.8	10.0	--	--	--	--	--	--	8.31
8E-150-1	8E-150-1-SF	0	42.4	10.0	--	--	--	--	--	--	--
8E-150-1	8E-150-1-3	0.3	33.8	10.0	--	--	--	--	--	--	--
8E-150-1	8E-150-1-6	0.61	24.7	10.0	--	--	--	--	--	--	--

TABLE 1 - SOIL SAMPLE RESULTS

Contractor Borehole ID	Sample No.	Sample Depth Meters	Total Lead mg/kg	Method Detection Limit mg/kg	Soluble Lead mg/l	Method Detection Limit mg/l	DI-WET Lead mg/l	Method Detection Limit mg/l	TCLP Lead mg/L	Method Detection Limit mg/l	pH
8E-150-1	8E-150-1-9	0.91	22.3	10.0	--	--	--	--	--	--	--
8E-155-1	8E-155-1-SF	0	113.0	10.0	7.77	0.2	0.25	0.2	--	--	--
8E-155-1	8E-155-1-3	0.3	14.5	10.0	--	--	--	--	--	--	--
8E-155-1	8E-155-1-6	0.61	ND	10.0	--	--	--	--	--	--	--
8E-155-1	8E-155-1-9	0.91	14.8	10.0	--	--	--	--	--	--	--
8E-155-2	8E-155-2-SF	0	41.7	10.0	--	--	--	--	--	--	--
8E-155-2	8E-155-2-3	0.3	ND	10.0	--	--	--	--	--	--	--
8E-155-2	8E-155-2-6	0.61	21.2	10.0	--	--	--	--	--	--	8.73
8E-155-2	8E-155-2-9	0.91	23.1	10.0	--	--	--	--	--	--	--
8E-158-1	8E-158-1-SF	0	278.0	10.0	6.80	0.2	ND	0.2	--	--	--
8E-158-1	8E-158-1-3	0.3	22.9	10.0	--	--	--	--	--	--	--
8E-158-1	8E-158-1-6	0.61	14.9	10.0	--	--	--	--	--	--	--
8E-158-1	8E-158-1-9	0.91	13.7	10.0	--	--	--	--	--	--	--
8E-158-2	8E-158-2-SF	0	232.0	10.0	9.85	0.2	ND	0.2	--	--	--
8E-158-2	8E-158-2-3	0.3	39.2	10.0	--	--	--	--	--	--	--
8E-158-2	8E-158-2-6	0.61	31.3	10.0	--	--	--	--	--	--	--
8E-158-2	8E-158-2-9	0.91	25.5	10.0	--	--	--	--	--	--	--
8E-158-3	8E-158-3-SF	0	148.0	10.0	6.89	0.2	ND	0.2	--	--	--
8E-158-3	8E-158-3-3	0.3	76.8	10.0	3.41	0.2	--	--	--	--	7.52
8E-158-3	8E-158-3-6	0.61	32.0	10.0	--	--	--	--	--	--	--
8E-158-3	8E-158-3-9	0.91	12.7	10.0	--	--	--	--	--	--	--
8E-158-4	8E-158-4-SF	0	177.0	10.0	6.21	0.2	ND	0.2	--	--	--
8E-158-4	8E-158-4-3	0.3	125.0	10.0	12.4	2.0	0.22	0.2	--	--	--
8E-158-4	8E-158-4-6	0.61	15.7	10.0	--	--	--	--	--	--	--
8E-158-4	8E-158-4-9	0.91	71.4	10.0	4.30	0.2	--	--	--	--	--

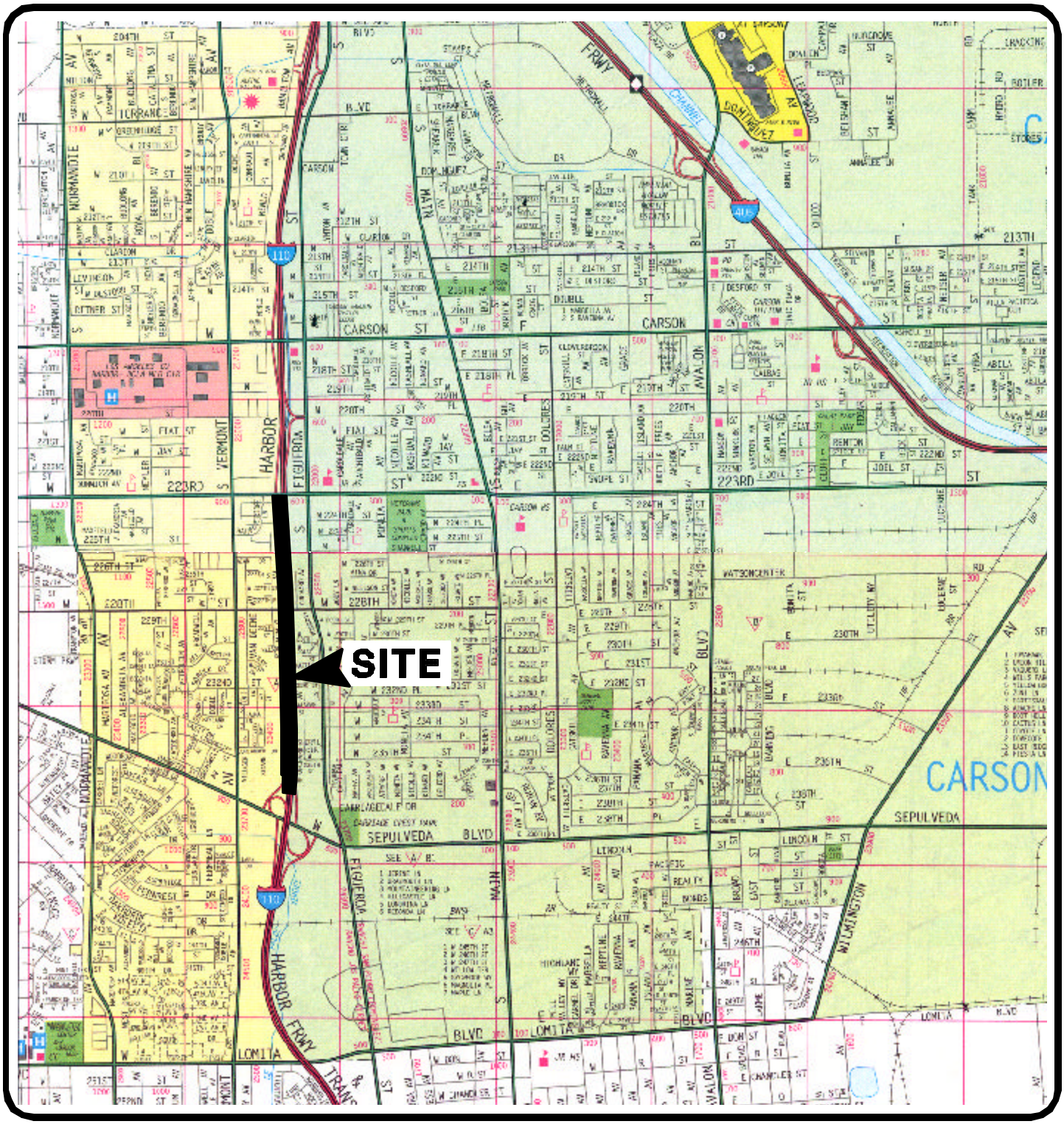
TABLE 1 - SOIL SAMPLE RESULTS

Contractor Borehole ID	Sample No.	Sample Depth Meters	Total Lead mg/kg	Method Detection Limit mg/kg	Soluble Lead mg/l	Method Detection Limit mg/l	DI-WET Lead mg/l	Method Detection Limit mg/l	TCLP Lead mg/L	Method Detection Limit mg/l	pH
Southbound											
8E-151-1	8E-151-1-SF	0	6,860.0	500.0	--	--	--	--	ND	0.1	--
8E-151-1	8E-151-1-.3	0.3	ND	10.0	--	--	--	--	--	--	--
8E-151-1	8E-151-1-.6	0.61	ND	10.0	--	--	--	--	--	--	--
8E-151-1	8E-151-1-.9	0.91	12.7	10.0	--	--	--	--	--	--	--
8E-152-1	8E-152-1-SF	0	253.0	10.0	7.23	0.2	ND	0.2	--	--	--
8E-152-1	8E-152-1-.3	0.3	198.0	10.0	12.7	1.0	0.27	0.2	--	--	--
8E-152-1	8E-152-1-.6	0.61	108.0	10.0	3.46	0.2	--	--	--	--	--
8E-152-1	8E-152-1-.9	0.91	18.9	10.0	--	--	--	--	--	--	--
8E-152-2	8E-152-2-SF	0	323.0	10.0	9.17	0.2	ND	0.2	--	--	--
8E-152-2	8E-152-2-.3	0.3	15.6	10.0	--	--	--	--	--	--	--
8E-152-2	8E-152-2-.6	0.61	ND	10.0	--	--	--	--	--	--	8.09
8E-152-2	8E-152-2-.9	0.91	20.6	10.0	--	--	--	--	--	--	--
8E-152-3	8E-152-3-SF	0	1,050.0	100.0	--	--	--	--	ND	0.1	--
8E-152-3	8E-152-3-.3	0.3	60.8	10.0	4.36	0.2	--	--	--	--	7.28
8E-152-3	8E-152-3-.6	0.61	27.6	10.0	--	--	--	--	--	--	--
8E-152-3	8E-152-3-.9	0.91	ND	10.0	--	--	--	--	--	--	--
8E-156-1	8E-156-1-SF	0	ND	10.0	--	--	--	--	--	--	--
8E-156-1	8E-156-1-.3	0.3	11.2	10.0	--	--	--	--	--	--	--
8E-156-1	8E-156-1-.6	0.61	ND	10.0	--	--	--	--	--	--	--
8E-156-1	8E-156-1-.9	0.91	ND	10.0	--	--	--	--	--	--	--
8E-156-2	8E-156-2-SF	0	65.2	10.0	2.35	0.2	--	--	--	--	--
8E-156-2	8E-156-2-.3	0.3	ND	10.0	--	--	--	--	--	--	--
8E-156-2	8E-156-2-.6	0.61	15.4	10.0	--	--	--	--	--	--	--
8E-156-2	8E-156-2-.9	0.91	12.3	10.0	--	--	--	--	--	--	--

TABLE 1 - SOIL SAMPLE RESULTS

Contractor Borehole ID	Sample No.	Sample Depth Meters	Total Lead mg/kg	Method Detection Limit mg/kg	Soluble Lead mg/l	Method Detection Limit mg/l	DI-WET Lead mg/l	Method Detection Limit mg/l	TCLP Lead mg/L	Method Detection Limit mg/l	pH
8E-156-3	8E-156-3-SF	0	13.2	10.0	--	--	--	--	--	--	7.3
8E-156-3	8E-156-3-.3	0.3	79.7	10.0	0.62	0.2	--	--	--	--	--
8E-156-3	8E-156-3-.6	0.61	ND	10.0	--	--	--	--	--	--	--
8E-156-3	8E-156-3-.9	0.91	ND	10.0	--	--	--	--	--	--	--
8E-156-4	8E-156-4-SF	0	50.6	10.0	4.65	0.2	--	--	--	--	--
8E-156-4	8E-156-4-.3	0.3	17.7	10.0	--	--	--	--	--	--	--
8E-156-4	8E-156-4-.6	0.61	ND	10.0	--	--	--	--	--	--	--

Notes:
All samples test by EPA Method 6010.
Analytical tests were all performed on a soil matrix.
mg/kg = milligrams per kilogram
mg/l = milligrams per liter
* = duplicate analysis
-- = not analyzed
DI = deionized water extraction



REFERENCE: 2000 Thomas Guide for Los Angeles and Orange counties, Street Guide and Directory.

NORTH

0 2400 4800

Approximate Scale in Feet

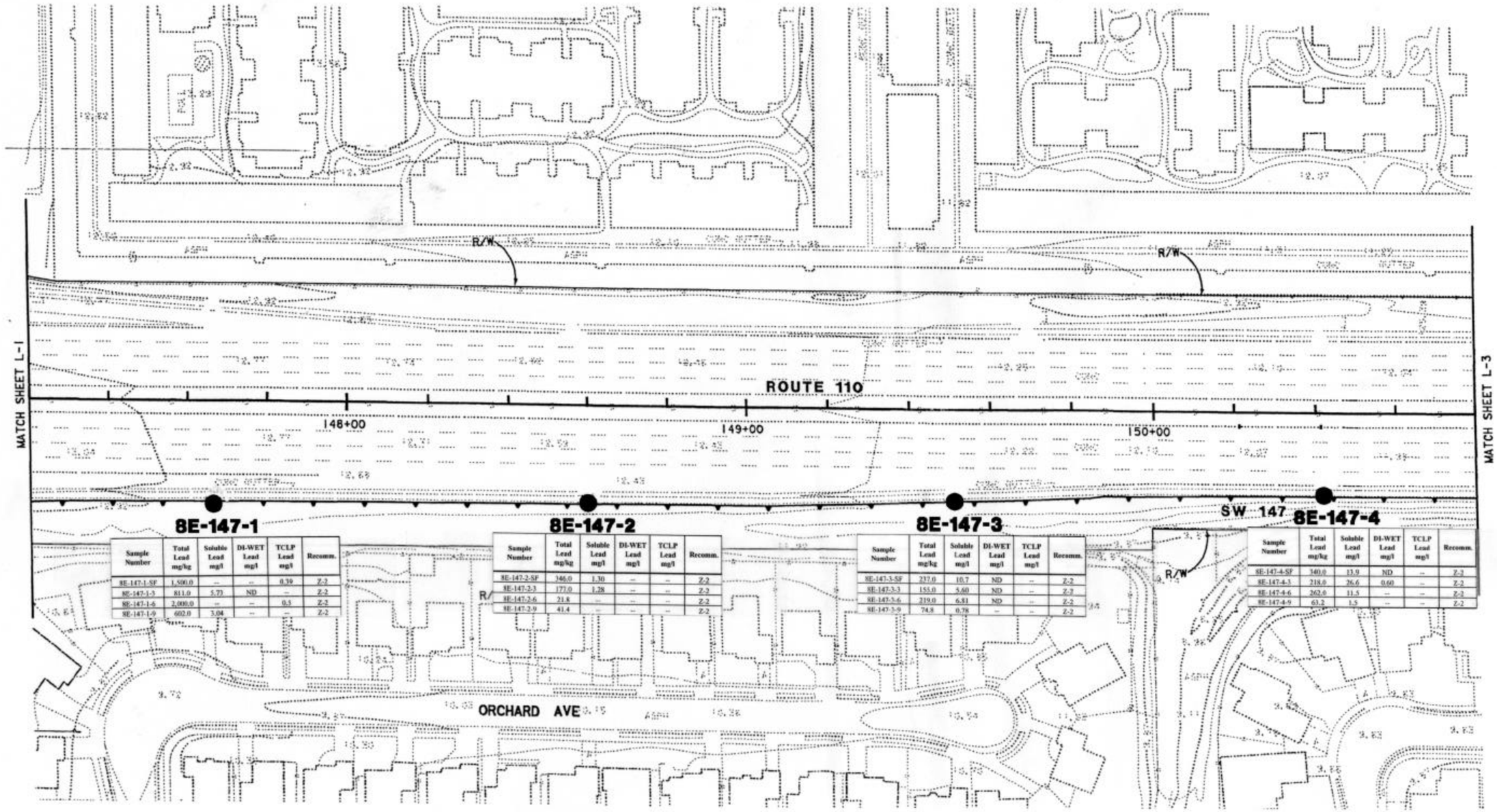
Ninyo & Moore

SITE LOCATION MAP

ROUTE 110 KP 9.01/10.46

LOS ANGELES, CALIFORNIA

PROJECT NO.	DATE	FIGURE
202914001	6/2001	1



Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-147-1-SF	1,500.0	--	--	0.39	Z-2
8E-147-1-3	811.0	5.73	ND	--	Z-2
8E-147-1-6	2,000.0	--	--	0.5	Z-2
8E-147-1-9	602.0	3.04	--	--	Z-2

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-147-2-SF	346.0	1.30	--	--	Z-2
8E-147-2-3	177.0	1.28	--	--	Z-2
8E-147-2-6	21.8	--	--	--	Z-2
8E-147-2-9	41.4	--	--	--	Z-2

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-147-3-SF	237.0	10.7	ND	--	Z-2
8E-147-3-3	155.0	5.60	ND	--	Z-2
8E-147-3-6	219.0	6.81	ND	--	Z-2
8E-147-3-9	74.8	0.78	--	--	Z-2

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-147-4-SF	340.0	13.9	ND	--	Z-2
8E-147-4-3	218.0	26.6	0.60	--	Z-2
8E-147-4-6	262.0	11.5	--	--	Z-2
8E-147-4-9	63.2	1.5	--	--	Z-2

LEGEND

8E-147-1 ● Soil sample location

0 20 40 60 80 100 (m)

NOTES: All samples tested by EPA Method 7240.
Recommendation per table T2
Analytical tests were all performed on a soil matrix.
mg/kg=milligrams per kilogram
mg/l=milligrams per liter
__=not analyzed
ND=not detected

REFERENCE: STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

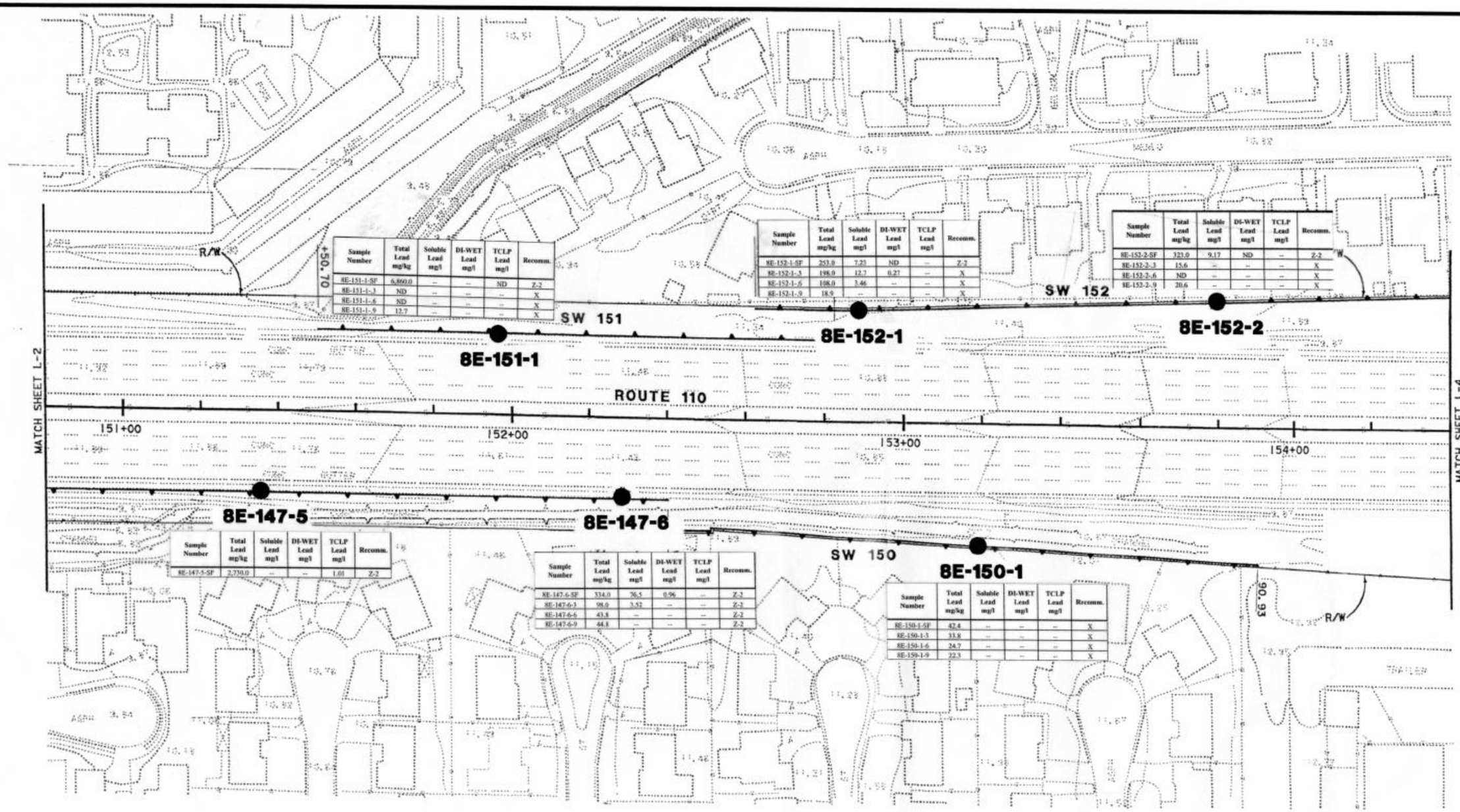
G:\2914F2

Ninyo & Moore

SAMPLE LOCATION MAP

ROUTE 110 KP 9.01/10.46
LOS ANGELES, CALIFORNIA

PROJECT NO.	DATE	FIGURE
202914001	6/2001	2



Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-151-1-SF	6,860.0	--	--	ND	Z-2
8E-151-1-3	ND	--	--	--	X
8E-151-1-6	ND	--	--	--	X
8E-151-1-9	12.7	--	--	--	X

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-152-1-SF	253.0	7.23	ND	--	Z-2
8E-152-1-3	198.0	12.7	0.27	--	X
8E-152-1-6	108.0	3.46	--	--	X
8E-152-1-9	18.9	--	--	--	X

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-152-2-SF	323.0	9.17	ND	--	Z-2
8E-152-2-3	15.6	--	--	--	X
8E-152-2-6	ND	--	--	--	X
8E-152-2-9	20.6	--	--	--	X

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-147-5-SF	2,730.0	--	--	1.01	Z-2

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-147-6-SF	334.0	76.5	0.96	--	Z-2
8E-147-6-3	98.0	3.52	--	--	Z-2
8E-147-6-6	43.8	--	--	--	Z-2
8E-147-6-9	44.8	--	--	--	Z-2

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-150-1-SF	42.4	--	--	--	X
8E-150-1-3	33.8	--	--	--	X
8E-150-1-6	24.7	--	--	--	X
8E-150-1-9	22.3	--	--	--	X

0 20 40 60 80 100 (m)

NOTES: All samples tested by EPA Method 7240.
Recommendation per table T2
Analytical tests were all performed on a soil matrix.
mg/kg=milligrams per kilogram
mg/l=milligrams per liter
___=not analyzed
ND=not detected

REFERENCE: STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

8E-147-1 ● Soil sample location

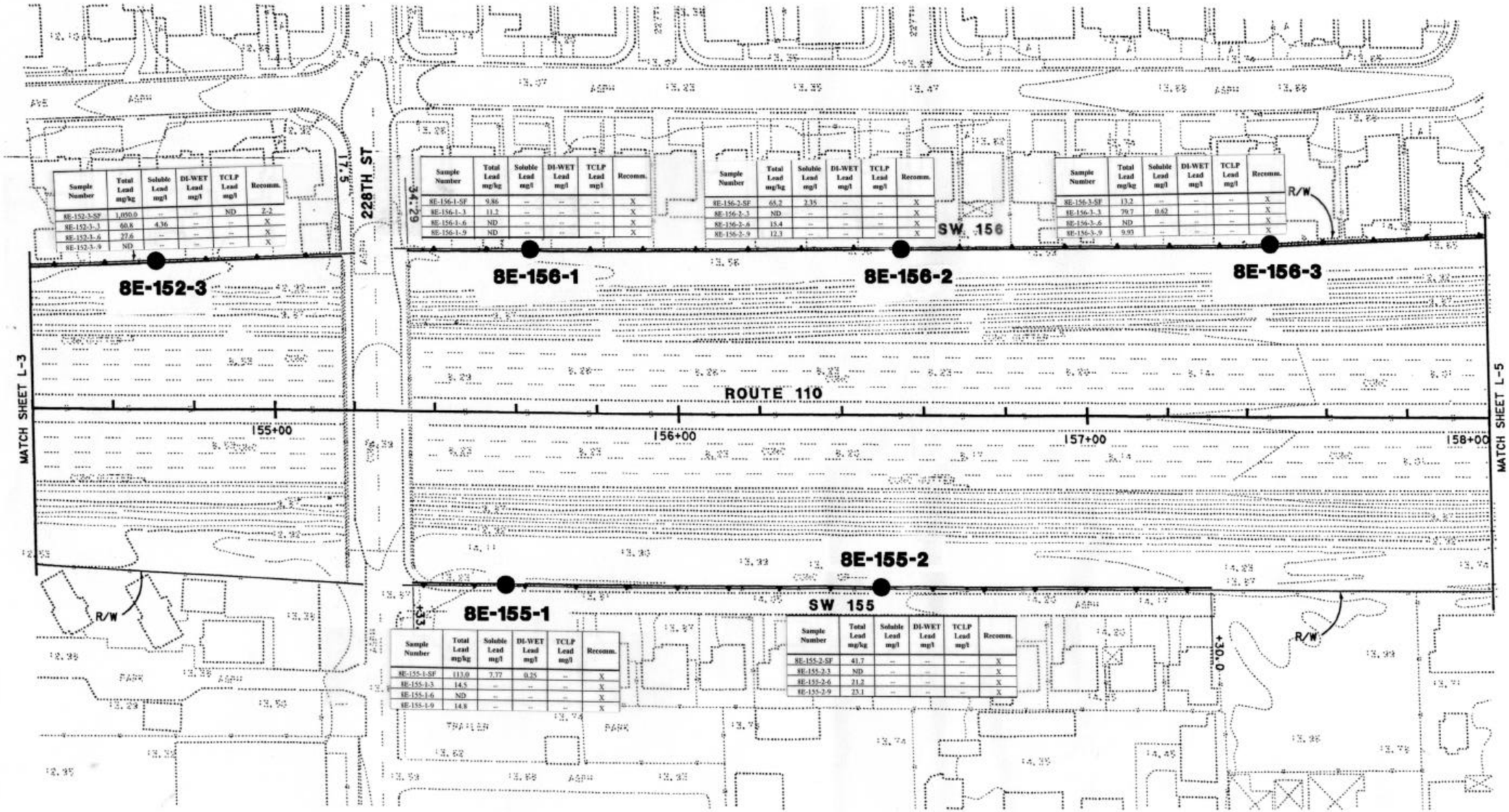
Ninyo & Moore

SAMPLE LOCATION MAP

ROUTE 110 KP 9.01/10.46
LOS ANGELES, CALIFORNIA

PROJECT NO.	DATE	FIGURE
202914001	6/2001	3

GA2914F3



Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-152-3-SF	1,050.0	--	--	ND	Z-2
8E-152-3-3	60.8	4.36	--	--	X
8E-152-3-6	27.6	--	--	--	X
8E-152-3-9	ND	--	--	--	X

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-156-1-SF	9.86	--	--	--	X
8E-156-1-3	11.2	--	--	--	X
8E-156-1-6	ND	--	--	--	X
8E-156-1-9	ND	--	--	--	X

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-156-2-SF	65.2	2.35	--	--	X
8E-156-2-3	ND	--	--	--	X
8E-156-2-6	15.4	--	--	--	X
8E-156-2-9	12.3	--	--	--	X

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-156-3-SF	13.2	--	--	--	X
8E-156-3-3	79.7	0.62	--	--	X
8E-156-3-6	ND	--	--	--	X
8E-156-3-9	9.93	--	--	--	X

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-155-1-SF	113.0	7.77	0.25	--	X
8E-155-1-3	14.5	--	--	--	X
8E-155-1-6	ND	--	--	--	X
8E-155-1-9	14.8	--	--	--	X

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-155-2-SF	41.7	--	--	--	X
8E-155-2-3	ND	--	--	--	X
8E-155-2-6	21.2	--	--	--	X
8E-155-2-9	23.1	--	--	--	X

0 20 40 60 80 100 (m)

NOTES: All samples tested by EPA Method 7240.
Recommendation per table T2
Analytical tests were all performed on a soil matrix.
mg/kg=milligrams per kilogram
mg/l=milligrams per liter
___=not analyzed
ND=not detected

REFERENCE: STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

8E-147-1 ● Soil sample location

Ninyo & Moore

SAMPLE LOCATION MAP

ROUTE 110 KP 9.01/10.46
LOS ANGELES, CALIFORNIA

PROJECT NO.	DATE	FIGURE
202914001	6/2001	4

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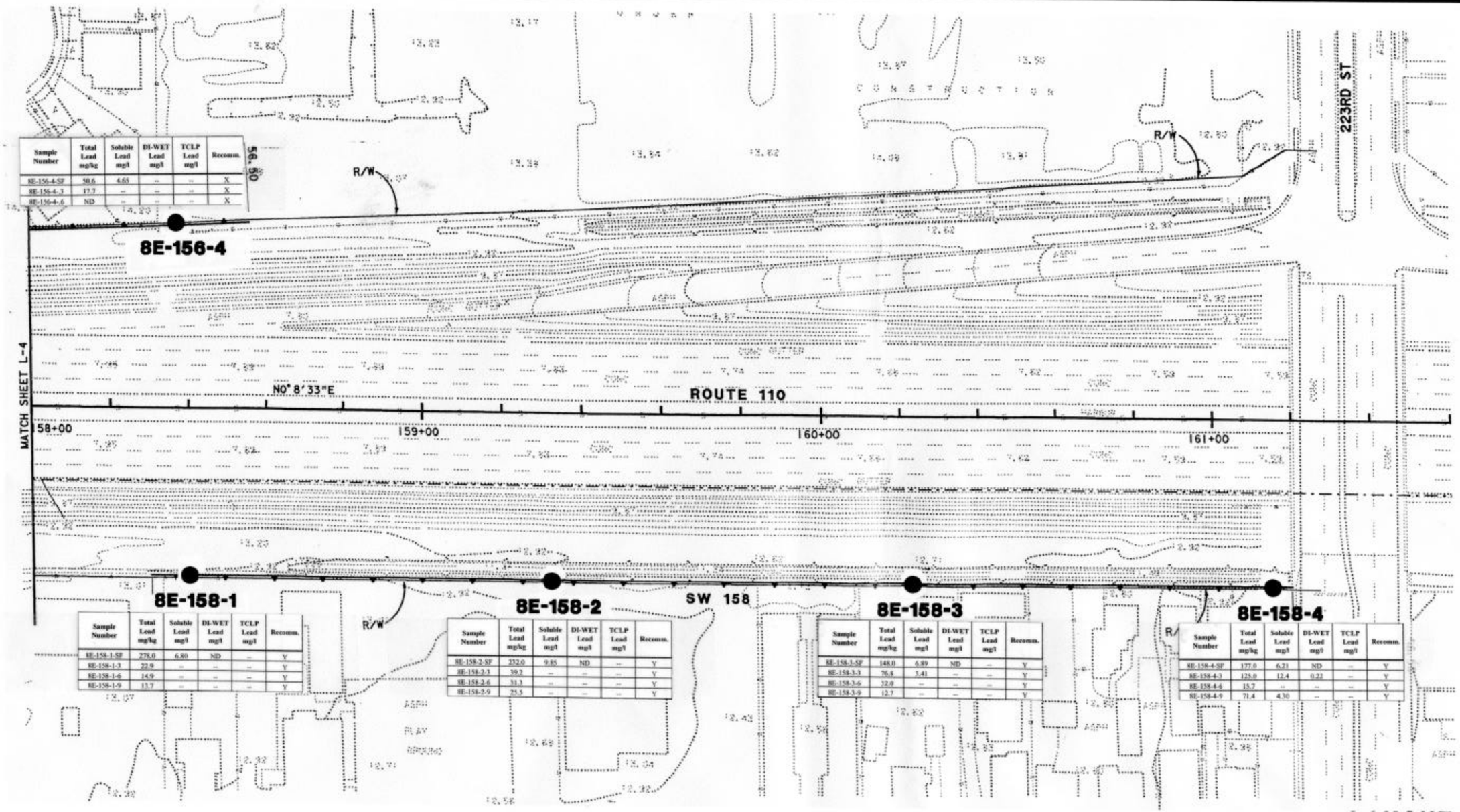

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-156-4-SF	50.6	4.65	--	--	X
8E-156-4-3	17.7	--	--	--	X
8E-156-4-6	ND	--	--	--	X

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-158-1-SF	278.0	6.80	ND	--	Y
8E-158-1-3	22.9	--	--	--	Y
8E-158-1-6	14.9	--	--	--	Y
8E-158-1-9	13.7	--	--	--	Y

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-158-2-SF	232.0	9.85	ND	--	Y
8E-158-2-3	39.2	--	--	--	Y
8E-158-2-6	31.3	--	--	--	Y
8E-158-2-9	25.5	--	--	--	Y

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-158-3-SF	148.0	6.89	ND	--	Y
8E-158-3-3	76.8	3.41	--	--	Y
8E-158-3-6	32.0	--	--	--	Y
8E-158-3-9	12.7	--	--	--	Y

Sample Number	Total Lead mg/kg	Soluble Lead mg/l	DI-WET Lead mg/l	TCLP Lead mg/l	Recomm.
8E-158-4-SF	177.0	6.21	ND	--	Y
8E-158-4-3	125.0	12.4	0.22	--	Y
8E-158-4-6	15.7	--	--	--	Y
8E-158-4-9	71.4	4.30	--	--	Y

NOTES: All samples tested by EPA Method 7240.
Recommendation per table T2
Analytical tests were all performed on a soil matrix.
mg/kg=milligrams per kilogram
mg/l=milligrams per liter
___=not analyzed
ND=not detected

REFERENCE: STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

8E-147-1 ● Soil sample location

0 20 40 60 80 100 (m)

Ninyo & Moore

SAMPLE LOCATION MAP

ROUTE 110 KP 9.01/10.46
LOS ANGELES, CALIFORNIA

PROJECT NO.	DATE	FIGURE
202914001	6/2001	5

G:\2914FS

APPENDIX A

LABORATORY REPORTS

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Ninyo & Moore (9164)
ATTN: David Shaler
9272 Jeronimo Road
Suite 123A
Irvine, CA 92618

LAB REQUEST 69390

REPORTED 04/09/2001

RECEIVED 03/16/2001

PROJECT #202914-01
CalTrans Route 110, Soil Sampling

SUBMITTER Client

COMMENTS Added TCLP Lead to order #252224 and 236 on 5-11-01.

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
252209	8E-156-4-SF
252210	8E-156-4-.3
252211	8E-156-4-.6
252212	8E-156-3-SF
252213	8E-156-3-.3
252214	8E-156-3-.6
252215	8E-156-3-.9
252216	8E-156-2-SF
252217	8E-156-2-.3
252218	8E-156-2-.6
252219	8E-156-2-.9

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing , all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

CLIENT Ninyo & Moore (9164)
ATTN: David Shaler
9272 Jeronimo Road
Suite 123A
Irvine, CA 92618

LAB REQUEST 69390

REPORTED 04/09/2001

RECEIVED 03/16/2001

PROJECT #202914-01
CalTrans Route 110, Soil Sampling

SUBMITTER Client

COMMENTS Added TCLP Lead to order #252224 and 236 on 5-11-01.

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
252220	8E-156-1-SF
252221	8E-156-1-.3
252222	8E-156-1-.6
252223	8E-156-1-.9
252224	8E-152-3-SF
252225	8E-152-3-.3
252226	8E-152-3-.6
252227	8E-152-3-.9
252228	8E-152-2-SF
252229	8E-152-2-.3
252230	8E-152-2-.6
252231	8E-152-2-.9
252232	8E-152-1-SF
252233	8E-152-1-.3
252234	8E-152-1-.6
252235	8E-152-1-.9
252236	8E-151-1-SF
252237	8E-151-1-.3
252238	8E-151-1-.6

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

CLIENT Ninyo & Moore (9164)
ATTN: David Shaler
9272 Jeronimo Road
Suite 123A
Irvine, CA 92618

LAB REQUEST 69390

REPORTED 04/09/2001

RECEIVED 03/16/2001

PROJECT #202914-01
CalTrans Route 110, Soil Sampling

SUBMITTER Client

COMMENTS Added TCLP Lead to order #252224 and 236 on 5-11-01.

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
252239	8E-151-1-.9

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 252209 **Client Sample ID:** 8E-156-4-SF **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	50.6	10.0	mg/Kg	03/28/01	NK
7420 STLC Lead by AA					
Lead STLC	4.65	0.2	mg/L	04/06/01	KN

Order #: 252210 **Client Sample ID:** 8E-156-4-.3 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	17.7	10.0	mg/Kg	03/28/01	NK

Order #: 252211 **Client Sample ID:** 8E-156-4-.6 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	ND	10.0	mg/Kg	03/28/01	NK

Order #: 252212 **Client Sample ID:** 8E-156-3-SF **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst	
150.1 pH					
pH	7.30		NA	04/06/01	LN

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

7420 Lead by Atomic Absorption

Lead	13.2	10.0	mg/Kg	03/28/01 NK

Order #: 252213 **Client Sample ID:** 8E-156-3-.3 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst
7420 Lead by Atomic Absorption				
Lead	79.7	10.0	mg/Kg	03/28/01 NK
7420 STLC Lead by AA				
Lead STLC	0.62	0.2	mg/L	04/06/01 KN

Order #: 252214 **Client Sample ID:** 8E-156-3-.6 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst
7420 Lead by Atomic Absorption				
Lead	ND	10.0	mg/Kg	03/28/01 NK

Order #: 252215 **Client Sample ID:** 8E-156-3-.9 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst
7420 Lead by Atomic Absorption				
Lead	ND	10.0	mg/Kg	03/28/01 NK

Order #: 252216 **Client Sample ID:** 8E-156-2-SF **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

7420 Lead by Atomic Absorption

Lead	65.2	10.0	mg/Kg	03/28/01 NK

7420 STLC Lead by AA

Lead STLC	2.35	0.2	mg/L	04/06/01 KN

Order #: 252217 **Client Sample ID:** 8E-156-2-.3 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst
7420 Lead by Atomic Absorption				
Lead	ND	10.0	mg/Kg	03/28/01 NK

Order #: 252218 **Client Sample ID:** 8E-156-2-.6 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst
7420 Lead by Atomic Absorption				
Lead	15.4	10.0	mg/Kg	03/28/01 NK

Order #: 252219 **Client Sample ID:** 8E-156-2-.9 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst
7420 Lead by Atomic Absorption				
Lead	12.3	10.0	mg/Kg	03/28/01 NK

Order #: 252220 **Client Sample ID:** 8E-156-1-SF **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

7420 Lead by Atomic Absorption

Lead	ND	10.0	mg/Kg	03/28/01 NK

Order #: 252221 **Client Sample ID:** 8E-156-1-.3 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst
7420 Lead by Atomic Absorption				
Lead	11.2	10.0	mg/Kg	03/28/01 NK

Order #: 252222 **Client Sample ID:** 8E-156-1-.6 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst
7420 Lead by Atomic Absorption				
Lead	ND	10.0	mg/Kg	03/28/01 NK

Order #: 252223 **Client Sample ID:** 8E-156-1-.9 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst
7420 Lead by Atomic Absorption				
Lead	ND	10.0	mg/Kg	03/28/01 NK

Order #: 252224 **Client Sample ID:** 8E-152-3-SF **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst
1311/7420 TCLP Lead by AA				
Lead TCLP	ND	0.1	mg/L	05/11/01 NK

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

7420 Lead by Atomic Absorption

Lead	1,050	100.0	mg/Kg	03/28/01 NK

Order #: 252225 **Client Sample ID:** 8E-152-3-.3 **Log Date:** 03/16/2(
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst
150.1 pH				
pH	7.28		NA	04/16/01 LN
7420 Lead by Atomic Absorption				
Lead	60.8	10.0	mg/Kg	03/28/01 NK
7420 STLC Lead by AA				
Lead STLC	4.36	0.2	mg/L	04/06/01 KN

Order #: 252226 **Client Sample ID:** 8E-152-3-.6 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst
7420 Lead by Atomic Absorption				
Lead	27.6	10.0	mg/Kg	03/28/01 NK

Order #: 252227 **Client Sample ID:** 8E-152-3-.9 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst
7420 Lead by Atomic Absorption				
Lead	ND	10.0	mg/Kg	03/28/01 NK

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

Order #: 252228 **Client Sample ID:** 8E-152-2-SF **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	323	10.0	mg/Kg	03/28/01	NK
7420 DI-STLC Lead by AA					
Lead DI-STLC	ND	0.2	mg/L	04/09/01	NK
7420 STLC Lead by AA					
Lead STLC	9.17	0.2	mg/L	04/06/01	KN

Order #: 252229 **Client Sample ID:** 8E-152-2-.3 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	15.6	10.0	mg/Kg	03/28/01	NK

Order #: 252230 **Client Sample ID:** 8E-152-2-.6 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst	
150.1 pH					
pH	8.09		NA	04/16/01	LN
7420 Lead by Atomic Absorption					
Lead	ND	10.0	mg/Kg	03/28/01	NK

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

Order #: 252231 **Client Sample ID:** 8E-152-2-.9 **Log Date:** 03/16/2(
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	20.6	10.0	mg/Kg	03/28/01	NK

Order #: 252232 **Client Sample ID:** 8E-152-1-SF **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	253	10.0	mg/Kg	03/28/01	NK
7420 DI-STLC Lead by AA					
Lead DI-STLC	ND	0.2	mg/L	04/09/01	NK
7420 STLC Lead by AA					
Lead STLC	7.23	0.2	mg/L	04/06/01	KN

Order #: 252233 **Client Sample ID:** 8E-152-1-.3 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	198	10.0	mg/Kg	03/28/01	NK
7420 DI-STLC Lead by AA					
Lead DI-STLC	0.27	0.2	mg/L	04/09/01	NK
7420 STLC Lead by AA					
Lead STLC	12.7	1.0	mg/L	04/06/01	KN

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

Order #: 252234 **Client Sample ID:** 8E-152-1-.6 **Log Date:** 03/16/2(
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	108	10.0	mg/Kg	03/28/01	NK
7420 STLC Lead by AA					
Lead STLC	3.46	0.2	mg/L	04/06/01	KN

Order #: 252235 **Client Sample ID:** 8E-152-1-.9 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	18.9	10.0	mg/Kg	03/28/01	NK

Order #: 252236 **Client Sample ID:** 8E-151-1-SF **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst	
1311/7420 TCLP Lead by AA					
Lead TCLP	ND	0.1	mg/L	05/11/01	NK
7420 Lead by Atomic Absorption					
Lead	6,860	500.0	mg/Kg	03/28/01	NK

Order #: 252237 **Client Sample ID:** 8E-151-1-.3 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

7420 Lead by Atomic Absorption

Lead	ND	10.0	mg/Kg	03/28/01	NK

Order #: 252238 **Client Sample ID:** 8E-151-1-.6 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	ND	10.0	mg/Kg	03/28/01	NK

Order #: 252239 **Client Sample ID:** 8E-151-1-.9 **Log Date:** 03/16/20
Matrix: SOLID
Date Sampled: 03/16/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	12.7	10.0	mg/Kg	03/28/01	NK

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

ASSOCIATED LABORATORIES

QA REPORT FORM (MS/MSD)

QC Sample: LR 69350 - 251937

Matrix: STLC (DI)

Prep. Date: 04/09/01

Analysis Date: 04/09/01

Lab ID#'s in Batch: LR 69350, 68946, 69390, 69152

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

REPORTING UNITS = mg/L

TEST	Method	Sample Result	ND	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
Lead	7420	0.2	U	2	2.14	2.23	107.0	111.5	4.1

NC = Not Calculated

ND = "U" - Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate

%REC-MS&MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

% REC LIMITS = 75 -125
RPD LIMITS = 20

ASSOCIATED LABORATORIES
QA REPORT FORM (MS/MSD)

QC Sample: LR 72109 - 262522

Matrix: TCLP

Prep. Date: 05/11/01

Analysis Date: 05/11/01

Lab ID#'s in Batch: LR 72109, 69350, 69390

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

REPORTING UNITS = mg/L

TEST	Method	Sample Result	ND	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
Lead	7420	0.69		2	3.02	3.06	116.5	118.5	1.3

** = MS/MSD outside Limits. LCS/MB Accepted.*
NC = Not Calculated
ND = "U" - Not Detected
RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
%REC-MS&MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

% REC LIMITS = 75 - 125
RPD LIMITS = 20

LCS/MB REPORT FORM

QC Code # : H051101TCLP3 Prep. Meth 3050

LCS Source(s) : QC21-LOT#QC2/91/1;QC7-LOT7A92/1 Wt./Vol : 0.5ml/25ml

Lab Control Sample (LCS)

TEST	Method	Result	TRUE	% Rec	L.Limit	H.Limit	Method Blank PB	Method Blank ND
Lead	7420	2.13	2	106.5	80 %	120 %	0.002	U

*Notes : RESULT = Sample Result; TRUE = True Value; % Rec = 100*Result/True*
L.Limit / H. Limit = Low / High Control Limits
PB = Preparation Blank; ND = "U" for Non-Detected

ASSOCIATED LABORATORIES

QA REPORT FORM (MS/MSD)

QC Sample: LR 68970 - 250093

Matrix: STLC

Prep. Date: 04/06/01

Analysis Date: 04/06/01

Lab ID#'s in Batch: LR 68970, 69390, 69350

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

REPORTING UNITS = mg/L

TEST	Method	Sample Result	ND	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
Lead	7420	1	U	2	2.24	2.26	112.0	113.0	0.9

NC = Not Calculated

ND = "U" - Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate

%REC-MS&MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

% REC LIMITS = 75 -125
RPD LIMITS = 20

ASSOCIATED LABORATORIES
QA REPORT FORM (MS/MSD)

QC Sample: LR 69390 - 252210

Matrix: SOLID

Prep. Date: 03/20/01

Analysis Date: 03/28/01

ID#'s in Batch: LR 69390

MATRIX SPIKE / SAMPLE DUPLICATE / LCS / BLANK RESULT

Reporting Units = mg/Kg

Test	Method	Sample Result	ND	Sample Dup	ND	RPD	Spike Added	Matrix Spike	%Rec MS
Lead	7420	17.80		19.40		8.6	94.8	101.0	87.8
Lead	7420	0.25	U	0.25	U	0.0	99.7	108.0	108.3
Lead	7420	0.25	U	0.25	U	0.0	95.5	111.0	116.2

NC = Not Calculated
ND = "U" - Not Detected
RPD = Relative Percent Difference of Sample and Sample Dup
%REC-MS = Percent Recovery of Matrix spike

LCS/ MB REPORT FORM

QC Code # : H032001SO9-10-11 Prep. Meth 3050

LCS Source(s) : QC21-LOT#QC2184/4;QC7-LOT7A84/1 Wt./Vol : 0.5ml/50ml

Lab Control Sample (LCS)

Test	Method	Result	TRUE	% Rec	L.Limit	H.Limit	Method Blank	
							PB	ND
Lead	7420	92	100	92.0	80%	120%	0.25	U
Lead	7420	87	100	87.0	80%	120%	0.25	U
Lead	7420	96	100	96.0	80%	120%	0.25	U

*Notes : RESULT = Sample Result; TRUE = True Value; % Rec = 100*Result/True*
L.Limit / H. Limit = Low / High Control Limits
PB = Preparation Blank; ND = "U" for Non-Detected

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900 *FAX 714/538-1209*

CLIENT Ninyo & Moore (9164)
ATTN: David Shaler
9272 Jeronimo Road
Suite 123A
Irvine, CA 92618

LAB REQUEST 69350
REPORTED 04/09/2001
RECEIVED 03/15/2001

PROJECT #202914-01
CalTrans I-110/Soil Sampling

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
251936	8E-147-1-SF
251937	8E-147-1-3
251938	8E-147-1-6
251939	8E-147-1-9
251940	8E-147-2-SF
251941	8E-147-2-3
251942	8E-147-2-6
251943	8E-147-2-9
251944	8E-147-3-SF
251945	8E-147-3-3
251946	8E-147-3-6

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

CLIENT Ninyo & Moore (9164)
ATTN: David Shaler
9272 Jeronimo Road
Suite 123A
Irvine, CA 92618

LAB REQUEST 69350

REPORTED 04/09/2001

RECEIVED 03/15/2001

PROJECT #202914-01
CalTrans I-110/Soil Sampling

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
251947	8E-147-3-9
251948	8E-147-4-SF
251949	8E-147-4-3
251950	8E-147-4-6
251951	8E-147-4-9
251952	8E-147-5-SF
251953	8E-147-6-SF
251954	8E-147-6-3
251955	8E-147-6-6
251956	8E-147-6-9
251957	8E-150-1-SF
251958	8E-150-1-3
251959	8E-150-1-6
251960	8E-150-1-9
251961	8E-155-1-SF
251962	8E-155-1-3
251963	8E-155-1-6
251964	8E-155-1-9
251965	8E-155-2-SF

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

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Vice President

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TESTING & CONSULTING
Chemical
Microbiological
Environmental

CLIENT Ninyo & Moore (9164)
ATTN: David Shaler
9272 Jeronimo Road
Suite 123A
Irvine, CA 92618

LAB REQUEST 69350

REPORTED 04/09/2001

RECEIVED 03/15/2001

PROJECT #202914-01
CalTrans I-110/Soil Sampling

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
251966	8E-155-2-3
251967	8E-155-2-6
251968	8E-155-2-9
251969	8E-158-1-SF
251970	8E-158-1-3
251971	8E-158-1-6
251972	8E-158-1-9
251973	8E-158-2-SF
251974	8E-158-2-3
251975	8E-158-2-6
251976	8E-158-2-9
251977	8E-158-3-SF
251978	8E-158-3-3
251979	8E-158-3-6
251980	8E-158-3-9
251981	8E-158-4-SF
251982	8E-158-4-3
251983	8E-158-4-6
251984	8E-158-4-9

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

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TESTING & CONSULTING
Chemical
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Environmental

Order #: 251936 **Client Sample ID:** 8E-147-1-SF **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	1,500	50.0	mg/Kg	03/27/01	CM

Order #: 251937 **Client Sample ID:** 8E-147-1-3 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	811	50.0	mg/Kg	03/27/01	CM
7420 DI-STLC Lead by AA					
Lead DI-STLC	ND	0.2	mg/L	04/09/01	NK
7420 STLC Lead by AA					
Lead STLC	5.73	0.2	mg/L	04/06/01	KN

Order #: 251938 **Client Sample ID:** 8E-147-1-6 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	2,000	50.0	mg/Kg	03/27/01	CM

Order #: 251939 **Client Sample ID:** 8E-147-1-9 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

7420 Lead by Atomic Absorption

Lead	602	50.0	mg/Kg	03/27/01	CM

7420 STLC Lead by AA

Lead STLC	3.04	0.2	mg/L	04/06/01	KN

Order #: 251940 **Client Sample ID:** 8E-147-2-SF **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	346	10.0	mg/Kg	03/27/01	CM
7420 STLC Lead by AA					
Lead STLC	1.30	0.2	mg/L	04/06/01	KN

Order #: 251941 **Client Sample ID:** 8E-147-2-3 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	177	10.0	mg/Kg	03/27/01	CM
7420 STLC Lead by AA					
Lead STLC	1.28	0.2	mg/L	04/06/01	KN

Order #: 251942 **Client Sample ID:** 8E-147-2-6 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	21.8	10.0	mg/Kg	03/27/01	CM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

Order #: 251943 **Client Sample ID:** 8E-147-2-9 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	41.4	10.0	mg/Kg	03/27/01	CM

Order #: 251944 **Client Sample ID:** 8E-147-3-SF **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	237	10.0	mg/Kg	03/27/01	CM
7420 DI-STLC Lead by AA					
Lead DI-STLC	ND	0.2	mg/L	04/09/01	NK
7420 STLC Lead by AA					
Lead STLC	10.7	2.0	mg/L	04/06/01	KN

Order #: 251945 **Client Sample ID:** 8E-147-3-3 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
150.1 pH					
pH	8.37		NA	04/16/01	LN
7420 Lead by Atomic Absorption					
Lead	155	10.0	mg/Kg	03/27/01	CM
7420 DI-STLC Lead by AA					
Lead DI-STLC	ND	0.2	mg/L	04/09/01	NK
7420 STLC Lead by AA					

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

Lead STLC	5.60	0.2	mg/L	04/06/01	KN

Order #: 251946 **Client Sample ID:** 8E-147-3-6 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	219	10.0	mg/Kg	03/27/01	CM
7420 DI-STLC Lead by AA					
Lead DI-STLC	ND	0.2	mg/L	04/09/01	NK
7420 STLC Lead by AA					
Lead STLC	6.81	0.2	mg/L	04/06/01	KN

Order #: 251947 **Client Sample ID:** 8E-147-3-9 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	74.8	10.0	mg/Kg	03/27/01	CM
7420 STLC Lead by AA					
Lead STLC	0.78	0.2	mg/L	04/06/01	KN

Order #: 251948 **Client Sample ID:** 8E-147-4-SF **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	340	10.0	mg/Kg	03/27/01	CM
7420 DI-STLC Lead by AA					

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

Lead DI-STLC	ND	0.2	mg/L	04/09/01	NK

7420 STLC Lead by AA

Lead STLC	13.9	2.0	mg/L	04/06/01	KN

Order #: 251949 **Client Sample ID:** 8E-147-4-3 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	218	10.0	mg/Kg	03/27/01	CM
7420 DI-STLC Lead by AA					
Lead DI-STLC	0.60	0.2	mg/L	04/09/01	NK
7420 STLC Lead by AA					
Lead STLC	26.6	2.0	mg/L	04/06/01	KN

Order #: 251950 **Client Sample ID:** 8E-147-4-6 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
150.1 pH					
pH	8.54		NA	04/16/01	LN
7420 Lead by Atomic Absorption					
Lead	262	10.0	mg/Kg	03/27/01	CM
7420 DI-STLC Lead by AA					
Lead DI-STLC	ND	0.2	mg/L	04/23/01	NK
7420 STLC Lead by AA					
Lead STLC	11.5	0.4	mg/L	04/16/01	HN

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

Order #: 251951 **Client Sample ID:** 8E-147-4-9 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	63.2	10.0	mg/Kg	04/12/01	HN
7420 STLC Lead by AA					
Lead STLC	1.50	0.2	mg/L	04/06/01	HN

Order #: 251952 **Client Sample ID:** 8E-147-5-SF **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	2,730	100.0	mg/Kg	03/27/01	CM

Order #: 251953 **Client Sample ID:** 8E-147-6-SF **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	334	50.0	mg/Kg	03/27/01	CM
7420 DI-STLC Lead by AA					
Lead DI-STLC	0.96	0.2	mg/L	04/09/01	NK
7420 STLC Lead by AA					
Lead STLC	76.5	2.0	mg/L	04/06/01	KN

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

Order #: 251954 **Client Sample ID:** 8E-147-6-3 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	98.0	10.0	mg/Kg	03/27/01	CM
7420 STLC Lead by AA					
Lead STLC	3.52	0.2	mg/L	04/06/01	KN

Order #: 251955 **Client Sample ID:** 8E-147-6-6 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	43.8	10.0	mg/Kg	03/27/01	CM

Order #: 251956 **Client Sample ID:** 8E-147-6-9 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
150.1 pH					
pH	8.31		NA	04/16/01	LN
7420 Lead by Atomic Absorption					
Lead	44.8	10.0	mg/Kg	03/27/01	CM

Order #: 251957 **Client Sample ID:** 8E-150-1-SF **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

7420 Lead by Atomic Absorption

Lead	42.4	10.0	mg/Kg	03/27/01	CM

Order #: 251958 **Client Sample ID:** 8E-150-1-3 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	33.8	10.0	mg/Kg	03/27/01	CM

Order #: 251959 **Client Sample ID:** 8E-150-1-6 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	24.7	10.0	mg/Kg	03/27/01	CM

Order #: 251960 **Client Sample ID:** 8E-150-1-9 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	22.3	10.0	mg/Kg	03/27/01	CM

Order #: 251961 **Client Sample ID:** 8E-155-1-SF **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	113	10.0	mg/Kg	03/27/01	CM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

7420 DI-STLC Lead by AA

Lead DI-STLC	0.25	0.2	mg/L	04/09/01	NK

7420 STLC Lead by AA

Lead STLC	7.77	0.2	mg/L	04/06/01	KN

Order #: 251962 **Client Sample ID:** 8E-155-1-3 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	14.5	10.0	mg/Kg	03/27/01	CM

Order #: 251963 **Client Sample ID:** 8E-155-1-6 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	ND	10.0	mg/Kg	03/27/01	CM

Order #: 251964 **Client Sample ID:** 8E-155-1-9 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	14.8	10.0	mg/Kg	03/27/01	CM

Order #: 251965 **Client Sample ID:** 8E-155-2-SF **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

7420 Lead by Atomic Absorption

Lead	41.7	10.0	mg/Kg	03/27/01	CM

Order #: 251966 **Client Sample ID:** 8E-155-2-3 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	ND	10.0	mg/Kg	03/27/01	CM

Order #: 251967 **Client Sample ID:** 8E-155-2-6 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
150.1 pH					
pH	8.73		NA	04/16/01	LN
7420 Lead by Atomic Absorption					
Lead	21.2	10.0	mg/Kg	03/27/01	CM

Order #: 251968 **Client Sample ID:** 8E-155-2-9 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	23.1	10.0	mg/Kg	03/27/01	CM

Order #: 251969 **Client Sample ID:** 8E-158-1-SF **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

7420 Lead by Atomic Absorption

Lead	278	10.0	mg/Kg	03/27/01	CM

7420 DI-STLC Lead by AA

Lead DI-STLC	ND	0.2	mg/L	04/09/01	NK

7420 STLC Lead by AA

Lead STLC	6.80	0.2	mg/L	04/06/01	KN

Order #: 251970 **Client Sample ID:** 8E-158-1-3 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	22.9	10.0	mg/Kg	03/27/01	CM

Order #: 251971 **Client Sample ID:** 8E-158-1-6 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	14.9	10.0	mg/Kg	03/27/01	CM

Order #: 251972 **Client Sample ID:** 8E-158-1-9 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	13.7	10.0	mg/Kg	03/27/01	CM

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

Order #: 251973 **Client Sample ID:** 8E-158-2-SF **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	232	10.0	mg/Kg	03/27/01	CM
7420 DI-STLC Lead by AA					
Lead DI-STLC	ND	0.2	mg/L	04/09/01	NK
7420 STLC Lead by AA					
Lead STLC	9.85	0.2	mg/L	04/06/01	KN

Order #: 251974 **Client Sample ID:** 8E-158-2-3 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	39.2	10.0	mg/Kg	03/27/01	CM

Order #: 251975 **Client Sample ID:** 8E-158-2-6 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	31.3	10.0	mg/Kg	03/27/01	CM

Order #: 251976 **Client Sample ID:** 8E-158-2-9 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

7420 Lead by Atomic Absorption

Lead	25.5	10.0	mg/Kg	03/27/01	CM

Order #: 251977 **Client Sample ID:** 8E-158-3-SF **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	148	10.0	mg/Kg	03/27/01	CM
7420 DI-STLC Lead by AA					
Lead DI-STLC	ND	0.2	mg/L	04/09/01	NK
7420 STLC Lead by AA					
Lead STLC	6.89	0.2	mg/L	04/06/01	KN

Order #: 251978 **Client Sample ID:** 8E-158-3-3 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
150.1 pH					
pH	7.52		NA	04/16/01	LN
7420 Lead by Atomic Absorption					
Lead	76.8	10.0	mg/Kg	03/27/01	CM
7420 STLC Lead by AA					
Lead STLC	3.41	0.2	mg/L	04/06/01	KN

Order #: 251979 **Client Sample ID:** 8E-158-3-6 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst

7420 Lead by Atomic Absorption

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

Lead	32.0	10.0	mg/Kg	03/27/01	CM

Order #: 251980 **Client Sample ID:** 8E-158-3-9 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	12.7	10.0	mg/Kg	03/27/01	CM

Order #: 251981 **Client Sample ID:** 8E-158-4-SF **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	177	10.0	mg/Kg	03/27/01	CM
7420 DI-STLC Lead by AA					
Lead DI-STLC	ND	0.2	mg/L	04/09/01	NK
7420 STLC Lead by AA					
Lead STLC	6.21	0.2	mg/L	04/06/01	KN

Order #: 251982 **Client Sample ID:** 8E-158-4-3 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	125	10.0	mg/Kg	03/27/01	CM
7420 DI-STLC Lead by AA					
Lead DI-STLC	0.22	0.2	mg/L	04/09/01	NK
7420 STLC Lead by AA					

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

Lead STLC	12.4	2.0	mg/L	04/06/01	KN

Order #: 251983 **Client Sample ID:** 8E-158-4-6 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	15.7	10.0	mg/Kg	03/27/01	CM

Order #: 251984 **Client Sample ID:** 8E-158-4-9 **Log Date:** 03/15/20
Matrix: SOLID
Date Sampled: 03/15/2001

Analyte	Result	DLR	Units	Date/Analyst	
7420 Lead by Atomic Absorption					
Lead	71.4	10.0	mg/Kg	03/27/01	CM
7420 STLC Lead by AA					
Lead STLC	4.30	0.2	mg/L	04/06/01	KN

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit

ASSOCIATED LABORATORIES

QA REPORT FORM (MS/MSD)

QC Sample: LR 68970 - 250093

Matrix: STLC

Prep. Date: 04/06/01

Analysis Date: 04/06/01

Lab ID#'s in Batch: LR 68970, 69390, 69350

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

REPORTING UNITS = mg/L

TEST	Method	Sample Result	ND	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
Lead	7420	1	U	2	2.24	2.26	112.0	113.0	0.9

NC = Not Calculated
ND = "U" - Not Detected
RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
%REC-MS&MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

% REC LIMITS = 75 -125
RPD LIMITS = 20

ASSOCIATED LABORATORIES

QA REPORT FORM (MS/MSD)

QC Sample: LR 69350 - 251937

Matrix: STLC (DI)

Prep. Date: 04/09/01

Analysis Date: 04/09/01

Lab ID#'s in Batch: LR 69350, 68946, 69390, 69152

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

REPORTING UNITS = mg/L

TEST	Method	Sample Result	ND	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
Lead	7420	0.2	U	2	2.14	2.23	107.0	111.5	4.1

NC = Not Calculated
ND = "U" - Not Detected
RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
%REC-MS&MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

% REC LIMITS = 75 -125
RPD LIMITS = 20

ASSOCIATED LABORATORIES
QA REPORT FORM (MS/MSD)

QC Sample: LR 69350 - 251940

Matrix: SOLID

Prep. Date: 03/20/01

Analysis Date: 03/27/01

ID#'s in Batch: LR 69350

SAMPLE / DUPLICATE / MATRIX SPIKE RESULT

Reporting Units = mg/Kg

Test	Method	Sample Result	ND	Sample Dup	ND	RPD	Spike Added	Matrix Spike	%Rec MS
Lead	7420	346.00		237.00		37.4	98.8	438.0	93.1
Lead	7420	262.00		227.00		14.3	93.4	365.0	110.3
Lead	7420	22.30		11.50		63.9	98.8	111.0	89.8
Lead	7420	22.90		17.10		29.0	97.9	114.0	93.1
Lead	7420	0.25	U	0.25	U	0.0	93.5	101.0	108.0

NC = Not Calculated
ND = "U" - Not Detected
RPD = Relative Percent Difference of Sample and Sample Dup
%REC-MS = Percent Recovery of Matrix spike

% REC LIMITS = 75 -125
RPD LIMITS = 20

LCS/ MB REPORT FORM

QC Code # : H032001SO45678

Prep. Meth: 3050

LCS Source(s) : QC21-LOT#QC2184/4;QC7-LOT7A84/1

Wt./Vol : 0.5ml/50ml

Lab Control Sample (LCS)

Test	Method	Result	TRUE	% Rec	L.Limit	H.Limit	Method Blank PB	Method Blank ND
Lead	7420	103	100	103.0	80%	120%	0.25	U
Lead	7420	102	100	102.0	80%	120%	0.25	U
Lead	7420	106	100	106.0	80%	120%	0.25	U
Lead	7420	105	100	105.0	80%	120%	0.25	U
Lead	7420	93	100	93.0	80%	120%	0.25	U

*Notes : RESULT = Sample Result: TRUE = True Value; % Rec = 100*Result/True*
L.Limit / H. Limit = Low / High Control Limits
PB = Preparation Blank; ND = "U" for Non-Detected

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CHAIN OF CUSTODY RECORD

Date 3/15/01 Page 1 of 5

CLIENT Ninyo & Moore
ADDRESS 9272 Jeronimo Rd. Ste 123A
Irvine, CA 92618
PROJECT NAME 202914-01
ALTRANS I-110/Soil Sampling

PROJECT MANAGER Craig Metheny
PHONE NUMBER (949) 472-5444
SAMPLERS: (Signature)

Samples Intact Yes X No ___
Cooled Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE: WATER	AIR	SOLID	NO OF CNTNRS	SUSP. CONTAM.	TESTS REQUIRED
BE/147/1/5F	SOIL SAMPLES	3/15				X	1		Lead EPA Series 7000
.3									
.6									
.9									
-147-2-5F	251940								ph 693500
.3									
.6									
.9									
-147-3-5F									
.3	251945								ph 693500
.6									
.9									

Relinquished by: (Signature)
Relinquished by: (Signature)
Received by: (Signature)
Received by Laboratory for analysis: (Signature)
Date/Time 3/15/01 1525
Date/Time

I hereby authorize the performance of the above indicated work.

(49)

Special Instructions:

DISTRIBUTION: White with report, Yellow to AL

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CHAIN OF CUSTODY RECORD

Date 3/15/01 Page 2 of 5

CLIENT Ninyo & Moore
ADDRESS 9272 Jeronimo Rd. Ste 123A
Irvine, CA 92618
PROJECT NAME 202914
CALTRANS I-110/SOIL SAMPLING

PROJECT MANAGER Craig Mathany
PHONE NUMBER (949) 472-5444
SAMPLERS: (Signature)

Samples Intact Yes X No ___
Cooling Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE WATER	AIR	SOLID	NO OF CNTNRS	SUSP. CONTAM.	TESTS REQUIRED
8E-147-4-5F	Soil Sample	3/15				X	1		LEAD EPA Series 7000
.3									
.6	251950								
.9									(pH) 69350
8E-147-5-5F									
8E-147-6-5F									
.3									
.6									
.9	251950								
8E-150-1-5F									(pH) 69350
.3									
.6									

Relinquished by: (Signature)
Relinquished by: (Signature)
Received by: (Signature)
Received by Laboratory for analysis: (Signature)
Date/Time 3/15/01 1530
Date/Time

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CHAIN OF CUSTODY RECORD

Date 3/15/01 Page 3 of 5

CLIENT Ninyo & Moore
ADDRESS 9272 Jeronimo Rd. Ste 123A
Irvine CA 92618

PROJECT NAME 202914-01
CALTRANS F-110/Soil Sampling

PROJECT MANAGER Craig Methenny
PHONE NUMBER (949) 472-5444
SAMPLERS: (Signature)

Samples Intact Yes X No ___
Courtesy Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE: WATER	AIR	SOLID	NO OF CNTNRS	SUSP. CONTAM.	TESTS REQUIRED
BE-150-1-.9	SOIL	3/15				X	1		LEAD EPA Series 7000
BE-155-1-SF									
.3									
.6									
.9									
BE-155-2-SF									
.3									
.6	251967								
.9									ph 69360
BE-158-1-SF									
.3									
.6									

Relinquished by: (Signature)
Received by: (Signature)
Date/Time 3/15/01 1505
Relinquished by: (Signature)
Received by Laboratory for analysis: (Signature)
Date/Time
Special instructions:

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CHAIN OF CUSTODY RECORD

Date 3/15/01 Page 4 of 5

CLIENT Ninyo & Moore
ADDRESS 9272 Jeronimo Rd Ste 123 A
Irvine, CA 92618
PROJECT NAME 2029[illegible]-01
CALTRANS I-110/Soil Sampling

PROJECT MANAGER Craig Metheny
PHONE NUMBER (949) 472-5444
SAMPLERS: (Signature)

Samples Intact Yes X No ___
County Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE: WATER	AIR	SOLID	NO OF CNTNRS	SUSP. CONTAM	TESTS REQUIRED
BE-158-1-9	SOIL SAMPLE	3/15/01				X	1		LEAD EPA Series 7000
BE-158-2-SF									
.3									
.6									
.9									
BE-158-3-SF									
-B	25978								
.6									(ph) 69350
.9									
BE-158-4-SF									
.3									
.6									

Relinquished by: (Signature)
Relinquished by: (Signature)
Received by: (Signature)
Received by Laboratory for analysis: (Signature)
Date/Time 3/15/01 1525
Date/Time
I hereby authorize the performance of the above indicated work.
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CHAIN OF CUSTODY RECORD

Date 3/14/01 Page 5 of 5

CLIENT NINYO & MOORE
ADDRESS 9272 Jeronimo Rd. Ste. 123A
Irvine, CA 92618

PROJECT NAME 202914-01
CALTRANS I-10 Soil Sampling

PROJECT MANAGER Craig Methany
PHONE NUMBER (949) 472-5444
SAMPLERS: (Signature)

Samples Intact Yes X No ___
County Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE: WATER	AIR	SOLID	NO OF CNTNRS	SUSP. CONTAM.	TESTS REQUIRED
BE-158-4.9	SOIL SAMPLE	3/15/01				X	1		LEAD EPA SERIES 7000

Relinquished by: (Signature)

Relinquished by: (Signature)

Received by: (Signature)

Received by Laboratory for analysis: (Signature)

Date/Time 1555 3/15/01

Date/Time

Special Instructions:

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DISTRIBUTION: White with report, Yellow to AL, Pink to Courier

04/11/01 06:46 9494725445 NINYO & MOORE 009

ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Ninyo & Moore (9164)
ATTN: David Shaler
9272 Jeronimo Road
Suite 123A
Irvine, CA 92618

LAB REQUEST 68970

REPORTED 04/10/2001

RECEIVED 03/07/2001

PROJECT #202887-01
CalTrans / I-10 HOV / Soil Sampling

SUBMITTER Client

COMMENTS Order #250057 was never received.
Added TCLP Lead to order #250045 on 4/12/01.
Added pH to order #250047 on 4/17/01.

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
250027	2E1-RW88-B-SF
250028	2E1-RW88-B-1
250029	2E1-RW88-B-2
250030	2E1-RW88-B-5
250031	2E1-RW88-C-SF
250032	2E1-RW88-C-1
250033	2E1-RW88-C-2
250034	2E1-RW88-C-5
250035	2E1-RW88-D-SF

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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CHAIN OF CUSTODY RECORD

Date 3/15/01 Page 1 of 5

T NINYO & MOORE
ESS 9272 Jeronimo Rd. Ste 123A
Uine, CA 92618
CT NAME 20298-01
ANS I-110/Soil Sampling

PROJECT MANAGER: Craig Metheny
PHONE NUMBER: (949) 472-5444
SAMPLERS: (Signature)

Samples Intact Yes X No ___
Cooly Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

MPLE MBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE WATER	AIR	SOLID	NO OF CNTNRS	SUSP. CONTAM.	TESTS REQUIRED
147/1/SF	SOIL SAMPLE	3/15				X	1		Lead EPA Series 7000
.3									
.6									
.9									
7-2-SF	251940								ph 69350
.3									
.6									
.9									
7-3-SF									
.3	251945								ph 69350
.6									
.9									

hed by: (Signature)
ed by: (Signature)
Received by: (Signature)
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Date/Time
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CHAIN OF CUSTODY RECORD

Date 3/15/01 Page 2 of 5

CLIENT NINYO & MOORE
ADDRESS 9272 Jeronimo Rd. Ste 123A
Irvine, CA 92618
PROJECT NAME 202914
CALTRANS I-110/SOIL SAMPLING

PROJECT MANAGER Craig Mehrany
PHONE NUMBER (949) 472-5444
SAMPLERS: (Signature)

Samples Intact Yes X No ___
Cooled Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE WATER	AIR	SOLID	NO OF CNTNRS	SUSP. CONTAM.	TESTS REQUIRED
8E-147-4-5F	SOIL SAMPLE	3/15				X	1		LEAD EPA Series 7000
.3									
.6	251950								(ph) 69350
.9									
8E-147-5-5F									
8E-147-6-5F									
.3									
.6									
.9	251950								(ph) 69350
8E-150-1-5F									
.3									
.6									

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CHAIN OF CUSTODY RECORD

Date 3/15/01 Page 3 of 5

CLIENT Ninyo & Moore
ADDRESS 9272 Jeronimo Rd Ste 123A
Irvine CA 92618
PROJECT NAME 202914-01
CALTRANS F-110/Soil Sampling

PROJECT MANAGER Craig Methenny
PHONE NUMBER (949) 472-5444
SAMPLERS: (Signature)

Samples Intact Yes X No ___
Courtesy Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE: WATER	AIR	SOLID	NO OF CNTNRS	SUSP. CONTAM.	TESTS REQUIRED
BE-150-1-.9	SOIL	3/15				X	1		LEAD EPA Series 7000
BE-155-2-SF									
.3									
.6									
.9									
BE-155-2-SF									
.3									
.6	751947								ph 169350
.9									
BE-158-1-SF									
.3									
.6									

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CHAIN OF CUSTODY RECORD

Date 3/15/01 Page 4 of 5

CLIENT: Ninyo & Moore
ADDRESS: 9272 Jeronimo Rd Ste 123 A
Irvine, CA 92618
PROJECT NAME: 202941-01
CALTRANS I-110/Soil Sampling

PROJECT MANAGER: Craig Mattheny
PHONE NUMBER: (949) 472-5444
SAMPLERS: (Signature)

Samples Intact Yes X No ___
County Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE: WATER	AIR	SOLID	NO OF CNTNRS	SUSP. CONTAM	TESTS REQUIRED
BE-158-1-9	SOIL SAMPLE	3/15/01				X	1		LEAD EPA Series 7000
BE-158-2-SF									
.3									
.6									
.9									
BE-158-3-SF									
.3	25478								(pb) 609350
.6									
.9									
BE-158-4-SF									
.3									
.6									

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Date 3/14/01 Page 5 of 5

...NT Ninyo & Moore	PROJECT MANAGER Craig Mathany
...ESS 9272 Jeronimo Rd. Ste. 123A	PHONE NUMBER (949) 972-5444
...rine, CA 92618	SAMPLERS: (Signature)
...ECT NAME 202914-01	
...ANS I-10 Soil Sampling	

Samples Intact Yes X No ___
Cooly Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

...AMPLE ...UMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE WATER	AIR	SOLID	NO OF CNTNRS.	SUSP. CONTAM.	TESTS REQUIRED
5B-4.9	SOIL SAMPLE	3/15/01				X	1		LEAD EPA Series 7000

...ished by: (Signature)

...ished by: (Signature)

Received by: (Signature)

Received by Laboratory for analysis: (Signature)

Date/Time 3/15/01

Date/Time

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CHAIN OF CUSTODY RECORD

Date 3/15/01 Page 1 of 5

CLIENT NINYO & MOORE
ADDRESS 9272 Jeronimo Rd. Ste 123A
Irvine, CA 92618

PROJECT NAME 202914-01
CALTRANS I-110/Soil Sampling

PROJECT MANAGER Craig Metheny
PHONE NUMBER (949) 472-5444
SAMPLERS (Signature)

Samples Intact Yes X No ___
County Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE WATER	AIR	SOLID	NO OF CNTNRS	SUSP CONTAM	TESTS REQUIRED
8E/147/1/5F	SOIL SAMPLE	3/15				X	1		Lead EPA Series 7000
.3									
.6									
.9									
8E-147-2-5F									
.3									
.6									
.9									
8E-147-3-5F									
.3									
.6									
.9									

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Received by: (Signature)
Date/Time 1555 3/15/01

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CHAIN OF CUSTODY RECORD

Date 3/15/01 Page 2 of 5

CLIENT NINYO & MOORE
ADDRESS 9272 Jeronimo Rd. Ste 123A
Irvine, CA 92618

PROJECT NAME 202914
CALTRANS I-110/SOIL SAMPLING

PROJECT MANAGER
Craig Metheny
PHONE NUMBER (949) 472-5444
SAMPLERS: (Signature)

Samples Intact Yes X No ___
County Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE WATER	AIR	SOLID	NO OF CNTNRS	SUSP. CONTAM.	TESTS REQUIRED
8E-147-4-SF	SOIL SAMPLE	3/15				X	1		LEAD EPA Series 7000
.3									
.6									
.9									
8E-147-5-SF									
8E-147-6SF									
.3									
.6									
.9									
8E-150-1-SF									
-.3									
.6									

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Date/Time 1550 3/15/01
Relinquished by: (Signature)
Received by Laboratory for analysis: (Signature)
Date/Time

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Date 3/15/01 Page 3 of 5

CLIENT NINYO & MOORE
ADDRESS 9272 Jeronimo Rd. Ste 123A
IRVINE CA 92618
PROJECT NAME 202914-01
CALTRANS I-110/Soil Sampling

PROJECT MANAGER CRAIG METHENY
PHONE NUMBER (949) 472-5444
SAMPLERS: (Signature)

Samples Intact Yes X No ___
County Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE WATER	AIR	SOLID	NO OF CNTNRS	SUSP. CONTAM.	TESTS REQUIRED
BE-150-1-.9	SOIL	3/15				X	1		LEAD EPA Series 7000
BE-155-1-SF									
.3									
.6									
.9									
BE-155-2-SF									
.3									
.6									
.9									
BE-158-1-SF									
.3									
.6									

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Received by: (Signature)
Date/Time 3/15/01 1555
Relinquished by: (Signature)
Received by Laboratory for analysis: (Signature)
Date/Time
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Date 3/15/01 Page 4 of 5

CLIENT Ninyo & Moore
ADDRESS 9272 Jeronimo Rd Ste 123 A
Irvine, CA 92618

PROJECT NAME 2029161-01
CALTRANS I-110/Soil Sampling

PROJECT MANAGER Craig Metheny
PHONE NUMBER (949) 472-5444
SAMPLERS: (Signature)

Samples Intact Yes X No ___
County Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE WATER	AIR	SOLID	NO OF CNTNRS	SUSP. CONTAM.	TESTS REQUIRED
8E-158-1-9	SOIL SAMPLE	3/15/01				X	1		LEAD EPA Series 7000
8E-158-2-SF									
.3									
.6									
.9									
8E-158-3-SF									
.3									
.6									
.9									
8E-158-4-SF									
.3									
.6									

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Date 3/14/01 Page 5 of 5

CLIENT NINYO & MOORE
ADDRESS 9272 Jeronimo Rd, Ste. 123A
Irvine, CA 92618

PROJECT MANAGER Craig Metheny
PHONE NUMBER (949) 472-5444
SAMPLERS: (Signature)

PROJECT NAME 202914-01
CALTRANS I-10 Soil Sampling

Samples Intact Yes X No ___
County Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE WATER	AIR	SOLID	NO. OF CNTNRS	SUSP. CONTAM	TESTS REQUIRED
86-158-4.9	SOIL SAMPLE	3/15/01				X	1		LEAD EPA Series 7000

Relinquished by: (Signature)
Relinquished by: (Signature)
Received by: (Signature)
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Date/Time 1555 3/15/01
Date/Time
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Date 3/16/01 Page 1 of 3

CLIENT NINYO & MOORE
ADDRESS 9272 Jeronimo Rd. Ste 123A
Irvine CA 92618

PROJECT MANAGER Craig Metheny
PHONE NUMBER (949) 472-5444
SAMPLERS: (Signature)

Samples Intact Yes X No ___
Cooly Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

PROJECT NAME 202914-01
CALTRANS ROUTE 110 / SOIL SAMPLING

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE: WATER	AIR	SOLID	NO OF CNTNRS	SUSP. CONTAM	TESTS REQUIRED
E-156-4-SF	SOIL SAMPLE	3/16				X	1		LEAD 7000 Series
.3									
.6									
E-156-3 SF	252212								(Pb) 69390
.3									
.6									
.9									
E-156-2-SF									
.3									
.6									
.9									
E-156-1-SF									

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Date 3/16/01 Page 2 of 3

CLIENT NINYO & MOORE
ADDRESS 9272 JERONIMO RD STE 123A
IRVINE CA 92618
PROJECT NAME 202914-01
CALTRANS ROUTE 110/ SOIL SAMPLING

PROJECT MANAGER Craig Methum
PHONE NUMBER (949) 472-5444
SAMPLERS: (Signature)

Samples Intact Yes X No ___
Cooler Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE WATER	AIR	SOLID	NO OF CNTNRS	SUSP CONTAM	TESTS REQUIRED
E-156-1-3	SOIL SAMPLE	3/16				X	1		LEAD TOTAL SERIES
.6									
.9									
E-152-3-5									
.3	252225								(ph) 609390
.6									
.9									
E-152-2-5									
.3									
.6	252230								(ph) 609390
.9									
E-152-1-5									

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CHAIN OF CUSTODY RECORD

Date 3/16/0 Page 3 of 3

IENT NINYO & MOORE
DRESS 9277 JERONIMO RD STE 123A
IRVINE CA 92618
OJECT NAME 2029114
ACIENDAS ROUTE 110/SOIL SAMPLING

PROJECT MANAGER Craig Mathews
PHONE NUMBER (949) 472-5444
SAMPLERS: (Signature)

Samples Intact Yes X No ___
County Seals Intact Yes ___ No X
Sample Ambient X Cooled ___ Frozen ___
Same Day ___ 24 Hr. ___
Regular X 48 Hr. ___

SAMPLE NUMBER	LOCATION DESCRIPTION	DATE	TIME	SAMPLE TYPE WATER	AIR	SOLID	NO OF CNTNRS	SUSP. CONTAM	TESTS REQUIRED
E-152-1-.3	SOIL SAMPLE	3/16/01				X	1		LEAD 7000 Series
.6									
.9									
E-151-1-.3									
.3									
.6									
.9									

Relinquished by: (Signature)	Received by: (Signature)	Date/Time 3-16-01 11:55	I hereby authorize the performance of the above indicated work.
Relinquished by: (Signature)	Received by Laboratory for analysis: (Signature)	Date/Time	

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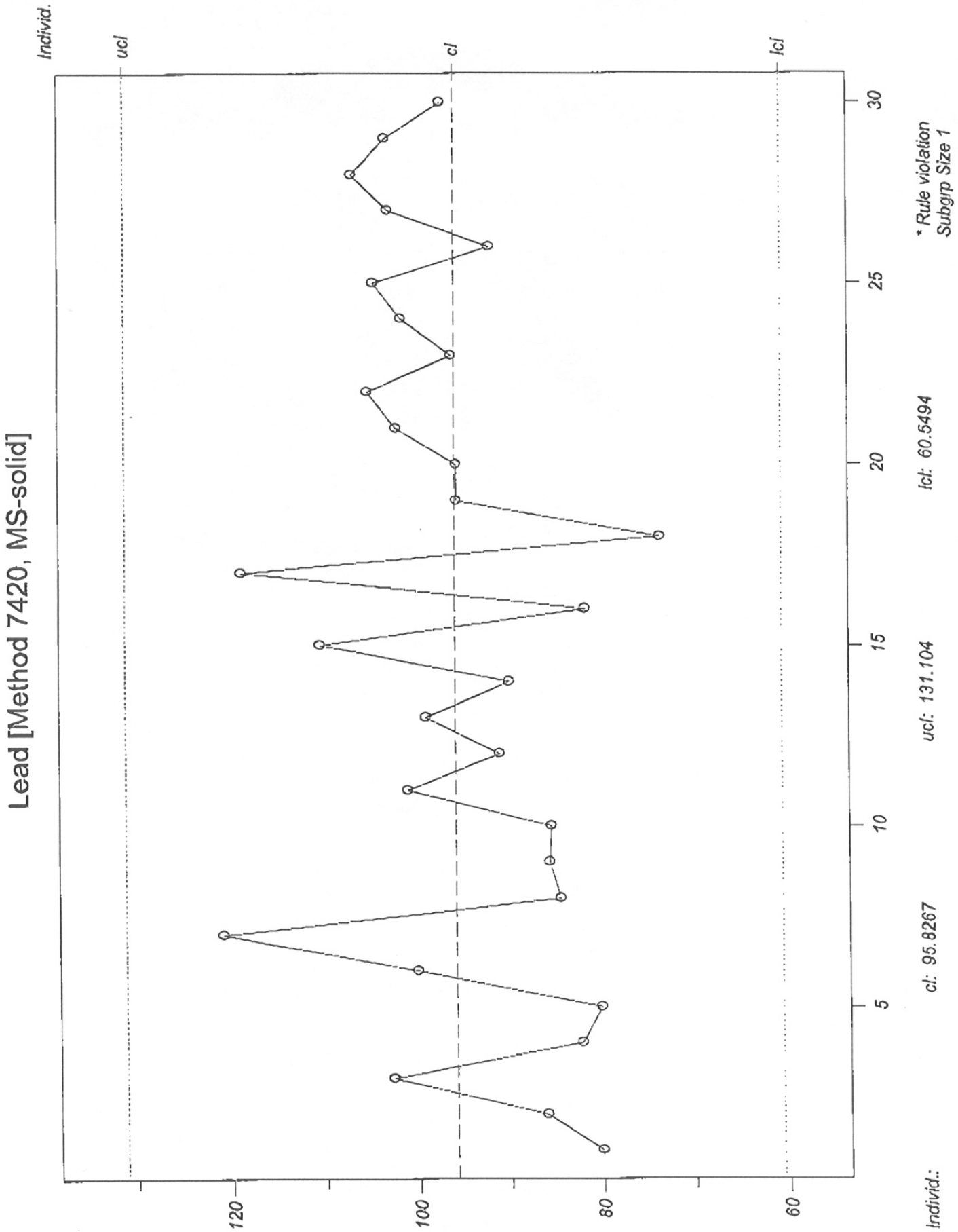
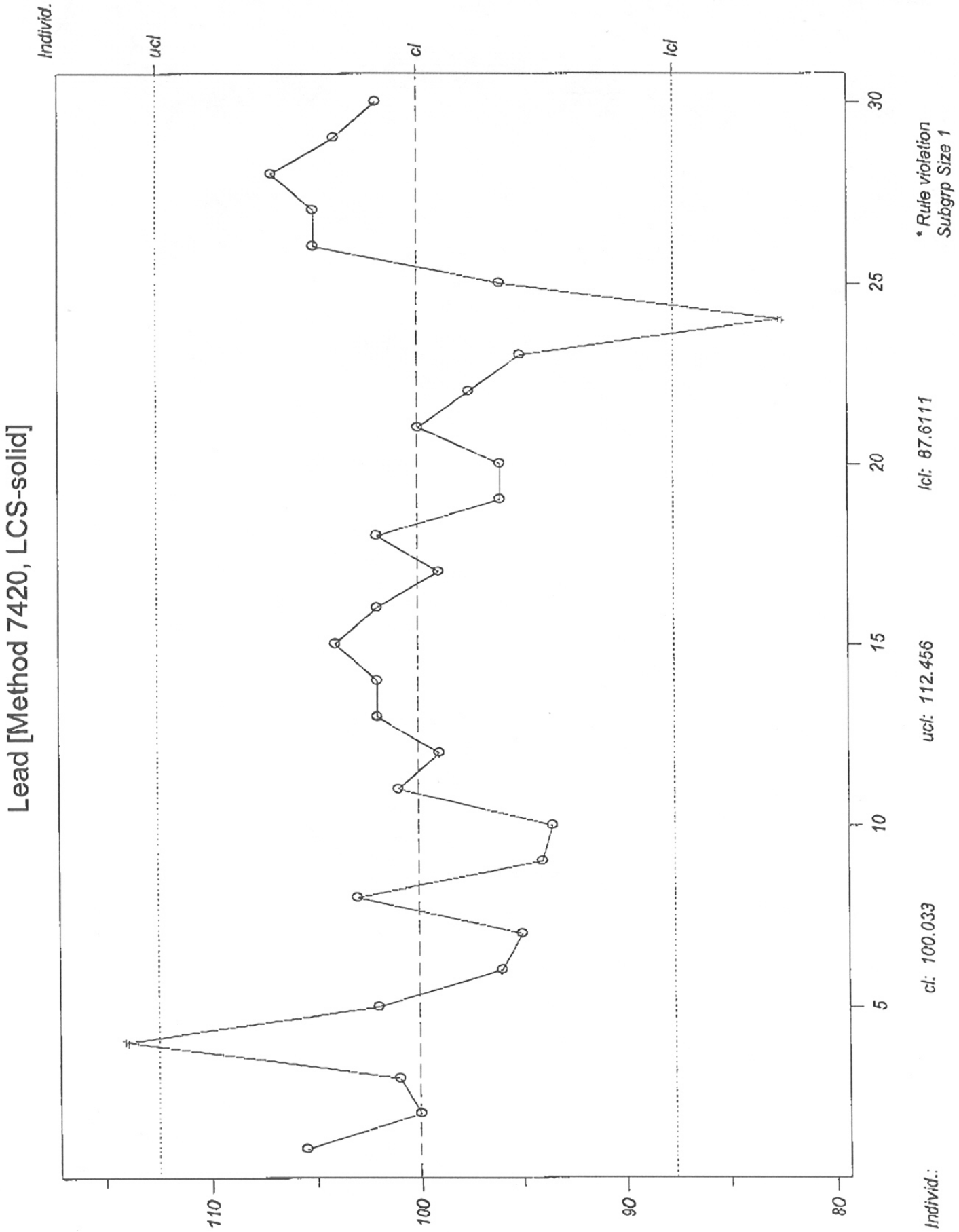

Lead [Method 7420, MS-solid]
Individ.
ucl
cl
lcl
120
100
80
60
5
10
15
20
25
30
* Rule violation
Subgrp Size 1
lcl: 60.5494
ucl: 131.104
cl: 95.8267
Individ.:


Lead [Method 7420, LCS-solid]
Individ.
ucl
cl
lcl
110
100
90
80
5
10
15
20
25
30
* Rule violation
Subgrp Size 1
lcl: 87.6111
ucl: 112.456
cl: 100.033
Individ.:

APPENDIX B

CALTRANS HAZ GIS DATABASE EXCEL SPREADSHEET DELIVERABLES

APPENDIX C

STATISTICAL ANALYSES

TABLE C-1
LEAD ANALYSES - SURFACE TO 0.91 METER - SOUNDWALL 147

Section	Contractor Borehole ID	Sample ID	Total Lead mg/kg	Total Lead % of Maximum	Transformed Data Arcsine
Northbound	8E-147-1	8E-147-1-.3	811	0.2971	0.301622235
Northbound	8E-147-1	8E-147-1-.6	2000	0.7326	0.822135041
Northbound	8E-147-1	8E-147-1-.9	602	0.2205	0.222340202
Northbound	8E-147-1	8E-147-1-SF	1500	0.5495	0.581706485
Northbound	8E-147-2	8E-147-2-.3	177	0.0648	0.064880674
Northbound	8E-147-2	8E-147-2-.6	21.8	0.0080	0.007985433
Northbound	8E-147-2	8E-147-2-.9	41.4	0.0152	0.015165416
Northbound	8E-147-2	8E-147-2-SF	346	0.1267	0.127081707
Northbound	8E-147-3	8E-147-3-.3	155	0.0568	0.056807105
Northbound	8E-147-3	8E-147-3-.6	219	0.0802	0.080306069
Northbound	8E-147-3	8E-147-3-.9	74.8	0.0274	0.027402697
Northbound	8E-147-3	8E-147-3-SF	237	0.0868	0.086922603
Northbound	8E-147-4	8E-147-4-.3	218	0.0799	0.079938590
Northbound	8E-147-4	8E-147-4-.6	5	0.0018	0.001831503
Northbound	8E-147-4	8E-147-4-.9	182	0.0667	0.066716148
Northbound	8E-147-4	8E-147-4-SF	340	0.1245	0.124866349
Northbound	8E-147-5	8E-147-5-SF	2730	1.0000	1.570796327
Northbound	8E-147-6	8E-147-6-.3	98	0.0359	0.035905150
Northbound	8E-147-6	8E-147-6-.6	43.8	0.0160	0.016044644
Northbound	8E-147-6	8E-147-6-.9	44.8	0.0164	0.016410993
Northbound	8E-147-6	8E-147-6-SF	334	0.1223	0.122651608

Total Lead	Max TTLC:	2730.0	**Transformed Data**		**Soluble Data**	
Number of Samples:	21		21			
Sample Mean :	485		0.211			
Delta = RT - mean	-135					
Appropriate Number of Samples:	50					
Standard Deviation of Sample:	721		0.372			
Standard Deviation of Mean:	157		0.081			
Sample Variance:	519795		0.138			
t-value for 90%:	1.325	Need to Transform Data	1.325			
Upper Confidence Limit for 90%:			0.319			
Reverse Transformation for 90%			855	mg/kg	40.0	mg/l
t-value for 95%:			1.725			
Upper Confidence Limit for 95%:			0.351			
Reverse Transformation for 95%			939	mg/kg	44.0	mg/l

TABLE C-2
LEAD ANALYSES - SURFACE TO 0.91 METER - SOUNDWALL 150 AND 155

Section	Contractor Borehole ID	Sample ID	Total Lead mg/kg	Total Lead % of Maximum	Transformed Data Arcsine
Northbound	8E-150-1	8E-150-1-.3	33.8	0.2991	0.303765103
Northbound	8E-150-1	8E-150-1-.6	24.7	0.2186	0.220363217
Northbound	8E-150-1	8E-150-1-.9	22.3	0.1973	0.198649054
Northbound	8E-150-1	8E-150-1-SF	42.4	0.3752	0.384635441
Northbound	8E-155-1	8E-155-1-.3	14.5	0.1283	0.128673361
Northbound	8E-155-1	8E-155-1-.6	5	0.0442	0.044262239
Northbound	8E-155-1	8E-155-1-.9	14.8	0.1310	0.131350826
Northbound	8E-155-1	8E-155-1-SF	113	1.0000	1.570796327
Northbound	8E-155-2	8E-155-2-.3	5	0.0442	0.044262239
Northbound	8E-155-2	8E-155-2-.6	21.2	0.1876	0.188729004
Northbound	8E-155-2	8E-155-2-.9	23.1	0.2044	0.205876041
Northbound	8E-155-2	8E-155-2-SF	41.7	0.3690	0.377961426

Total Lead	Max TTLC:	113.0	**Transformed Data**		**Soluble Data**	
Number of Samples:	12		12			
Sample Mean :	30		0.317			
Delta = RT - mean	320					
Appropriate Number of Samples:	0					
Standard Deviation of Sample:	29		0.410			
Standard Deviation of Mean:	8		0.118			
Sample Variance:	830		0.168			
t-value for 90%:	1.363	Need to Transform Data	1.363			
Upper Confidence Limit for 90%:			0.478			
Reverse Transformation for 90%			52	mg/kg	2.4	mg/l
t-value for 95%:			1.796			
Upper Confidence Limit for 95%:			0.529			
Reverse Transformation for 95%			57	mg/kg	2.7	mg/l

TABLE C-3
LEAD ANALYSES - SURFACE TO 0.91 METER - SOUNDWALL 158

Section	Contractor Borehole ID	Sample ID	Total Lead mg/kg	Total Lead % of Maximum	Transformed Data Arcsine
Northbound	8E-158-1	8E-158-1-.3	22.9	0.0824	0.082467544
Northbound	8E-158-1	8E-158-1-.6	14.9	0.0536	0.053622817
Northbound	8E-158-1	8E-158-1-.9	13.7	0.0493	0.049300544
Northbound	8E-158-1	8E-158-1-SF	278	1.0000	1.570796327
Northbound	8E-158-2	8E-158-2-.3	39.2	0.1410	0.141478700
Northbound	8E-158-2	8E-158-2-.6	31.3	0.1126	0.112829170
Northbound	8E-158-2	8E-158-2-.9	25.5	0.0917	0.091855736
Northbound	8E-158-2	8E-158-2-SF	232	0.8345	0.987283490
Northbound	8E-158-3	8E-158-3-.3	76.8	0.2763	0.279899429
Northbound	8E-158-3	8E-158-3-.6	32	0.1151	0.115363635
Northbound	8E-158-3	8E-158-3-.9	12.7	0.0457	0.045699358
Northbound	8E-158-3	8E-158-3-SF	148	0.5324	0.561402678
Northbound	8E-158-4	8E-158-4-.3	125	0.4496	0.466362580
Northbound	8E-158-4	8E-158-4-.6	15.7	0.0565	0.056504883
Northbound	8E-158-4	8E-158-4-.9	71.4	0.2568	0.259745433
Northbound	8E-158-4	8E-158-4-SF	177	0.6367	0.690199000

Total Lead	Max TTLC:	278.0	**Transformed Data**		**Soluble Data**	
Number of Samples:	16		16			
Sample Mean :	82		0.348			
Delta = RT - mean	268					
Appropriate Number of Samples:	0					
Standard Deviation of Sample:	85		0.427			
Standard Deviation of Mean:	21		0.107			
Sample Variance:	7216		0.182			
t-value for 90%:	1.341	Need to Transform Data	1.341			
Upper Confidence Limit for 90%:			0.491			
Reverse Transformation for 90%			131	mg/kg	6.0	mg/l
t-value for 95%:			1.753			
Upper Confidence Limit for 95%:			0.535			
Reverse Transformation for 95%			142	mg/kg	7.0	mg/l

TABLE C-4
LEAD ANALYSES - SURFACE LAYER - SOUNDWALL 151 AND 152

Section	Contractor Borehole ID	Sample ID	Total Lead mg/kg	Total Lead % of Maximum	Transformed Data Arcsine
Southbound	8E-151-1	8E-151-1-SF	6860	1.0000	1.570796327
Southbound	8E-152-1	8E-152-1-SF	253	0.0369	0.036888832
Southbound	8E-152-2	8E-152-2-SF	323	0.0471	0.047101963
Southbound	8E-152-3	8E-152-3-SF	1050	0.1531	0.153665261

Total Lead	Max TTLC:	6860.0	**Transformed Data**		**Soluble Data**	
Number of Samples:	4		4			
Sample Mean :	2122		0.452			
Delta = RT - mean	-1772					
Appropriate Number of Samples:	9					
Standard Deviation of Sample:	3179		0.748			
Standard Deviation of Mean:	1590		0.374			
Sample Variance:	10109130		0.559			
t-value for 90%:	1.638	Need to Transform Data	1.638			
Upper Confidence Limit for 90%:			1.064			
Reverse Transformation for 90%			5999	mg/kg	213.0	mg/l
t-value for 95%:			2.353			
Upper Confidence Limit for 95%:			1.332			
Reverse Transformation for 95%			6665	mg/kg	237.0	mg/l

TABLE C-5
LEAD ANALYSES - 0.3 TO 0.91 METER - SOUNDWALL 151 AND 152

Section	Contractor Borehole ID	Sample ID	Total Lead mg/kg	Total Lead % of Maximum	Transformed Data Arcsine
Southbound	8E-151-1	8E-151-1-.3	5	0.0253	0.025255210
Southbound	8E-151-1	8E-151-1-.6	5	0.0253	0.025255210
Southbound	8E-151-1	8E-151-1-.9	12.7	0.0641	0.064185477
Southbound	8E-152-1	8E-152-1-.3	198	1.0000	1.570796327
Southbound	8E-152-1	8E-152-1-.6	108	0.5455	0.576931345
Southbound	8E-152-1	8E-152-1-.9	18.9	0.0955	0.095600100
Southbound	8E-152-2	8E-152-2-.3	15.6	0.0788	0.078869620
Southbound	8E-152-2	8E-152-2-.6	5	0.0253	0.025255210
Southbound	8E-152-2	8E-152-2-.9	20.6	0.1040	0.104229020
Southbound	8E-152-3	8E-152-3-.3	60.8	0.3071	0.312113496
Southbound	8E-152-3	8E-152-3-.6	27.6	0.1394	0.139849352
Southbound	8E-152-3	8E-152-3-.9	5	0.0253	0.025255210

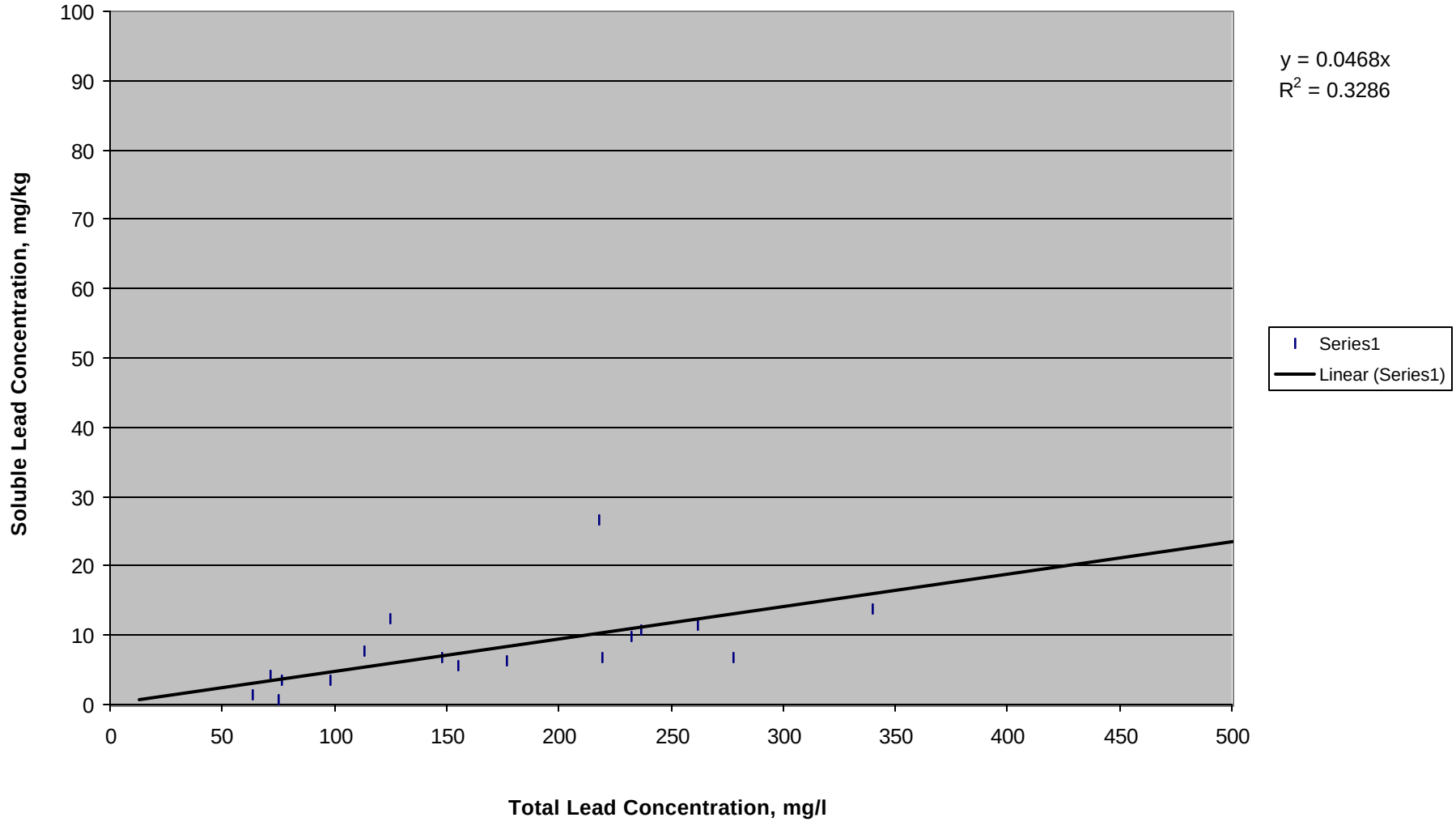
Total Lead	Max TTLC:	198.0	**Transformed Data**		**Soluble Data**	
Number of Samples:	12		12			
Sample Mean :	40		0.254			
Delta = RT - mean	310					
Appropriate Number of Samples:	0					
Standard Deviation of Sample:	58		0.445			
Standard Deviation of Mean:	17		0.128			
Sample Variance:	3385		0.198			
t-value for 90%:	1.363	Need to Transform Data	1.363			
Upper Confidence Limit for 90%:			0.429			
Reverse Transformation for 90%			82	mg/kg	2.9	mg/l
t-value for 95%:			1.796			
Upper Confidence Limit for 95%:			0.484			
Reverse Transformation for 95%			92	mg/kg	2.3	mg/l

TABLE C-6
LEAD ANALYSES - SURFACE TO 0.91 METER - SOUNDWALL 156

Section	Contractor Borehole ID	Sample ID	Total Lead mg/kg	Total Lead % of Maximum	Transformed Data Arcsine
Southbound	8E-156-1	8E-156-1-.3	11.2	0.1405	0.140993652
Southbound	8E-156-1	8E-156-1-.6	5	0.0627	0.062776482
Southbound	8E-156-1	8E-156-1-.9	5	0.0627	0.062776482
Southbound	8E-156-1	8E-156-1-SF	9.86	0.1237	0.124031697
Southbound	8E-156-2	8E-156-2-.3	5	0.0627	0.062776482
Southbound	8E-156-2	8E-156-2-.6	15.4	0.1932	0.194447618
Southbound	8E-156-2	8E-156-2-.9	12.3	0.1543	0.154948010
Southbound	8E-156-2	8E-156-2-SF	65.2	0.8181	0.958043230
Southbound	8E-156-3	8E-156-3-.3	79.7	1.0000	1.570796327
Southbound	8E-156-3	8E-156-3-.6	5	0.0627	0.062776482
Southbound	8E-156-3	8E-156-3-.9	9.93	0.1246	0.124916839
Southbound	8E-156-3	8E-156-3-SF	13.2	0.1656	0.166387755
Southbound	8E-156-4	8E-156-4-.3	17.7	0.2221	0.223950108
Southbound	8E-156-4	8E-156-4-.6	5	0.0627	0.062776482
Southbound	8E-156-4	8E-156-4-SF	50.6	0.6349	0.687854232

Total Lead	Max TTLC:	79.7	**Transformed Data**		**Soluble Data**	
Number of Samples:	15		15			
Sample Mean :	21		0.311			
Delta = RT - mean	329					
Appropriate Number of Samples:	0					
Standard Deviation of Sample:	24		0.433			
Standard Deviation of Mean:	6		0.112			
Sample Variance:	577		0.187			
t-value for 90%:	1.345	Need to Transform Data	1.345			
Upper Confidence Limit for 90%:			0.461			
Reverse Transformation for 90%			35	mg/kg	1.2	mg/l
t-value for 95%:			1.761			
Upper Confidence Limit for 95%:			0.507			
Reverse Transformation for 95%			39	mg/kg	1.4	mg/l

FIGURE C-1
CORRELATION OF TOTAL LEAD TO SOLUBLE LEAD
NORTHBOUND SECTION



2914-1t

FIGURE C-2
CORRELATION OF TOTAL LEAD TO SOLUBLE LEAD
SOUTHBOUND SECTION

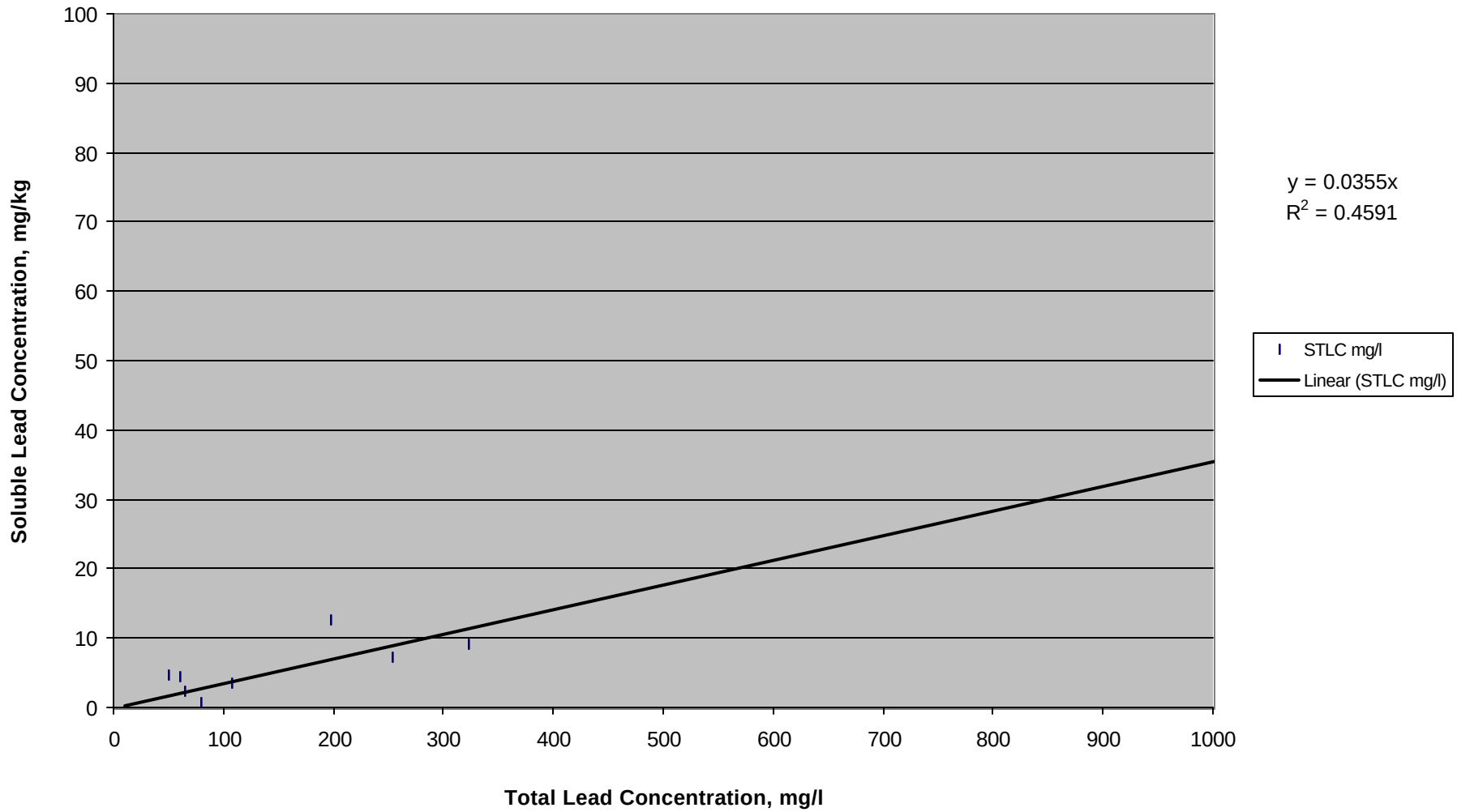
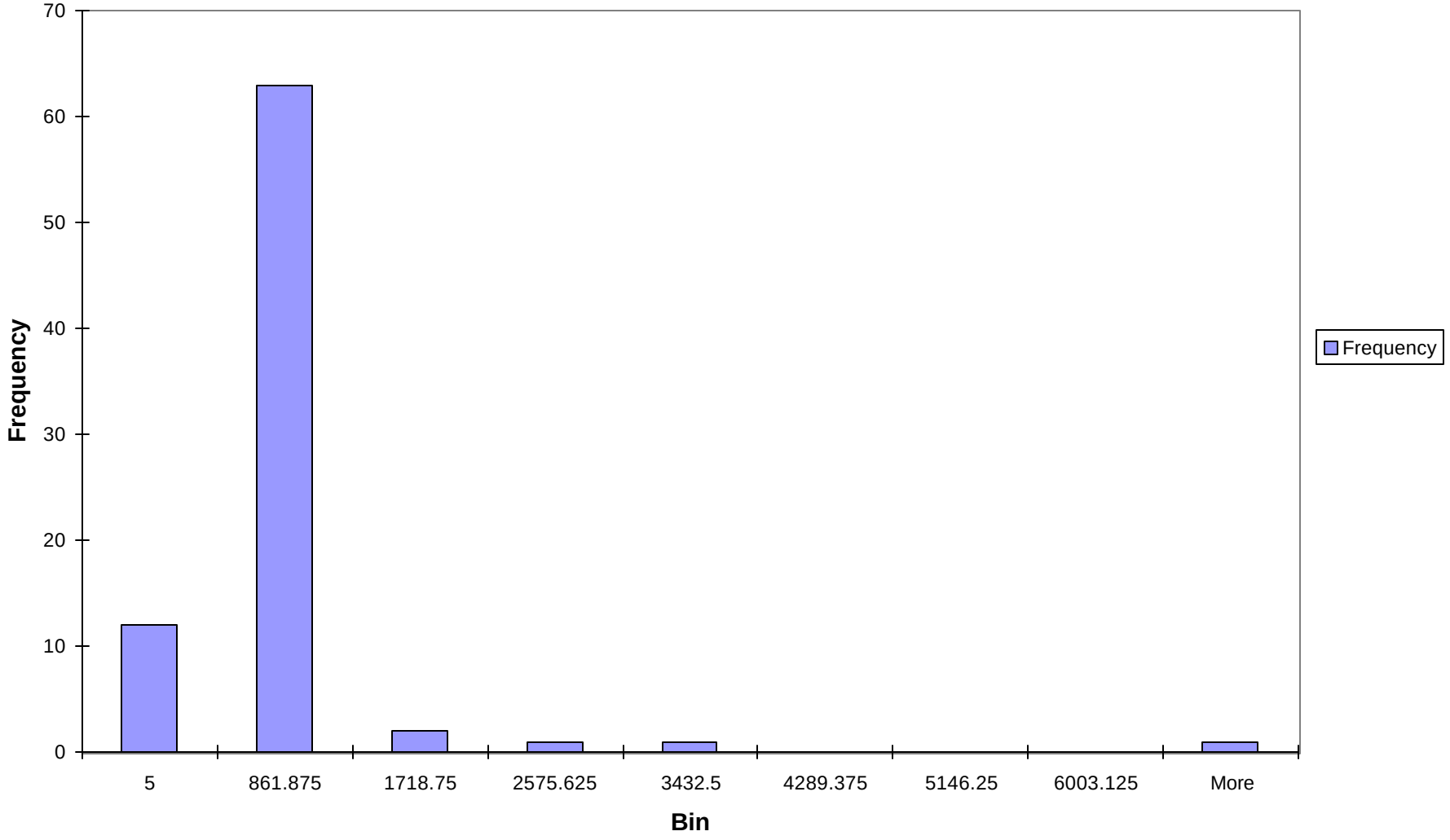


FIGURE C-3
NORMAL DISTRIBUTION HISTOGRAM



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SITE INVESTIGATION REPORT

LEAD INVESTIGATION ON ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE TO 1.1 KM NORTH OF ROUTE 91

07-LA-605 KP 0.0/9.2
LOS ANGELES COUNTY, CALIFORNIA
CONTRACT 43Y097
TASK ORDER NO. 07-134701-JH

GEOCON
GEOTECHNICAL
&
ENVIRONMENTAL
CONSULTANTS

PREPARED FOR

CALIFORNIA DEPARTMENT
OF TRANSPORTATION
DISTRICT 7
LOS ANGELES, CALIFORNIA

#43

DECEMBER 1998

GEOCON

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Project No. 08730-06-85
Task Order No. 07-134701-JH
December 9, 1998

Ms. June Obayashi
California Department of Transportation
District 7
120 South Spring Street
Los Angeles, California 90012-3606

Subject: SITE INVESTIGATION REPORT
LEAD INVESTIGATION ON ROUTE 605
FROM LOS ANGELES/ORANGE COUNTY LINE
TO 1.1 KM NORTH OF ROUTE 91
07-LA-605 KP 0.0/9.2
LAKEWOOD/LOS ANGELES COUNTY, CALIFORNIA
CONTRACT 43Y097
TASK ORDER NO. 07-134701-JH

Dear Ms. Obayashi:

In accordance with Caltrans Contract No. 43Y097 and Task Order No. 07-134701-JH, Geocon Environmental Consultants, Inc. (Geocon) has performed environmental engineering services at the site referenced above. The site consisted of the exposed soil adjacent to the median and side shoulders of northbound and southbound Route 605 from the Los Angeles/Orange County Line to approximately 1.1 kilometers (km) north of Route 91 in Los Angeles County, California. The accompanying report summarizes the services performed, including the advancement of hand-auger borings, limited soil sampling, laboratory analyses, and statistical data analysis. Should questions concerning the contents of this report arise, or if Geocon may be of further service, please contact the undersigned at your convenience.

Very truly yours,

GEOCON ENVIRONMENTAL CONSULTANTS, INC.

Joel C. Kloth, RG 4628	Mark P. Wanek JCK	Renae E. Hines
Project Geologist	Staff Environmental Geologist	Staff Environmental Geologist

MPW:REH:JCK:sc

(5) Addressee

REGISTERED GEOLOGIST • JOEL C. KLOTH • No. 4628 • STATE OF CALIFORNIA

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B. Laboratory Reports and Chain-of-Custody Documentation
C. Statistical Data Evaluation

I. EXECUTIVE SUMMARY

Pursuant to the California Department of Transportation (Caltrans) Task Order (TO) No 07-134701-JH, Geocon Environmental Consultants, Inc. (Geocon) has performed a site investigation of the of the unpaved portion of northbound and southbound median and shoulders of Route 605 from the Los Angeles County/Orange County Line to South Street, within the project boundaries of the Los Angeles County/Orange County Line to approximately 1.1 km north of Route 91 (KP 0.0/9.2) in the cities of Long Beach, Lakewood, Hawaiian Gardens, and Cerritos, California. The investigation was performed to evaluate for the presence of lead due to the historical combustion of leaded fuels from freeway traffic. Data from an investigation performed at the site by Geocon on November 16, 1998, is included with this investigation. Data from the two investigations was used to determine the re-use method for soil excavated at the site during the proposed construction. The data was also used to inform Caltrans of potential health and safety issues concerning the presence of lead in soil for workers at the site during construction activities. Two-hundred forty-six (246) soil samples were collected from eighty-two (82) boring locations during this investigation. The soil samples collected were analyzed for total and soluble lead.

i.i. Conclusions

From this investigation, forty-six (46) soil samples (45 at the surface, 1 at 1 foot, 0 at 2 feet) exhibited a total lead concentration greater than the TTLC of 1,000 milligrams per kilogram (mg/kg), with two of the samples exceeding 4,150 mg/kg. Fifty-five (55) of the soil samples (36 at the surface, 16 at 1 foot, 3 at 2 feet) collected were analyzed for soluble lead via the Waste Extraction Test (WET) exhibited soluble lead concentrations greater than the STLC of 5.0 mg/l. Twelve (12) soil samples were analyzed via the WET using de-ionized water as the extractant. This data indicated that a portion of the soil excavated at the site has the potential to be classified as a hazardous waste per Title 22 of the California Code of Regulations (CCR).

i.ii. Recommendations

Based upon the results of the soil samples analyzed, in conjunction with a statistical data evaluation, it is recommended that the soil excavated at the site is to be re-used on-site in accordance with a variance issued to Caltrans by the Department of Toxic Substances Control Board (DTSC). The upper 1 foot of soil should be placed under 1 foot of clean fill material, at least 5 feet above the maximum groundwater level in accordance with the DTSC variance. It is estimated that approximately 6,000 cubic yards of impacted soil would be excavated from the site, assuming impacts from lead extend to a depth of approximately 1 foot. The boring locations are depicted on the Boring Location Maps, presented as Figures 2 through 20. If the soil excavated from the site cannot be re-used on-site, it is recommended that the soil be re-used within Caltrans right-of-way at another site following the same method for re-use described above. If a contractor assumes responsibility for the disposal of hazardous lead impacted soil at the site, it should be disposed at a landfill. The approximate cost of disposal for hazardous lead impacted soil is approximately $70.00 to $80.00 per ton.

It is further recommended that Caltrans notify the contractors performing the construction activities that hazardous lead concentrations may be present in soil at the site as shown in the tables presented in the *Conclusions* section (i.i). The appropriate health and safety measures should be taken to minimize worker exposure to lead.

SITE INVESTIGATION REPORT

1. INTRODUCTION

1.1 Project Description and Objectives

Pursuant to the California Department of Transportation (Caltrans) Contract 43Y097 and Task Order (TO) No. 07-134701-JH, Geocon Environmental Consultants, Inc. (Geocon) performed environmental engineering services in the unpaved portion of the median and side shoulders from the Orange County/Los Angeles County Line to South Street within the project boundaries of the northbound and southbound Route 605 from the Orange County/Los Angeles County Line to approximately 1.1 kilometers north of Route 91 (KP 0.0/ 9.2) in the cities of Long Beach, Lakewood, Hawaiian Gardens, and Cerritos, California. The approximate site location is depicted on the Vicinity Map, presented as Figure 1. Caltrans proposes to construct a High Occupancy Vehicle (HOV) lane at the site.

The objective of the site investigation was to evaluate soil along the median and shoulders of the site for the presence of lead due to the historical combustion of leaded fuels from freeway traffic. The information obtained from the limited soil sampling and laboratory testing was used to determine the method of re-use of soil excavated during the proposed construction activities at the site. The data was also used to inform Caltrans of potential health and safety issues for workers at the site during construction activities.

1.2 Scope of Work

Geocon performed the following tasks:

1.2.1 Task I - Pre-field Activities

- Attended a task order meeting on October 13, 1998, to discuss issues such as field methods, boring locations, health and safety measures, and the completion schedule.
- Prepared a Health and Safety Plan dated September 24, 1998, for the proposed activities. The Health and Safety Plan included guidelines for the use of personal protective equipment for Geocon employees during the field activities.
- Contacted Underground Service Alert (USA) to notify utility companies of the field activities. Geocon was provided with USA Ticket Numbers 764688, 764701, 764706, and 764710.

1.2.2 Task II - Limited Soil Sampling

- Utilized a 3-inch diameter hand auger to collect 246 soil samples from 82 boring locations on October 27 and 28, 1998. Borings HA33 through HA40 were advanced near the side shoulders, and the remaining borings were advanced in the median of Route 605 approximately 4 to 6 feet from the edge of the roadway, and were spaced approximately 300 feet apart. The borings were advanced to a maximum depth of approximately 2 feet below the ground surface, and soil samples were collected from the surface and from depths of approximately 1 and 2 feet below the ground surface. The approximate boring locations are depicted on Boring Location Maps, Figures 2 through 20.

- Backfilled the borings with the soil cuttings generated.

1.2.3 Task III - Laboratory Analyses

Geocon submitted the soil samples to a California Department of Health Services (CDOHS)-certified analytical laboratory. The soil samples were analyzed for total lead following EPA Test Method 6010. Soil samples which exhibited total lead concentrations greater than or equal to 50 milligrams per kilogram (mg/kg) and less than 1,000 mg/kg were analyzed for soluble lead via the standard Waste Extraction Test (WET) following EPA Test Method 7420. Soil samples that exhibited soluble lead concentrations greater than 5.0 milligrams per liter (mg/l) were re-analyzed for soluble lead via the WET with de-ionized water used as the extractant (WET-DI) following EPA Test Method 7420. The laboratory analyses were performed on a 48-hour turn-around-time basis.

1.2.4 Task IV - Report Preparation

Prepared this report, as outlined in Contract 43Y097, summarizing the results of the site investigation activities requested by Caltrans.

1.3 Previous Site Investigations

Geocon has performed a previous investigation at the site (Geocon project number 08730-06-84), and is summarized in a report entitled *Site Investigation Report, Lead Investigation On Route 605,605-KP 0.0/9.2, Los Angeles County, California, Contract 43Y097, Task Order No. 07-134701-JD,* dated November 16, 1998. In addition, a prior investigation at the site was conducted by Environmental Services (ES) on April 7, and August 18, 1994. The laboratory results of these investigations are presented in Table II. The laboratory results from the Geocon investigation of November 16, 1998, have been included in the statistical evaluation of this investigation.

2. INVESTIGATIVE METHODS

2.1 Field Methods

The field methods used by Geocon to complete this TO are outlined in the following Geocon Standard Operating Procedures (SOPs) presented as Appendix A:

SOP No. 11 - Hand-Augering and Soil Sample Collection
SOP No. 31 - Soil Sample Handling Procedures

2.2 Deviations from Work Plan

A work plan was not prepared for this TO; however, Geocon performed the scope of work as described in TO No. 07-134701-JH.

3. INVESTIGATIVE RESULTS AND FIELD OBSERVATIONS

3.1 Site Geology, Hydrology, and Other Site Conditions

The soil conditions encountered consisted generally of moderately dense, dry to moist, brown, silty sand with traces of gravel and soft, moist, brown sandy clay to the maximum depth of exploration. Groundwater was not encountered during the advancement of the borings. Other pertinent information requested by Caltrans from the site is given in the table below.

TABLE 3.1

BORING NUMBER	APPROX. DISTANCE FROM EOP (feet)	SLOPING OR RELATIVELY FLAT	ELEVATION BELOW ROADWAY (feet)	WIND DIRECTION	LAND-SCAPED	CUT OR FILL	BORING DEPTH (feet)
B1-B32	5	Relatively Flat	0	South	No	Fill	2
B33-B40	5	Relatively Flat	0 to 1	South	Yes	Fill	2
B40-B82	5	Relatively Flat	0	South	No	Fill	2

Note: EOP = Edge of Pavement

3.2 Analytical Laboratory Results

A summary of the analytical laboratory results from this investigation and from the Geocon investigation of November 16, 1998, are presented as Table I and Table II, respectively. Reproductions of the laboratory reports and chain-of-custody documentation are presented as Appendix B. The following discussion summarizes the laboratory analytical results of this

investigation. The laboratory results of the Geocon investigation of November 16, 1998, are not included below.

3.3 Total Lead

Total lead concentrations ranged from below the laboratory detection of 5.0 mg/kg to 5,250 mg/kg. Forty-six (46) soil samples (45 at the surface, 1 at 1 foot, 0 at 2 feet) exhibited a total lead concentration greater than the total threshold limit concentration (TTLC) of 1,000 mg/kg. Two samples from borings HA21 and HA38 had total lead concentrations which exceeded 4,150 mg/kg. Seventy-five (75) soil samples exhibited total lead concentrations greater than 50 mg/kg and less than 1,000 mg/kg.

3.4 Soluble Lead (WET)

Seventy-five (75) soil samples were analyzed for soluble lead via the WET. Soluble lead concentrations ranged from 0.32 mg/l to 102 mg/l. Fifty-five (55) soil samples (36 at the surface, 16 at 1 foot, 3 at 2 feet) exhibited soluble lead concentrations greater than the soluble threshold limit concentration (STLC) of 5.0 mg/l.

3.5 Soluble Lead (WET-DI)

Twelve (12) soil samples were analyzed for soluble lead via the WET-DI. The soil samples exhibited soluble lead concentrations ranging from below the laboratory detection limit of 0.15 mg/l to 1.6 mg/l. Two soil samples (2 at the surface, 0 at 1 foot, 0 at 2 feet) exhibited a soluble lead WET-DI concentration greater than 0.5 mg/l.

3.6 Data Validation

Prior to submitting the soil samples to the laboratory, the chain-of-custody documentation was reviewed for accuracy and completeness. The laboratory reports were reviewed for accuracy and consistency with chain-of-custody documentation. The results of the quality assurance/quality control (QA/QC) samples were reviewed for adherence to established laboratory control limits. Percent recoveries of the laboratory continuation standards (LCS), matrix spikes (MS), and matrix spike duplicates (MSD), were observed to be within acceptable laboratory control limits (ie. recoveries) of 85% to 115%, or within $\pm$ 15% of the spiked concentration. Due to the reported QA/QC sample recoveries being within the criteria listed above, the laboratory results were determined to adequate for the purposes of this report.

3.7 Statistical Data Evaluation

The analytical laboratory results were evaluated statistically in conformance with a document entitled *Contract 43Y097 Lead Investigation Reporting*, prepared by Caltrans and dated January 20, 1997. This procedure was used in order to determine the best method of re-use for on-site soil. A histogram of the numerical data set was initially developed to determine normality in the data set. During this procedure, the data was determined to be lognormal, and the numerical data set was transformed using the natural logarithm function. A standard deviation, correlation factor ("r"), and the mean concentrations of the total lead for each sampling depth in on-site soil were calculated. A reproduction of the results of the statistical data evaluation is presented in Appendix C.

4. CONCLUSIONS

Based on the data presented in Section 3.0, a portion of the soil excavated at the site has the potential to be classified as a hazardous waste per Title 22 of the California Code of Regulations (CCR). The following tables indicate the intervals in the soil borings that may be impacted with hazardous lead concentrations.

5. RECOMMENDATIONS

Based upon the results of the soil samples analyzed, in conjunction with a statistical data evaluation, it is recommended that ~~if~~ the soil excavated at the site is to be re-used on-site. The upper 1 foot of soil should be placed under 1 foot of clean fill material, at least 5 feet above the maximum groundwater level in accordance with the Department of Toxic Substances Control (DTSC) variance issued to Caltrans. It is estimated that approximately 6,000 cubic yards of impacted soil would be excavated from the site, assuming impacts from lead extend to a depth of approximately 1 foot. The boring locations are depicted on the Boring Location Maps, presented as Figures 1 through 20. If the soil excavated from the site cannot be re-used on-site, it is recommended that the soil be re-used within Caltrans right-of-way at another site following the same method for re-use described above. If a contractor assumes responsibility for the disposal of hazardous lead impacted soil at the site, it should be disposed at a landfill. The approximate cost of disposal for hazardous lead impacted soil is approximately $70.00 to $80.00 per ton.

It is further recommended that Caltrans notify the contractors performing the construction activities that hazardous lead concentrations may be present in soil at the site as shown in the tables presented in the *Conclusions* section. The appropriate health and safety measures should be taken to minimize worker exposure to lead.

6. REPORT LIMITATIONS

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

The Client should recognize that this report is not a comprehensive site characterization and should not be construed as such. The DTSC, Los Angeles County Regional Water Quality Control Board, or other appropriate regulatory agency may require additional investigations. The findings and conclusions as presented in this report are predicated on the results of the limited soil sampling and laboratory analyses performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein.

Therefore, the report should only be deemed conclusive with respect to the information obtained. No guarantee or warranty of the results of the report is implied within the intent of this report or any subsequent reports, correspondence, or consultation, either expressed or implied. Geocon strived to perform the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.

INDEX OF SHEETS

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

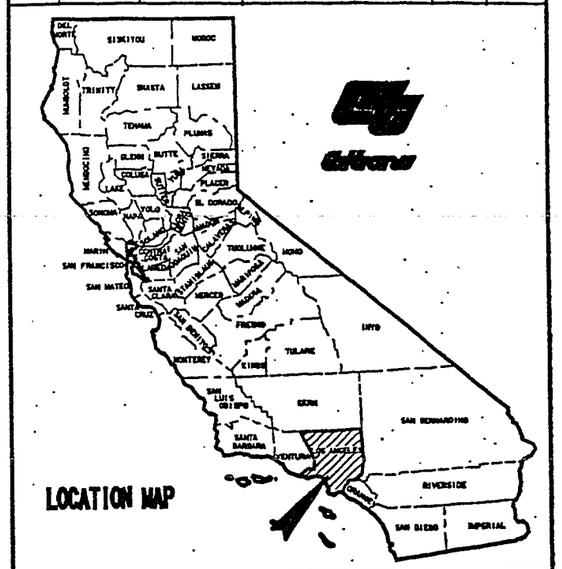
PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN LOS ANGELES COUNTY
IN LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS AND CERRITOS FROM LOS ANGELES/ ORANGE COUNTY LINE TO 1.1 km NORTH OF ROUTE 91

To be supplemented by Standard Plans dated July, 1995

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	605	KP 0.0/9.2		



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Metric

END CONSTRUCTION
STA 91+80 KP 9.2

BEGIN CONSTRUCTION
STA 0+00 KP 0.0

Begin Work
Sta 9+00

End Work
Sta 93+50

LONG BEACH

LAKEWOOD

CERRITOS

HAWAIIAN GARDENS

LOS ALAMITOS

To Norwalk

San Gabriel River

ROUTE 605

STUDEBAKER RD

PIONEER BLVD

LOS ALAMITOS BLVD

WILLOW ST

KATELLA AVE

CERRITOS AVE

SPRING ST

WARDLOW RD

CARSON ST

CENTRALIA RD

DEL AMO BLVD

195TH ST

183RD ST

SPTCO

ARTESIA BLVD

ALONDRA BLVD

ORANGE COUNTY

LOS ANGELES COUNTY

Conte Creek

NO SCALE

VICINITY MAP

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE
TO 1.1 Km NORTH OF ROUTE 91
LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-9437

SCALE	DATE 12-09-98	
PROJECT NO. 08730 - 06 - 85		FIGURE 1
SHEET	OF	

Project Engineer Date
Registered Civil Engineer

Plans Approval Date

REGISTERED PROFESSIONAL ENGINEER H. S. CHEM No. 48908 Exp. 9-30-00 CIVIL STATE OF CALIFORNIA

The Contractor shall possess the Class (or Classes) of license as specified in the "Notice to Contractors".

Contract No. 07-134704

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07223

EA 134701

TIME PLOTTED => $$$$$$$SYTIME$$$$$$$

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	605	0/8.4		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER H. S. CHEN 48908 9-30-00 CIVIL STATE OF CALIFORNIA

Metric

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT DISTRICT OFFICE.

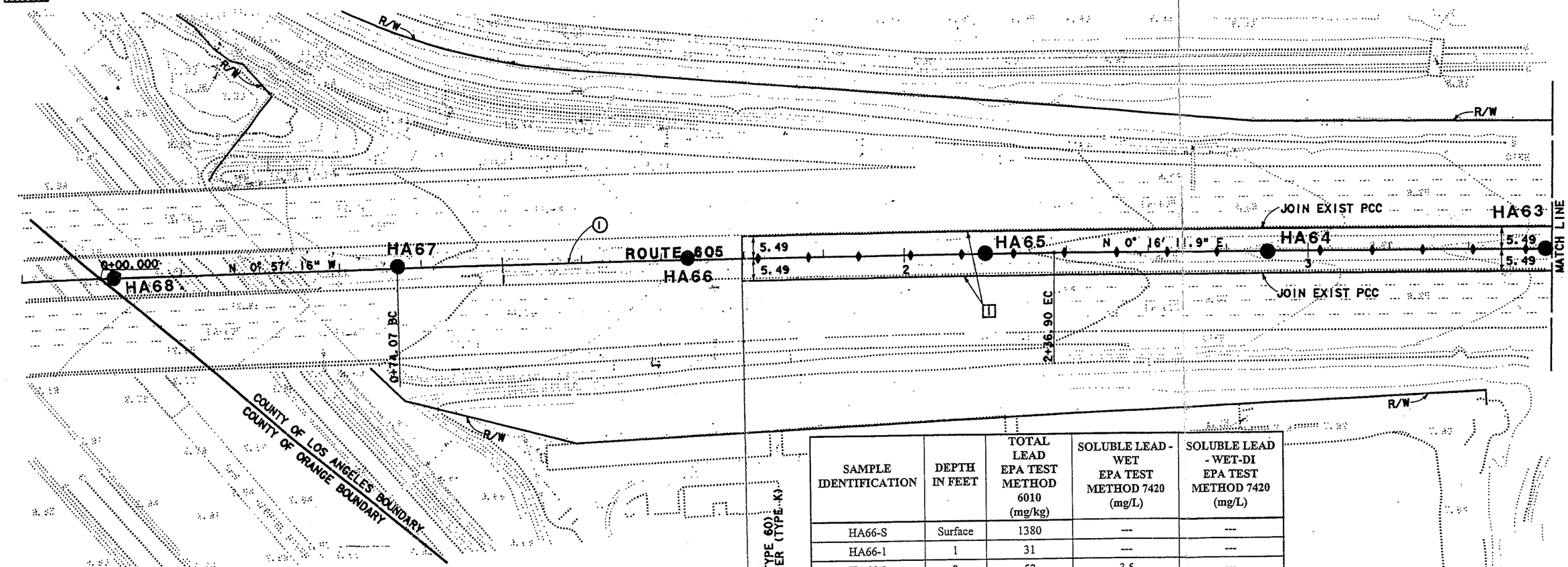
CURVE DATA

NO	R	Δ	T	L
1	7620.02	1° 13' 28"	81.42	162.83

LEGEND (FOR L-1 TO L-18)

- COLD PLANE AND OVERLAY AREA
- PCC RAMP TERMINI
- 230 mm CONC PVMT

Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd³



SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA63-S	Surface	835	88	1.6
HA63-1	1	18	---	---
HA63-2	2	ND	---	---
HA64-S	Surface	1160	---	---
HA64-1	1	ND	---	---
HA64-2	2	ND	---	---
HA65-S	Surface	478	38	---
HA65-1	1	7.8	---	---
HA65-2	2	7.3	---	---

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA66-S	Surface	1380	---	---
HA66-1	1	31	---	---
HA66-2	2	52	3.5	---
HA67-S	Surface	307	20	---
HA67-1	1	120	2.9	---
HA67-2	2	9.0	---	---
HA68-S	Surface	212	14	---
HA68-1	1	9.7	---	---
HA68-2	2	29	---	---

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE TO 1.1 Km NORTH OF ROUTE 91
LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-6427

SCALE | DATE 12-09-98
PROJECT NO. 08730 - 06 - 85 | FIGURE 2
SHEET OF

LAYOUT
SCALE: 1:500
L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT
PROJECT ENGINEER H. S. CHEN
CALCULATED/DESIGNED BY | CHECKED BY
DATE REVISED BY | DATE REVISED

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEET
07	LA	605	0/8.4		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER H. S. CHEN 48908 9-30-00 CIVIL STATE OF CALIFORNIA

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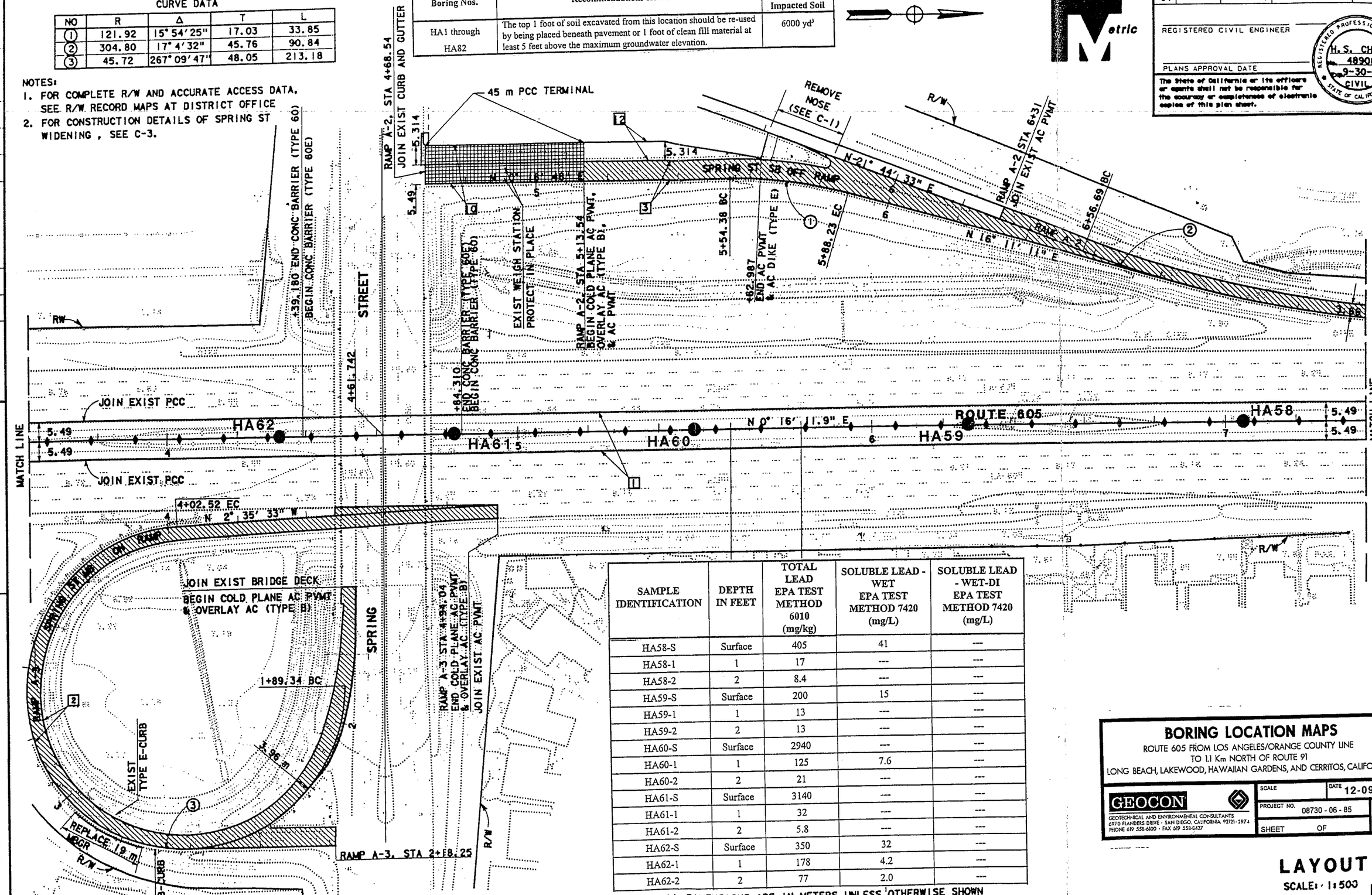
Metric

CURVE DATA

NO	R	Δ	T	L
1	121.92	15° 54' 25"	17.03	33.85
2	304.80	17° 4' 32"	45.76	90.84
3	45.72	267° 09' 47"	48.05	213.18

Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd³

NOTES:
1. FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT DISTRICT OFFICE
2. FOR CONSTRUCTION DETAILS OF SPRING ST WIDENING , SEE C-3.



SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA58-S	Surface	405	41	---
HA58-1	1	17	---	---
HA58-2	2	8.4	---	---
HA59-S	Surface	200	15	---
HA59-1	1	13	---	---
HA59-2	2	13	---	---
HA60-S	Surface	2940	---	---
HA60-1	1	125	7.6	---
HA60-2	2	21	---	---
HA61-S	Surface	3140	---	---
HA61-1	1	32	---	---
HA61-2	2	5.8	---	---
HA62-S	Surface	350	32	---
HA62-1	1	178	4.2	---
HA62-2	2	77	2.0	---

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE TO 1.1 Km NORTH OF ROUTE 91

LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-6437

SCALE | DATE 12-09-98
PROJECT NO. 08730 - 06 - 85 | FIGURE 3
SHEET OF

LAYOUT

SCALE: 1:500 L-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
PROJECT DEVELOPMENT

PROJECT ENGINEER H. S. CHEN | CALCULATED/DESIGNED BY | CHECKED BY | DATE | REVISED BY | DATE REVISED

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	605	0/8.4		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER H. S. CHEN 48908 9-30-00 CIVIL STATE OF CALIFORNIA

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Metric

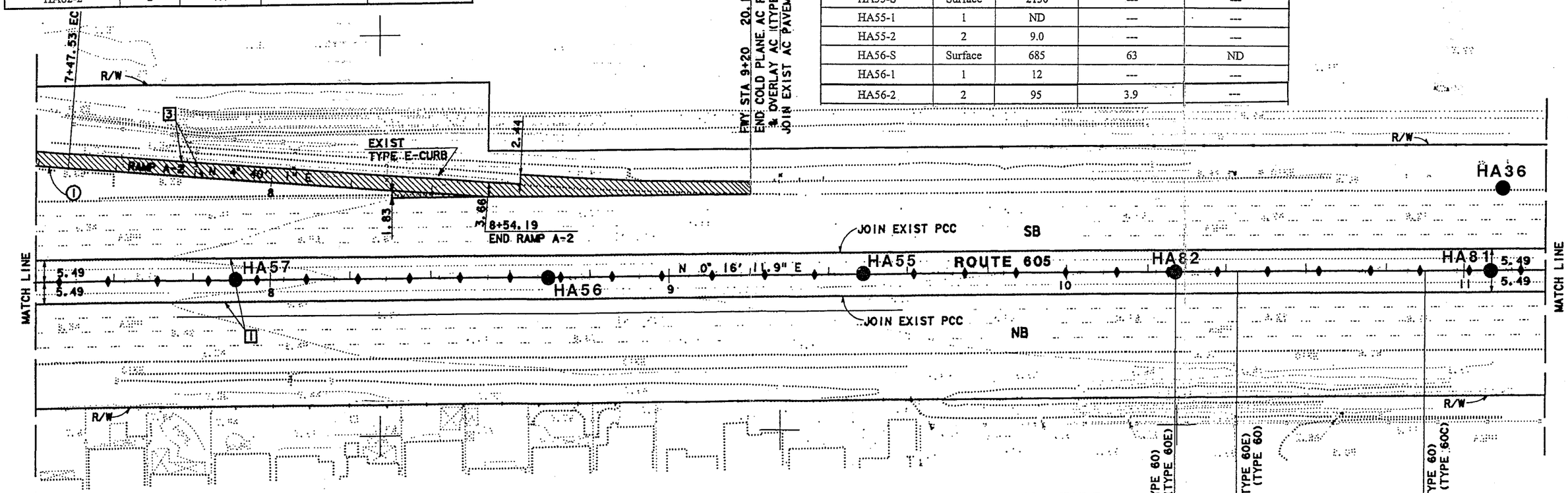
NOTE: FOR COMPLETE R/W AND ACCURATE DATA SEE R/W RECORD MAPS AT DISTRICT OFFICE

CURVE DATA

NO	R	Δ	T	L
1	304.80	17° 4' 32"	45.76	90.84

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA81-S	Surface	576	25	---
HA81-1	1	49	---	---
HA81-2	2	6.3	---	---
HA82-S	Surface	51	4.6	---
HA82-1	1	ND	---	---
HA82-2	2	7.4	---	---

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA55-S	Surface	2130	---	---
HA55-1	1	ND	---	---
HA55-2	2	9.0	---	---
HA56-S	Surface	685	63	ND
HA56-1	1	12	---	---
HA56-2	2	95	3.9	---



Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd^3

BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE
TO 1.1 Km NORTH OF ROUTE 91
LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-6437

SCALE | DATE 12-09-98
PROJECT NO. 08730 - 06 - 85 | FIGURE 4
SHEET OF

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

LAYOUT
SCALE: 1:500 L-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans PROJECT DEVELOPMENT
PROJECT ENGINEER H. S. CHEN
CALCULATED/DESIGNED BY | CHECKED BY
DATE | REVISED BY | DATE REVISED

Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd^3

Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEET
07	LA	605	0/8.4		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER H. S. CHEN No. 48908 9-30-00 CIVIL STATE OF CALIFORNIA

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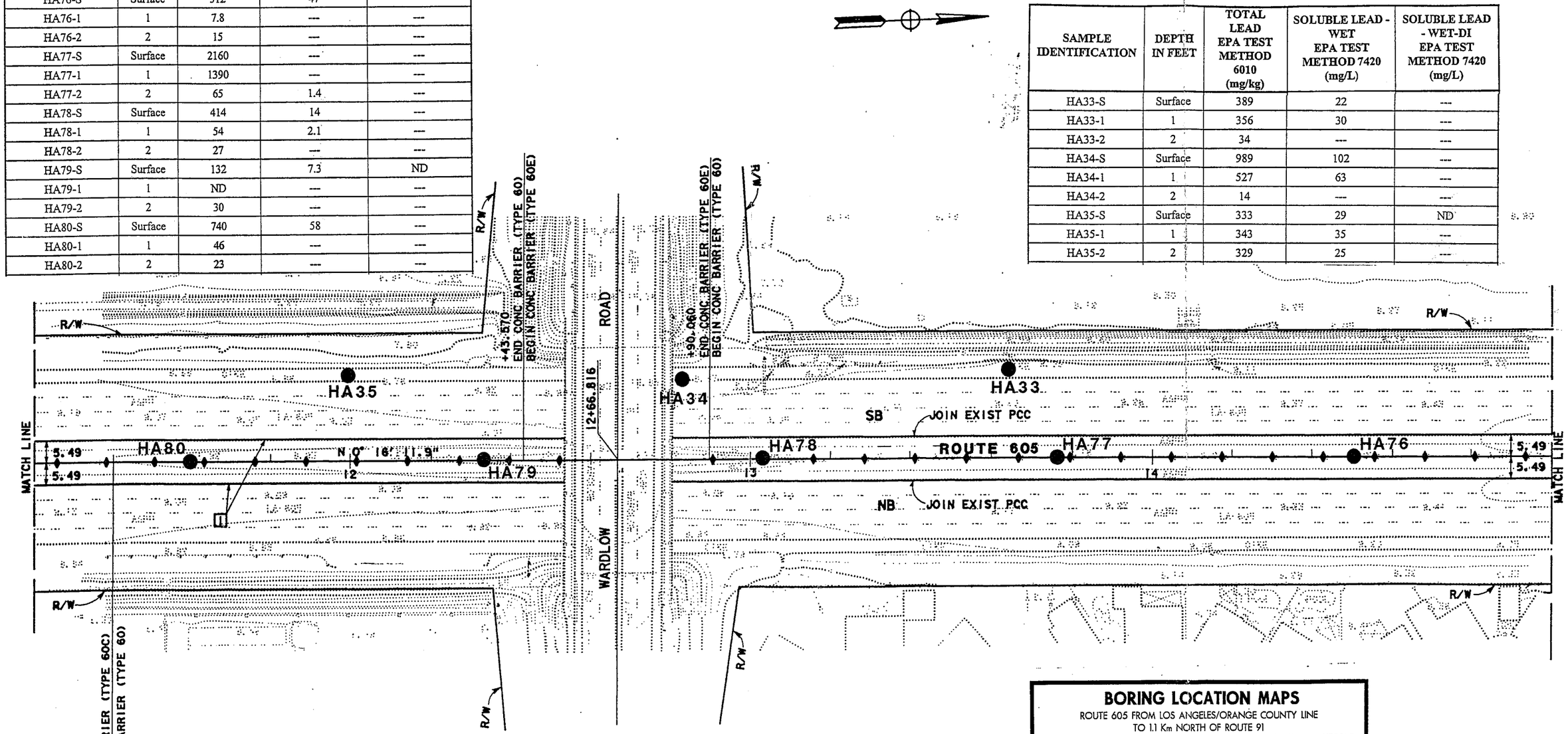
NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA SEE R/W RECORD MAPS AT DISTRICT OFFICE

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA76-S	Surface	312	47	---
HA76-1	1	7.8	---	---
HA76-2	2	15	---	---
HA77-S	Surface	2160	---	---
HA77-1	1	1390	---	---
HA77-2	2	65	1.4	---
HA78-S	Surface	414	14	---
HA78-1	1	54	2.1	---
HA78-2	2	27	---	---
HA79-S	Surface	132	7.3	ND
HA79-1	1	ND	---	---
HA79-2	2	30	---	---
HA80-S	Surface	740	58	---
HA80-1	1	46	---	---
HA80-2	2	23	---	---

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA33-S	Surface	389	22	---
HA33-1	1	356	30	---
HA33-2	2	34	---	---
HA34-S	Surface	989	102	---
HA34-1	1	527	63	---
HA34-2	2	14	---	---
HA35-S	Surface	333	29	ND
HA35-1	1	343	35	---
HA35-2	2	329	25	---



BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE
TO 1.1 Km NORTH OF ROUTE 91
LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-6437

SCALE	DATE 12-09-98	
PROJECT NO. 08730-06-85		FIGURE 5
SHEET	OF	

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

LAYOUT
SCALE: 1:500

L-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans PROJECT DEVELOPMENT

PROJECT ENGINEER H. S. CHEN

CALCULATED/DESIGNED BY | CHECKED BY | DATE | REVISED BY | DATE REVISED

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	605	0/8.4		

Caltrans Metric

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER H. S. CHEN 48908 9-30-00 CIVIL STATE OF CALIFORNIA

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA SEE R/W RECORD MAPS AT DISTRICT OFFICE

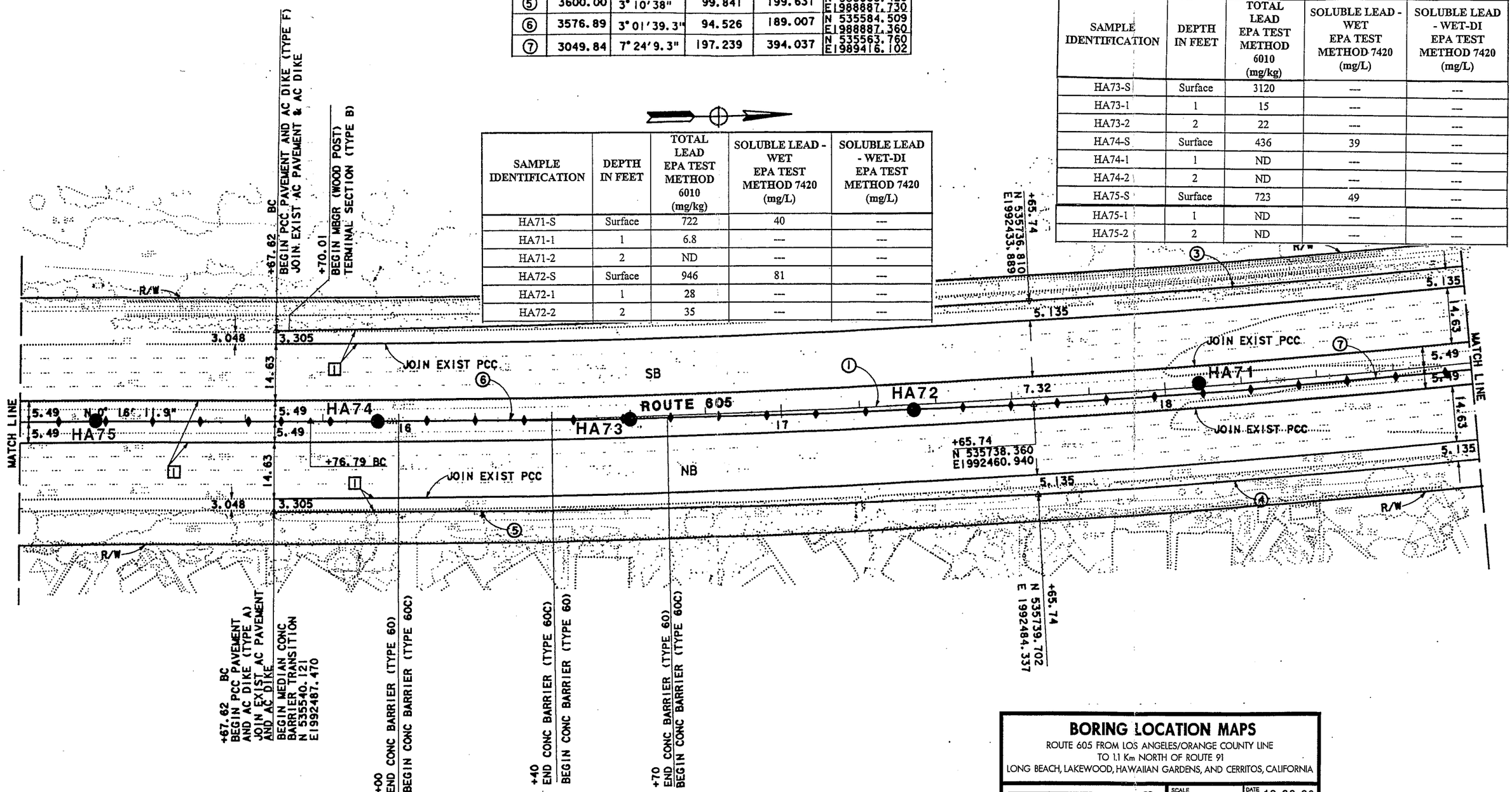
Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd³

CURVE DATA

NO	R	Δ	T	L	CENTER COORDINATE
1	3048.01	25° 52′ 48"	700.326	1376.758	N 535563.763 E1989416.102
2	3600.00	3° 7′ 44.8"	98.328	196.607	N 535515.724 E1988840.684
3	3023.00	7° 26′ 52"	196.754	392.955	N 535563.738 E1989415.847
4	3073.00	7° 26′ 56.7"	200.044	399.524	N 535563.793 E1989416.376
5	3600.00	3° 10′ 38"	99.841	199.631	N 535583.428 E1988887.730
6	3576.89	3° 01′ 39.3"	94.526	189.007	N 535584.509 E1988887.360
7	3049.84	7° 24′ 9.3"	197.239	394.037	N 535563.760 E1989416.102

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA71-S	Surface	722	40	---
HA71-1	1	6.8	---	---
HA71-2	2	ND	---	---
HA72-S	Surface	946	81	---
HA72-1	1	28	---	---
HA72-2	2	35	---	---

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA73-S	Surface	3120	---	---
HA73-1	1	15	---	---
HA73-2	2	22	---	---
HA74-S	Surface	436	39	---
HA74-1	1	ND	---	---
HA74-2	2	ND	---	---
HA75-S	Surface	723	49	---
HA75-1	1	ND	---	---
HA75-2	2	ND	---	---



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE
TO 1.1 Km NORTH OF ROUTE 91
LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

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6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-8437

SCALE | DATE 12-09-98
PROJECT NO. 08730-06-85 | FIGURE 6
SHEET OF

LAYOUT
SCALE: 1:500 L-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans PROJECT DEVELOPMENT

PROJECT ENGINEER H. S. CHEN

CALCULATED/DESIGNED BY | CHECKED BY

DATE REVISED BY | DATE REVISED

FOR COMPLETE R/W AND ACCURATE ACCESS DATA
SEE R/W RECORDS MAPS AT DISTRICT OFFICE

BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE
TO 1.1 Km NORTH OF ROUTE 91
LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

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6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558 6100 - FAX 619 558 6427

SCALE	DATE 12-09-98	
PROJECT NO. 08730 - 06 - 85		FIGURE 7
SHEET OF		

Caltrans Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOT. SHEE
07	LA	605	0/8.4		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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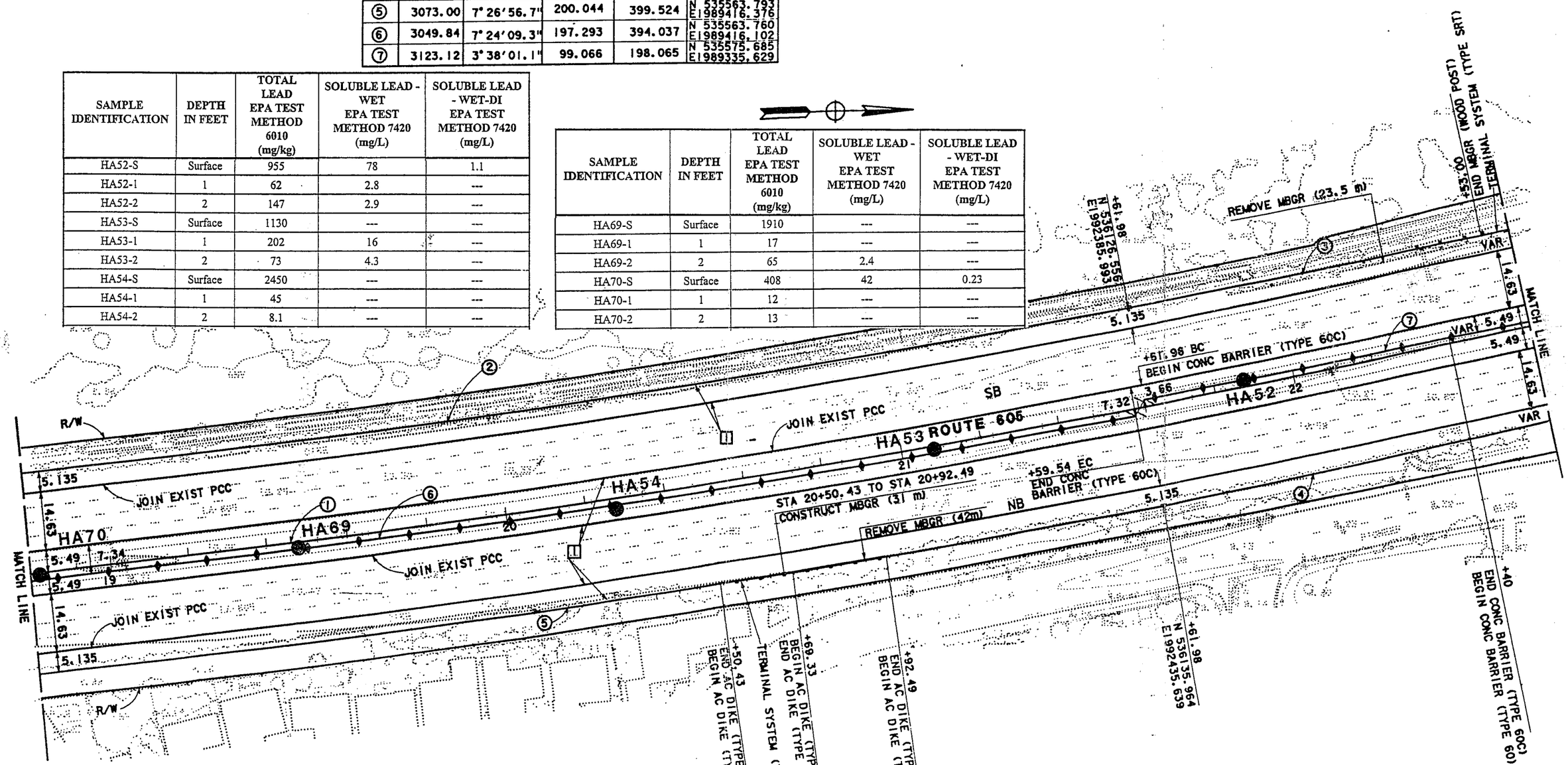
REGISTERED PROFESSIONAL ENGINEER H. S. CHEN No. 48908 9-30-00 CIVIL STATE OF CALIFORNIA

CURVE DATA

NO	R	Δ	T	L	CENTER COORDINATE
1	3048.01	25° 52' 48"	700.326	1376.758	N 535563.763 E1989416.102
2	3023.00	7° 26' 52"	196.754	392.955	N 535563.738 E1989415.847
3	3100.00	2° 12' 36.2"	59.795	119.576	N 535565.966 E1989337.102
4	3100.00	3° 41' 28.1"	99.889	199.709	N 535565.966 E1989337.102
5	3073.00	7° 26' 56.7"	200.044	399.524	N 535563.793 E1989416.376
6	3049.84	7° 24' 09.3"	197.293	394.037	N 535563.760 E1989416.102
7	3123.12	3° 38' 01.1"	99.066	198.065	N 535575.685 E1989335.629

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA52-S	Surface	955	78	1.1
HA52-1	1	62	2.8	---
HA52-2	2	147	2.9	---
HA53-S	Surface	1130	---	---
HA53-1	1	202	16	---
HA53-2	2	73	4.3	---
HA54-S	Surface	2450	---	---
HA54-1	1	45	---	---
HA54-2	2	8.1	---	---

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA69-S	Surface	1910	---	---
HA69-1	1	17	---	---
HA69-2	2	65	2.4	---
HA70-S	Surface	408	42	0.23
HA70-1	1	12	---	---
HA70-2	2	13	---	---



Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd³

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

LAYOUT

SCALE: 1:500 L-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans PROJECT DEVELOPMENT
PROJECT ENGINEER H. S. CHEN
CALCULATED/DESIGNED BY | CHECKED BY | DATE REVISED BY | DATE REVISED

FOR REDUCED PLANS ORIGINAL 0 20 40 60 80 USERNAME => $$$$$$USER$$$$$$

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOT. SHEE
07	LA	605	0/8.4		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER H. S. CHEN 48908 9-30-00 CIVIL STATE OF CALIFORNIA

Metric

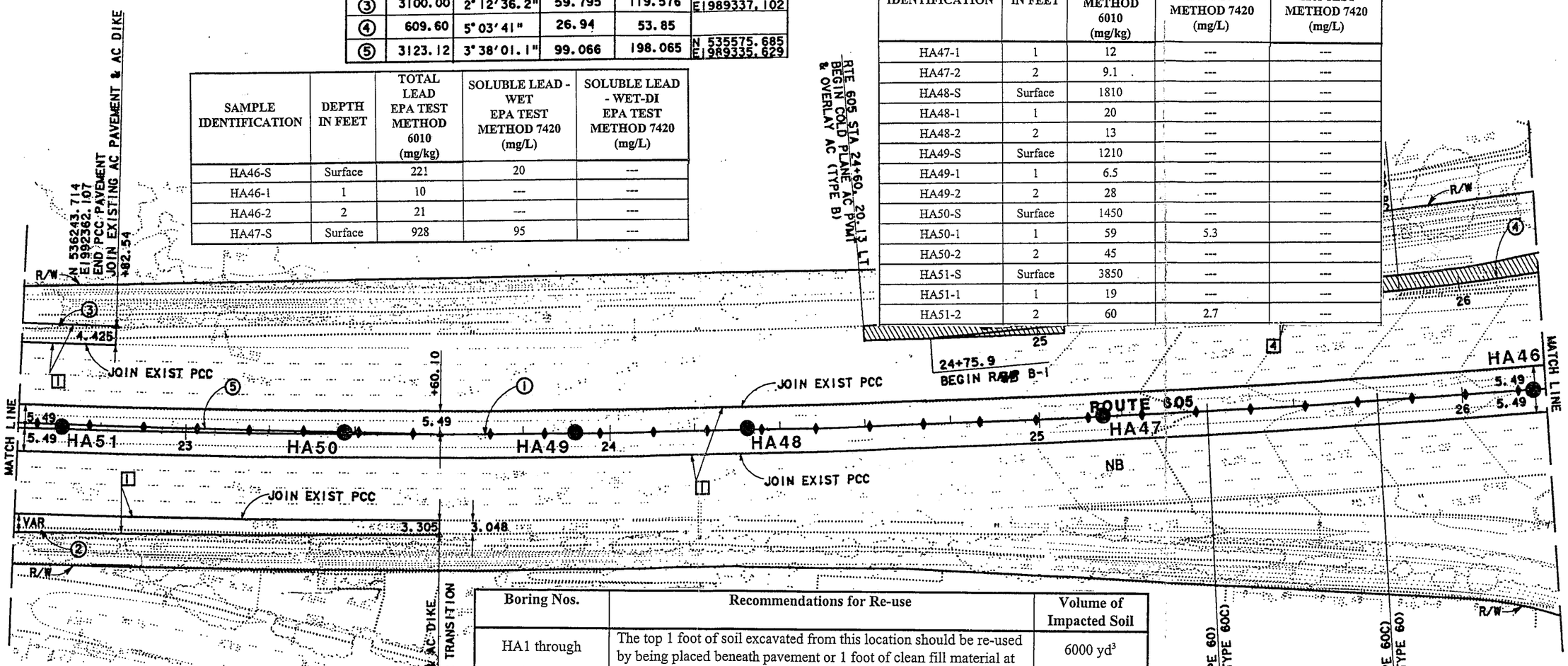
NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA SEE R/W RECORD MAPS AT DISTRICT OFFICE

CURVE DATA

NO	R	Δ	T	L	CENTER COORDINATE
1	3048.01	25°52'47"	700.326	1376.758	N 535563.763 E1989416.102
2	3100.00	3°41'28.1"	99.889	199.709	N 535530.036 E1989395.433
3	3100.00	2°12'36.2"	59.795	119.576	N 535565.966 E1989337.102
4	609.60	5°03'41"	26.94	53.85	
5	3123.12	3°38'01.1"	99.066	198.065	N 535575.685 E1989335.629

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA46-S	Surface	221	20	---
HA46-1	1	10	---	---
HA46-2	2	21	---	---
HA47-S	Surface	928	95	---

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA47-1	1	12	---	---
HA47-2	2	9.1	---	---
HA48-S	Surface	1810	---	---
HA48-1	1	20	---	---
HA48-2	2	13	---	---
HA49-S	Surface	1210	---	---
HA49-1	1	6.5	---	---
HA49-2	2	28	---	---
HA50-S	Surface	1450	---	---
HA50-1	1	59	5.3	---
HA50-2	2	45	---	---
HA51-S	Surface	3850	---	---
HA51-1	1	19	---	---
HA51-2	2	60	2.7	---



Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd^3

BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE TO 1.1 Km NORTH OF ROUTE 91

LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE · SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 · FAX 619 558-8437

SCALE | DATE 12-09-98 | PROJECT NO. 08730-06-85 | FIGURE 8 | SHEET OF

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

LAYOUT

SCALE: 1:500

L-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

PROJECT DEVELOPMENT

PROJECT ENGINEER H. S. CHEN

CALCULATED/DESIGNED BY | CHECKED BY

DATE | REVISED BY | DATE REVISED

USERNAME => $$$$$$USER$$$$$$

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA
SEE R/W RECORDS MAPS AT DISTRICT OFFICE

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOT SHEE
07	LA	605	0/8.4		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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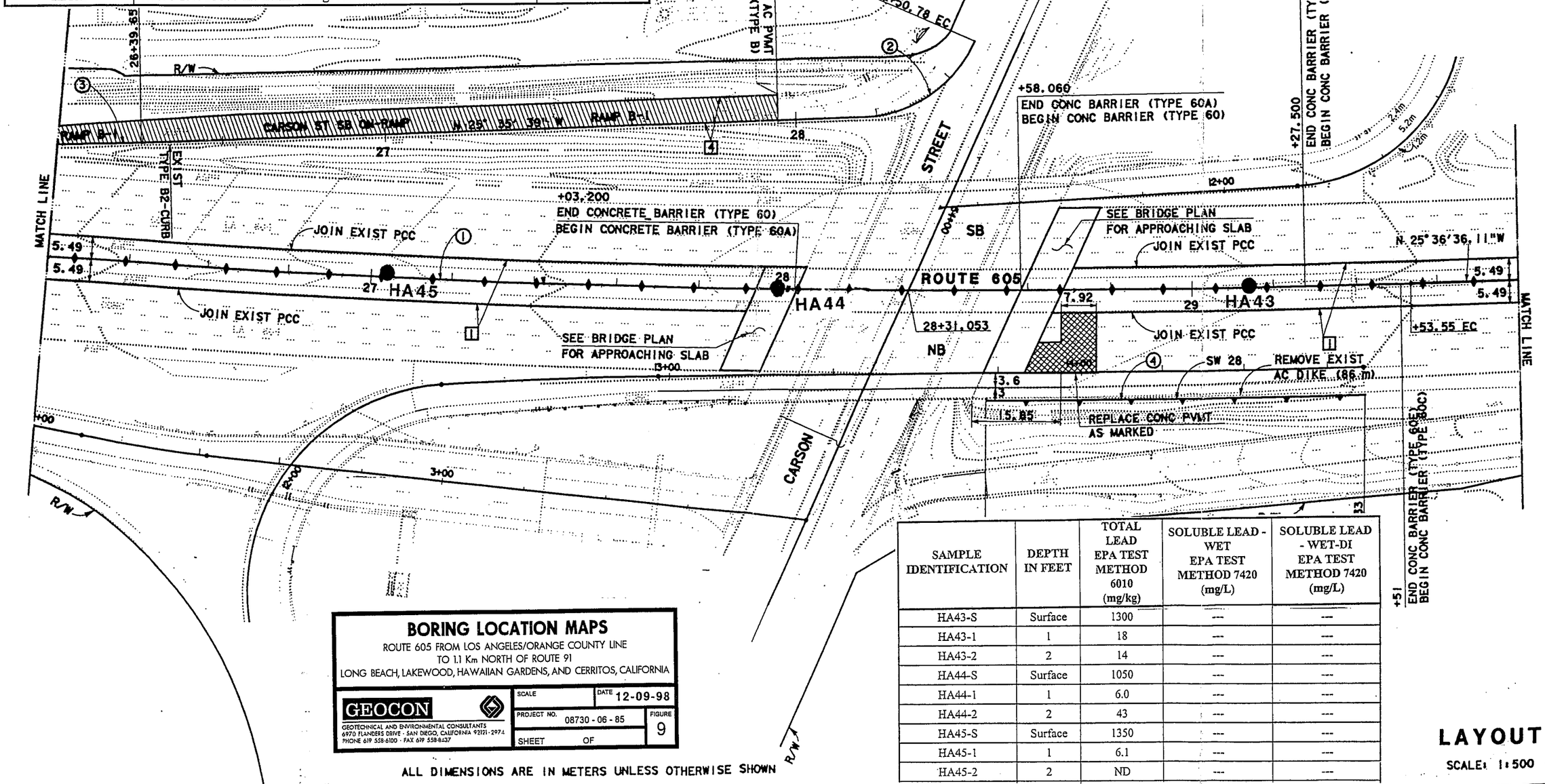
REGISTERED PROFESSIONAL ENGINEER H.S. CHEN 48908 9-30-00 CIVIL STATE OF CALIFORNIA

CURVE DATA

NO	R	Δ	T	L
1	3048.01	25° 52′ 48″	700.33	1376.76
2	30.48	64° 28′ 09″	19.22	34.30
3	609.60	5° 03′ 41″	26.94	26.94
4	3074.82	1° 42′ 14″	45.72	91.44

Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd³



SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA43-S	Surface	1300	---	---
HA43-1	1	18	---	---
HA43-2	2	14	---	---
HA44-S	Surface	1050	---	---
HA44-1	1	6.0	---	---
HA44-2	2	43	---	---
HA45-S	Surface	1350	---	---
HA45-1	1	6.1	---	---
HA45-2	2	ND	---	---

BORING LOCATION MAPS
ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE
TO 1.1 Km NORTH OF ROUTE 91
LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-6237

SCALE | DATE 12-09-98
PROJECT NO. 08730 - 06 - 85 | FIGURE 9
SHEET OF

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

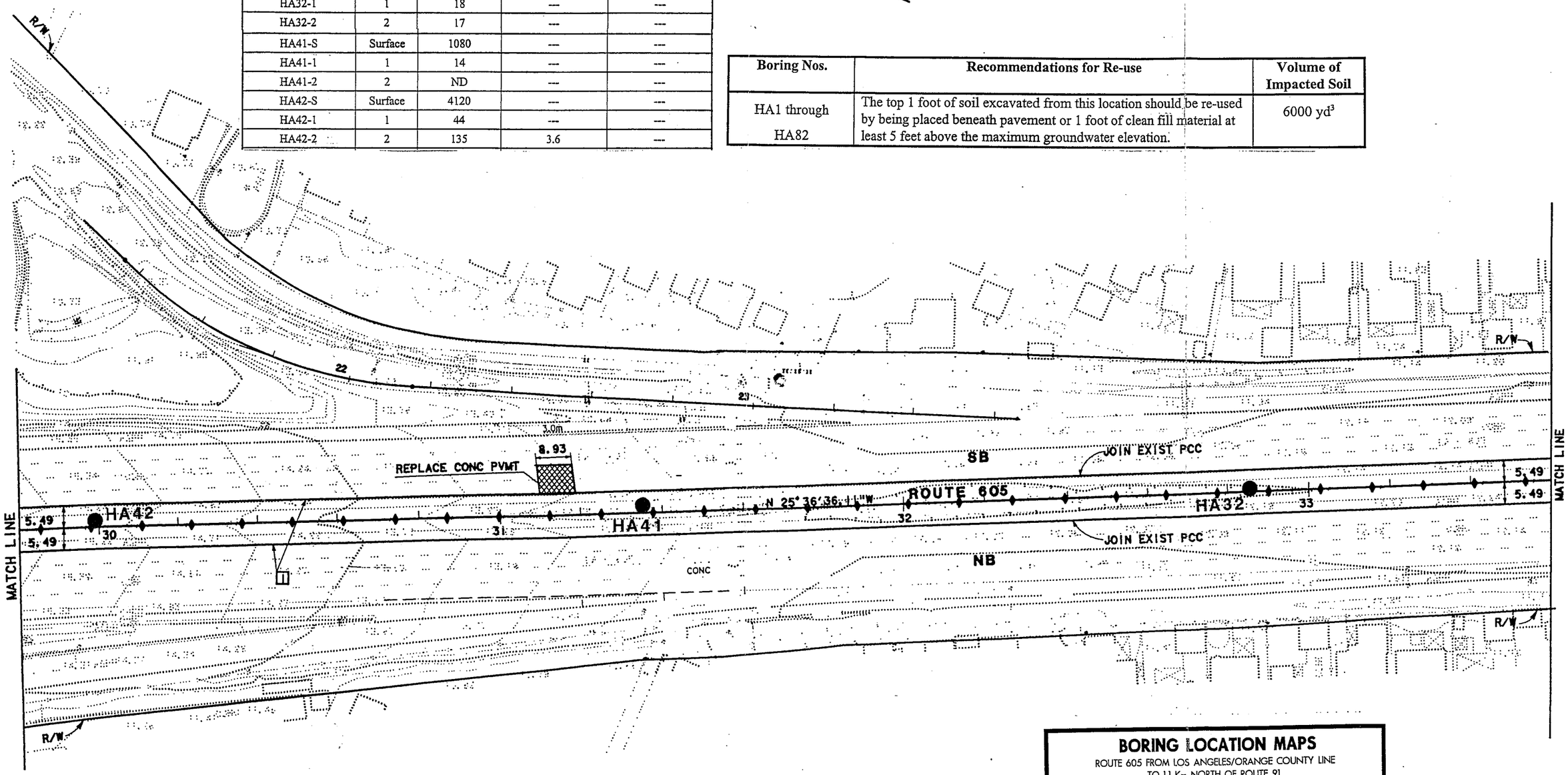
LAYOUT
SCALE: 1:500 L-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT
PROJECT ENGINEER H.S. CHEN
CALCULATED/DESIGNED BY | CHECKED BY
DATE | REVISED BY | DATE REVISED

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA
SEE R/W RECORD MAPS AT DISTRICT OFFICE

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA32-S	Surface	924	99	ND
HA32-1	1	18	---	---
HA32-2	2	17	---	---
HA41-S	Surface	1080	---	---
HA41-1	1	14	---	---
HA41-2	2	ND	---	---
HA42-S	Surface	4120	---	---
HA42-1	1	44	---	---
HA42-2	2	135	3.6	---

Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd^3



ALL DIMENSION ARE IN METERS UNLESS OTHERWISE SHOWN

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	605	0/6.9		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER H. S. CHEN No. 48908 Exp. 9-30-00 CIVIL STATE OF CALIFORNIA

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Metric

DATE | REVISED BY | DATE REVISED

CALCULATED/DESIGNED BY | CHECKED BY

PROJECT ENGINEER H. S. CHEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

PROJECT DEVELOPMENT

BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE
TO 1.1 Km NORTH OF ROUTE 91
LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-6237

SCALE | DATE 12-09-98
PROJECT NO. 08730 - 06 - 85 | FIGURE 10
SHEET OF

LAYOUT
SCALE: 1:500
L-9

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	605	0/6.9		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER H. S. CHEN 48908 9-30-00 CIVIL STATE OF CALIFORNIA

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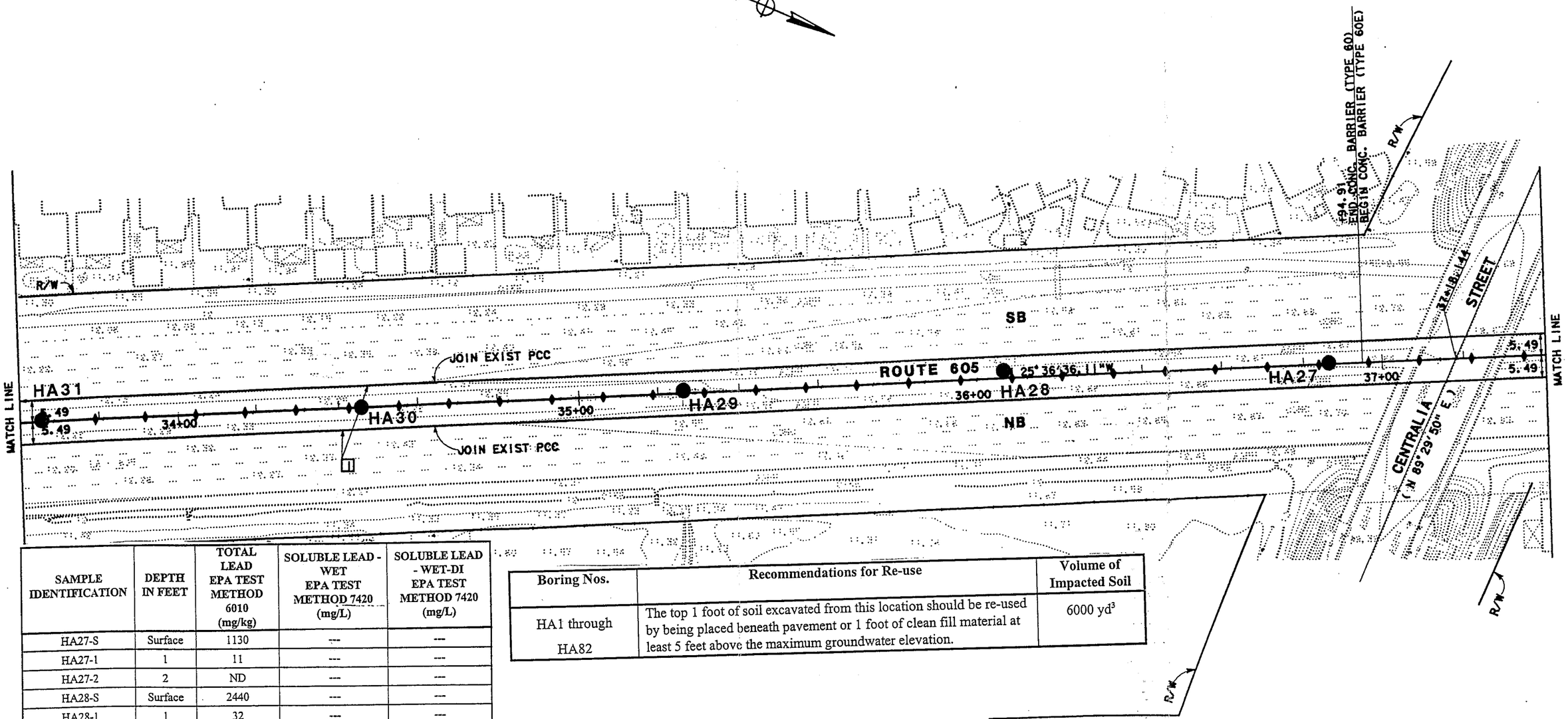
Metric

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA SEE R/W RECORD MAPS AT DISTRICT OFFICE



SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA27-S	Surface	1130	---	---
HA27-1	1	11	---	---
HA27-2	2	ND	---	---
HA28-S	Surface	2440	---	---
HA28-1	1	32	---	---
HA28-2	2	36	---	---
HA29-S	Surface	1700	---	---
HA29-1	1	41	---	---
HA29-2	2	37	---	---
HA30-S	Surface	1520	---	---
HA30-1	1	6.7	---	---
HA30-2	2	19	---	---
HA31-S	Surface	1990	---	---
HA31-1	1	15	---	---
HA31-2	2	11	---	---

Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd^3

ALL DIMENSION ARE IN METERS UNLESS OTHERWISE SHOWN

BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE TO 1.1 Km NORTH OF ROUTE 91

LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON

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6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-8437

SCALE | DATE 12-09-98 | PROJECT NO. 08730-06-85 | FIGURE 11 | SHEET OF

LAYOUT

SCALE: 1:500

L-10

CALCULATED/DESIGNED BY	DATE	REVISED BY
CHECKED BY		DATE REVISED

PROJECT ENGINEER H. S. CHEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans PROJECT DEVELOPMENT

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA
SEE R/W RECORD MAPS AT DISTRICT OFFICE

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	605	KP 0.0/8.4		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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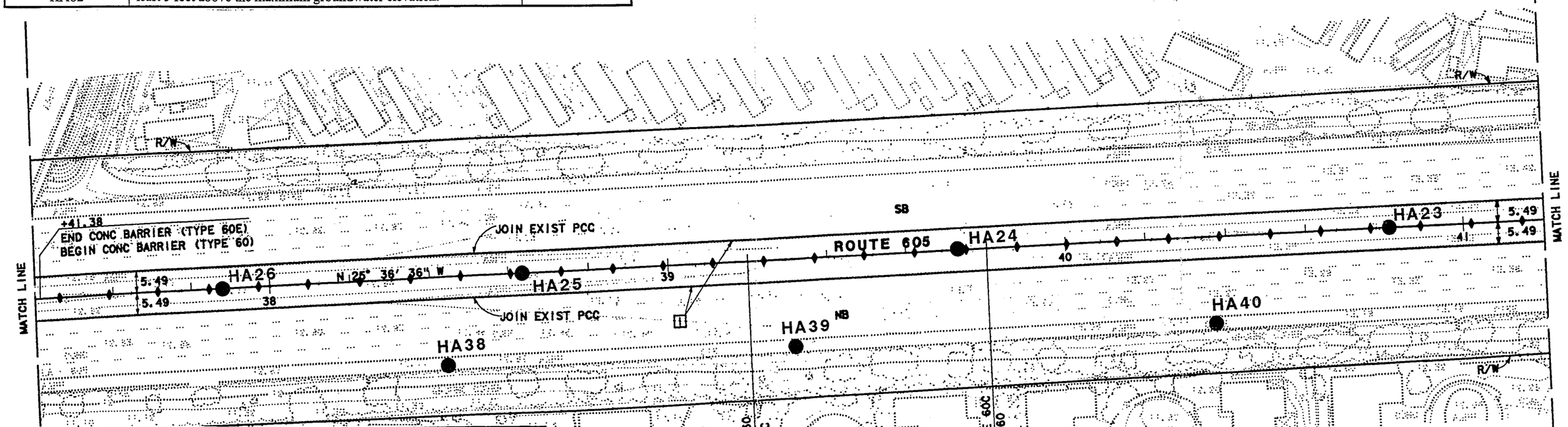
REGISTERED PROFESSIONAL ENGINEER H.S. CHEN 48908 9-30-00 CIVIL STATE OF CALIFORNIA

Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd^3



SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA23-S	Surface	1450	---	---
HA23-1	1	ND	---	---
HA23-2	2	ND	---	---
HA24-S	Surface	1700	---	---
HA24-1	1	8.2	---	---
HA24-2	2	13	---	---
HA25-S	Surface	634	51	---
HA25-1	1	9.2	---	---
HA25-2	2	ND	---	---
HA26-S	Surface	499	52	---
HA26-1	1	ND	---	---
HA26-2	2	ND	---	---

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

BORING LOCATION MAPS
ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE
TO 1.1 Km NORTH OF ROUTE 91
LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-8437

SCALE | DATE 12-09-98
PROJECT NO. 08730 - 06 - 85 | FIGURE 12
SHEET OF

LAYOUT
SCALE: 1:500 **L-11**

DATE	REVISED BY	DATE REVISED

CALCULATED/DESIGNED BY
CHECKED BY
PROJECT ENGINEER H.S. CHEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans PROJECT DEVELOPMENT

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEET
07	LA	605	KP 0.0/8.4		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER H.S. CHEN No. 48908 Exp. 9-30-00 CIVIL STATE OF CALIFORNIA

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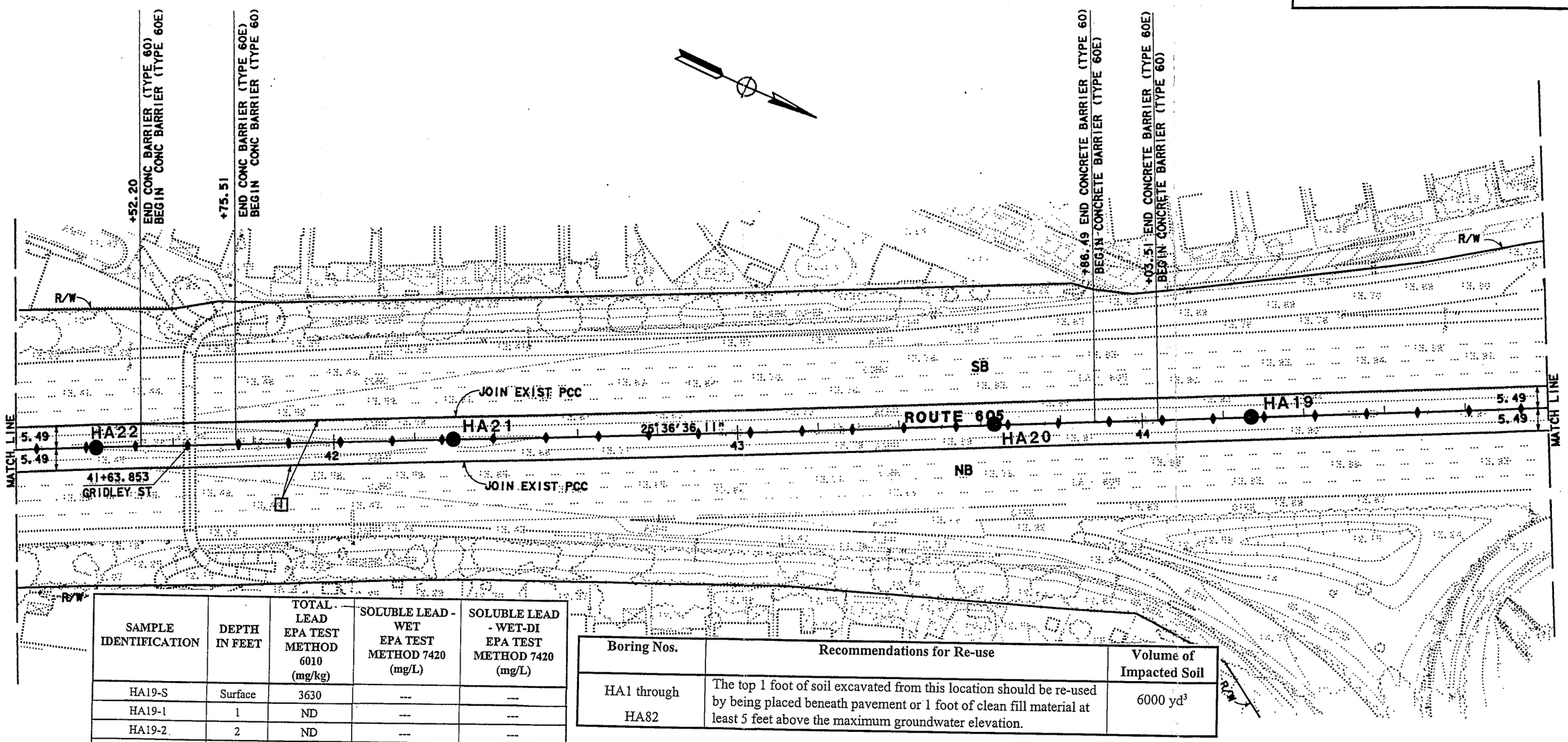
Metric

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA SEE R/W RECORD MAPS AT DISTRICT OFFICE



SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA19-S	Surface	3630	---	---
HA19-1	1	ND	---	---
HA19-2	2	ND	---	---
HA20-S	Surface	144	5.8	ND
HA20-1	1	5.1	---	---
HA20-2	2	ND	---	---
HA21-S	Surface	5250	---	---
HA21-1	1	5.7	---	---
HA21-2	2	ND	---	---
HA22-S	Surface	856	81	---
HA22-1	1	ND	---	---
HA22-2	2	5.9	---	---

Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd^3

ALL DIMENSIONS ARE METERS UNLESS OTHERWISE SHOWN

BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE TO 1.1 Km NORTH OF ROUTE 91
LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-8437

SCALE | DATE 12-09-98
PROJECT NO. 08730 - 06 - 85 | FIGURE 13
SHEET OF

LAYOUT
SCALE: 1:500

L-12

PROJECT ENGINEER H.S. CHEN

PROJECT DEVELOPMENT

Caltrans

	DATE	REVISED BY
CALCULATED/DESIGNED BY		
CHECKED BY		DATE REVISED

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	605	KP 0.0/8.4		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER H. S. CHEN 48908 9-30-00 CIVIL STATE OF CALIFORNIA

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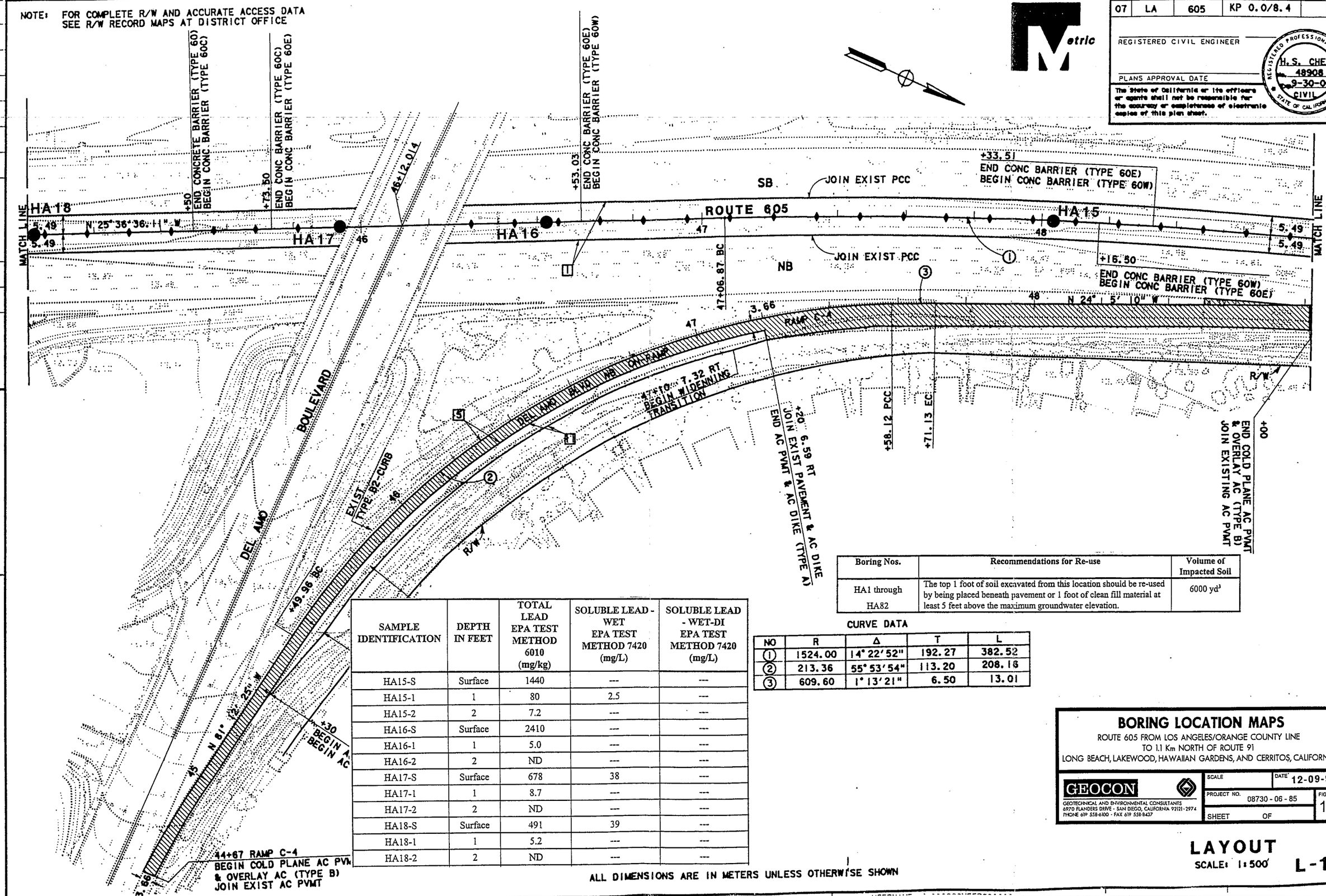
Metric

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA SEE R/W RECORD MAPS AT DISTRICT OFFICE



Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd^3

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA15-S	Surface	1440	---	---
HA15-1	1	80	2.5	---
HA15-2	2	7.2	---	---
HA16-S	Surface	2410	---	---
HA16-1	1	5.0	---	---
HA16-2	2	ND	---	---
HA17-S	Surface	678	38	---
HA17-1	1	8.7	---	---
HA17-2	2	ND	---	---
HA18-S	Surface	491	39	---
HA18-1	1	5.2	---	---
HA18-2	2	ND	---	---

CURVE DATA

NO	R	Δ	T	L
1	1524.00	14° 22' 52"	192.27	382.52
2	213.36	55° 53' 54"	113.20	208.16
3	609.60	1° 13' 21"	6.50	13.01

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE TO 1.1 Km NORTH OF ROUTE 91
LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-9437

SCALE | DATE 12-09-98
PROJECT NO. 08730 - 06 - 85 | FIGURE 14
SHEET OF

LAYOUT
SCALE: 1:500

L-13

DATE	REVISED BY	DATE REVISED
CALCULATED/DESIGNED BY		
CHECKED BY		

PROJECT ENGINEER H. S. CHEN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans PROJECT DEVELOPMENT

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	605	KP 0.0/8.4		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER H. S. CHEN No. 48908 Exp. 9-30-00 CIVIL STATE OF CALIFORNIA

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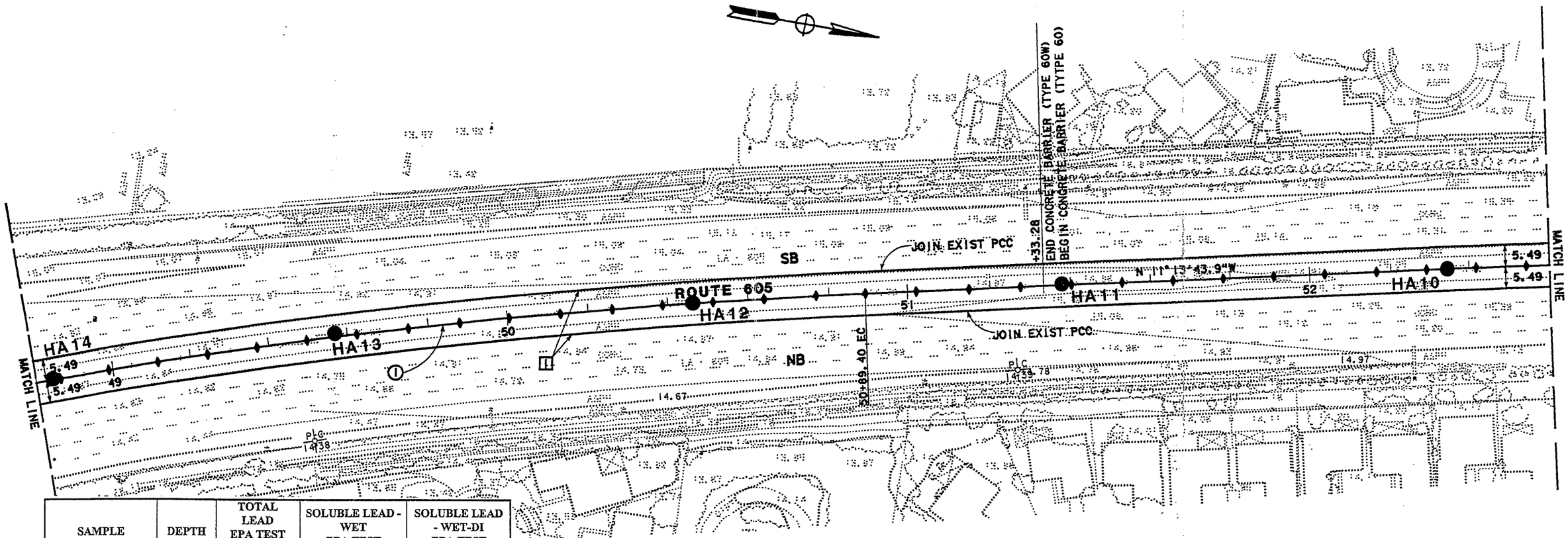
Metric

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA SEE R/W RECORD MAPS AT DISTRICT OFFICE

CURVE DATA

NO	R	Δ	T	L
1	1524.00	14°22'52"	192.27	382.52



SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA10-S	Surface	684	58	ND
HA10-1	1	19	---	---
HA10-2	2	16	---	---
HA11-S	Surface	1580	---	---
HA11-1	1	430	31	---
HA11-2	2	15	---	---
HA12-S	Surface	2030	---	---
HA12-1	1	13	---	---
HA12-2	2	59	2.1	---
HA13-S	Surface	1020	---	---
HA13-1	1	62	7.4	---
HA13-2	2	63	0.32	---

Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd^3

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE TO 1.1 Km NORTH OF ROUTE 91

LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-8437

SCALE | DATE 12-09-98
PROJECT NO. 08730 - 06 - 85 | FIGURE 15
SHEET OF

LAYOUT

SCALE: 1:500

L-14

CALTRANS PROJECT DEVELOPMENT

DESIGNED BY H. S. CHEN | CHECKED BY | REVISED BY | DATE REVISED

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA
SEE R/W RECORD MAPS AT DISTRICT OFFICE

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	605	KP 0.0/8.4		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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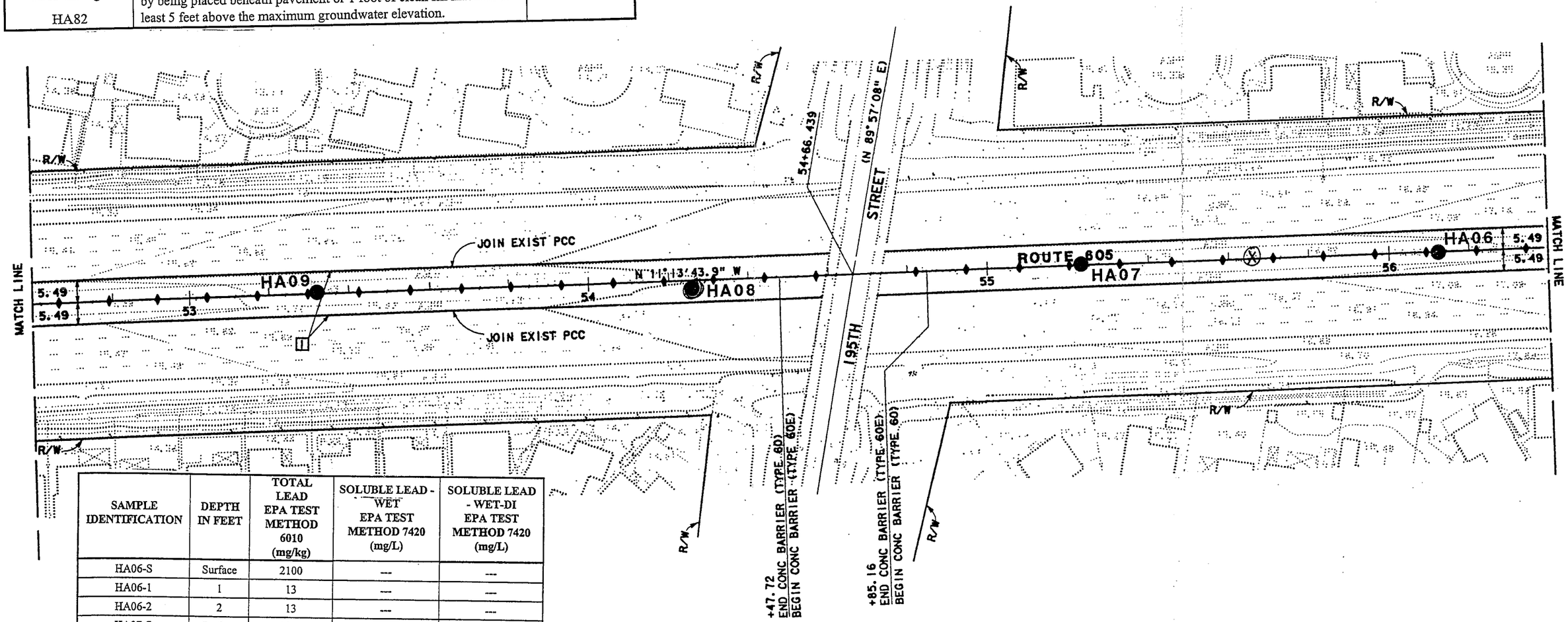
REGISTERED PROFESSIONAL ENGINEER H.S. CHEN 48908 9-30-00 CIVIL STATE OF CALIFORNIA

Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd^3



SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA06-S	Surface	2100	---	---
HA06-1	1	13	---	---
HA06-2	2	13	---	---
HA07-S	Surface	1820	---	---
HA07-1	1	319	24	---
HA07-2	2	11	---	---
HA08-S	Surface	1760	---	---
HA08-1	1	192	16	---
HA08-2	2	29	---	---
HA09-S	Surface	1400	---	---
HA09-1	1	50	---	---
HA09-2	2	17	---	---

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE
TO 1.1 Km NORTH OF ROUTE 91
LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-8437

SCALE | DATE 12-09-98
PROJECT NO. 08730 - 06 - 85 | FIGURE 16
SHEET OF

LAYOUT
SCALE: 1:500

L-15

REVISED BY | DATE | DATE REVISED
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PROJECT ENGINEER H.S. CHEN
PROJECT DEVELOPMENT
Caltrans

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEET
07	LA	605	KP 0.0/8.4		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER H.S. CHEN No. 48908 9-30-00 CIVIL STATE OF CALIFORNIA

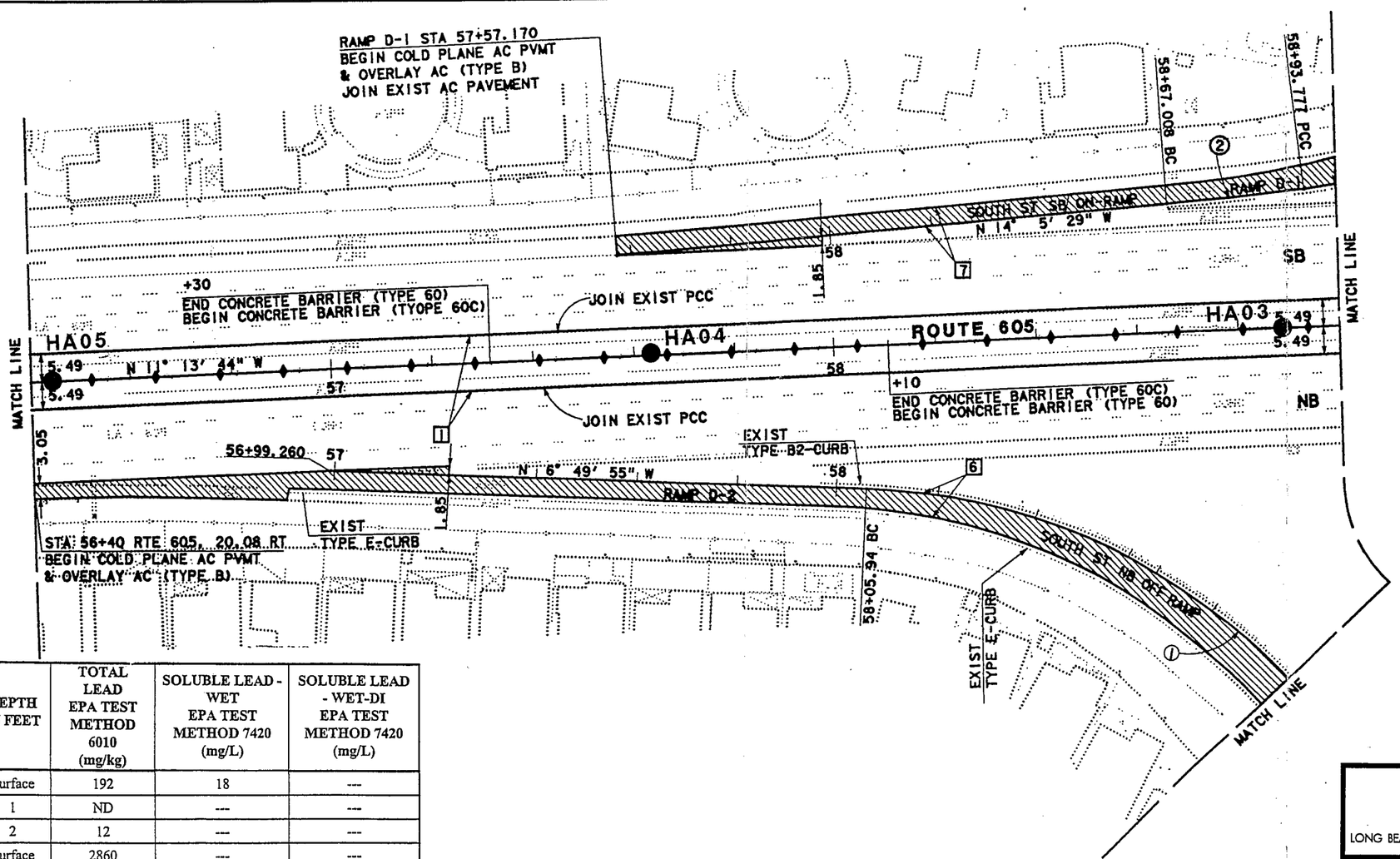
Metric

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA SEE R/W RECORD MAPS AT DISTRICT OFFICE

CURVE DATA

NO	R	Δ	T	L
1	121.92	44°9'31"	49.46	93.97
2	609.60	2°30'58"	13.39	26.77

Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd^3



SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA03-S	Surface	192	18	---
HA03-1	1	ND	---	---
HA03-2	2	12	---	---
HA04-S	Surface	2860	---	---
HA04-1	1	10	---	---
HA04-2	2	13	---	---
HA05-S	Surface	1090	---	---
HA05-1	1	7.4	---	---
HA05-2	2	6.8	---	---

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE
TO 1.1 Km NORTH OF ROUTE 91
LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON
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6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
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SCALE | DATE 12-09-98
PROJECT NO. 08730 - 06 - 85 | FIGURE 17
SHEET OF

LAYOUT
SCALE: 1:500 L-16

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT
PROJECT ENGINEER H.S. CHEN
CALCULATED/DESIGNED BY | DATE | REVISED BY | DATE REVISED
CHECKED BY

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	605	KP 0.0/8.4		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER H.S. CHEN 48908 9-30-00 CIVIL STATE OF CALIFORNIA

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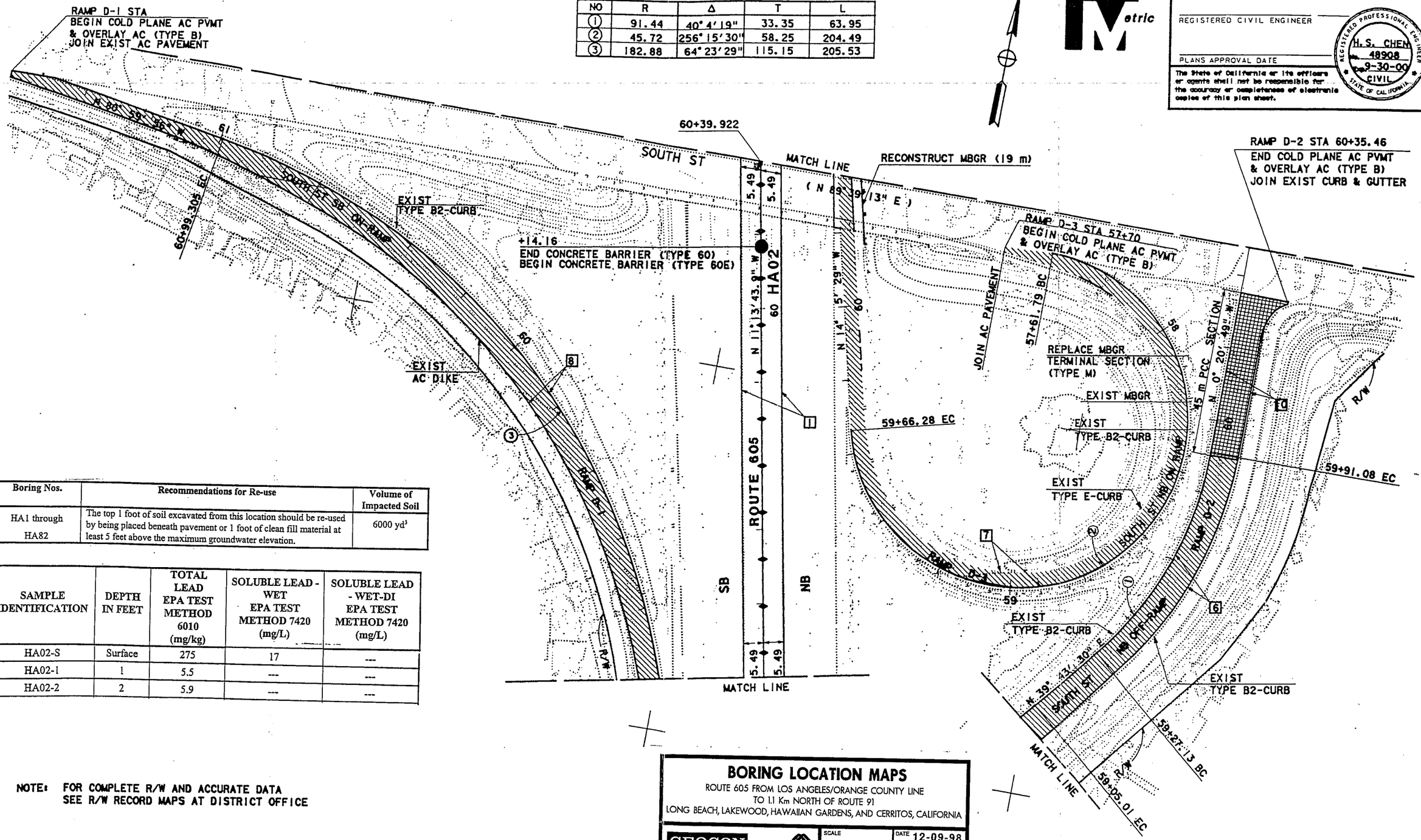
Metric

CURVE DATA

NO	R	Δ	T	L
1	91.44	40°4'19"	33.35	63.95
2	45.72	256°15'30"	58.25	204.49
3	182.88	64°23'29"	115.15	205.53



Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd³

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA02-S	Surface	275	17	---
HA02-1	1	5.5	---	---
HA02-2	2	5.9	---	---

NOTE: FOR COMPLETE R/W AND ACCURATE DATA SEE R/W RECORD MAPS AT DISTRICT OFFICE

BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE
TO 1.1 Km NORTH OF ROUTE 91
LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON
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6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-8437

SCALE | DATE 12-09-98
PROJECT NO. 08730 - 06 - 85 | FIGURE 18
SHEET OF

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

LAYOUT
SCALE: 1:500
L-17

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT
PROJECT ENGINEER H.S. CHEN
CALCULATED/DESIGNED BY | CHECKED BY
DATE | REVISED BY | DATE REVISED

NOTE: FOR COMPLETE RW AND ACCURATE ACCESS DATA SEE R/W RECORD MAPS AT DISTRICT OFFICE.

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	605	KP 0.0/8.4		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER H.S. CHEN 48908 9-30-00 CIVIL STATE OF CALIFORNIA

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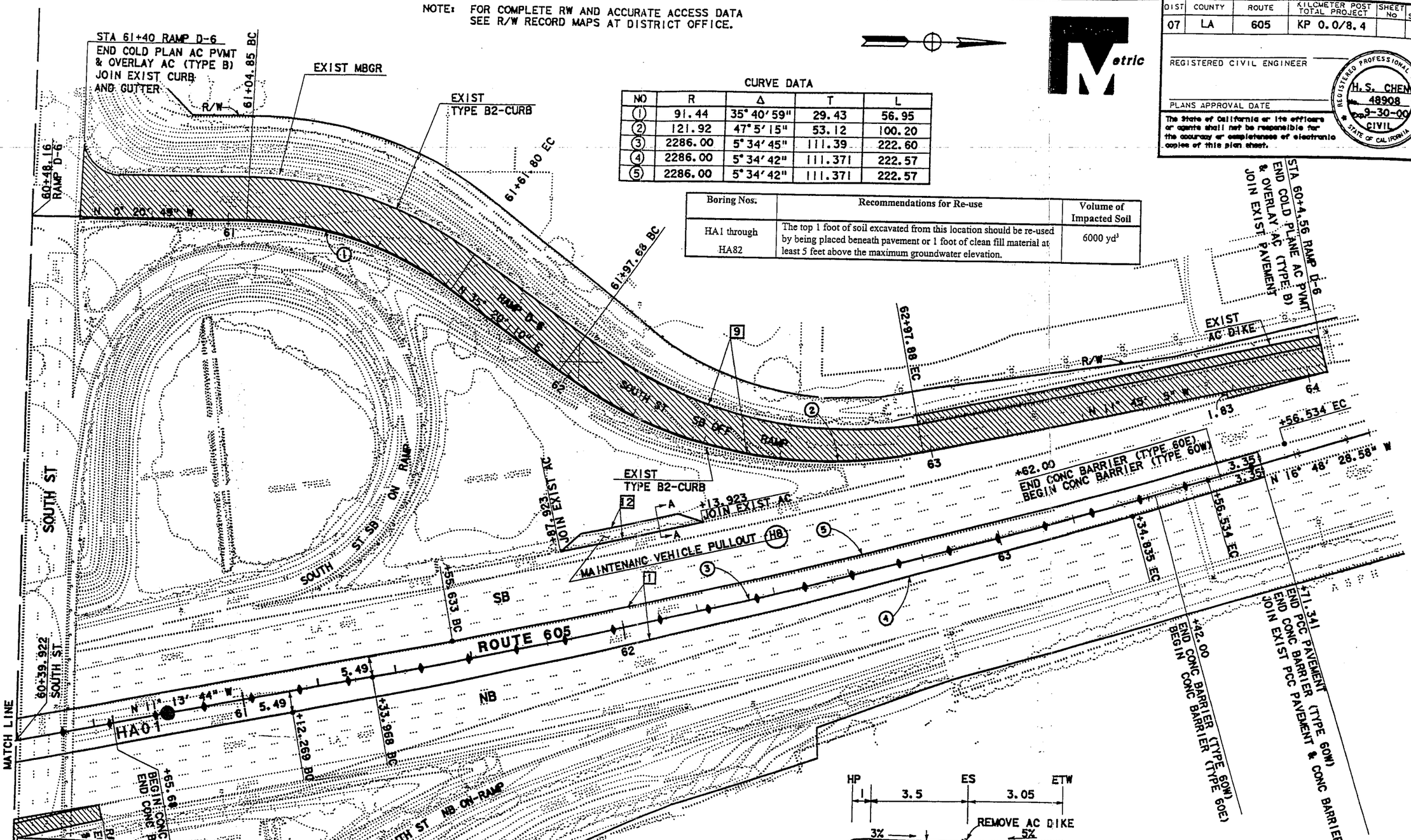
Metric



CURVE DATA

NO	R	Δ	T	L
1	91.44	35° 40' 59"	29.43	56.95
2	121.92	47° 5' 15"	53.12	100.20
3	2286.00	5° 34' 45"	111.39	222.60
4	2286.00	5° 34' 42"	111.371	222.57
5	2286.00	5° 34' 42"	111.371	222.57

Boring Nos.	Recommendations for Re-use	Volume of Impacted Soil
HA1 through HA82	The top 1 foot of soil excavated from this location should be re-used by being placed beneath pavement or 1 foot of clean fill material at least 5 feet above the maximum groundwater elevation.	6000 yd³

RECONSTRUCT MBGR (19M)

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA01-S	Surface	1320	---	---
HA01-1	1	152	6.3	ND
HA01-2	2	24	---	---

SECTION A-A
NO SCALE

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE TO 1.1 Km NORTH OF ROUTE 91
LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-8437

SCALE | DATE 12-09-98
PROJECT NO. 08730-06-85 | FIGURE 19
SHEET OF

DATE	REVISED BY	DATE REVISED

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER H.S. CHEN

PROJECT DEVELOPMENT

Caltrans

STATE OF CALIFORNIA

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEET
07	LA	605	0/8.4		

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER H.S. CHEN 48908 9/30/00 CIVIL STATE OF CALIFORNIA

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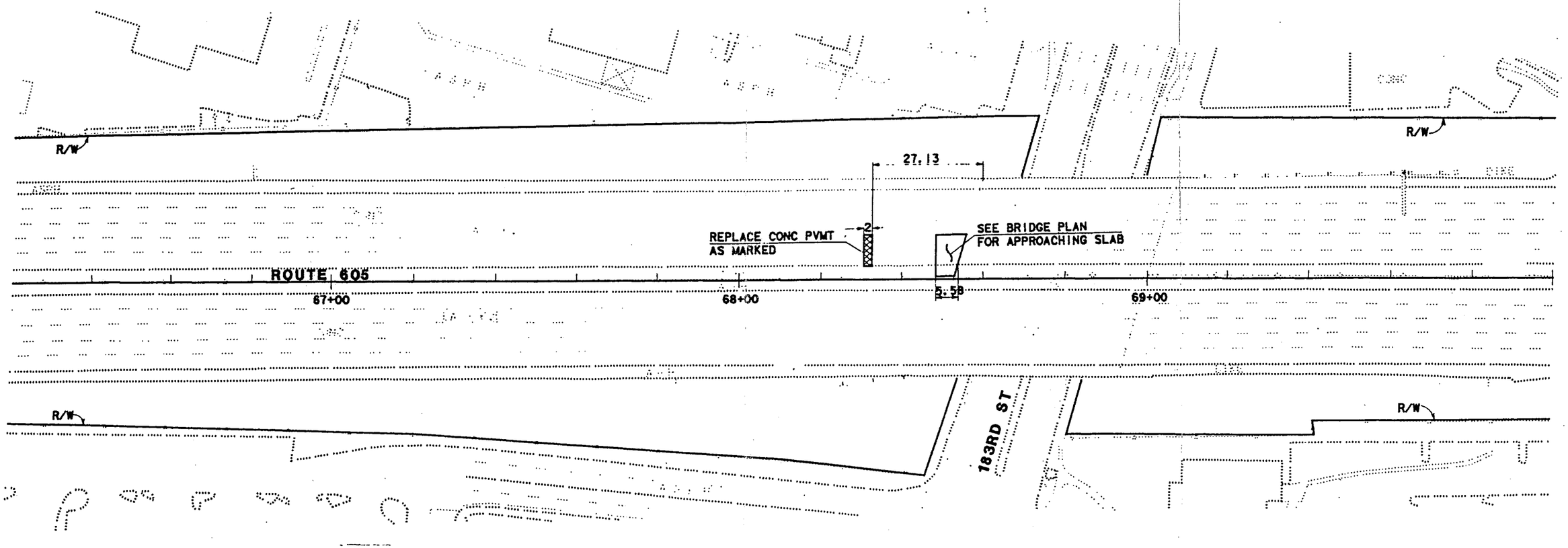
Metric

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA SEE R/W RECORD MAPS AT DISTRICT OFFICE



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

BORING LOCATION MAPS

ROUTE 605 FROM LOS ANGELES/ORANGE COUNTY LINE
TO 1.1 Km NORTH OF ROUTE 91
LONG BEACH, LAKEWOOD, HAWAIIAN GARDENS, AND CERRITOS, CALIFORNIA

GEOCON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-9437

SCALE	DATE 12-09-98	
PROJECT NO. 08730-06-85		FIGURE 20
SHEET	OF	

LAYOUT
SCALE: 1:500

L-19

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

PROJECT ENGINEER

CALCULATED/DESIGNED BY

CHECKED BY

DATE REVISED BY

DATE REVISED

USERNAME => $$$$$$USER$$$$$$

TABLE I

SUMMARY OF ANALYTICAL LABORATORY RESULTS

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA01-S	Surface	1320	---	---
HA01-1	1	152	6.3	ND
HA01-2	2	24	---	---
HA02-S	Surface	275	17	---
HA02-1	1	5.5	---	---
HA02-2	2	5.9	---	---
HA03-S	Surface	192	18	---
HA03-1	1	ND	---	---
HA03-2	2	12	---	---
HA04-S	Surface	2860	---	---
HA04-1	1	10	---	---
HA04-2	2	13	---	---
HA05-S	Surface	1090	---	---
HA05-1	1	7.4	---	---
HA05-2	2	6.8	---	---
HA06-S	Surface	2100	---	---
HA06-1	1	13	---	---
HA06-2	2	13	---	---
HA07-S	Surface	1820	---	---
HA07-1	1	319	24	---
HA07-2	2	11	---	---
HA08-S	Surface	1760	---	---
HA08-1	1	192	16	---
HA08-2	2	29	---	---
HA09-S	Surface	1400	---	---
HA09-1	1	50	---	---
HA09-2	2	17	---	---

TABLE I (continued)

SUMMARY OF ANALYTICAL LABORATORY RESULTS

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA10-S	Surface	684	58	ND
HA10-1	1	19	---	---
HA10-2	2	16	---	---
HA11-S	Surface	1580	---	---
HA11-1	1	430	31	---
HA11-2	2	15	---	---
HA12-S	Surface	2030	---	---
HA12-1	1	13	---	---
HA12-2	2	59	2.1	---
HA13-S	Surface	1020	---	---
HA13-1	1	62	7.4	---
HA13-2	2	63	0.32	---
HA14-S	Surface	1080	---	---
HA14-1	1	16	---	---
HA14-2	2	ND	---	---
HA15-S	Surface	1440	---	---
HA15-1	1	80	2.5	---
HA15-2	2	7.2	---	---
HA16-S	Surface	2410	---	---
HA16-1	1	5.0	---	---
HA16-2	2	ND	---	---
HA17-S	Surface	678	38	---
HA17-1	1	8.7	---	---
HA17-2	2	ND	---	---
HA18-S	Surface	491	39	---
HA18-1	1	5.2	---	---
HA18-2	2	ND	---	---
HA19-S	Surface	3630	---	---

TABLE I (continued)

SUMMARY OF ANALYTICAL LABORATORY RESULTS

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA19-1	1	ND	---	---
HA19-2	2	ND	---	---
HA20-S	Surface	144	5.8	ND
HA20-1	1	5.1	---	---
HA20-2	2	ND	---	---
HA21-S	Surface	5250	---	---
HA21-1	1	5.7	---	---
HA21-2	2	ND	---	---
HA22-S	Surface	856	81	---
HA22-1	1	ND	---	---
HA22-2	2	5.9	---	---
HA23-S	Surface	1450	---	---
HA23-1	1	ND	---	---
HA23-2	2	ND	---	---
HA24-S	Surface	1700	---	---
HA24-1	1	8.2	---	---
HA24-2	2	13	---	---
HA25-S	Surface	634	51	---
HA25-1	1	9.2	---	---
HA25-2	2	ND	---	---
HA26-S	Surface	499	52	---
HA26-1	1	ND	---	---
HA26-2	2	ND	---	---
HA27-S	Surface	1130	---	---
HA27-1	1	11	---	---
HA27-2	2	ND	---	---
HA28-S	Surface	2440	---	---
HA28-1	1	32	---	---

TABLE I (continued)

SUMMARY OF ANALYTICAL LABORATORY RESULTS

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA28-2	2	36	---	---
HA29-S	Surface	1700	---	---
HA29-1	1	41	---	---
HA29-2	2	37	---	---
HA30-S	Surface	1520	---	---
HA30-1	1	6.7	---	---
HA30-2	2	19	---	---
HA31-S	Surface	1990	---	---
HA31-1	1	15	---	---
HA31-2	2	11	---	---
HA32-S	Surface	924	99	ND
HA32-1	1	18	---	---
HA32-2	2	17	---	---
HA33-S	Surface	389	22	---
HA33-1	1	356	30	---
HA33-2	2	34	---	---
HA34-S	Surface	989	102	---
HA34-1	1	527	63	---
HA34-2	2	14	---	---
HA35-S	Surface	333	29	ND
HA35-1	1	343	35	---
HA35-2	2	329	25	---
HA36-S	Surface	1640	---	---
HA36-1	1	97	8.7	---
HA36-2	2	61	5.5	---
HA37-S	Surface	311	27	---
HA37-1	1	795	79	ND
HA37-2	2	134	5.7	---

TABLE I (continued)

SUMMARY OF ANALYTICAL LABORATORY RESULTS

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA38-S	Surface	5150	---	---
HA38-1	1	164	19	---
HA38-2	2	13	---	---
HA39-S	Surface	430	47	---
HA39-1	1	502	56	---
HA39-2	2	69	3.6	---
HA40-S	Surface	3950	---	---
HA40-1	1	266	34	0.17
HA40-2	2	135	2.0	---
HA41-S	Surface	1080	---	---
HA41-1	1	14	---	---
HA41-2	2	ND	---	---
HA42-S	Surface	4120	---	---
HA42-1	1	44	---	---
HA42-2	2	135	3.6	---
HA43-S	Surface	1300	---	---
HA43-1	1	18	---	---
HA43-2	2	14	---	---
HA44-S	Surface	1050	---	---
HA44-1	1	6.0	---	---
HA44-2	2	43	---	---
HA45-S	Surface	1350	---	---
HA45-1	1	6.1	---	---
HA45-2	2	ND	---	---
HA46-S	Surface	221	20	---
HA46-1	1	10	---	---
HA46-2	2	21	---	---
HA47-S	Surface	928	95	---

TABLE I (continued)

SUMMARY OF ANALYTICAL LABORATORY RESULTS

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA47-1	1	12	---	---
HA47-2	2	9.1	---	---
HA48-S	Surface	1810	---	---
HA48-1	1	20	---	---
HA48-2	2	13	---	---
HA49-S	Surface	1210	---	---
HA49-1	1	6.5	---	---
HA49-2	2	28	---	---
HA50-S	Surface	1450	---	---
HA50-1	1	59	5.3	---
HA50-2	2	45	---	---
HA51-S	Surface	3850	---	---
HA51-1	1	19	---	---
HA51-2	2	60	2.7	---
HA52-S	Surface	955	78	1.1
HA52-1	1	62	2.8	---
HA52-2	2	147	2.9	---
HA53-S	Surface	1130	---	---
HA53-1	1	202	16	---
HA53-2	2	73	4.3	---
HA54-S	Surface	2450	---	---
HA54-1	1	45	---	---
HA54-2	2	8.1	---	---
HA55-S	Surface	2130	---	---
HA55-1	1	ND	---	---
HA55-2	2	9.0	---	---
HA56-S	Surface	685	63	ND
HA56-1	1	12	---	---

TABLE I (continued)

SUMMARY OF ANALYTICAL LABORATORY RESULTS

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA56-2	2	95	3.9	---
HA57-S	Surface	1090	---	---
HA57-1	1	83	4.4	---
HA57-2	2	35	---	---
HA58-S	Surface	405	41	---
HA58-1	1	17	---	---
HA58-2	2	8.4	---	---
HA59-S	Surface	200	15	---
HA59-1	1	13	---	---
HA59-2	2	13	---	---
HA60-S	Surface	2940	---	---
HA60-1	1	125	7.6	---
HA60-2	2	21	---	---
HA61-S	Surface	3140	---	---
HA61-1	1	32	---	---
HA61-2	2	5.8	---	---
HA62-S	Surface	350	32	---
HA62-1	1	178	4.2	---
HA62-2	2	77	2.0	---
HA63-S	Surface	835	88	1.6
HA63-1	1	18	---	---
HA63-2	2	ND	---	---
HA64-S	Surface	1160	---	---
HA64-1	1	ND	---	---
HA64-2	2	ND	---	---
HA65-S	Surface	478	38	---
HA65-1	1	7.8	---	---
HA65-2	2	7.3	---	---

TABLE I (continued)

SUMMARY OF ANALYTICAL LABORATORY RESULTS

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA66-S	Surface	1380	---	---
HA66-1	1	31	---	---
HA66-2	2	52	3.5	---
HA67-S	Surface	307	20	---
HA67-1	1	120	2.9	---
HA67-2	2	9.0	---	---
HA68-S	Surface	212	14	---
HA68-1	1	9.7	---	---
HA68-2	2	29	---	---
HA69-S	Surface	1910	---	---
HA69-1	1	17	---	---
HA69-2	2	65	2.4	---
HA70-S	Surface	408	42	0.23
HA70-1	1	12	---	---
HA70-2	2	13	---	---
HA71-S	Surface	722	40	---
HA71-1	1	6.8	---	---
HA71-2	2	ND	---	---
HA72-S	Surface	946	81	---
HA72-1	1	28	---	---
HA72-2	2	35	---	---
HA73-S	Surface	3120	---	---
HA73-1	1	15	---	---
HA73-2	2	22	---	---
HA74-S	Surface	436	39	---
HA74-1	1	ND	---	---
HA74-2	2	ND	---	---
HA75-S	Surface	723	49	---

TABLE I (continued)

SUMMARY OF ANALYTICAL LABORATORY RESULTS

SAMPLE IDENTIFICATION	DEPTH IN FEET	TOTAL LEAD EPA TEST METHOD 6010 (mg/kg)	SOLUBLE LEAD - WET EPA TEST METHOD 7420 (mg/L)	SOLUBLE LEAD - WET-DI EPA TEST METHOD 7420 (mg/L)
HA75-1	1	ND	---	---
HA75-2	2	ND	---	---
HA76-S	Surface	312	47	---
HA76-1	1	7.8	---	---
HA76-2	2	15	---	---
HA77-S	Surface	2160	---	---
HA77-1	1	1390	---	---
HA77-2	2	65	1.4	---
HA78-S	Surface	414	14	---
HA78-1	1	54	2.1	---
HA78-2	2	27	---	---
HA79-S	Surface	132	7.3	ND
HA79-1	1	ND	---	---
HA79-2	2	30	---	---
HA80-S	Surface	740	58	---
HA80-1	1	46	---	---
HA80-2	2	23	---	---
HA81-S	Surface	576	25	---
HA81-1	1	49	---	---
HA81-2	2	6.3	---	---
HA82-S	Surface	51	4.6	---
HA82-1	1	ND	---	---
HA82-2	2	7.4	---	---

Note:
mg/kg = milligrams per kilogram
mg/l = milligrams per liter
WET = Waste Extraction Test
WET-DI = WET with deionized water used as the extractant
--- = analysis not performed

TABLE II

SUMMARY OF ANALYTICAL LABORATORY RESULTS FROM PRIOR INVESTIGATIONS

SAMPLE ID		DEPTH (feet)	TOTAL LEAD EPA 6010 (mg/kg)		SOLUBLE LEAD WET EPA 7420 (mg/l)		SOLUBLE LEAD WET-DI EPA 7420 (mg/l)
GEOCON	ES	GEOCON/ES	GEOCON	ES	GEOCON	ES	GEOCON
HA1-sfc	HA08-0.5	surface/0.5	ND	6330	0.36	526	ND
HA1-1	HA08-1.5	1/1.5	5.2	53	0.40	9.1	ND
HA1-2	---	2/---	ND	---	0.52	---	ND
HA2-sfc	HA12-0.5	surface/0.5	ND	5360	0.34	433	ND
HA2-1	HA12-1.5	1/1.5	ND	26	0.44	---	ND
HA2-2	---	2/---	810	---	47	---	ND
HA3-sfc	HA23-0.5	surface/0.5	6.2	2260	0.38	381	ND
HA3-1	HA23-1.5	1/1.5	ND	3200	0.48	102	ND
HA3-2	---	2/---	ND	---	0.40	---	ND
HA4-sfc	HA44-0.5	surface/0.5	5850	4760	424	259	0.18
HA4-1	HA44-1.5	1/1.5	11	1460	0.47	88	ND
HA4-2	---	2/---	ND	---	0.29	---	ND
HA5-sfc	HA48-0.5	surface/0.5	2100	ND	171	---	ND
HA5-1	HA48-1.5	1/1.5	ND	1190	0.74	177	ND
HA5-2	---	2/---	36	---	1.0	---	ND
HA6-sfc	HA33-0.5	surface/0.5	3210	1540	234	89	1.6
HA6-1	HA33-1.5	1/1.5	262	571	0.54	56	ND
HA6-2	---	2/---	274	---	18	---	ND
HA7-sfc	HA24-0.5	surface/0.5	5800	515	415	49	14
HA7-1	HA24-1.5	1/1.5	333	20	4.2	---	ND
HA7-2	---	2/---	ND	---	0.58	---	ND
HA8-sfc	HA11-0.5	surface/0.5	1170	1370	80	32	0.40
HA8-1	HA11-1.5	1/1.5	ND	109	0.32	2.9	ND
HA8-2	---	2/---	ND	---	0.41	---	ND
HA9-sfc	HA07-0.5	surface/0.5	42	11	0.55	---	ND
HA9-1	HA07-1.5	1/1.5	27	556	3.6	26	ND
HA9-2	---	2/---	23	---	3.8	---	ND
HA10-sfc	HA35-0.5	surface/0.5	574	171	49	5.8	ND
HA10-1	HA35-1.5	1/1.5	115	115	0.34	25	ND
HA10-2	---	2/---	67	---	3.8	---	ND

Note:

Geocon	=	Geocon data from the investigation conducted September 25, 1998
ES	=	ES Engineering Sciences; data from the investigation conducted by ES during April 7 and August 18, 1994.
mg/kg	=	milligrams per kilogram
mg/l	=	milligrams per liter
WET	=	Waste Extraction Test
WET-DI	=	WET with deionized water used as the extractant
---	=	analysis not performed

APPENDIX A

APPENDIX A

GEOCON ENVIRONMENTAL CONSULTANTS INCORPORATED
STANDARD OPERATING PROCEDURE (SOP) NO. 11
HAND-AUGERING AND SOIL SAMPLE COLLECTION

Purpose

The purpose of this SOP is to outline procedures and methods to be used to advance hand-augers and collect soil samples for chemical analyses.

Hand-Augering and Soil Sample Collection Procedures

1. Initiate boring using a hand-held 3-inch diameter stainless steel auger.
2. Advance boring to initial sample depth of approximately 0 to ½ foot below the ground surface.
3. Transfer the soil sample from the hand-auger into a glass jar supplied by the laboratory.
4. Repeat the procedure and collect soil samples at subsequent depths as specified in the Task Order, if possible.
5. Backfill the borings to surface grade with soil cuttings generated.
6. Clean and rinse sampling equipment prior to the collection of each soil sample by washing the equipment with a trisodium phosphate solution followed by subsequent tap water and deionized water rinses.

APPENDIX A (continued)

GEOCON ENVIRONMENTAL CONSULTANTS INCORPORATED
STANDARD OPERATING PROCEDURE (SOP) NO. 31
SOIL SAMPLE HANDLING PROCEDURES

Purpose

The purpose of this SOP is to outline procedures and methods to be used to package and transport soil samples to an analytical laboratory.

Soil Sample Handling Procedures

1. Soil samples will be retrieved directly from the hand auger.

2. After extracting the sample from the auger, the soil sample will be placed in laboratory supplied glass jars with Teflon-lined lids.

3. Sample labels will be placed on the outside of the jar to indicate the boring number and from what depth the sample was obtained, the time the sample was obtained, and the date the sample was obtained.

4. Each prepared sample jar will be placed into a container for transport to Advanced Technology Laboratories.

APPENDIX B

Client: Geocon Environmental
Attn: Mr. Joel Kloth

Client's Project: RTE 605, 8730-06-85
Date Received: 10/28/98
Date Sampled: 10/27/98
Date Digested: 10/28/98
Digestion Method: EPA 3050
Date Amended: 11/03&09/98

Lab No.	Sample ID	Analysis	Date Analyzed	Results	Matrix Units	MDL	DLR	Analyst
30226-030	HA11-S	EPA 6010 (Lead)	10/29/98	1580	Soil, mg/kg	5	5	LP
30226-030D	HA11-S	EPA 6010 (Lead)	10/29/98	2260	Soil, mg/kg	5	5	LP
30226-031	HA11-1	EPA 6010 (Lead)	10/29/98	430	Soil, mg/kg	5	5	LP
30226-032	HA11-2	EPA 6010 (Lead)	10/29/98	15	Soil, mg/kg	5	5	LP
30226-033	HA12-S	EPA 6010 (Lead)	10/29/98	2030	Soil, mg/kg	5	5	LP
30226-034	HA12-1	EPA 6010 (Lead)	10/29/98	13	Soil, mg/kg	5	5	LP
30226-035	HA12-2	EPA 6010 (Lead)	10/29/98	59	Soil, mg/kg	5	5	LP
30226-036	HA13-S	EPA 6010 (Lead)	10/29/98	1020	Soil, mg/kg	5	5	LP
30226-037	HA13-1	EPA 6010 (Lead)	10/29/98	62	Soil, mg/kg	5	5	LP
30226-038	HA13-2	EPA 6010 (Lead)	10/29/98	63	Soil, mg/kg	5	5	LP
30226-039	HA14-S	EPA 6010 (Lead)	10/29/98	1080	Soil, mg/kg	5	5	LP
30226-040	HA14-1	EPA 6010 (Lead)	10/29/98	16	Soil, mg/kg	5	5	LP
30226-040D	HA14-1	EPA 6010 (Lead)	10/29/98	13	Soil, mg/kg	5	5	LP
30226-091	HA31-1	EPA 6010 (Lead)	10/29/98	15	Soil, mg/kg	5	5	LP
30226-092	HA31-2	EPA 6010 (Lead)	10/29/98	11	Soil, mg/kg	5	5	LP
30226-093	HA32-S	EPA 6010 (Lead)	10/29/98	924	Soil, mg/kg	5	5	LP
30226-094	HA32-1	EPA 6010 (Lead)	10/29/98	18	Soil, mg/kg	5	5	LP
30226-095	HA32-2	EPA 6010 (Lead)	10/29/98	17	Soil, mg/kg	5	5	LP
30226-096	HA41-S	EPA 6010 (Lead)	10/29/98	1080	Soil, mg/kg	5	5	LP
30226-097	HA41-1	EPA 6010 (Lead)	10/29/98	14	Soil, mg/kg	5	5	LP
30226-098	HA41-2	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-099	HA42-S	EPA 6010 (Lead)	10/29/98	4120	Soil, mg/kg	5	5	LP
30226-100	HA42-1	EPA 6010 (Lead)	10/29/98	44	Soil, mg/kg	5	5	LP
30226-100D	HA42-1	EPA 6010 (Lead)	10/29/98	31	Soil, mg/kg	5	5	LP
30226-101	HA42-2	EPA 6010 (Lead)	10/29/98	135	Soil, mg/kg	5	5	LP
30226-102	HA43-S	EPA 6010 (Lead)	10/29/98	1300	Soil, mg/kg	5	5	LP
30226-103	HA43-1	EPA 6010 (Lead)	10/29/98	18	Soil, mg/kg	5	5	LP
30226-104	HA43-2	EPA 6010 (Lead)	10/29/98	14	Soil, mg/kg	5	5	LP
30226-105	HA44-S	EPA 6010 (Lead)	10/29/98	1050	Soil, mg/kg	5	5	LP
30226-106	HA44-1	EPA 6010 (Lead)	10/29/98	6.0	Soil, mg/kg	5	5	LP

MDL = Method Detection Limit ND = Not Detected (Below DLR) DF = Dilution Factor

Reviewed/Approved By: David J. Kern
David J. Kern
Department Supervisor

Date: 11/9/98

The cover letter is an integral part of this analytical report

Client: Geocon Environmental
Attn: Mr. Joel Kloth

Client's Project: Rte 605, 8730-06-85
Date Received: 10/28/98
Date Sampled: 10/27/98
Date Digested: 10/29/98
Digestion Method: EPA 3050
Date Amended: 11/02&09/98

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Unit	MDL	DLR	Analyst
30226-041	HA14-2	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-042	HA15-S	EPA 6010 (Lead)	10/29/98	1440	Soil, mg/kg	5	5	LP
30226-043	HA15-1	EPA 6010 (Lead)	10/29/98	80	Soil, mg/kg	5	5	LP
30226-044	HA15-2	EPA 6010 (Lead)	10/29/98	7.2	Soil, mg/kg	5	5	LP
30226-045	HA16-S	EPA 6010 (Lead)	10/29/98	2410	Soil, mg/kg	5	5	LP
30226-046	HA16-1	EPA 6010 (Lead)	10/29/98	5.0	Soil, mg/kg	5	5	LP
30226-047	HA16-2	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-048	HA17-S	EPA 6010 (Lead)	10/29/98	678	Soil, mg/kg	5	5	LP
30226-049	HA17-1	EPA 6010 (Lead)	10/29/98	8.7	Soil, mg/kg	5	5	LP
30226-050	HA17-2	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-050	HA17-2	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-051	HA18-S	EPA 6010 (Lead)	11/09/98	491*	Soil, mg/kg	5	5	LP
30226-052	HA18-1	EPA 6010 (Lead)	10/29/98	5.2	Soil, mg/kg	5	5	LP
30226-053	HA18-2	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-054	HA19-S	EPA 6010 (Lead)	10/29/98	3630	Soil, mg/kg	5	5	LP
30226-055	HA19-1	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-056	HA19-2	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-057	HA20-S	EPA 6010 (Lead)	10/29/98	144	Soil, mg/kg	5	5	LP
30226-058	HA20-1	EPA 6010 (Lead)	10/29/98	5.1	Soil, mg/kg	5	5	LP
30226-059	HA20-2	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-060	HA21-S	EPA 6010 (Lead)	10/29/98	5250	Soil, mg/kg	5	5	LP
30226-060	HA21-S	EPA 6010 (Lead)	10/29/98	4530	Soil, mg/kg	5	5	LP
30226-061	HA21-1	EPA 6010 (Lead)	10/29/98	5.7	Soil, mg/kg	5	5	LP
30226-062	HA21-2	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-063	HA22-S	EPA 6010 (Lead)	10/29/98	856	Soil, mg/kg	5	5	LP
30226-064	HA22-1	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-065	HA22-2	EPA 6010 (Lead)	10/29/98	5.9	Soil, mg/kg	5	5	LP
30226-067	HA23-1	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-068	HA23-2	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP

MDL = Method Detection Limit ND = Not Detected (Below DLR) DF = Dilution Factor
* = Date Digested: 11/06/98

eviewed/Approved By: David P. Kern
Department Supervisor

Date: 11/9/98

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

Client: Geocon Environmental
Attn: Mr. Joel Kloth

Client's Project: Rte 605, 08730-06-85
Date Received: 10/28/98
Date Sampled: 10/27/98
Date Digested: 10/29/98
Digestion Method: EPA 3050
Date Amended: 11/09/98

Lab No.	Sample I.D.	Analysis	Date Analyze	Results	Matrix, Units	MDL	DLR	Analyst
30226-066	HA23-S	EPA 6010 (Lead)	10/29/98	1450	Soil, mg/kg	5	5	LP
30226-069	HA24-S	EPA 6010 (Lead)	10/29/98	1700	Soil, mg/kg	5	5	LP
30226-081	HA28-S	EPA 6010 (Lead)	10/29/98	2440	Soil, mg/kg	5	5	LP
30226-082	HA28-1	EPA 6010 (Lead)	10/29/98	32	Soil, mg/kg	5	5	LP
30226-083	HA28-2	EPA 6010 (Lead)	10/29/98	36	Soil, mg/kg	5	5	LP
30226-084	HA29-S	EPA 6010 (Lead)	10/29/98	1700	Soil, mg/kg	5	5	LP
30226-085	HA29-1	EPA 6010 (Lead)	10/29/98	41	Soil, mg/kg	5	5	LP
30226-086	HA29-2	EPA 6010 (Lead)	10/29/98	37	Soil, mg/kg	5	5	LP
30226-087	HA30-S	EPA 6010 (Lead)	10/29/98	1520	Soil, mg/kg	5	5	LP
30226-088	HA30-1	EPA 6010 (Lead)	10/29/98	6.7	Soil, mg/kg	5	5	LP
30226-089	HA30-2	EPA 6010 (Lead)	10/29/98	19	Soil, mg/kg	5	5	LP
30226-090	HA31-S	EPA 6010 (Lead)	10/29/98	1990	Soil, mg/kg	5	5	LP
30226-090D	HA31-S	EPA 6010 (Lead)	10/29/98	2600	Soil, mg/kg	5	5	LP
30226-131	HA52-2	EPA 6010 (Lead)	10/29/98	147	Soil, mg/kg	5	5	LP
30226-132	HA53-S	EPA 6010 (Lead)	10/29/98	1130	Soil, mg/kg	5	5	LP
30226-133	HA53-1	EPA 6010 (Lead)	10/29/98	202	Soil, mg/kg	5	5	LP
30226-134	HA53-2	EPA 6010 (Lead)	10/29/98	73	Soil, mg/kg	5	5	LP
30226-135	HA54-S	EPA 6010 (Lead)	10/29/98	2450	Soil, mg/kg	5	5	LP
30226-136	HA54-1	EPA 6010 (Lead)	10/29/98	45	Soil, mg/kg	5	5	LP
30226-137	HA54-2	EPA 6010 (Lead)	10/29/98	8.1	Soil, mg/kg	5	5	LP
30226-138	HA55-S	EPA 6010 (Lead)	10/29/98	2130	Soil, mg/kg	5	5	LP
30226-139	HA55-1	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-140	HA55-2	EPA 6010 (Lead)	10/29/98	9.0	Soil, mg/kg	5	5	LP
30226-140D	HA55-2	EPA 6010 (Lead)	10/29/98	21	Soil, mg/kg	5	5	LP
30226-141	HA33-S	EPA 6010 (Lead)	10/29/98	389	Soil, mg/kg	5	5	LP
30226-142	HA33-1	EPA 6010 (Lead)	10/29/98	356	Soil, mg/kg	5	5	LP
30226-143	HA33-2	EPA 6010 (Lead)	10/29/98	34	Soil, mg/kg	5	5	LP
30226-144	HA34-S	EPA 6010 (Lead)	11/11/98	989**	Soil, mg/kg	5	5	LP
30226-145	HA34-1	EPA 6010 (Lead)	10/29/98	527	Soil, mg/kg	5	5	LP
30226-146	HA34-2	EPA 6010 (Lead)	10/29/98	14	Soil, mg/kg	5	5	LP
30226-147	HA35-S	EPA 6010 (Lead)	11/09/98	333*	Soil, mg/kg	5	5	LP

MDL = Method Detection Limit ND = Not Detected (Below DLR) DF = Dilution Factor
* = Date Digested: 11/06/98
** = Date Digested: 11/11/98

Reviewed/Approved By: David J. Kern Date: 11/17/98
David J. kern
Department Supervisor

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

Client: Geocon Environmental
Attn: Mr. Joel Kloth

Client's Project: Rte 605, 8730-06-85
Date Received: 10/28/98
Date Sampled: 10/27/98
Date Digested: 10/29/98
Digestion Method: EPA 3050
Date Amended: 11/02&09/98

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix Unit	MDL	DLR	Analyst
30226-070	HA24-1	EPA 6010 (Lead)	10/29/98	8.2	Soil, mg/kg	5	5	LP
30226-070	HA24-1	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-071	HA24-2	EPA 6010 (Lead)	10/29/98	13	Soil, mg/kg	5	5	LP
30226-072	HA25-S	EPA 6010 (Lead)	11/09/98	634*	Soil, mg/kg	5	5	LP
30226-073	HA25-1	EPA 6010 (Lead)	10/29/98	9.2	Soil, mg/kg	5	5	LP
30226-074	HA25-2	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-075	HA26-S	EPA 6010 (Lead)	10/29/98	499	Soil, mg/kg	5	5	LP
30226-076	HA26-1	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-077	HA26-2	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-078	HA27-S	EPA 6010 (Lead)	11/09/98	1130*	Soil, mg/kg	5	5	LP
30226-079	HA27-1	EPA 6010 (Lead)	10/29/98	11	Soil, mg/kg	5	5	LP
30226-080	HA27-2	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-080	HA27-2	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-161	HA58-2	EPA 6010 (Lead)	10/29/98	8.4	Soil, mg/kg	5	5	LP
30226-162	HA59-S	EPA 6010 (Lead)	11/09/98	200*	Soil, mg/kg	5	5	LP

MDL = Method Detection Limit ND = Not Detected (Below DLR) DF = Dilution Factor
* = Date Digested: 11/06/98

eviewed/Approved By: David J. Kern
David J. Kern
Department Supervisor

Date: 11/9/98

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

Client: Geocon Environmental
Attn: Mr. Joel Kloth

Client's Project: RTE 605, 8730-06-85
Date Received: 10/28/98
Date Sampled: 10/27/98
Date Digested: 10/28/98
Digestion Method: EPA 3050
Date Amended: 11/02&09/98

Lab No.	Sample ID	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
30226-107	HA44-2	EPA 6010 (Lead)	10/29/98	43	Soil, mg/kg	5	5	LP
30226-108	HA45-S	EPA 6010 (Lead)	10/29/98	1350	Soil, mg/kg	5	5	LP
30226-109	HA45-1	EPA 6010 (Lead)	10/29/98	6.1	Soil, mg/kg	5	5	LP
30226-110	HA45-2	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-110D	HA45-2	EPA 6010 (Lead)	10/29/98	6.6	Soil, mg/kg	5	5	LP
30226-111	HA46-S	EPA 6010 (Lead)	10/29/98	221	Soil, mg/kg	5	5	LP
30226-112	HA46-1	EPA 6010 (Lead)	10/29/98	10	Soil, mg/kg	5	5	LP
30226-113	HA46-2	EPA 6010 (Lead)	10/29/98	21	Soil, mg/kg	5	5	LP
30226-114	HA47-S	EPA 6010 (Lead)	11/09/98	928*	Soil, mg/kg	5	5	LP
30226-115	HA47-1	EPA 6010 (Lead)	10/29/98	12	Soil, mg/kg	5	5	LP
30226-116	HA47-2	EPA 6010 (Lead)	10/29/98	9.1	Soil, mg/kg	5	5	LP
30226-117	HA48-S	EPA 6010 (Lead)	10/29/98	1810	Soil, mg/kg	5	5	LP
30226-118	HA48-1	EPA 6010 (Lead)	10/29/98	20	Soil, mg/kg	5	5	LP
30226-119	HA48-2	EPA 6010 (Lead)	10/29/98	13	Soil, mg/kg	5	5	LP
30226-120	HA49-S	EPA 6010 (Lead)	11/09/98	1210*	Soil, mg/kg	5	5	LP
30226-120D	HA49-S	EPA 6010 (Lead)	10/29/98	704	Soil, mg/kg	5	5	LP
30226-121	HA49-1	EPA 6010 (Lead)	10/29/98	6.5	Soil, mg/kg	5	5	LP
30226-122	HA49-2	EPA 6010 (Lead)	10/29/98	28	Soil, mg/kg	5	5	LP
30226-123	HA50-S	EPA 6010 (Lead)	10/29/98	1450	Soil, mg/kg	5	5	LP
30226-124	HA50-1	EPA 6010 (Lead)	10/29/98	59	Soil, mg/kg	5	5	LP
30226-125	HA50-2	EPA 6010 (Lead)	10/29/98	45	Soil, mg/kg	5	5	LP
30226-126	HA51-S	EPA 6010 (Lead)	10/29/98	3850	Soil, mg/kg	5	5	LP
30226-127	HA51-1	EPA 6010 (Lead)	10/29/98	19	Soil, mg/kg	5	5	LP
30226-128	HA51-2	EPA 6010 (Lead)	10/29/98	60	Soil, mg/kg	5	5	LP
30226-129	HA52-S	EPA 6010 (Lead)	10/29/98	955	Soil, mg/kg	5	5	LP
30226-130	HA52-1	EPA 6010 (Lead)	10/29/98	62	Soil, mg/kg	5	5	LP
30226-130D	HA52-1	EPA 6010 (Lead)	10/29/98	76	Soil, mg/kg	5	5	LP
30226-151	HA36-1	EPA 6010 (Lead)	10/29/98	97	Soil, mg/kg	5	5	LP
30226-152	HA36-2	EPA 6010 (Lead)	10/29/98	61	Soil, mg/kg	5	5	LP
30226-153	HA56-S	EPA 6010 (Lead)	10/29/98	685	Soil, mg/kg	5	5	LP
30226-154	HA56-1	EPA 6010 (Lead)	10/29/98	12	Soil, mg/kg	5	5	LP
30226-155	HA56-2	EPA 6010 (Lead)	10/29/98	95	Soil, mg/kg	5	5	LP

MDL = Method Detection Limit ND = Not Detected (Below DLR) DF = Dilution Factor
* = Date Digested: 11/06/98

Reviewed/Approved By: David J. Kern
Department Supervisor

Date: 11/9/98

The cover letter is an integral part of this analytical report

Client: Geocon Environmental
Attn: Mr. Joel Kloth

Client's Project: Rte 605, 08730-06-85
Date Received: 10/28/98
Date Sampled: 10/27-28/98
Date Digested: 10/29/98
Digestion Method: EPA 3050
Date Amended: 11/02&09/98

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
30226-148	HA35-1	EPA 6010 (Lead)	10/29/98	343	Soil, mg/kg	5	5	LP
30226-149	HA35-2	EPA 6010 (Lead)	10/29/98	329	Soil, mg/kg	5	5	LP
30226-150	HA36-S	EPA 6010 (Lead)	10/29/98	1640	Soil, mg/kg	5	5	LP
30226-150D	HA36-S	EPA 6010 (Lead)	10/29/98	1850	Soil, mg/kg	5	5	LP
30226-156	HA57-S	EPA 6010 (Lead)	10/29/98	1090	Soil, mg/kg	5	5	LP
30226-157	HA57-1	EPA 6010 (Lead)	10/29/98	83	Soil, mg/kg	5	5	LP
30226-158	HA57-2	EPA 6010 (Lead)	10/29/98	35	Soil, mg/kg	5	5	LP
30226-159	HA58-S	EPA 6010 (Lead)	10/29/98	405	Soil, mg/kg	5	5	LP
30226-160	HA58-1	EPA 6010 (Lead)	10/29/98	17	Soil, mg/kg	5	5	LP
30226-160D	HA58-1	EPA 6010 (Lead)	10/29/98	12	Soil, mg/kg	5	5	LP
30226-165	HA60-S	EPA 6010 (Lead)	10/29/98	2940	Soil, mg/kg	5	5	LP
30226-168	HA61-S	EPA 6010 (Lead)	10/29/98	3140	Soil, mg/kg	5	5	LP
30226-177	HA64-S	EPA 6010 (Lead)	10/29/98	1160	Soil, mg/kg	5	5	LP
30226-183	HA66-S	EPA 6010 (Lead)	10/29/98	1380	Soil, mg/kg	5	5	LP
30226-192	HA69-S	EPA 6010 (Lead)	10/29/98	1910	Soil, mg/kg	5	5	LP
30226-201	HA72-S	EPA 6010 (Lead)	10/29/98	946	Soil, mg/kg	5	5	LP
30226-202	HA72-1	EPA 6010 (Lead)	10/29/98	28	Soil, mg/kg	5	5	LP
30226-203	HA72-2	EPA 6010 (Lead)	10/29/98	35	Soil, mg/kg	5	5	LP
30226-204	HA73-S	EPA 6010 (Lead)	10/29/98	3120	Soil, mg/kg	5	5	LP
30226-205	HA73-1	EPA 6010 (Lead)	10/29/98	15	Soil, mg/kg	5	5	LP
30226-206	HA73-2	EPA 6010 (Lead)	10/29/98	22	Soil, mg/kg	5	5	LP
30226-207	HA74-S	EPA 6010 (Lead)	11/09/98	436*	Soil, mg/kg	5	5	LP
30226-208	HA74-1	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-209	HA74-2	EPA 6010 (Lead)	10/29/98	ND	Soil, mg/kg	5	5	LP
30226-210	HA37-S	EPA 6010 (Lead)	10/29/98	311	Soil, mg/kg	5	5	LP
30226-210D	HA37-S	EPA 6010 (Lead)	10/29/98	285	Soil, mg/kg	5	5	LP
30226-211	HA37-1	EPA 6010 (Lead)	10/29/98	795	Soil, mg/kg	5	5	LP
30226-212	HA37-2	EPA 6010 (Lead)	10/29/98	134	Soil, mg/kg	5	5	LP
30226-213	HA38-S	EPA 6010 (Lead)	10/29/98	5150	Soil, mg/kg	5	5	LP
30226-214	HA38-1	EPA 6010 (Lead)	10/29/98	164	Soil, mg/kg	5	5	LP
30226-215	HA38-2	EPA 6010 (Lead)	10/29/98	13	Soil, mg/kg	5	5	LP

MDL = Method Detection Limit ND = Not Detected (Below DLR) DF = Dilution Factor
* = Date Digested: 11/06/98

Reviewed/Approved By: David J. Kern
Department Supervisor

Date: 11/9/98

The cover letter is an integral part of this analytical report

Spike Recovery and RPD Summary Report

Method: EPA7420(Lead)
Analyst: DJ/OL
Data File: AAS1109-2
QA File: 8313-2

Date Analyzed: 11-09-98
Date Extracted: 11-07-98
Sample ID: SEE BELOW
Matrix: DI WATER EXTRACT
QC Batch Number PBF981109DI-1

SPL ID	UNITS	LCS Conc	LCS Rec	% Rec	METH BLANK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	MSD RESULT	%MS REC	%MSD REC	% REC Limit	RPD	RPD Limit	MDL
30226-211	mg/L	5.0	4.7	94	ND	ND	ND	0	5.0	4.2	4.4	84	88	50-150	5	50	0.15
30085-093	mg/L	5.0	4.4	88	ND	ND	ND	0	5.0	4.4	4.4	88	88	50-150	0	50	0.15

Approved by: David J. Kero
David J. Kero
Inorganics Supervisor

Date: 11/9/98

Advanced Technology Laboratories

Spike Recovery and RPD Summary Report

Method: EPA7420(Lead)
Analyst: DJ/OL
Data File: AA81109-1
QA File: 8313-1

Date Analyzed: 11-09-98
Date Extracted: 11-07-98
Sample ID: SEE BELOW
Matrix: STLC EXTRACT
QC Batch Number PBF981109ST-1

SPL ID	UNITS	LCS Conc	LCS Res	% Rec	METH BLANK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	MSD RESULT	%MS REC	%MSD REC	% REC Limit	RPD	RPD Limit	MDL
30226-147	mg/L	5.0	4.8	95	ND	26	28	7	50	66	66	80	80	50-150	0	50	0.15
30085-057	mg/L	5.0	4.9	98	ND	68	73	7	50	99	111	62	86	50-150	32	50	0.15
30085-091	mg/L	5.0	4.8	96	ND	24	26	8	5.0	28	28	80	80	50-150	0	50	0.15

Approved by: David J. Kern
David J. Kern
Inorganics Supervisor

Date: 11/9/98

Advanced Technology Laboratories

Spike Recovery and RPD Summary Report

Method: EPA7420
Analyst: DIOL
Data File: AA81105-2
QA File: 8309-2

Date Analyzed: 11-05-98
Date Extracted: 11-03-98
Sample ID: SEE BELOW
Matrix: STLC EXTRACT
QC Batch Number PBF981105ST-2

SPL ID	UNITS	LCS Conc	LCS Rec	% Rec	METH BLANK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	MSD RESULT	%MS REC	%MSD REC	% REC Limit	RPD	RPD Limit	MDL
30226-038	mg/L	5.0	5.0	100	ND	0.32	0.37	14	5.0	3.9	3.9	72	72	50-150	0	50	0.15
30226-101	mg/L	5.0	4.9	98	ND	3.6	1.2	100	5.0	7.1	7.1	70	70	50-150	0	50	0.15
30226-134	mg/L	5.0	4.8	96	ND	4.3	3.3	26	5.0	7.9	8.0	72	74	50-150	3	50	0.15
30226-153	mg/L	5.0	4.8	96	ND	63	76	19	100	140	140	77	77	50-150	0	50	0.15
30226-180	mg/L	5.0	4.9	98	ND	38	30	24	50	95	97	114	118	50-150	3	50	0.15
30226-210	mg/L	5.0	4.7	94	ND	27	27	0	50	65	65	76	76	50-150	0	50	0.15
30226-225	mg/L	5.0	4.7	94	ND	25	47	61	50	64	64	78	78	50-150	0	50	0.15
30226-243	mg/L	5.0	4.7	94	ND	4.6	4.6	0	5.0	9.6	9.6	100	100	50-150	0	50	0.15

Approved by: David J. Kern
David J. Kern
Inorganics Supervisor

Date: 11/9/98

Advanced Technology Laboratories

Spike Recovery and RPD Summary Report

Method: EPA 5010 (Lead)
Analyst: LPIOL
Data File: ICP981109-1
QA File: 8313-1

Date Analyzed: 11/9/98
Date Digested: 11/6/98
Sample ID: See below
Matrix: Soil
QAQC Batch No: ICP981109S-1

SAMPLE ID	UNITS	LCS Conc	LCS Rec	% Rec	METH BLANK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	MSD RESULT	%MS REC	%MSD REC	% REC	RPD	RPD Limit	MDL
30226-147	mg/kg	5.0	4.6	92	ND	333	259	25	250	460	550	51	87	68-106	18	20	5
30085-057	mg/kg	5.0	5.0	100	ND	567	710	6	250	874	826	83	64	68-106	6	20	5
30085-091	mg/kg	5.0	4.6	92	ND	239	236	1	250	478	432	96	77	68-106	10	20	5

Approved by: David J. Kern
David J. Kern
Inorganics Supervisor

Date: 11/9/98

Advanced Technology Laboratories

Client: Geocon Environmental
Attn: Mr. Joel Kloth

Client's Project: Rie, 605, 8730-06-85

Date Received: 10/28/98
Date Sampled: 10/27/98
Date Extracted: 11/03/98
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II)
Date Amended: 11/09/98

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix/Units	MDL	DLR	Analyst
30226-002	HA01-1	EPA 6010 (Lead)	11/05/98	6.3	STLC Extract, mg/L	0.15	0.15	DJ
30226-004	HA02-S	EPA 6010 (Lead)	11/05/98	17	STLC Extract, mg/L	0.15	0.45	DJ
30226-007	HA03-S	EPA 6010 (Lead)	11/05/98	18	STLC Extract, mg/L	0.15	0.45	DJ
30226-019	HA07-1	EPA 6010 (Lead)	11/05/98	24	STLC Extract, mg/L	0.15	0.60	DJ
30226-022	HA08-1	EPA 6010 (Lead)	11/05/98	16	STLC Extract, mg/L	0.15	0.45	DJ
30226-027	HA10-S	EPA 6010 (Lead)	11/05/98	58	STLC Extract, mg/L	0.15	0.90	DJ
30226-031	HA11-1	EPA 6010 (Lead)	11/05/98	31	STLC Extract, mg/L	0.15	0.60	DJ
30226-035	HA12-2	EPA 6010 (Lead)	11/05/98	2.1	STLC Extract, mg/L	0.15	0.15	DJ
30226-037	HA13-1	EPA 6010 (Lead)	11/05/98	7.4	STLC Extract, mg/L	0.15	0.15	DJ
30226-038	HA13-2	EPA 6010 (Lead)	11/05/98	0.32	STLC Extract, mg/L	0.15	0.15	DJ
30226-038Dup	HA13-2	EPA 6010 (Lead)	11/05/98	0.37	STLC Extract, mg/L	0.15	0.15	DJ
30226-043	HA15-1	EPA 6010 (Lead)	11/05/98	2.5	STLC Extract, mg/L	0.15	0.15	DJ
30226-048	HA17-S	EPA 6010 (Lead)	11/05/98	38	STLC Extract, mg/L	0.15	0.75	DJ
30226-051	HA18-S	EPA 7420 (Lead)	11/09/98	39	STLC Extract, mg/L	0.15	0.90	DJ
30226-057	HA20-S	EPA 6010 (Lead)	11/05/98	5.8	STLC Extract, mg/L	0.15	0.15	DJ
30226-063	HA22-S	EPA 7420 (Lead)	11/09/98	81	STLC Extract, mg/L	0.15	1.4	DJ
30226-072	HA25-S	EPA 7420 (Lead)	11/09/98	51	STLC Extract, mg/L	0.15	1.1	DJ
30226-075	HA26-S	EPA 6010 (Lead)	11/05/98	52	STLC Extract, mg/L	0.15	0.90	DJ
30226-093	HA32-S	EPA 6010 (Lead)	11/05/98	99	STLC Extract, mg/L	0.15	2.9	DJ
30226-101	HA42-2	EPA 6010 (Lead)	11/05/98	3.6	STLC Extract, mg/L	0.15	0.15	DJ
30226-101Dup	HA42-2	EPA 6010 (Lead)	11/05/98	1.2	STLC Extract, mg/L	0.15	0.15	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: David J. Kern
David J. Kern
Department Supervisor

Date: 11/9/98

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

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Mr. Joel Kloth

Client's Project: Rfe, 605, 8730-06-85

Date Received: 10/28/98
Date Sampled: 10/27-28/98
Date Extracted: 11/03/98
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II)
Date Amended: 11/09/98

Lab No.	Sample ID.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Qualyst
30226-111	HA46-S	EPA 6010 (Lead)	11/05/98	20	STLC Extract, mg/L	0.15	0.45	DJ
30226-114	HA47-S	EPA 7420 (Lead)	11/09/98	95*	STLC Extract, mg/L	0.15	1.5	DJ
30226-124	HA50-1	EPA 6010 (Lead)	11/05/98	5.3	STLC Extract, mg/L	0.15	0.15	DJ
30226-128	HA51-2	EPA 6010 (Lead)	11/05/98	2.7	STLC Extract, mg/L	0.15	0.15	DJ
30226-129	HA52-S	EPA 6010 (Lead)	11/05/98	78	STLC Extract, mg/L	0.15	2.3	DJ
30226-130	HA52-1	EPA 6010 (Lead)	11/05/98	2.8	STLC Extract, mg/L	0.15	0.15	DJ
30226-131	HA52-2	EPA 6010 (Lead)	11/05/98	2.9	STLC Extract, mg/L	0.15	0.15	DJ
30226-133	HA53-1	EPA 6010 (Lead)	11/05/98	16	STLC Extract, mg/L	0.15	0.45	DJ
30226-134	HA53-2	EPA 6010 (Lead)	11/05/98	4.3	STLC Extract, mg/L	0.15	0.15	DJ
30226-134Dup	HA53-2	EPA 6010 (Lead)	11/05/98	3.3	STLC Extract, mg/L	0.15	0.75	DJ
30226-141	HA33-S	EPA 6010 (Lead)	11/05/98	22	STLC Extract, mg/L	0.15	0.45	DJ
30226-142	HA33-1	EPA 7420 (Lead)	11/09/98	30	STLC Extract, mg/L	0.15	0.75	DJ
30226-144	HA34-S	EPA 7420 (Lead)	11/13/98	102**	STLC Extract, mg/L	0.15	3.9	DJ
30226-145	HA34-1	EPA 7420 (Lead)	11/09/98	63*	STLC Extract, mg/L	0.15	1.2	DJ
30226-147	HA35-S	EPA 7420 (Lead)	11/05/98	29	STLC Extract, mg/L	0.15	0.60	DJ
30226-147Dup	HA35-S	EPA 7420 (Lead)	11/09/98	28*	STLC Extract, mg/L	0.15	0.60	DJ
30226-148	HA35-1	EPA 6010 (Lead)	11/05/98	35	STLC Extract, mg/L	0.15	0.75	DJ
30226-149	HA35-2	EPA 6010 (Lead)	11/05/98	25	STLC Extract, mg/L	0.15	0.60	DJ
30226-151	HA36-1	EPA 6010 (Lead)	11/05/98	8.7	STLC Extract, mg/L	0.15	0.15	DJ
30226-152	HA36-2	EPA 6010 (Lead)	11/05/98	5.5	STLC Extract, mg/L	0.15	0.15	DJ
30226-153	HA56-S	EPA 6010 (Lead)	11/05/98	63	STLC Extract, mg/L	0.15	1.1	DJ
30226-153Dup	HA56-S	EPA 6010 (Lead)	11/05/98	76	STLC Extract, mg/L	0.15	2.3	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)
* = Date Extracted: 11/07/98
** = Date Extracted: 11/11/98

Reviewed/Approved By: David J. Kern
David J. Kern
Department Supervisor

Date: 11/17/98

The cover letter is an integral part of this analytical report

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Mr. Joel Kloth

Client's Project: Rfe, 605, 8730 06-85

Date Received: 10/28/98
Date Sampled: 10/27-28/98
Date Extracted: 11/03/98
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II)
Date Amended: 11/09/98

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix/Units	MDL	DLR	Analyst
30226-155	HA56-2	EPA 6010 (Lead)	11/05/98	3.9	STLC Extract, mg/L	0.15	0.15	DJ
30226-157	HA57-1	EPA 6010 (Lead)	11/05/98	4.4	STLC Extract, mg/L	0.15	0.15	DJ
30226-159	HA58 S	EPA 7420 (Lead)	11/09/98	41*	STLC Extract, mg/L	0.15	0.90	DJ
30226-162	HA59 S	EPA 7420 (Lead)	11/09/98	15*	STLC Extract, mg/L	0.15	0.45	DJ
30226-166	HA60-1	EPA 6010 (Lead)	11/05/98	7.6	STLC Extract, mg/L	0.15	0.15	DJ
30226-171	HA62-S	EPA 6010 (Lead)	11/05/98	32	STLC Extract, mg/L	0.15	0.60	DJ
30226-172	HA62-1	EPA 6010 (Lead)	11/05/98	4.2	STLC Extract, mg/L	0.15	0.15	DJ
30226-173	HA62-2	EPA 6010 (Lead)	11/05/98	2.0	STLC Extract, mg/L	0.15	0.15	DJ
30226-174	HA63-S	EPA 6010 (Lead)	11/05/98	88	STLC Extract, mg/L	0.15	2.6	DJ
30226-180	HA65-S	EPA 6010 (Lead)	11/05/98	38	STLC Extract, mg/L	0.15	0.75	DJ
30226-180Dup	HA65-S	EPA 6010 (Lead)	11/05/98	30	STLC Extract, mg/L	0.15	0.60	DJ
30226-185	HA66-2	EPA 6010 (Lead)	11/05/98	3.5	STLC Extract, mg/L	0.15	0.15	DJ
30226-186	HA67-S	EPA 6010 (Lead)	11/05/98	20	STLC Extract, mg/L	0.15	0.45	DJ
30226-187	HA67-1	EPA 6010 (Lead)	11/05/98	2.9	STLC Extract, mg/L	0.15	0.15	DJ
30226-189	HA68-S	EPA 6010 (Lead)	11/05/98	14	STLC Extract, mg/L	0.15	0.30	DJ
30226-194	HA69-2	EPA 6010 (Lead)	11/05/98	2.4	STLC Extract, mg/L	0.15	0.15	DJ
30226-195	HA70-S	EPA 6010 (Lead)	11/05/98	42	STLC Extract, mg/L	0.15	0.75	DJ
30226-198	HA71-S	EPA 6010 (Lead)	11/05/98	40	STLC Extract, mg/L	0.15	0.75	DJ
30226-201	HA72-S	EPA 7420 (Lead)	11/09/98	81*	STLC Extract, mg/L	0.15	1.4	DJ
30226-207	HA74-S	EPA 7420 (Lead)	11/09/98	39*	STLC Extract, mg/L	0.15	0.90	DJ
30226-210	HA37-S	EPA 6010 (Lead)	11/05/98	27	STLC Extract, mg/L	0.15	0.60	DJ
30226-210Dup	HA37-S	EPA 6010 (Lead)	11/05/98	27	STLC Extract, mg/L	0.15	0.60	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)
* = Date Extracted: 11/07/98

Reviewed/Approved By: David J. Kern
David J. Kern
Department Supervisor

Date: 11/9/98

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

Client: Geocon Environmental
Attn: Mr. Joel Kloth

Client's Project: Rte, 605, 8730-06-85

Date Received: 10/28/98
Date Sampled: 10/28/98
Date Extracted: 11/03/98
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II)
Date Amended: 11/09/98

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
30226-211	HA37-1	EPA 6010 (Lead)	11/05/98	79	STLC Extract, mg/L	0.15	2.4	DJ
30226-212	HA37-2	EPA 6010 (Lead)	11/05/98	5.7	STLC Extract, mg/L	0.15	0.15	DJ
30226-214	HA38-1	EPA 6010 (Lead)	11/05/98	19	STLC Extract, mg/L	0.15	0.45	DJ
30226-216	HA39-S	EPA 6010 (Lead)	11/05/98	47	STLC Extract, mg/L	0.15	0.90	DJ
30226-217	HA39-1	EPA 6010 (Lead)	11/05/98	56	STLC Extract, mg/L	0.15	0.90	DJ
30226-218	HA39-2	EPA 6010 (Lead)	11/05/98	3.6	STLC Extract, mg/L	0.15	0.15	DJ
30226-220	HA40-1	EPA 6010 (Lead)	11/05/98	34	STLC Extract, mg/L	0.15	0.75	DJ
30226-221	HA40-2	EPA 6010 (Lead)	11/05/98	2.0	STLC Extract, mg/L	0.15	0.15	DJ
30226-222	HA75-S	EPA 6010 (Lead)	11/05/98	49	STLC Extract, mg/L	0.15	0.90	DJ
30226-225	HA76-S	EPA 7420 (Lead)	11/05/98	25	STLC Extract, mg/L	0.15	0.60	DJ
30226-225Dup	HA76-S	EPA 6010 (Lead)	11/05/98	47	STLC Extract, mg/L	0.15	0.60	DJ
30226-230	HA77-2	EPA 6010 (Lead)	11/05/98	1.4	STLC Extract, mg/L	0.15	0.15	DJ
30226-231	HA78-S	EPA 6010 (Lead)	11/05/98	14	STLC Extract, mg/L	0.15	0.30	DJ
30226-232	HA78-1	EPA 6010 (Lead)	11/05/98	2.1	STLC Extract, mg/L	0.15	0.15	DJ
30226-234	HA79-S	EPA 6010 (Lead)	11/05/98	7.3	STLC Extract, mg/L	0.15	0.15	DJ
30226-237	HA80-S	EPA 7420 (Lead)	11/09/98	58*	STLC Extract, mg/L	0.15	1.2	DJ
30226-240	HA81-S	EPA 6010 (Lead)	11/05/98	25	STLC Extract, mg/L	0.15	0.60	DJ
30226-243	HA82-S	EPA 6010 (Lead)	11/05/98	4.6	STLC Extract, mg/L	0.15	0.15	DJ
30226-243Dup	HA82-S	EPA 6010 (Lead)	11/05/98	4.6	STLC Extract, mg/L	0.15	0.15	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)
* = Date Extracted: 11/07/98

Reviewed/Approved By: David J. Kern
David J. Kern
Department Supervisor

Date: 11/9/98

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

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Mr. Joel Kloth

Client's Project: Rte, 605, 8730-06-85

Date Received: 10/28/98
Date Sampled: 10/28/98
Date Extracted: 11/07/98
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II) Modified

Lab No.	Sample ID	Analysis	Date Analyzed	Results	Matrix Units	MDL	DLR	Analyst
30226-002	HA01-1	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-027	HA10-S	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-057	HA20-S	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-093	HA32-S	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-129	HA52-S	EPA 7420 (Lead)	11/09/98	1.1	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-147	HA35-S	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-153	HA56-S	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-174	HA63-S	EPA 7420 (Lead)	11/09/98	1.6	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-195	HA70-S	EPA 7420 (Lead)	11/09/98	0.23	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-211	HA37-1	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-211Dup	HA37-1	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-220	HA40-1	EPA 7420 (Lead)	11/09/98	0.17	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-234	HA79-S	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: David J. Kern
David J. Kern
Department Supervisor

Date: 11/9/98

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

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Mr. Joel Kloth

Client's Project: Rte, 605, 8730-06-85

Date Received: 10/28/98
Date Sampled: 10/27/98
Date Extracted: 11/03/98
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II)
Date Amended: 11/09/98

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Qualifier
30226-002	HA01-1	EPA 6010 (Lead)	11/05/98	6.3	STLC Extract, mg/L	0.15	0.15	DJ
30226-004	HA02-S	EPA 6010 (Lead)	11/05/98	17	STLC Extract, mg/L	0.15	0.45	DJ
30226-007	HA03-S	EPA 6010 (Lead)	11/05/98	18	STLC Extract, mg/L	0.15	0.45	DJ
30226-019	HA07-1	EPA 6010 (Lead)	11/05/98	24	STLC Extract, mg/L	0.15	0.60	DJ
30226-022	HA08-1	EPA 6010 (Lead)	11/05/98	16	STLC Extract, mg/L	0.15	0.45	DJ
30226-027	HA10-S	EPA 6010 (Lead)	11/05/98	58	STLC Extract, mg/L	0.15	0.90	DJ
30226-031	HA11-1	EPA 6010 (Lead)	11/05/98	31	STLC Extract, mg/L	0.15	0.60	DJ
30226-035	HA12-2	EPA 6010 (Lead)	11/05/98	2.1	STLC Extract, mg/L	0.15	0.15	DJ
30226-037	HA13-1	EPA 6010 (Lead)	11/05/98	7.4	STLC Extract, mg/L	0.15	0.15	DJ
30226-038	HA13-2	EPA 6010 (Lead)	11/05/98	0.32	STLC Extract, mg/L	0.15	0.15	DJ
30226-038Dup	HA13-2	EPA 6010 (Lead)	11/05/98	0.37	STLC Extract, mg/L	0.15	0.15	DJ
30226-043	HA15-1	EPA 6010 (Lead)	11/05/98	2.5	STLC Extract, mg/L	0.15	0.15	DJ
30226-048	HA17-S	EPA 6010 (Lead)	11/05/98	38	STLC Extract, mg/L	0.15	0.75	DJ
30226-051	HA18-S	EPA 7420 (Lead)	11/09/98	39	STLC Extract, mg/L	0.15	0.90	DJ
30226-057	HA20-S	EPA 6010 (Lead)	11/05/98	5.8	STLC Extract, mg/L	0.15	0.15	DJ
30226-063	HA22-S	EPA 7420 (Lead)	11/09/98	81	STLC Extract, mg/L	0.15	1.4	DJ
30226-072	HA25-S	EPA 7420 (Lead)	11/09/98	51	STLC Extract, mg/L	0.15	1.1	DJ
30226-075	HA26-S	EPA 6010 (Lead)	11/05/98	52	STLC Extract, mg/L	0.15	0.90	DJ
30226-093	HA32-S	EPA 6010 (Lead)	11/05/98	99	STLC Extract, mg/L	0.15	2.9	DJ
30226-101	HA42-2	EPA 6010 (Lead)	11/05/98	3.6	STLC Extract, mg/L	0.15	0.15	DJ
30226-101Dup	HA42-2	EPA 6010 (Lead)	11/05/98	1.2	STLC Extract, mg/L	0.15	0.15	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: David J. Kern
David J. Kern
Department Supervisor

Date: 11/9/98

The cover letter is an integral part of this analytical report

Client: Geocon Environmental
Attn: Mr. Joel Kloth

Client's Project: Rte, 605, 8730-06-85

Date Received: 10/28/98
Date Sampled: 10/27-28/98
Date Extracted: 11/03/98
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II)
Date Amended: 11/09/98

Lab No.	Sample ID	Analysis	Date Analyzed	Result	Matrix/Units	MDL	DLR	Analyst
30226-111	HA46-S	EPA 6010 (Lead)	11/05/98	20	STLC Extract, mg/L	0.15	0.45	DJ
30226-114	HA47-S	EPA 7420 (Lead)	11/09/98	95*	STLC Extract, mg/L	0.15	1.5	DJ
30226-124	HA50-1	EPA 6010 (Lead)	11/05/98	5.3	STLC Extract, mg/L	0.15	0.15	DJ
30226-128	HA51-2	EPA 6010 (Lead)	11/05/98	2.7	STLC Extract, mg/L	0.15	0.15	DJ
30226-129	HA52-S	EPA 6010 (Lead)	11/05/98	78	STLC Extract, mg/L	0.15	2.3	DJ
30226-130	HA52-1	EPA 6010 (Lead)	11/05/98	2.8	STLC Extract, mg/L	0.15	0.15	DJ
30226-131	HA52-2	EPA 6010 (Lead)	11/05/98	2.9	STLC Extract, mg/L	0.15	0.15	DJ
30226-133	HA53-1	EPA 6010 (Lead)	11/05/98	16	STLC Extract, mg/L	0.15	0.45	DJ
30226-134	HA53-2	EPA 6010 (Lead)	11/05/98	4.3	STLC Extract, mg/L	0.15	0.15	DJ
30226-134Dup	HA53-2	EPA 6010 (Lead)	11/05/98	3.3	STLC Extract, mg/L	0.15	0.75	DJ
30226-141	HA33-S	EPA 6010 (Lead)	11/05/98	22	STLC Extract, mg/L	0.15	0.45	DJ
30226-142	HA33-1	EPA 7420 (Lead)	11/09/98	30	STLC Extract, mg/L	0.15	0.75	DJ
30226-144	HA34-S	EPA 7420 (Lead)	11/13/98	102**	STLC Extract, mg/L	0.15	3.9	DJ
30226-145	HA34-1	EPA 7420 (Lead)	11/09/98	63*	STLC Extract, mg/L	0.15	1.2	DJ
30226-147	HA35-S	EPA 7420 (Lead)	11/05/98	29	STLC Extract, mg/L	0.15	0.60	DJ
30226-147Dup	HA35-S	EPA 7420 (Lead)	11/09/98	28*	STLC Extract, mg/L	0.15	0.60	DJ
30226-148	HA35-1	EPA 6010 (Lead)	11/05/98	35	STLC Extract, mg/L	0.15	0.75	DJ
30226-149	HA35-2	EPA 6010 (Lead)	11/05/98	25	STLC Extract, mg/L	0.15	0.60	DJ
30226-151	HA36-1	EPA 6010 (Lead)	11/05/98	8.7	STLC Extract, mg/L	0.15	0.15	DJ
30226-152	HA36-2	EPA 6010 (Lead)	11/05/98	5.5	STLC Extract, mg/L	0.15	0.15	DJ
30226-153	HA56-S	EPA 6010 (Lead)	11/05/98	63	STLC Extract, mg/L	0.15	1.1	DJ
30226-153Dup	HA56-S	EPA 6010 (Lead)	11/05/98	76	STLC Extract, mg/L	0.15	2.3	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)
* = Date Extracted: 11/07/98
** = Date Extracted: 11/11/98

Reviewed/Approved By: David J. Kern
David J. Kern
Department Supervisor

Date: 11/17/98

The cover letter is an integral part of this analytical report

Client: Geocon Environmental
Attn: Mr. Joel Kloth

Client's Project: Rte, 605, 8730-06 85

Date Received: 10/28/98
Date Sampled: 10/27-28/98
Date Extracted: 11/03/98
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II)
Date Amended: 11/09/98

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix Units	MDL	DLR	Analyst
30226-155	HA56-2	EPA 6010 (Lead)	11/05/98	3.9	STLC Extract, mg/L	0.15	0.15	DJ
30226-157	HA57-1	EPA 6010 (Lead)	11/05/98	4.4	STLC Extract, mg/L	0.15	0.15	DJ
30226-159	HA58 S	EPA 7420 (Lead)	11/09/98	41*	STLC Extract, mg/L	0.15	0.90	DJ
30226-162	HA59-S	EPA 7420 (Lead)	11/09/98	15*	STLC Extract, mg/L	0.15	0.45	DJ
30226-166	HA60-1	EPA 6010 (Lead)	11/05/98	7.6	STLC Extract, mg/L	0.15	0.15	DJ
30226-171	HA62-S	EPA 6010 (Lead)	11/05/98	32	STLC Extract, mg/L	0.15	0.60	DJ
30226-172	HA62-1	EPA 6010 (Lead)	11/05/98	4.2	STLC Extract, mg/L	0.15	0.15	DJ
30226-173	HA62-2	EPA 6010 (Lead)	11/05/98	2.0	STLC Extract, mg/L	0.15	0.15	DJ
30226-174	HA63-S	EPA 6010 (Lead)	11/05/98	88	STLC Extract, mg/L	0.15	2.6	DJ
30226-180	HA65-S	EPA 6010 (Lead)	11/05/98	38	STLC Extract, mg/L	0.15	0.75	DJ
30226-180Dup	HA65-S	EPA 6010 (Lead)	11/05/98	30	STLC Extract, mg/L	0.15	0.60	DJ
30226-185	HA66-2	EPA 6010 (Lead)	11/05/98	3.5	STLC Extract, mg/L	0.15	0.15	DJ
30226-186	HA67-S	EPA 6010 (Lead)	11/05/98	20	STLC Extract, mg/L	0.15	0.45	DJ
30226-187	HA67-1	EPA 6010 (Lead)	11/05/98	2.9	STLC Extract, mg/L	0.15	0.15	DJ
30226-189	HA68-S	EPA 6010 (Lead)	11/05/98	14	STLC Extract, mg/L	0.15	0.30	DJ
30226-194	HA69-2	EPA 6010 (Lead)	11/05/98	2.4	STLC Extract, mg/L	0.15	0.15	DJ
30226-195	HA70-S	EPA 6010 (Lead)	11/05/98	42	STLC Extract, mg/L	0.15	0.75	DJ
30226-198	HA71-S	EPA 6010 (Lead)	11/05/98	40	STLC Extract, mg/L	0.15	0.75	DJ
30226-201	HA72-S	EPA 7420 (Lead)	11/09/98	81*	STLC Extract, mg/L	0.15	1.4	DJ
30226-207	HA74 S	EPA 7420 (Lead)	11/09/98	39*	STLC Extract, mg/L	0.15	0.90	DJ
30226-210	HA37-S	EPA 6010 (Lead)	11/05/98	27	STLC Extract, mg/L	0.15	0.60	DJ
30226-210Dup	HA37-S	EPA 6010 (Lead)	11/05/98	27	STLC Extract, mg/L	0.15	0.60	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)
* = Date Extracted: 11/07/98

Reviewed/Approved By: David J. Kern
Department Supervisor

Date: 11/9/98

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

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Mr. Joel Kloth

Client's Project: Rte, 605, 8730-06-85

Date Received: 10/28/98
Date Sampled: 10/28/98
Date Extracted: 11/03/98
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II)
Date Amended: 11/09/98

Lab No.	Sample ID	Analyte	Date Analyzed	Results	Matrix/Units	MDL	DLR	Qualifier
30226-211	HA37-1	EPA 6010 (Lead)	11/05/98	79	STLC Extract, mg/L	0.15	2.4	DJ
30226-212	HA37-2	EPA 6010 (Lead)	11/05/98	5.7	STLC Extract, mg/L	0.15	0.15	DJ
30226-214	HA38-1	EPA 6010 (Lead)	11/05/98	19	STLC Extract, mg/L	0.15	0.45	DJ
30226-216	HA39-S	EPA 6010 (Lead)	11/05/98	47	STLC Extract, mg/L	0.15	0.90	DJ
30226-217	HA39-1	EPA 6010 (Lead)	11/05/98	56	STLC Extract, mg/L	0.15	0.90	DJ
30226-218	HA39-2	EPA 6010 (Lead)	11/05/98	3.6	STLC Extract, mg/L	0.15	0.15	DJ
30226-220	HA40-1	EPA 6010 (Lead)	11/05/98	34	STLC Extract, mg/L	0.15	0.75	DJ
30226-221	HA40-2	EPA 6010 (Lead)	11/05/98	2.0	STLC Extract, mg/L	0.15	0.15	DJ
30226-222	HA75-S	EPA 6010 (Lead)	11/05/98	49	STLC Extract, mg/L	0.15	0.90	DJ
30226-225	HA76-S	EPA 7420 (Lead)	11/05/98	25	STLC Extract, mg/L	0.15	0.60	DJ
30226-225Dup	HA76-S	EPA 6010 (Lead)	11/05/98	47	STLC Extract, mg/L	0.15	0.60	DJ
30226-230	HA77-2	EPA 6010 (Lead)	11/05/98	1.4	STLC Extract, mg/L	0.15	0.15	DJ
30226-231	HA78-S	EPA 6010 (Lead)	11/05/98	14	STLC Extract, mg/L	0.15	0.30	DJ
30226-232	HA78-1	EPA 6010 (Lead)	11/05/98	2.1	STLC Extract, mg/L	0.15	0.15	DJ
30226-234	HA79-S	EPA 6010 (Lead)	11/05/98	7.3	STLC Extract, mg/L	0.15	0.15	DJ
30226-237	HA80-S	EPA 7420 (Lead)	11/09/98	58*	STLC Extract, mg/L	0.15	1.2	DJ
30226-240	HA81-S	EPA 6010 (Lead)	11/05/98	25	STLC Extract, mg/L	0.15	0.60	DJ
30226-243	HA82-S	EPA 6010 (Lead)	11/05/98	4.6	STLC Extract, mg/L	0.15	0.15	DJ
30226-243Dup	HA82-S	EPA 6010 (Lead)	11/05/98	4.6	STLC Extract, mg/L	0.15	0.15	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)
* -- Date Extracted: 11/07/98

Reviewed/Approved By: David J. Kern
David J. Kern
Department Supervisor

Date: 11/9/98

The cover letter is an integral part of the analytical report.

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Mr. Joel Kloth

Client's Project: Rte, 605, 8730-06-85

Date Received: 10/28/98
Date Sampled: 10/28/98
Date Extracted: 11/07/98
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II) Modified

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
30226-002	HA01-1	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-027	HA10-S	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-057	HA20-S	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-093	HA32-S	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-129	HA52-S	EPA 7420 (Lead)	11/09/98	1.1	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-147	HA35-S	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-153	HA56-S	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-174	HA63-S	EPA 7420 (Lead)	11/09/98	1.6	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-195	HA70-S	EPA 7420 (Lead)	11/09/98	0.23	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-211	HA37-1	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-211Dup	HA37-1	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-220	HA40-1	EPA 7420 (Lead)	11/09/98	0.17	STLC DI Extract, mg/L	0.15	0.15	DJ
30226-234	HA79-S	EPA 7420 (Lead)	11/09/98	ND	STLC DI Extract, mg/L	0.15	0.15	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: David J. Kern
David J. Kern
Department Supervisor

Date: 11/9/98

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

CHAIN OF CUSTODY RECORD

Pg 1 of 2

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: _____ D.O. # _____
P.O.#: _____
Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Joel Kloth
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: Rte 1005 Project #: 8730-010-85 Sampler: (Printed Name) Bernie Hines (Signature) Bernie Hines

Relinquished by: (Signature and Printed Name) Bernie Hines Date: 10/28 Time: 12:15 Received by: (Signature and Printed Name) [signature] Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) _____
TEST: _____
ATL #: _____
DATE: _____
CLIENT I.D. _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Bernie Hines Date: 10/27/98
Print Name
Bernie Hines
Signature

Send Report To:
Attn: _____
Co: SAME
Address: _____
City _____ State _____ Zip _____

Special Instructions/Comments:
Analyze samples with Total Lead concentrations 50ppm > 1000ppm via WET. Analyze 20% or a minimum of 4 of samples with WET results greater than 5mg/l via WET DI.

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals-Total (CAC-6010/7000); FLD

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

PRESERVATION: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	601/8010	602/8020/BTEX	608/8080	624/8240	8260	625/8270	8015M TPHG/BTEX	8015M TPH/D	418.1	Metals-Total	FLD	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA01-S	10/27	8:43										X		X							EC	1	J G		
		HA01-1	↓	8:44										↓		↓							↓	↓	↓ ↓		
		HA01-2		8:45																							
		HA02-S		8:47																							
		HA02-1		8:48																							
		HA02-2		8:49																							
		HA03-S		8:52																							
		HA03-2		8:53																							
		HA04-S		8:57																							
		HA04-1	↓	8:58																							

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg ___ of ___

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: ___ D.O. # ___
P.O.#: ___
Logged By: ___ Date: ___ Time: ___

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Joel Kloth
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: Route 605 Project #: 08730-06-85 Sampler: (Printed Name) Mark Wanek (Signature) Mark Wanek

Relinquished by: (Signature and Printed Name) Mark Wanek Date: 10/27/98 Time:
Received by: (Signature and Printed Name) [illegible] Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) ___
TEST: ___
ATL #: ___
DATE: ___
CLIENT I.D. ___

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Mark Wanek Date: 10/27/98
Print Name
Signature: Mark Wanek

Send Report To:
Attn: ___
Co: Same
Address ___
City ___ State ___ Zip ___

Special Instructions/Comments: See pg 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ___
☐ Return To: ___

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals Total (CAC-6010/7000)

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☑ OTHER ___

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	601/8010	602/8020/BTEX	608/8080	624/8240	8260	625/8270	8015M TPHG/BTEX	8015M TPH/D	418.1	Metals Total	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA04-2	10/27	8:59										X			X						C	1	J	G	
		HAC5-S		9:02																						
		HAC5-1		9:03																						
		HAC5-2		9:04																						
		HAC4-S		9:07																						
		HAC6-1		9:10																						
		HAC6-2		9:11																						
		HA07-S		9:16																						
		HA07-1		9:17																						
		HA07-2		9:18																						

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg ___ of ___

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: ___ D.O. # ___
P.O.#: ___
Logged By: ___ Date: ___ Time: ___

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Jeel Kleth
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: Rte 60S Project #: 8730-010-840
Sampler: (Printed Name) Renee Hines (Signature) Renee Hines

Relinquished by: (Signature and Printed Name) [illegible] Date: [illegible] Time: Received by: (Signature and Printed Name) [illegible] Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) ___
TEST: ___
ATL #: ___
DATE: ___
CLIENT I.D. ___

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Renee Hines Date: 10/27/98
Print Name
Renee Hines
Signature

Send Report To:
Attn: ___
Co: AME
Address ___
City ___ State ___ Zip ___

Special Instructions/Comments: See pg. 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ___
☐ Return To: ___
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPH/GBTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals Total (CAC-6010/7000) Pb

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER ___

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	601/8010	602/8020/BTEX	608/8080	624/8240	8260	625/8270	8015M TPH/GBTEX	8015M TPH/D	418.1	Metals			SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA08-S	10/27	9:22										X			X							C	1	J G		
		HA08-1		9:23																								
		HA08-2		9:24																								
		HA09-S		9:28																								
		HA09-1		9:29																								
		HA09-2		9:31																								
		HA10-S		9:32																								
		HA10-1		9:34																								
		HA10-2		9:36																								
		HA11-S		9:43																								

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 1 of 2

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: _____ D.O. # _____
P.O.#: _____
Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Joel Klath
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: Kelers Project #: 08730-06-85 Sampler: (Printed Name) Mark Wanek (Signature) Mark Wanek

Relinquished by: (Signature and Printed Name) Mark Wanek Date: Time:
Received by: (Signature and Printed Name) [signature] Date: 10/28/98 Time: 12:15

Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:

Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB:
(SUB CONTRACT) _____
TEST: _____
ATL #: _____
DATE: _____
CLIENT I.D. _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Mark Wanek Date: 10/27/98
Print Name
Signature

Send Report To:
Attn: ~~Same~~
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments: See page 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPHD (Diesel-GC); 418.1 (TPH-IR); Metals-Total (CAC-6010/7000) Pb

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	601/8010	602/8020/BTEX	608/8080	624/8240	8260	625/8270	8015M TPHG/BTEX	8015M TPHD	418.1	Metals-Total Pb	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA11-1	10/27	9:49										X				X					C	1	I G	
		HA11-2		9:51																						
		HA12-S		9:53																						
		HA12-1		9:57																						
		HA12-2		9:55																						
		HA13-S		9:59																						
		HA13-1		10:01																						
		HA13-2		10:02																						
		HA14-S		10:05																						
		HA14-1		10:07																						

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg ___ of ___

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: ___ D.O. # ___
P.O.#: ___
Logged By: ___ Date: ___ Time: ___

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Tom Hall
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: [illegible] Project #: [illegible]
Sampler: (Printed Name) Mark Wright (Signature) [signature]

Relinquished by: (Signature and Printed Name) [signature] Date: Time: Received by: (Signature and Printed Name) [signature] Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB:
(SUB CONTRACT) ___
TEST: ___
ATL #: ___
DATE: ___
CLIENT I.D. ___

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Mark Wright Date: [illegible]
Print Name
[signature]
Signature

Send Report To:
Attn: ___
Co: ___
Address ___
City ___ State ___ Zip ___

Special Instructions/Comments: See pg 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ___
☐ Return To: ___
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals-Total (CAC-6010/7000)

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☑ OTHER ___

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	601/8010	602/8020	608/8080	624/8240	8260	625/8270	8015M TPHG/BTEX	8015M TPH/D	418.1	Metals	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA14-2	11/7	10:08									X		X							C	1	J G		
		HA15-5		10:11																						
		HA15-1		10:12																						
		HA15-2		10:13																						
		HA16-5		1017																						
		HA16-1		1019																						
		HA16 2		1020																						
		HA17-5		1022																						
		HA17-1		1023																						
		HA17 2		1024																						

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 2 of 2

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: _____ D.O. # _____
P.O.#: _____
Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Joel Klotz
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: Kle 1005 Project #: 8730-06-85 Sampler: (Printed Name) Renae Hines (Signature) Renae Hines

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) _____
TEST: _____
ATL #: _____
DATE: _____
CLIENT I.D. _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Renae Hines Date: 10/27/98
Print Name
Renae Hines
Signature

Send Report To:
Attn: _____
Co: SAME
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments: See page 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals-Total (CAC-6010/7000) Pb

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

Q A / Q C: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	Metals-Total (CAC-6010/7000) Pb	SOLID • SOIL • SLUDGE	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA18-S	10/27	10:33	X	X	C	1	JG		
		HA18-1		10:35							
		HA18-2		10:36							
		HA19-S		10:40							
		HA19-1		10:41							
		HA19-2		10:42							
		HA20-S		10:45							
		HA20-1		10:47							
		HA20-2		10:49							
		HA21-S		10:51							

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 1 of 1

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: _____ D.O. # _____
P.O.#: _____
Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: JOEL RUTH
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: RIE 1605 Project #: 08730-06-85 Sampler: (Printed Name) Renee Hines (Signature) Renee Hines

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
				10/28/98	12:15

SHIP TO LAB: (SUB CONTRACT) _____
TEST: _____
ATL #: _____
DATE: _____
CLIENT I.D. _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Renee Hines Date: 10/27/98
Print Name
Signature: Renee Hines

Send Report To:
Attn: _____
Co: SAME
Address: _____
City _____ State _____ Zip _____

Special Instructions/Comments: SEE PAGE 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals: Total/CAC-6010/7000; 1-12

CIRCLE APPROPRIATE MATRIX: SOLID • (SOIL) SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

Q A / Q C: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☑ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	601/8010	602/8020/BTEX	608/8080	624/8240	8260	625/8270	8015M TPHG/BTEX	8015M TPH/D	418.1	Metals	1-12	SOLID • (SOIL) SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA21-1	10/27	10:52										X				X					C	1	JG		
		HA21-2		10:54																							
		HA22-5		10:55																							
		HA22-1		10:57																							
		HA22-2		10:58																							
		HA23-5		11:05																							
		HA23-1		11:07																							
		HA23-2		11:08																							
		HA24-5		11:15																							
		HA24-1		11:15																							

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 1 of 2

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: _____ D.O. # _____
P.O.#: _____
Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: T. Kirk
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: Hi 605 Project #: [illegible] Sampler: (Printed Name) [illegible] (Signature) [illegible]

Relinquished by: (Signature and Printed Name) [illegible] Date: [illegible] Time: Received by: (Signature and Printed Name) [illegible] Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) _____
TEST: _____
ATL #: _____
DATE: _____
CLIENT I.D. _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Mark Wanek Date: 10/27/98
Print Name
Signature: Mark Wanek

Send Report To:
Attn: _____
Co: SAME
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments: See PAGE 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals: Total (CAC-6010/7000)

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	601/8010	602/8020/BTEX	608/8080	624/8240	8260	625/8270	8015M TPHG/BTEX	8015M TPH/D	418.1	Metals	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Type	PRESERVATION	REMARKS
		HA24-2	27	11:17										✓	X							C	1	J G		
		HA25-S	↓	11:23										↓	↓							↓				
		HA25-1		11:25																						
		HA25-2		11:26																						
		HA26-S		11:29																						
		HA26-1		11:31																						
		HA26-2		11:33																						
		HA27-S		11:34																						
		HA27-1		11:35																						
		HA27-2		11:36																						

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=HCl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg ___ of ___

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: ___ D.O. # ___
P.O.#: ___
Logged By: ___ Date: ___ Time: ___

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Jeff Hall
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: RL 1-05 Project #: 08730-11-05 Sampler: (Printed Name) Mark Wanek (Signature) Mark Wanek

Relinquished by: (Signature and Printed Name) Mark Wanek Date: Time: Received by: (Signature and Printed Name) Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) ___
TEST: ___
ATL #: ___
DATE: ___
CLIENT I.D. ___

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Mark Wanek Date: 10/27/98
Print Name
Signature: Mark Wanek

Send Report To:
Attn: ___
Co: ___
Address ___
City ___ State ___ Zip ___

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ___
☐ Return To: ___

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested

CIRCLE APPROPRIATE MATRIX

Q A / Q C: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☑ OTHER ___

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	601/8010 (Halogenated Volatiles-GC)	602/8020/BTEX (Aromatic Volatiles-GC)	608/8080 (Pesticides/PCB-GC)	624/8240 (Volatiles-GC/MS)	8260 (Volatiles-GC/MS)	625/8270 (BNA-GC/MS)	8015M TPHG/BTEX(COMBINATION)	8015M TPH/D (Diesel-GC)	418.1 (TPH-IR)	Metals Total (CAC-6010/7000)				SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA28-S	10/27	1159									X					X							C	1	J G		
		HA28-1		102																									
		HA28-2		104																									
		HA28-[illegible]		107																									
		HA[illegible]		110																									
		HA29-2		111																									
		HA30-S		121																									
		HA30-1		123																									
		HA30-2		126																									
		HA31-S		1:39																									

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 1 of 1

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: _____ D.O. # _____
P.O.#: _____
Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Joel Klotn
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: Ple 1015
Project #: 08130-06-085
Sampler: (Printed Name) Bernie Hines (Signature) Kenae Hines

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) _____
TEST: _____
ATL #: _____
DATE: _____
CLIENT I.D. _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Kenae Hines (Print Name) Date: 10/27/98
Signature: Kenae Hines

Send Report To:
Attn: _____
Co: SAME
Address: _____
City _____ State _____ Zip _____

Special Instructions/Comments: See PAGE 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals Total (CAC-6010/7000); TB

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	601/8010	602/8020/BTEX	608/8080	624/8240	8260	625/8270	8015M TPHG/BTEX	8015M TPH/D	418.1	Metals Total	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA31-1	10/27	1:30									X		X							C	1	J G		
		HA31-2		1:32																						
		HA32-5		1:45																						
		HA32-1		1:47																						
		HA32-2		1:49																						
		HA41-5		1:53																						
		HA41-1		1:55																						
		HA41-2		1:56																						
		HA42-5		1:58																						
		HA42-1		1:59																						

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: _____ D.O. # _____
P.O.#: _____
Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: JOEL KLOTH
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: Project #: 87130-06-85 Sampler: (Printed Name) Renae Hines (Signature) Renae Hines

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: 10/29/98 Time: 1215
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) _____
TEST: _____
ATL #: _____
DATE: _____
CLIENT I.D. _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Renae Hines (Print Name) Date: 10/29/98
Renae Hines (Signature)

Send Report To:
Attn: _____
Co: SAME
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments: See page 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015/M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals-Total (CAC-6010/7000) Pb

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	Pb	SOIL	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA42-2	10/27	2:01	X	X	C	1	J G		
		HA43-S		2:04							
		HA43-1		2:06							
		HA43-2		2:09							
		HA44-S		2:11							
		HA44-1		2:14							
		HA44-2		2:15							
		HA45-S		2:20							
		HA45-1		2:21							
		HA45-2		2:23							

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg ___ of 5

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: ____ D.O. # ____
P.O.#: ____
Logged By: ____ Date: ____ Time: ____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Todd Wahl
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: HA 605 Project #: 01130-05-05 Sampler: (Printed Name) Mark Wanek (Signature)

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: 10/28/98 Time: 1:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) ____
TEST: ____
ATL #: ____
DATE: ____
CLIENT I.D. ____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Mark Wanek Date: 10/27/98
Print Name
Signature

Send Report To:
Attn: ____
Co: ____
Address ____
City ____ State ____ Zip ____

Special Instructions/Comments: See Pg 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ____
☐ Return To: ____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals-Total (CAC-6010/7000)

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☑ OTHER ____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	601/8010	602/8020/BTEX	608/8080	624/8240	8260	625/8270	8015M TPHG/BTEX	8015M TPH/D	418.1	Metals-Total	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA46-S	10/27	2:29									X				X						C	1	J	
		HA46-1		2:31																						
		HA46-2		2:32																						
		HA47-S		2:35																						
		HA47-1		2:37																						
		HA47-2		2:38																						
		HA48-S		2:41																						
		HA48-1		2:43																						
		HA48-2		2:45																						
		HA49-S		2:49																						

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg ____ of ____

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: ____ D.O. # ____
P.O.#: ____
Logged By: ____ Date: ____ Time: ____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP: ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: JOEL KLOTH
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: RTE 1005 Project #: 8730-06-85 Sampler: (Printed Name) Renae Hines (Signature) Renae Hines

Relinquished by: (Signature and Printed Name) [illegible] Date: 10/27 Time: Received by: (Signature and Printed Name) [illegible] Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) ____
TEST: ____
ATL #: ____
DATE: ____
CLIENT I.D. ____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Renae Hines Date: 10/27/98
Print Name
Renae Hines
Signature

Send Report To:
Attn: ____
Co: SAME
Address ____
City ____ State ____ Zip ____

Special Instructions/Comments: See page 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ____
☐ Return To: ____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPHD (Diesel-GC); 418.1 (TPH-IR); Metals Total (CAC-6010/7000); PO

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER ____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	Metals Total	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA 49-1	10/27	2:54	X	C	1	JG		
		HA 49-2		2:53						
		HA 50.5		2:57						
		HA 50.1		2:59						
		HA 50-2		3:01						
		HA 51.5		3:07						
		HA 51.1		3:10						
		HA 51-2		3:13						
		HA52-5		3:121						
		HA52-1		3:116						

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg ___ of ___

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: ____ D.O. # ____
P.O.#: ____
Logged By: ____ Date: ____ Time: ____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: [illegible]
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: Kfc 605 Project #: 07730-06-[illegible]
Sampler: (Printed Name) Mark Wanek (Signature) [illegible]

Relinquished by: (Signature and Printed Name) [illegible] Date: Time: Received by: (Signature and Printed Name) [illegible] Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) ____
TEST: ____
ATL #: ____
DATE: ____
CLIENT I.D. ____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Mark Wanek Date: 10/27/98
Print Name: Mark Wanek
Signature

Send Report To:
Attn: ____
Co: ____
Address ____
City ____ State ____ Zip ____

Special Instructions/Comments: See Pg. 2

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ____
☐ Return To: ____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals: Total (CAC-6010/7000); 75

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☑ OTHER ____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	601/8010	602/8020/BTEX	608/8080	624/8240	8260	625/8270	8015M TPHG/BTEX	8015M TPH/D	418.1	Metals	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Type	PRESERVATION	REMARKS
		HA52-2	11/17	3:18										X			X						C	1	J/G		
		HA53-S		3:19																							
		HA53-1		3:20																							
		HA53-2		3:21																							
		HA54-S		3:34																							
		HA54-1		3:36																							
		HA54-2		3:38																							
		HA55-S		3:41																							
		HA55-1		3:42																							
		HA55-2		3:44																							

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg ___ of ___

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: ___ D.O. # ___
P.O.#: ___
Logged By: ___ Date: ___ Time: ___

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: JOEL KLOTH
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: KTE 16095 Project #: 8730-06-85 Sampler: (Printed Name) Renae Hines (Signature) Renae Hines

Relinquished by: (Signature and Printed Name) Renae Hines Date: Time: Received by: (Signature and Printed Name) [signature] Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB:
(SUB CONTRACT) ___
TEST: ___
ATL #: ___
DATE: ___
CLIENT I.D. ___

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Renae Hines Date: 10/27/98
Print Name
Renae Hines
Signature

Send Report To:
Attn: ___
Co: SAME
Address ___
City ___ State ___ Zip ___

Special Instructions/Comments: "C" page 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ___
☐ Return To: ___
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals-Total (CAC-6010/7000) Pb

CIRCLE APPROPRIATE MATRIX: SOLID (SOIL) • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER ___

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	601/8010	602/8020	608/8080	624/8240	8260	625/8270	8015M TPHG/BTEX	8015M TPH/D	418.1	Metals-Total (Pb)			SOLID (SOIL) • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA33-5	10/27	3:55									X				X							C	1	J G		
		HA33-1		3:57																								
		HA33-2		3:59																								
		HA34-5		4:01																								
		HA34-1		4:02																								
		HA34-2		4:03																								
		HA35-5		4:07																								
		HA35-1		4:08																								
		HA35-2		4:09																								
		HA36-5		4:11																								

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg ___ of ___

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: ___ D.O. #: ___
P.O.#: ___
Logged By: ___ Date: ___ Time: ___

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Joel Kloth
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: RTE 605 Project #: 8730-06-05
Sampler: (Printed Name) Renae Hines (Signature)

Relinquished by: (Signature and Printed Name) Renae Hines Date: Time:
Received by: (Signature and Printed Name) Date: 10/28/08 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) ___
TEST: ___
ATL #: ___
DATE: ___
CLIENT I.D. ___

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Renae Hines Date: 10/28/08
Print Name
Signature

Send Report To:
Attn: ___
Co: SAME
Address: ___
City ___ State ___ Zip ___

Special Instructions/Comments: See page 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ___
☐ Return To: ___

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 CTPH-IR; Metals Total (CAC-6010/7000); Pb

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☑ OTHER ___

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	Metals Total	SOLID • SOIL • SLUDGE	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA36-1	10/27	4:12	X	X	C	1	5		
		HA36-2	10/27	4:13							
		HA56-S	10/28	8:25							
		HA56-1	10/28	8:27							
		HA56-2	10/28	8:29							
		HA57-S	10/28	8:32							
		HA57-1	10/28	8:33							
		HA57-2	10/28	8:35							
		HA58-S	10/28	8:36							
		HA58-1	10/28	8:37							

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 1 of 2

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: _____ D.O. # _____
P.O.#: _____
Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: JOEL KLOTH
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: RTE 1005 Project #: 8730-06-85 Sampler: (Printed Name) Renae Hines (Signature) Renae Hines

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: 10/10/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB:
(SUB CONTRACT) ✓
TEST: _____
ATL #: _____
DATE: _____
CLIENT I.D. _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Renae Hines (Print Name) Date: 10/28/98
Renae Hines (Signature)

Send Report To:
Attn: _____
Co: SAME
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments:
See page 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals-Total (CAC-6010/7000) Pb

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	601/8010	602/8020/BTEX	608/8080	624/8240	8260	625/8270	8015M TPHG/BTEX	8015M TPH/D	418.1	Metals-Total (CAC-6010/7000) Pb	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA58-2	10/28	8:38									X		X							C	1	J G		
		HA59-5		8:40																						
		HA59-1		8:42																						
		HA59-2		8:43																						
		HA60-5		8:45																						
		HA60-1		8:46																						
		HA60-2		8:47																						
		HA61-5		8:49																						
		HA61-1		8:50																						
		HA61-2		8:51																						

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 1 of 1

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: _____ D.O. # _____
P.O.#: _____
Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Joe Kirk
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: Bte 605 Project #: 8730-06-05
Sampler: (Printed Name) Renae Hines (Signature) Renae Hines

Relinquished by: (Signature and Printed Name) Renae Hines Date: Time: Received by: (Signature and Printed Name) Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) _____
TEST: _____
ATL #: _____
DATE: _____
CLIENT I.D. _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Renae Hines (Print Name) Date: 10 28 98
Signature: Renae Hines

Send Report To:
Attn: SAME
Co:
Address
City State Zip

Special Instructions/Comments: See page 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other
☐ Return To:

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals Total (CAC-6010/7000) Pb

CIRCLE APPROPRIATE MATRIX: SOLID (SOIL) • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	Analysis	Matrix	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA102-S	10/28	8:54	X	X	C	1	J G		
		HA102-1		8:55							
		HA102-2		8:57							
		HA103-S		8:58							
		HA103-1		9:00							
		HA103-2		9:01							
		HA104-S		9:05							
		HA104-1		9:06							
		HA104-2		9:07							
		HA105-S		9:10							

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 1 of 1

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
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FOR LABORATORY USE ONLY:

Batch #: _____ D.O. # _____
P.O.#: _____
Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Joel Kloth
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: Rte 605 Project #: 8730-06-85 Sampler: (Printed Name) Renee Hines (Signature) Renee Hines

Relinquished by: (Signature and Printed Name) Renee Hines Date: Time: Received by: (Signature and Printed Name) [illegible] Date: 10/28/98 Time: 11:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) _____
TEST: _____
ATL #: _____
DATE: _____
CLIENT I.D. _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Renee Hines Date: 10/28/98
Print Name
Renee Hines
Signature

Send Report To:
Attn: _____
Co: SAME
Address: _____
City _____ State _____ Zip _____

Special Instructions/Comments: See page 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals Total (CAC-6010/7000); PO

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

Q A / Q C: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☐ OTHER _____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	601/8010	602/8020/BTEX	608/8080	624/8240	8260	625/8270	8015M TPHG/BTEX	8015M TPH/D	418.1	Metals Total			SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA605-1	10/28	9:12										X			X							C	1	T G		
		HA605-2		9:13																								
		HA606-5		9:15																								
		HA606-1		9:17																								
		HA606-2		9:19																								
		HA607-5		9:23																								
		HA607-1		9:24																								
		HA607-2		9:25																								
		HA608-5		9:27																								
		HA608-1		9:28																								

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: _____ D.O. # _____
P.O.#: _____
Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

Sample Condition Upon Receipt:
1. COOLER TEMP °C _____ (2-6) 5. SEALED Y☐ N☐
2. CHILLED Y☐ N☐ 6. # OF SPLS MATCH COC Y☐ N☐
3. HEADSPACE (VOA) Y☐ N☐ 7. PRESERVED Y☐ N☐
4. CONTAINER INTACT Y☐ N☐ 8. CONTR. LOT # _____

Client: Geocon
Attn: Joel Klotn
Address: 6970 Flanders
City SD State CA Zip Code 92107
TEL: (619) 558-6100
FAX: ( ) 558-8837

Project Name: Pac Beach
Project #: 8730-06-85
Sampler: (Printed Name) Renae Hines (Signature)

Relinquished by: (Signature and Printed Name) Renae Hines Date: Time: Received by: (Signature and Printed Name) Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB:
(SUB CONTRACT) _____
TEST: _____
ATL #: _____
DATE: _____
CLIENT I.D. _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Renae Hines Date: 10/28/98
Print Name
Renae Hines
Signature

Send Report To:
Attn: _____
Co: SAME
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments: See page 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals-Total (CAC-6010/7000)

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☑ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	SOLID	TAT	Container(s) #	Type	PRESERVATION	REMARKS
		HA68-2	10/28	9:30	X	C	1	5	6	
		HA69-S		9:31						
		HA69-1		9:32						
		HA69-2		9:33						
		HA70-S		9:36						
		HA70-1		9:37						
		HA70-2		9:38						
		HA71-S		9:41						
		HA71-1		9:42						
		HA71-2		9:43						

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg ___ of ___

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: ___ D.O. # ___
P.O.#: ___
Logged By: ___ Date: ___ Time: ___

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Joel Klotn
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: Rtc 1005 Project #: 8730-06-85 Sampler: (Printed Name) Renae Hines (Signature) Renae Hines

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
			[illegible]	10/28/98	12:15

SHIP TO LAB: (SUB CONTRACT) ___
TEST: ___
ATL #: ___
DATE: ___
CLIENT I.D. ___

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Renae Hines Date: 10/28/98
Print Name
Renae Hines
Signature

Send Report To:
Attn: ___
Co: SAME
Address ___
City ___ State ___ Zip ___

Special Instructions/Comments: SEE PAGE 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ___
☐ Return To: ___

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals Total (CAC-6010/7000) Pb

CIRCLE APPROPRIATE MATRIX: SOLID • (SOIL) SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

PRESERVATION: QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER ___

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	Metals Total (CAC-6010/7000) Pb	SOLID • (SOIL) SLUDGE	TAT	Container(s) #	Container(s) Type	REMARKS
		HA73-S	10/28	9:49	X	X	C	1	JG	
		HA73-1		9:50						
		HA73-2		9:51						
		HA73-S		9:53						
		HA73-1		9:55						
		HA73-2		9:56						
		HA74-S		10:00						
		HA74-1		10:01						
		HA74-2		10:03						
		HA37-S		10:25						

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

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P.O.#: ___
Logged By: ___ Date: ___ Time: ___

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Joe Kolb
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: Ile Loos Project #: 8730-06-85 Sampler: (Printed Name) Bernie Hines (Signature) Bernie Hines

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) ___
TEST: ___
ATL #: ___
DATE: ___
CLIENT I.D. ___

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Bernie Hines Date: 10/28/98
Print Name
Bernie Hines
Signature

Send Report To:
Attn: ___
Co: SAME
Address ___
City ___ State ___ Zip ___

Special Instructions/Comments: See page 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ___
☐ Return To: ___

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals-Total (CAC-6010/7000) Pb

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER ___

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	Pb	SOLID • SOIL • SLUDGE	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA37-1	10/28	10:27	X	X	C	1	J G		
		HA37-2		10:30							
		HA38-S		10:33							
		HA38-1		10:34							
		HA38-2		10:36							
		HA39-S		10:37							
		HA39-1		10:39							
		HA39-2		10:40							
		HA40-S		10:42							
		HA40-1		10:43							

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

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P.O.#: _____
Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Joel Klein
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: Site 1605 Project #: 8130-016-85 Sampler: (Printed Name) Renae Hines (Signature) Renae Hines

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) _____
TEST: _____
ATL #: _____
DATE: _____
CLIENT I.D. _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Renae Hines Date: 10/28/98
Print Name
Renae Hines
Signature

Send Report To:
Attn: _____
Co: SAME
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments: See page 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals Total (CAC-6010/7000) Pb

CIRCLE APPROPRIATE MATRIX: SOLID (SOIL) • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER ☐

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	601/8010	602/8020	608/8080	624/8240	8260	625/8270	8015M TPHG/BTEX	8015M TPH/D	418.1	Metals	SOLID (SOIL) • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Type	PRESERVATION	REMARKS
		HA40-2	10/28	10:44										X				X					C	1	J	G	
		HA75-S		10:00																							
		HA75-1		11:01																							
		HA75-2		11:02																							
		HA76-S		11:04																							
		HA76-1		11:05																							
		HA76-2		11:06																							
		HA77-S		11:07																							
		HA77-1		11:08																							
		HA77-2		11:09																							

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

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P.O.#: _____
Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Jack Kooth
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: ~~BIB~~ R-6605
Project #: 8730-06-85
Sampler: (Printed Name) Renae Hines (Signature) Renae Hines

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB:
(SUB CONTRACT) _____
TEST: _____
ATL #: _____
DATE: _____
CLIENT I.D. _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Renae Hines Date: 10/28/98
Print Name
Renae Hines
Signature

Send Report To:
Attn: _____
Co: SAME
Address: _____
City _____ State _____ Zip _____

Special Instructions/Comments:
See page 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals-Total (CAC-6010/7000); TPO

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	Analysis	Matrix	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA78-S		11:11	X	X	C	1	JG		
		HA78-1		11:12							
		HA78-2		11:13							
		HA79-S		11:16							
		HA79-1		11:17							
		HA79-2		11:18							
		HA80-S		11:19							
		HA80-1		11:20							
		HA80-2		11:21							
		HA81-S		11:23							

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

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

Preservatives: H=HCl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

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Advanced Technology Laboratories
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Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

Batch #: _____ D.O. # _____
P.O.#: _____
Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn: Jeff. Kleath
Address: 6970 Flanders Drive
City: San Diego State: CA Zip Code: 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: Pole 605 Project #: 8130-66-85 Sampler: (Printed Name) Renee Hines (Signature) Renee Hines

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: 10/28/98 Time: 12:15
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

SHIP TO LAB: (SUB CONTRACT) _____
TEST: _____
ATL #: _____
DATE: _____
CLIENT I.D. _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Renee Hines Date: 10 28 98
Print Name
Renee Hines
Signature

Send Report To:
Attn: _____
Co: Same
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments: See page 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 601/8010 (Halogenated Volatiles-GC); 602/8020/BTEX (Aromatic Volatiles-GC); 608/8080 (Pesticides/PCB-GC); 624/8240 (Volatiles-GC/MS); 8260 (Volatiles-GC/MS); 625/8270 (BNA-GC/MS); 8015M TPHG/BTEX(COMBINATION); 8015M TPH/D (Diesel-GC); 418.1 (TPH-IR); Metals-Total (CAC-6010/7000) Pb

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	Analysis	Matrix	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		HA81-1	10/28	11:24	X	X	C	1	5	6	
		HA81-2		11:25							
		HA82-S		11:27							
		HA82-1		11:28							
		HA82-2		11:29							
		HA03-1	10/27	8:53							

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

APPENDIX C

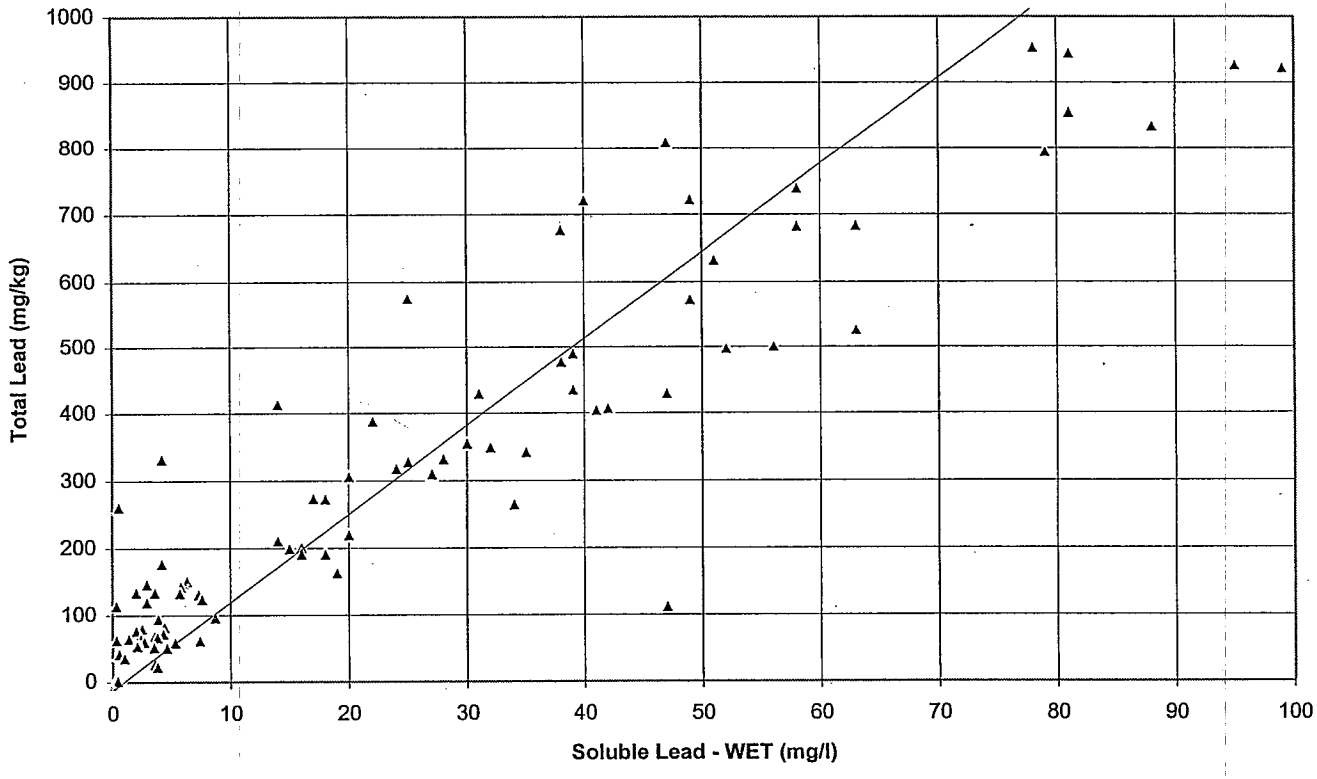
Project Name: Route 605 From LA/Orange County Line to 1.1 km north of Rte 91
Project Number: 08730-06-85
Task Order Number: 07-134701-JH

Regression Analysis Results for Total Lead vs. Soluble Lead (WET)

Regression Output:

Constant (b)	-12.43
Slope (m)	13.15
Correlation (r)	0.99
Number of Observatons	105
Total Lead Mean	440
Total Lead Standard Deviation	873
Soluble Lead (WET) Mean	34
Soluble Lead (WET) Standard Deviation	65

Total Lead vs. Soluble Lead (WET)



Project Name: Route 605 From LA/Orange County Line to 1.1 km north of Rte 91
Project No.: 08730-06-85
Task Order No.: 07-134701-JH

Block Diagrams - Total Lead

DIAGRAM A

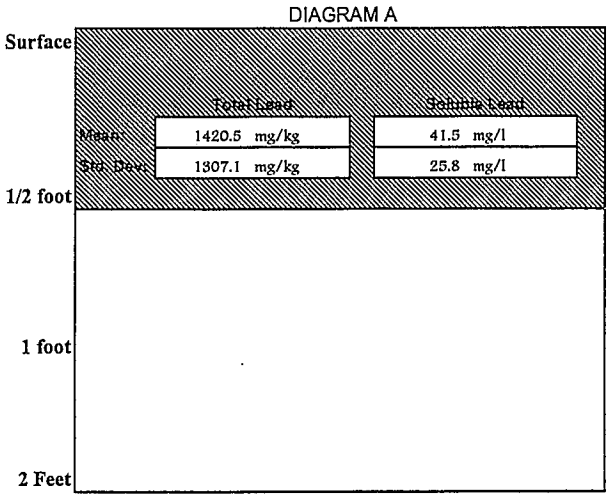


DIAGRAM B

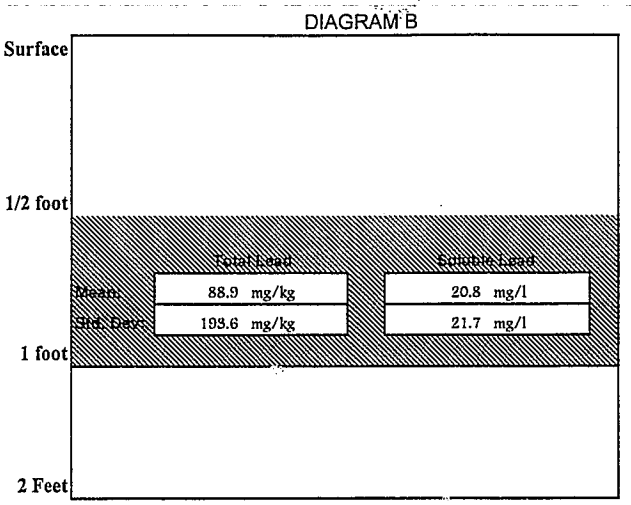


DIAGRAM C

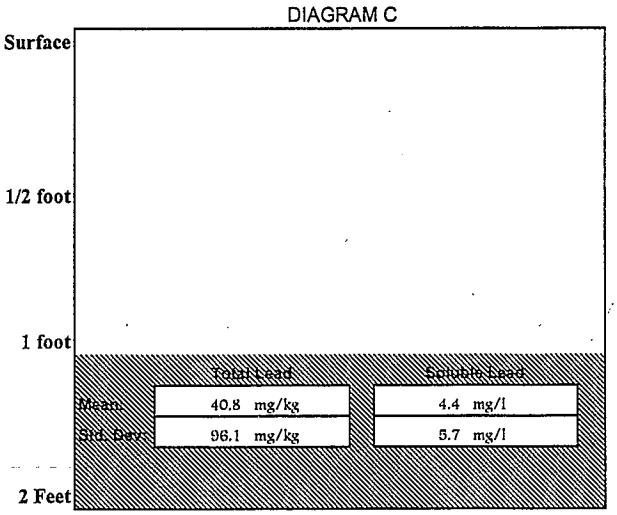


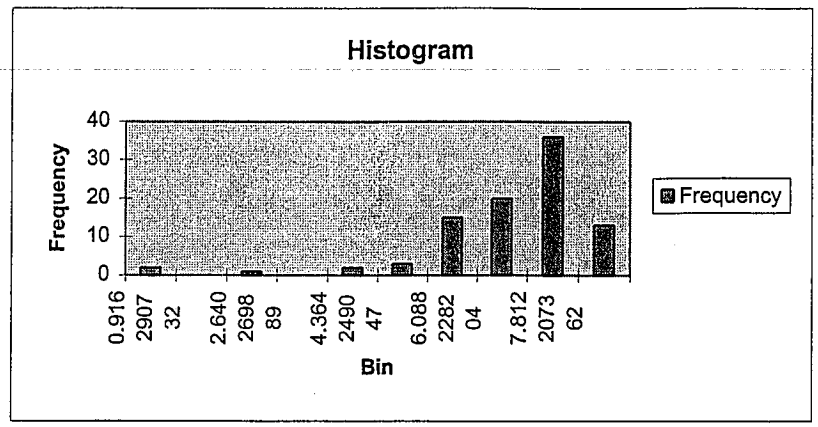
DIAGRAM A --	Separate the top	1/2 foot	interval of soil from the remaining soil
DIAGRAM B --	Separate the	1/2 to 1foot	interval of soil from the remaining soil
DIAGRAM C --	Separate the	1 to 2 foot	interval of soil from the remaining soil

The above diagrams show the total and soluble lead concentrations in each grouping of soil depending on how the various levels of soil are segregated. For instance, Diagram A shows a scenario where the top 1/2 foot of soil is excavated and kept separate from the underlying soil. In this case, the top 1/2 foot of soil would be expected to exhibit an average total lead concentration of 1420.5 mg/kg, and a standard deviation of 1307.1 mg/l.
Similarly, the top 1/2 foot of soil would be expected to exhibit an average soluble lead concentration of 41.5 mg/l, and a standard deviation of 25.8 mg/l.

Natural Log Transformation

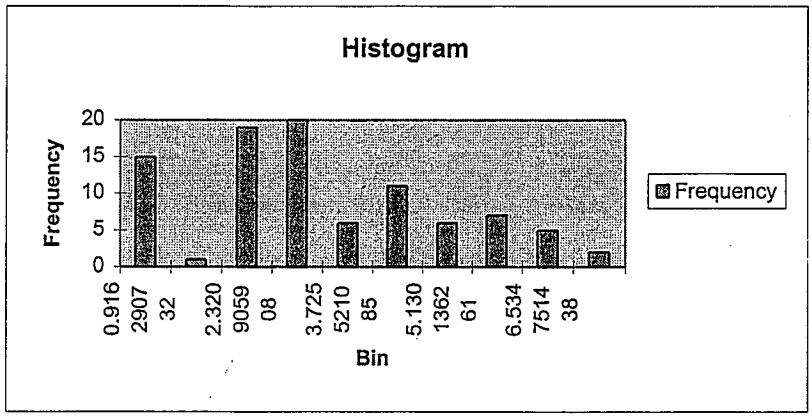
Surface to 0.5 foot interval:

Bin	*Frequency*
0.916291	2
1.77828	0
2.64027	1
3.502259	0
4.364249	2
5.226239	3
6.088228	15
6.950218	20
7.812207	36
More	13



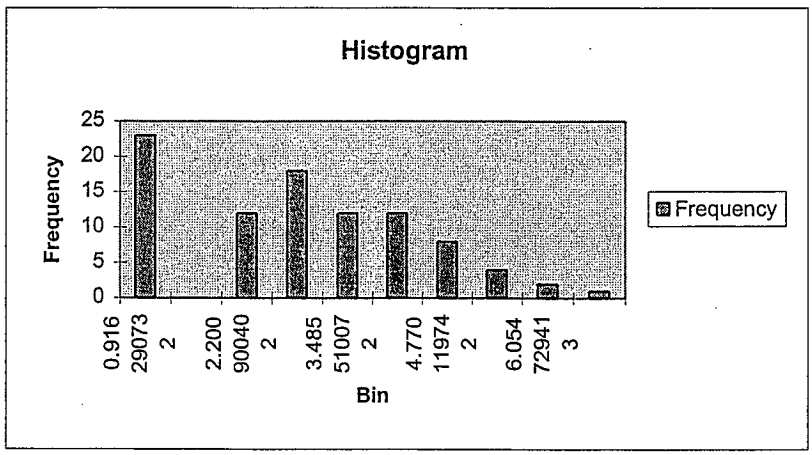
1 to 1.5 foot interval:

Bin	*Frequency*
0.916291	15
1.618598	1
2.320906	19
3.023213	20
3.725521	6
4.427829	11
5.130136	6
5.832444	7
6.534751	5
More	2



1.5 to 2 foot interval:

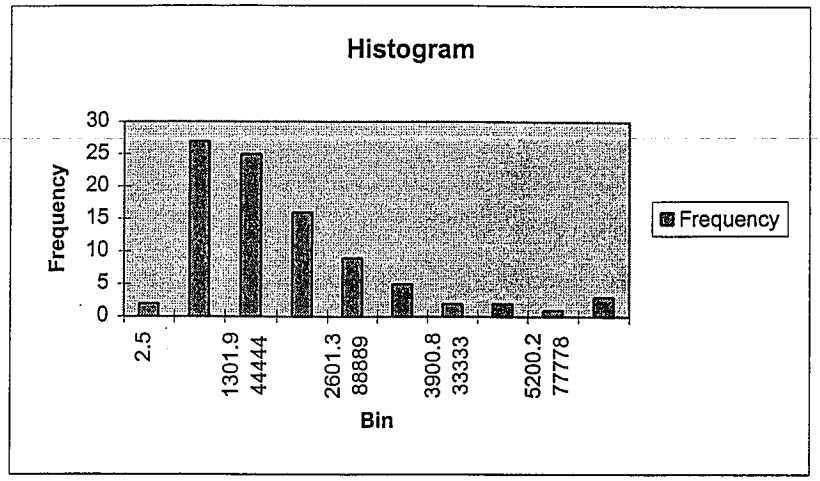
Bin	*Frequency*
0.916291	23
1.558596	0
2.2009	12
2.843205	18
3.48551	12
4.127815	12
4.77012	8
5.412425	4
6.054729	2
More	1



Normal Distribution

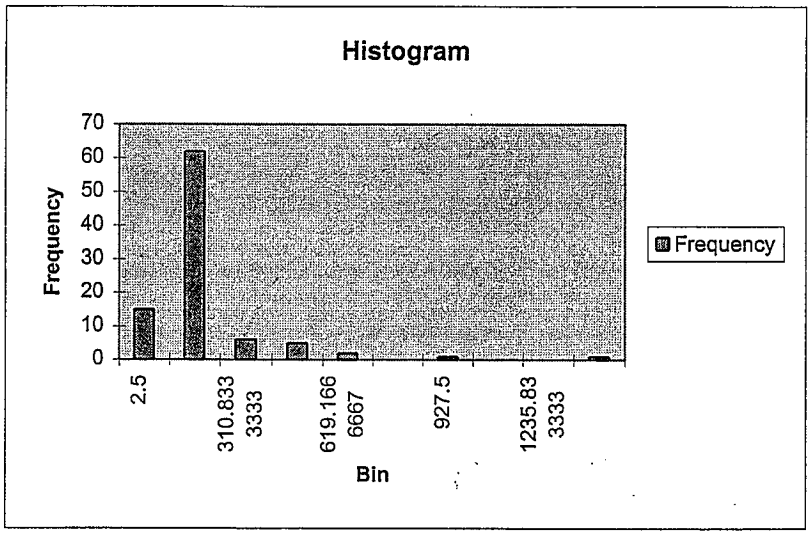
Surface to 0.5 foot interval:

Bin	*Frequency*
2.5	2
652.2222	27
1301.944	25
1951.667	16
2601.389	9
3251.111	5
3900.833	2
4550.556	2
5200.278	1
More	3



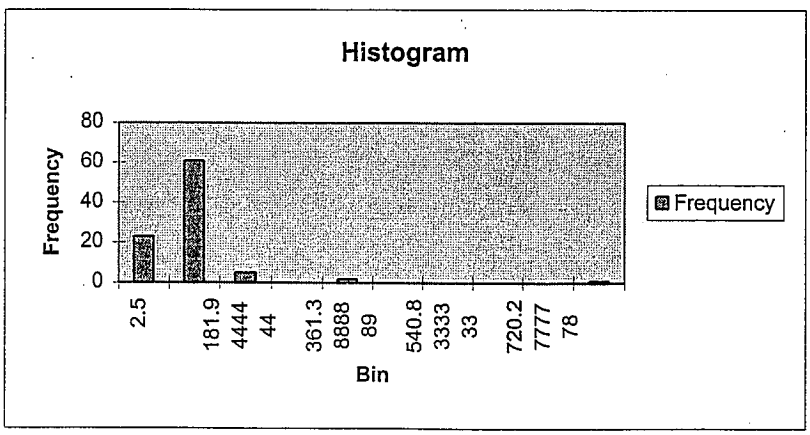
1 to 1.5 foot interval:

Bin	*Frequency*
2.5	15
156.6667	62
310.8333	6
465	5
619.1667	2
773.3333	0
927.5	1
1081.667	0
1235.833	0
More	1



1.5 to 2 foot interval:

Bin	*Frequency*
2.5	23
92.22222	61
181.9444	5
271.6667	0
361.3889	2
451.1111	0
540.8333	0
630.5556	0
720.2778	0
More	1



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AERIAL DEPOSITED LEAD SITE INVESTIGATION REPORT

ROUTES 57, 60, AND 210
LOS ANGELES COUNTY, CALIFORNIA

LA-57 PM 0.0/7.7
LA-60 PM 23.2/25.5
LA-210 PM 44.4/48.5

GEOCON

GEOTECHNICAL
&
ENVIRONMENTAL
CONSULTANTS

PREPARED FOR

CALIFORNIA DEPARTMENT OF TRANSPORTATION
DISTRICT 7
LOS ANGELES, CALIFORNIA

TASK ORDER NO. 07-120971-3E

GEOCON PROJECT NO. A8066-06-05

FEBRUARY 2001

127

GEOCON

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Project No. A8066-06-05
February 2, 2001

Mr. Steve Chan
California Department of Transportation
District 7
Environmental Engineering - Hazardous Waste
120 South Spring Street
Los Angeles, California 90012

Subject: AERIAL DEPOSITED LEAD - SITE INVESTIGATION REPORT
ROUTES 57, 60 AND 210
LOS ANGELES COUNTY, CALIFORNIA
(LA-57 PM 0.0/7.7; LA-60 PM 23.2/25.5; LA-210 PM 44.4/48.5)
CONTRACT NO. 43A0012
TASK ORDER NO. 07-120971-3E

Dear Mr. Chan:

In accordance with your request, Geocon Consultants, Inc. has performed environmental engineering services at designated areas along Routes 57, 60, and 210 in Los Angeles County, California. The accompanying report summarizes the services performed including the excavation of 28 hand-auger borings, limited soil sampling, and laboratory analyses.

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

If there are any questions concerning the contents of this report, or if Geocon may be of further service, please contact the undersigned at your convenience.

Sincerely,

GEOCON CONSULTANTS, INC.

STATE OF CALIFORNIA
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SITE INVESTIGATION REPORT

1.0 INTRODUCTION

This Site Investigation Report for Routes 57, 60, and 210 closed-circuit television (CCTV) and Communication Systems installation project was prepared for The California Department of Transportation under Contract No. 43A0012 and Task Order No. 07-120971-3E.

1.1 Project Location and Proposed Improvements

The project site consists of several locations along the roadside areas of Routes 57, 60, and 210 in Diamond Bar, California. Proposed improvements at the project site include the installation of CCTV and Communication Systems. The approximate project location is depicted on the Vicinity Map, Figure 1.

1.2 Purpose

The purpose of the scope of work was to evaluate whether impacts due to aerially deposited lead exist in the surface and near surface soil within the project boundaries. It is necessary to determine the potential presence of soil containing hazardous concentrations of lead to determine the applicability of the California Department of Toxic Substances Control (DTSC) variance dated September 22, 2000 with respect to excess soil generated during construction and its potential reuse within Caltrans right-of-way.

The investigative results will be further used to obtain information of the presence of lead impacted soil within the project boundaries for health, safety, and waste management purposes.

2.0 BACKGROUND

2.1 Potential Lead Impacts

Ongoing testing by Caltrans has indicated that aerial deposited lead exists along major freeway routes due to emissions from vehicles powered by leaded gasoline. In some areas where construction activities will occur, lead concentrations are higher than allowed. Elevated lead concentrations are generally found within 9.1 meters (30 feet) of the edge of pavement and within the top 0.15 meter (6 inches) of soil. Elevated lead concentrations can also be present as deep as 0.6 to 0.9 meter (2 to 3 feet) below the surface.

2.2 Hazardous Waste Determination Criteria

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

For a waste containing metals, the waste is classified as "California hazardous" when: 1) the total metal content exceeds the Total Threshold Limit Concentration (TTLC); or 2) the soluble metal content exceeds the Soluble Threshold Limit Concentration (STLC) based on a Waste Extraction Test (WET) analysis. A material is classified as "RCRA hazardous" when the soluble metal content exceeds the Federal Regulatory Level based on Toxicity Characteristic Leaching Procedure (TCLP) testing. State and Federal thresholds have also been established for select pesticides and herbicides.

The above regulatory criteria are based on toxicity. Wastes may also be classified as hazardous based on other criteria such as ignitability. However, for the purposes of this investigation, toxicity and corrosivity (i.e., chemical concentrations and soil pH values, respectively) are the primary factors considered for waste classification. Waste that is classified as either "California hazardous" or "RCRA hazardous" requires management as a hazardous waste and disposal at an approved disposal facility.

Per section 25157.8 of the California Health and Safety Code (HSC), after January 1, 1999, no person shall dispose of waste that contains total lead in excess of 350 mg/kg to land other than a Class I hazardous waste disposal facility.

2.3 DTSC Variance

The DTSC issued a variance on September 22, 2000 for select Caltrans Districts regarding the disposition of aerial deposited lead-impacted soils within Caltrans projects. Review of the variance indicates the following conditions regarding Caltrans' reuse and management of aerial lead impacted soil as fill material for construction and maintenance operations.

Category 1:

Soil exhibiting soluble lead concentrations less than or equal to 0.5 milligrams per liter (mg/l) [based on a modified waste extraction test using deionized water as the extractant (WET-DI)] and total lead concentrations of 350 mg/kg or less may be used as fill provided that the lead-impacted soil is placed a minimum of 1.5 meters (5 feet) above the maximum water table elevation and covered with at least 0.3 meter (1 foot) of clean soil.

Category 2:

Soil exhibiting soluble lead concentrations greater than 0.5 mg/l and less than 50 mg/l (based on the WET-DI) and total lead concentrations less of 350 mg/kg or less may be used as fill provided that the lead-impacted soil is placed a minimum of 1.5 meters (5 feet) above the maximum water table elevation and protected from infiltration by a pavement structure maintained by Caltrans.

Category 3:

Lead-impacted soil with a pH less than 5.0 shall only be used as fill material under the paved portion of the roadway.

If the excavated soil is not intended to be reused within the Caltrans right of way, then hazardous waste determination of the soil is based on total and soluble lead concentrations using the lead TTLC and STLC contained in Title 22 of the *California Code of Regulations* Article 3, Section 66261.24. When the total lead concentration is greater than ten times the lead STLC, regulatory agencies typically initiate the requirement for a solubility test. The solubility test is known as the Waste Extraction Test using acid extract (WET) and it is the results from the WET that are compared to the STLC value. The TTLC value for lead is 1,000 mg/kg and the STLC for lead using acid extract is 5.0 mg/l. However, as previously indicated, Per section 25157.8 of the HSC, after January 1, 1999, no person shall dispose of waste that contains total lead in excess of 350 mg/kg to land other than a Class I hazardous waste disposal facility.

3.0 SCOPE OF SERVICES

The following scope of services as outlined in Caltrans Task Order No. 07-120971-3E were performed:

3.1 Pre-Field Activities

- A Task Order Meeting was conducted on-site prior to the commencement of the field activities. The purpose of the meeting was to become familiar with the site layout, to review proposed boring locations, and to address worker and public safety issues.

- Prepared a *Health and Safety Plan*, dated September 13, 2000, for the proposed field activities. The *Health and Safety Plan* provided guidelines on the use of personal protective equipment and the health and safety procedures to be implemented during the proposed field activities.

- Geocon provided 48-hour notification to Underground Service Alert prior to commencement of the field activities.

- Geocon retained the services of Advanced Technology Laboratories (ATL), a California-licensed laboratory, to provide the laboratory analyses.

3.2 Field Activities

Twenty-eight (28) borings were advanced approximately 1 meter (3 feet) from the edge of the pavement to a maximum depth of approximately 0.6 meter (2 feet) below the ground surface (bgs) at the following locations:

Route 57

- **Location 1:** Two (2) borings on southbound route 57 after passing Diamond Bar Boulevard undercrossing approximately 30 meters before reaching the gore point of route 57 southbound on-ramp (SB57-1A and SB57-1B);
- **Location 2:** Two (2) borings on northbound route 57 after passing Diamond Bar Boulevard undercrossing, approximately 20 meters before reaching the gore point of the Diamond Bar Boulevard northbound on-ramp (NB57-2A and NB57-2B);
- **Location 3:** Two (2) borings on southbound 57 enclosed by southbound route 57, Pathfinder Road, southbound on-ramp, and Pathfinder Road overcrossing (SB57-3A and SB57-3B);
- **Location 4:** Two (2) borings on the left shoulder of the connector ramp of eastbound route 60 to northbound 57 (EB60-4A and EB60-4B);
- **Location 5:** Two (2) borings on right shoulder of southbound 57 before passing the Sunset Crossing Road on-ramp approximately 17 meters before the existing traffic sign "Lane Merge" (SB57-7A and SB57-7B);

- **Location 6:** Two (2) borings on the right shoulder of northbound 57 after passing the Sunset Crossing Road, approximately 15 meters past the call box (NB57-8A and NB57-8B); and
- **Location 7:** Two (2) borings on the right shoulder of northbound 57 after passing the Temple Avenue overcrossing (NB57-9A and NB57-9B).

Route 60

- **Location 1:** Two (2) borings on the right shoulder of eastbound 60 after passing the Grand Avenue overcrossing, approximately 20 meters before reaching the gore point of the Grand Avenue eastbound on-ramp (EB60-5A and EB60-5B); and
- **Location 2:** Two (2) borings on the right shoulder of eastbound 60 just past the route 57 interchange (EB60-6A and EB60-6B).

Route 210

- **Location 1:** Two (2) borings on the right shoulder of westbound 210 just past the Via Verde Avenue overcrossing, approximately 50 meters past the gore point of the Via Verde Avenue westbound off-ramp (WB210-10A and WB210-10B);
- **Location 2:** Two (2) borings on the right shoulder of eastbound 210 just past Loma Lista Avenue (EB210-11A and EB210-11B);
- **Location 3:** Two (2) borings on the right shoulder of westbound 210 before passing San Dimas Avenue, approximately 50 meters before the San Dimas Avenue undercrossing (WB210-12A and WB210-12B);
- **Location 4:** Two (2) borings on the right shoulder of westbound 210 between the Cienega Avenue undercrossing and the Arrow Highway overcrossing, approximately 50 meters before reaching the gore point of Arrow Highway westbound on-ramp (WB210-13A and WB210-13B); and
- **Location 5:** Two (2) borings on the right shoulder of westbound 210 before passing the Allen Avenue undercrossing, approximately 50 meters past the gore point of the Allen Avenue westbound off-ramp (WB210-14A and WB210-14B).

The borings were advanced using a hand auger. Soil samples were collected from each boring at the surface and from depths of approximately, 0.3 meter (1 foot) and 0.6 meter (2 feet) bgs. The soil samples were transferred directly from the hand-held auger and placed in 4-ounce glass jars. The approximate boring locations are depicted on the attached Site Plans, Figures 2 through 14.

During the field activities the location of each boring was recorded using a Differential Global Positioning System (DGPS). The coordinates for each boring location are presented in Table 1. The DGPS information was entered into two MS Excel spreadsheet using the data entry format required by Caltrans for the Haz GIS Database Excel Spreadsheet Deliverable. The GIS information is presented as Appendix A

4.0 INVESTIGATIVE METHODS

4.1 Borehole Location Rationale

Caltrans designated the soil borehole locations in the vicinity of the proposed CCTV and Communication System construction area along Routes 57, 60, and 210.

4.2 Sampling Procedures

Soil samples were collected using a hand auger and were transferred to 4-ounce glass jars. The jars were labeled and placed in a container for transport to the analytical laboratory. Sampling equipment was cleansed between each soil boring by washing the equipment with an Alconox solution followed by a double rinse with distilled water. The fieldwork was performed under the direct supervision of Geocon's project manager.

Completed soil borings were backfilled to surface grade with the soil cuttings generated. The soil samples were transported to ATL, a California-certified environmental laboratory, utilizing standard chain-of-custody documentation.

4.3 Laboratory Analyses

Geocon instructed the analytical laboratory to perform laboratory analyses under 48-hour turn-around-time. Reproductions of the laboratory reports and chain of custody documentation are presented as Appendix B. The laboratory analyses performed are summarized below:

- Eighty-two (82) soil samples were tested for total lead following United States Environmental Protection Agency (EPA) Test Method 6010.
- Eight (8) soil samples were analyzed for soil pH following EPA Test Method 9045.

Upon receipt of the total lead results, Geocon instructed the laboratory to analyze those soil samples exhibiting total lead concentrations above 50 mg/kg but less than 1000 mg/kg using the California Waste Extraction Test (WET). Consequently 48 soil samples were subsequently analyzed for soluble lead via the WET.

In addition, all samples exhibiting soluble lead (WET) concentrations greater than 5 mg/l were re-analyzed for soluble lead by the WET using deionized water as the extractant (WET-DI). Consequently, 14 soil samples were re-analyzed for soluble lead via the WET-DI.

QA/QC procedures were performed for each method of analysis with specificity for each analyte listed in the test method's QA/QC. The laboratory QA/QC procedures included the following:

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

Prior to submitting the soil samples to the laboratory, the chain-of-custody documentation was reviewed for accuracy and completeness.

5.0 FIELD OBSERVATIONS AND INVESTIGATIVE RESULTS

5.1 Site Geology and Hydrogeology

Soil encountered during the field activities generally consisted of silty sand with gravel to the maximum depth of exploration, approximately 0.6 meter (2 feet) bgs. Groundwater was not encountered during the advancement of the soil borings.

5.2 Soil Analytical Results

A summary of the analytical laboratory test results for total lead, soluble lead, and pH is presented in Table 2.

The 8 soil samples analyzed for pH-exhibited values ranging from 6.85 to 8.39. Lead results are summarized below:

- Total lead was detected at concentrations ranging from 5.3 to 1850 mg/kg.
- Forty-eight (48) soil samples exhibited total lead concentrations greater than ten times the lead STLC of 5.0 mg/l and less than the lead TTLC of 1,000 mg/kg.
- Twenty-three (23) of the forty-eight (48) soil samples analyzed for soluble lead via the WET exhibited soluble lead concentrations greater than the lead STLC of 5.0 mg/l.
- The fourteen (14) soil samples analyzed for soluble lead via the WET-DI exhibited soluble lead concentrations less than the DTSC draft variance Category 1 threshold limit of 0.5 mg/l.

5.3 Statistical Evaluation for Lead Detected in Soil Samples

Statistical methods were applied to the total lead data to evaluate: 1) the upper one-sided confidence limits (UCLs) of the true means of the total lead concentrations for each sampling depth; and 2) if an acceptable correlation between total and soluble lead concentrations exists that would allow the prediction of soluble lead concentrations based on calculated UCLs. The statistical methods used are provided in Chapter 9 of SW-846 and *Statistics and Data Analysis in Geology*, by John Davis.

5.3.1 Distribution of Total Lead Concentrations

The presence of nondetects and/or low concentrations in total lead data can strongly skew sample data towards low values. Classical statistical methods do not work properly in these cases since they assume that the data exhibits an underlying normal distribution. Consequently, it is necessary to evaluate the distribution of the total lead data to apply the appropriate methods when determining the UCLs on the true total lead means. When evaluating the distribution of total lead concentrations, each sampling depth was treated as a separate data set.

The total lead variances were greater than the total lead means for each data set. According to SW-846, if the variance is greater than the mean, the total lead data may be characterized by a negative binomial distribution, as is the case for the data obtained from the subject site. In this circumstance, according to SW-846, normality can often be achieved using an arcsine transformation. Consequently, the total lead data for each data set was converted into decimal form by dividing each total lead concentration by the maximum observed total lead concentration in that data set. This resulted in fractionalized total lead concentrations in each data set that ranged between 0 and 1. The fractionalized data was than transformed by taking the arcsine of each fractionalized total lead concentration. UCLs were calculated in the next section using the transformed data.

5.3.2 Calculating the UCLs for the True Mean

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

The procedures used to calculate the UCLs on the true mean are summarized in Chapter 9 of SW-846. The Student's "t" values used when calculating the UCL were determined using the "TINV" function in MS Excel using a probability of 0.2 for the 90% confidence interval and a probability of 0.1 for the 95% confidence interval. The UCLs were calculated for each data set separately and have been combined to evaluate different soil mixing scenarios and are presented as a portion of Table 3.

5.3.3 Correlation of Total and Soluble Lead

Total and corresponding soluble (WET) lead concentrations are bivariate data with a linear structure. This linear structure should allow for the prediction of soluble lead (WET) concentrations based on the UCLs calculated in above in Section 5.3.2.

To estimate the degree of interrelation between total and corresponding soluble (WET) lead values (x and y, respectively), the *correlation coefficient [r]* is used (see Davis pg. 40). The correlation coefficient is a ratio that ranges from +1 to −1. A *correlation coefficient* of +1 indicates a perfect direct relationship between two variables; a *correlation coefficient* of -1 indicates that one variable changes inversely with relation to the other. Between the two extremes is a spectrum of less-than-perfect relationships, including zero, which indicates the lack of any sort of linear relationship at all.

The *correlation coefficient* was calculated for the 48 (x, y) data points (i.e., soil samples analyzed for both total [x] and soluble [y] (WET) lead) and equaled 0.711, which indicated the lack of an acceptable correlation between total and soluble lead concentrations. Upon review of the x,y scatter plot, one data point (EB210-11B-0.3)) was omitted from the regression analysis due to the large discrepancy between total lead (628 mg/kg) and soluble lead (4.4 mg/l) concentrations. The correlation coefficient without this data point equaled 0.814, which indicates that an acceptable correlation between the total and soluble lead concentrations now exists.

Since the *correlation coefficient* indicates that a linear relationship exists between total and soluble (WET) lead concentrations, it is possible to compute the line of dependence, or a best-fit line between the two variables. Following methods outlined in Davis (pg. 180), a least squares method was used to find the equation of a best-fit line (regression line). The equation of the regression line was determined to be $y = 0.0576x$, where x represents total lead concentrations and y represents predicted soluble lead (WET) concentrations.

This equation was used to estimate the expected soluble lead (WET) concentration for each representative total lead concentration using the UCLs calculated in Section 5.3.2. Regression analysis results and a scatter plot depicting the 47 (x, y) data points along with the regression line are included as a portion of Appendix C. In addition, the expected soluble lead concentrations are shown next to the UCLs in Table 3.

6.0 SUMMARY AND DISCUSSION

The following summary and discussion are based on a review of the analytical data and the UCLs and predicted soluble lead concentrations summarized in Table 3.

Routes 57/210

The results of the soil sampling and analysis are summarized below:

- Soil pH values ranged from 6.85 to 8.39;
- Total lead concentrations ranged from less than the laboratory reporting limit of 5 mg/kg to 1,850 mg/kg;
- Soluble lead (WET) concentrations ranged from 1.2 to 52 mg/l;
- Soluble lead (WET-DI) concentrations ranged from less than the reporting limit of 0.15 mg/l to 0.19 mg/l.

If the soil will be re-used on-site or within the Route 57/210 corridor, and excavations are at least 0.6 meter (2 feet) in depth, the soil is expected to exhibit total lead concentrations less than the HSC threshold of 350. The soil is predicted to exhibit soluble (WET) lead concentrations greater than the lead STLC of 5.0 mg/l. Since soluble (WET-DI) lead concentrations are less than 0.5 mg/l, the soil may re-used in accordance with the DTSC variance by being placed under one foot of clean fill material or pavement.

If the soil will be relinquished to the contractor for disposal, soil generated from excavations less than 0.6 meter (2 feet) in depth would likely exhibit total lead concentrations greater than the HSC threshold of 350 mg/kg and soluble lead concentrations greater than the lead STLC of 5.0 mg/l (Type Z-2 material). Consequently, this soil would need to be disposed of as a California-hazardous waste at a Class I disposal facility.

Route 60

The results of the soil sampling and analysis are summarized below:

- Soil pH value in a single soil sample was 8.04;
- Total lead concentrations ranged from 12 to 253 mg/kg;
- Soluble lead (WET) concentrations ranged from 1.2 to 14 mg/l;
- Soluble lead (WET-DI) concentrations were not detected above the laboratory reporting limit of 0.15 mg/l.

If the soil will be re-used on-site or within the Route 60 corridor, the soil is expected to exhibit total lead concentrations less than the HSC threshold of 350 mg/kg for excavation to 0.6 meter (2 feet) bgs. The soil is also predicted to exhibit soluble (WET) lead concentrations greater than the lead STLC of 5.0 mg/l. Since soluble (WET-DI) lead concentrations are less than 0.5 mg/l, the soil may re-used in accordance with the DTSC variance by being placed under one foot of clean fill material or pavement.

If the soil will be relinquished to the contractor for disposal, soil would again likely exhibit total lead concentrations less than the HSC threshold of 350 mg/kg for excavation to 0.6 meter (2 feet) bgs. The soil is also expected to exhibit soluble (WET) lead concentrations greater than the lead STLC of 5.0 mg/l (Type Z-2 material). Consequently, the soil would likely be classified as a California-hazardous waste and would need to be disposed of at a Class I disposal facility.

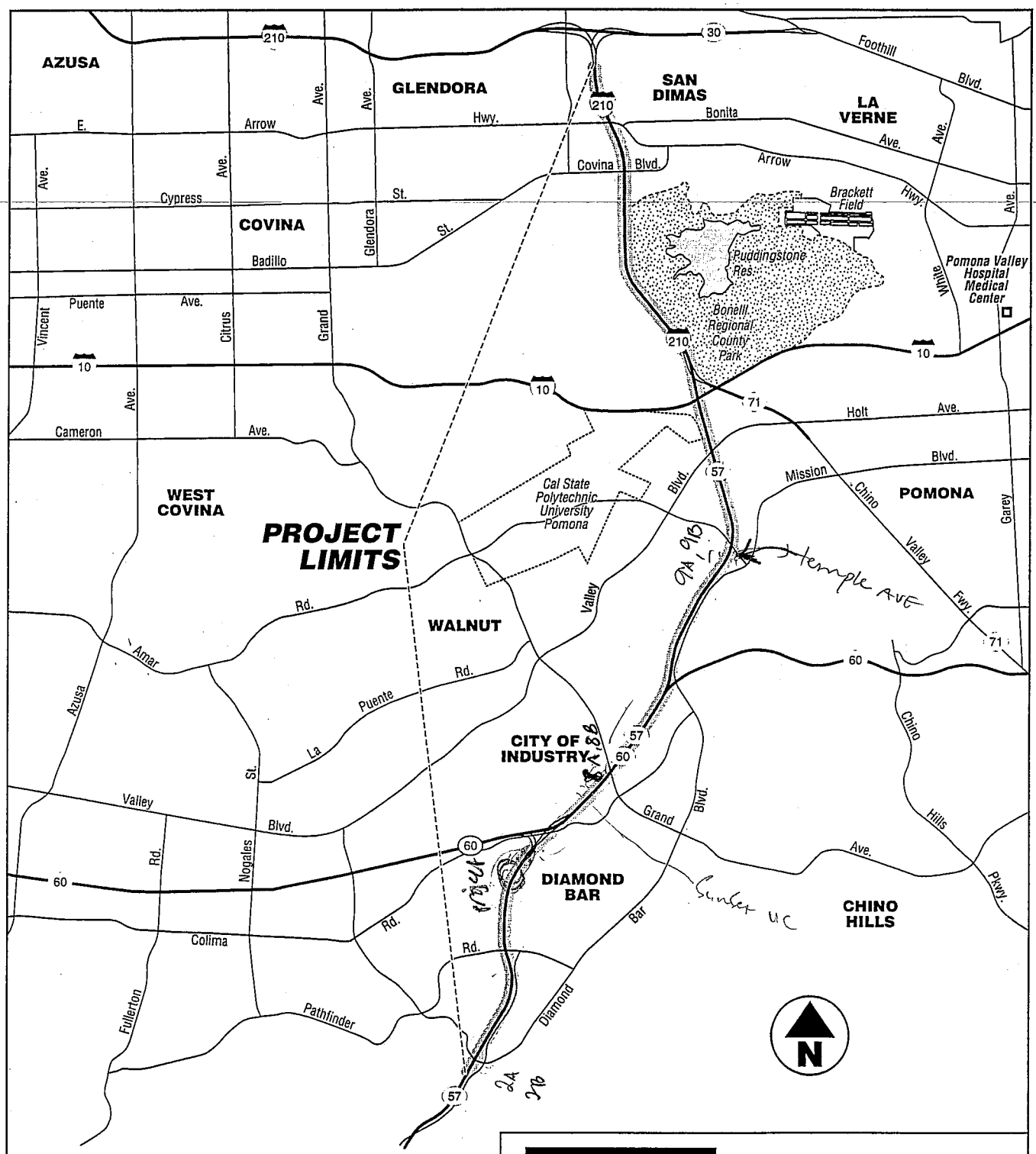
Based on current and proposed use of the subject site and adjacent properties, it is appropriate to compare the highest calculated UCL to EPA Region 9 Preliminary Remediation Goal (PRG) for lead in industrial soil. PRGs are used to estimate contaminant concentrations in environmental media (soil, air, and water) that are protective of human health, including sensitive groups, over a lifetime. The total lead PRG for industrial soil is 1,000 mg/kg. Total lead concentrations above the PRG would not automatically trigger a response action or suggest that a significant risk to human health exists. Exceeding a PRG does suggest that further evaluation of the potential risks that may be posed by site contaminants is appropriate.

The highest UCL of 518 mg/kg is less than the PRG of 1,000 mg/kg. Therefore, it is concluded that lead-impacted soil in the areas investigated does not pose a significant risk to the health of workers performing the construction activities.

7.0 REPORT LIMITATIONS

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

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



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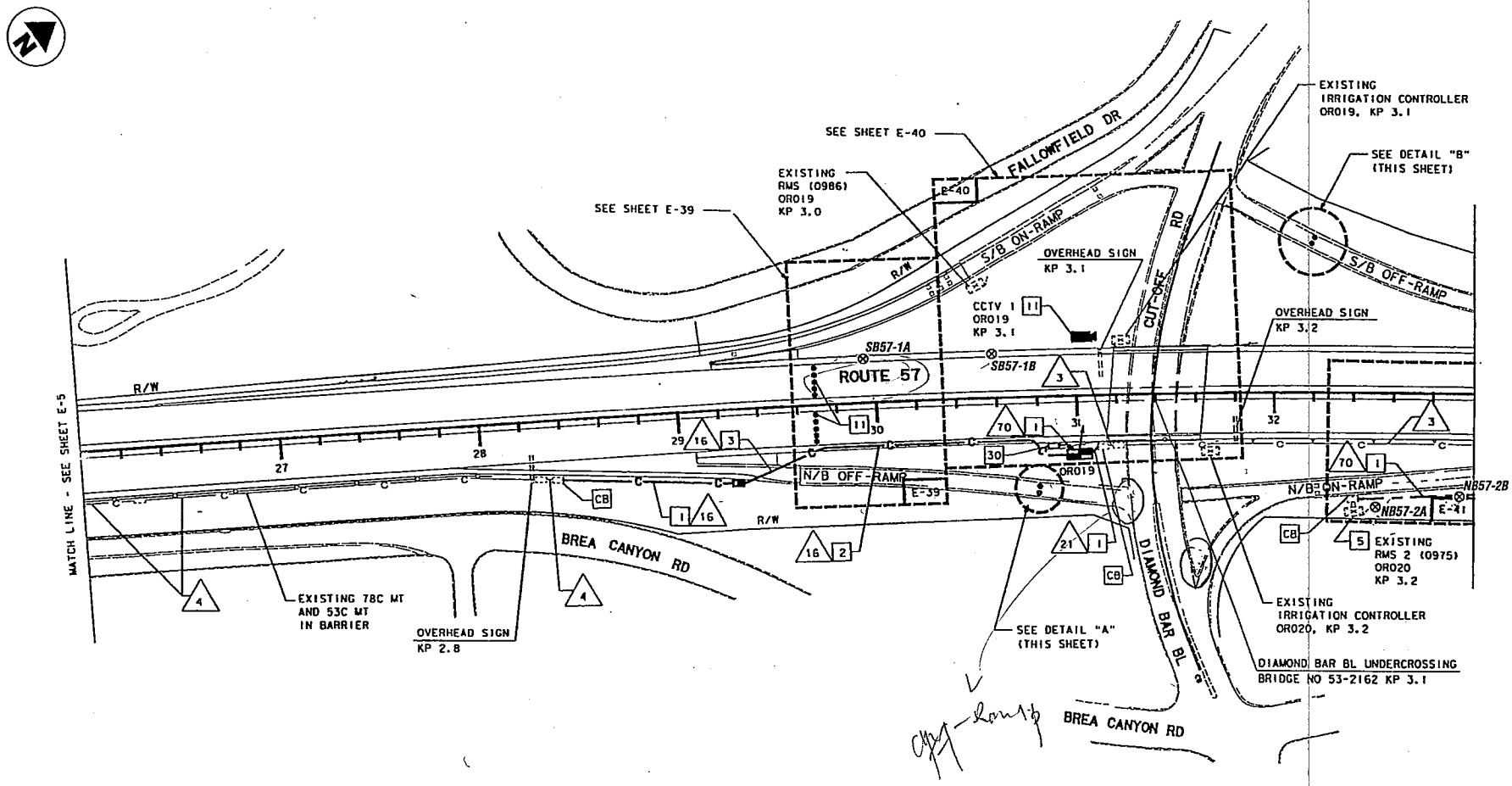
Routes 57, 60 & 210

Los Angeles County, California

GEOCON Proj. No. A8066-66-05

VICINITY MAP

Task Order No. 07-120971-3E | November 2000 | Figure 1



LEGEND:

⊗ Approximate Boring Location

0 20 40m
Scale: 1:2,000

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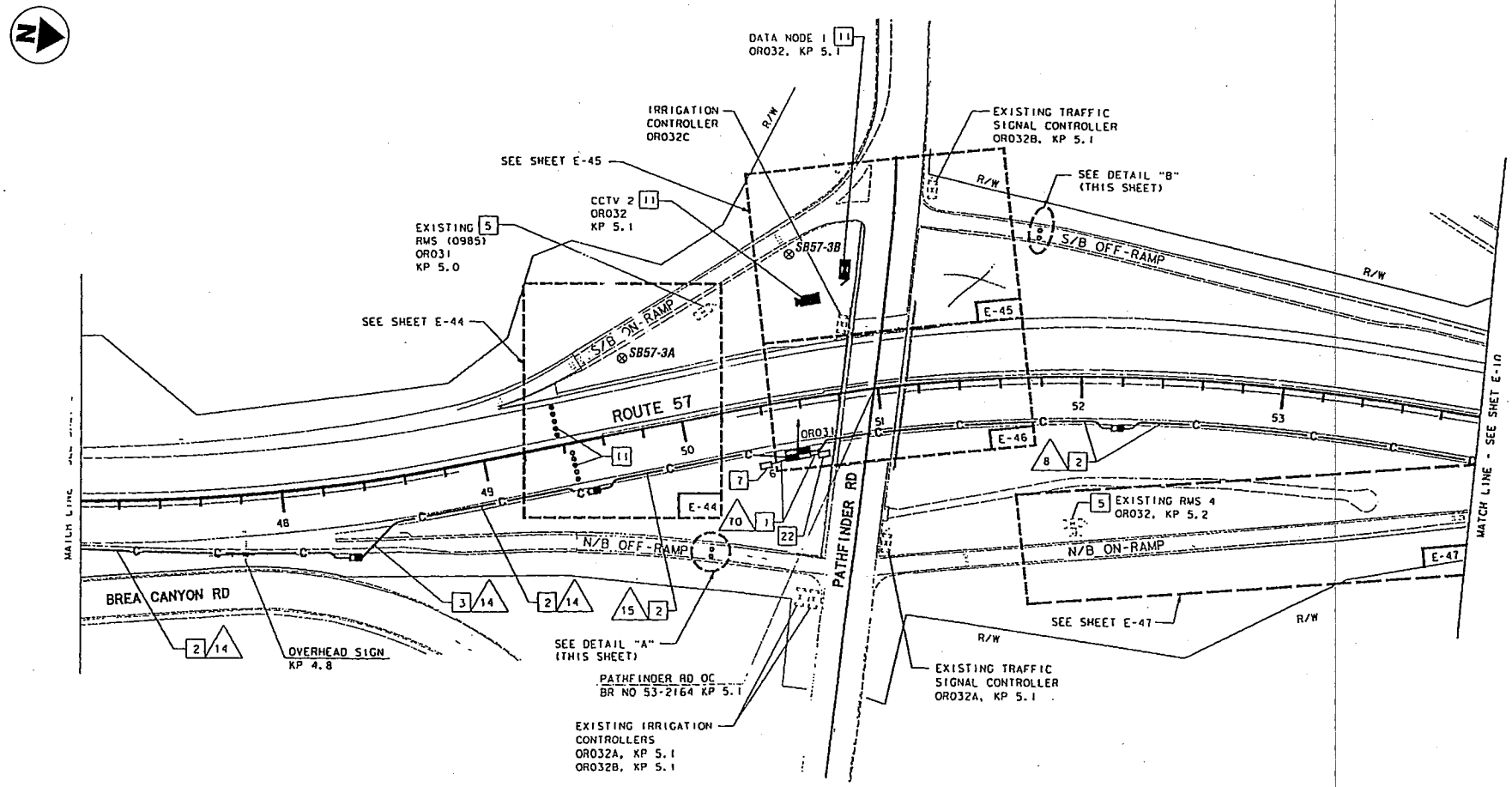
Los Angeles County, California	**SITE PLAN**
GEOCON Proj. No. A8066-66-05	
Task Order No. 07-120971-3E	November 2000 — Figure 2



LEGEND:

⊗ Approximate Boring Location

0 20 40m

Scale: 1:2,000

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Los Angeles County, California	**SITE PLAN**	
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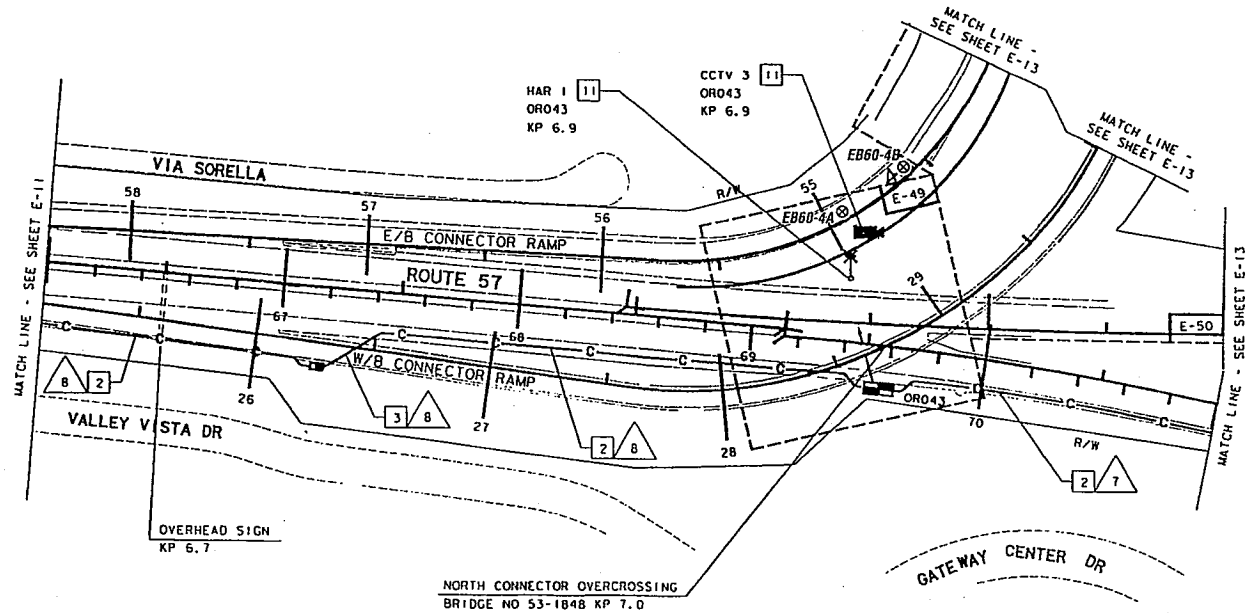
Task Order No. 07-120971-3E	November 2000	Figure 3



LEGEND:

⊗ Approximate Boring Location

0 20 40m

Scale: 1:2,000

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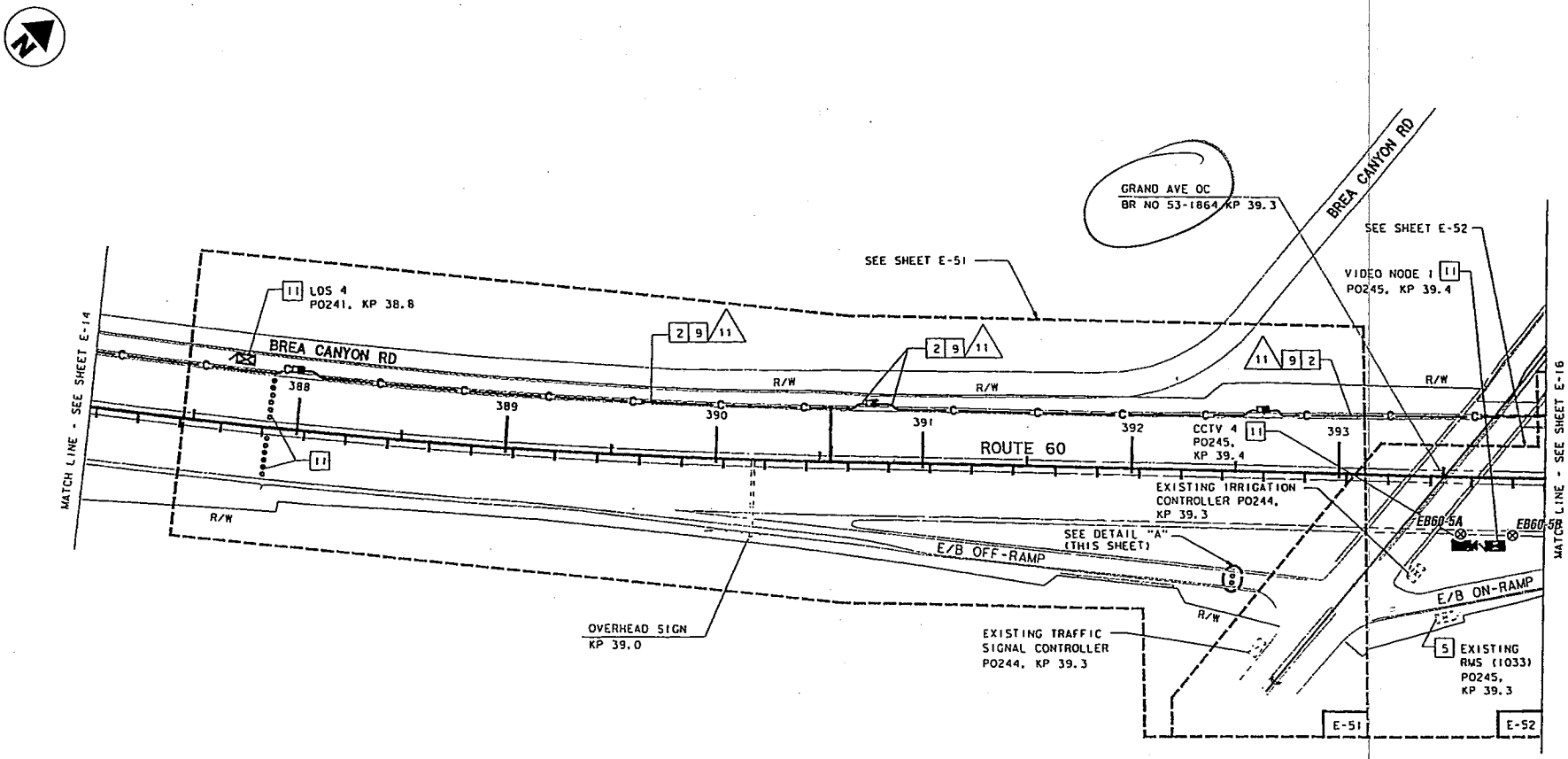
Task Order No. 07-120971-3E

SITE PLAN

November 2000

Figure 4



LEGEND:

⊗ Approximate Boring Location

0 20 40m
Scale: 1:2,000

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SITE PLAN

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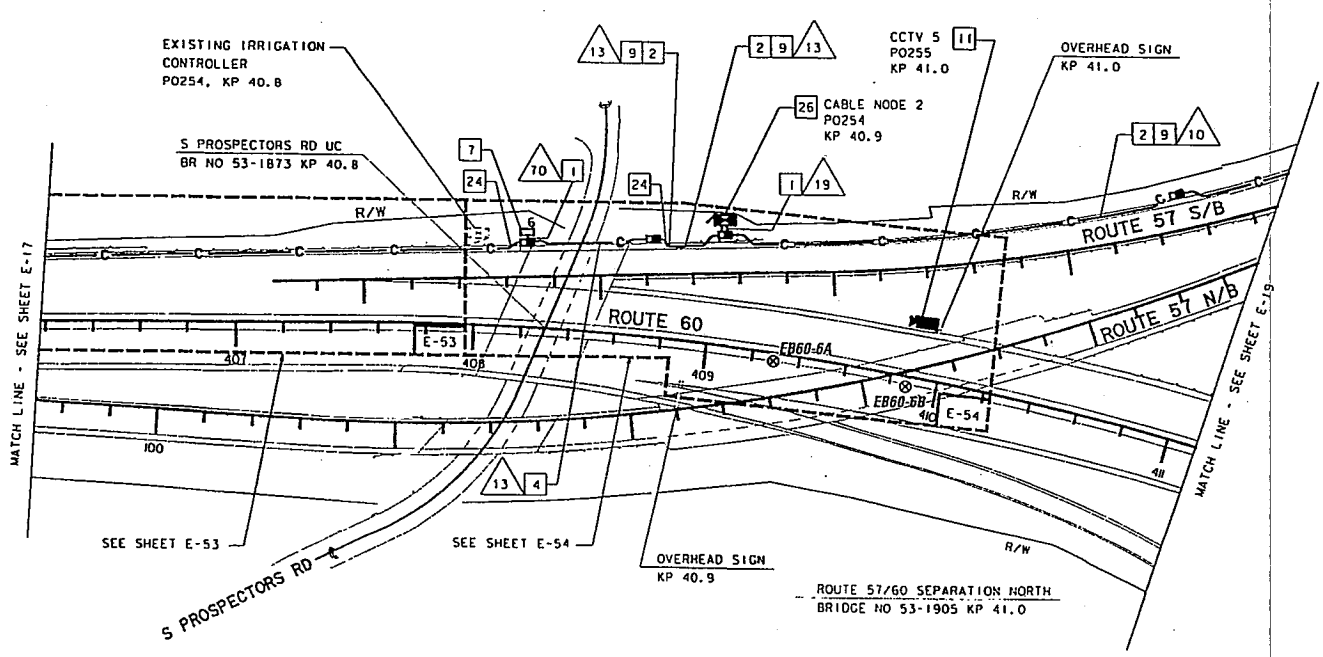
Figure 5



LEGEND:

⊗ Approximate Boring Location

0 20 40m
Scale: 1:2,000

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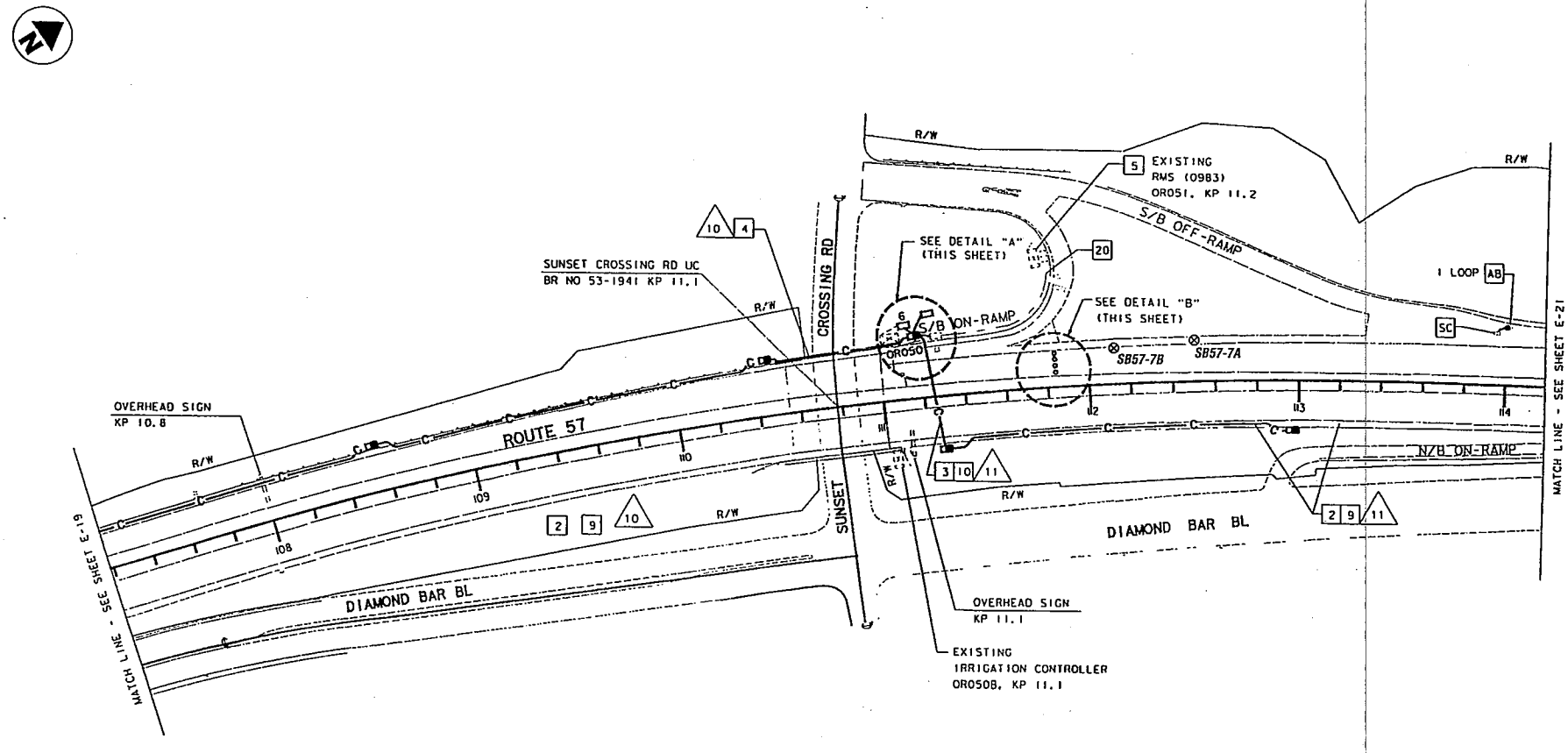
Task Order No. 07-120971-3E	November 2000 — Figure 6



LEGEND:

⊗ Approximate Boring Location

0 20 40m
Scale: 1:2,000

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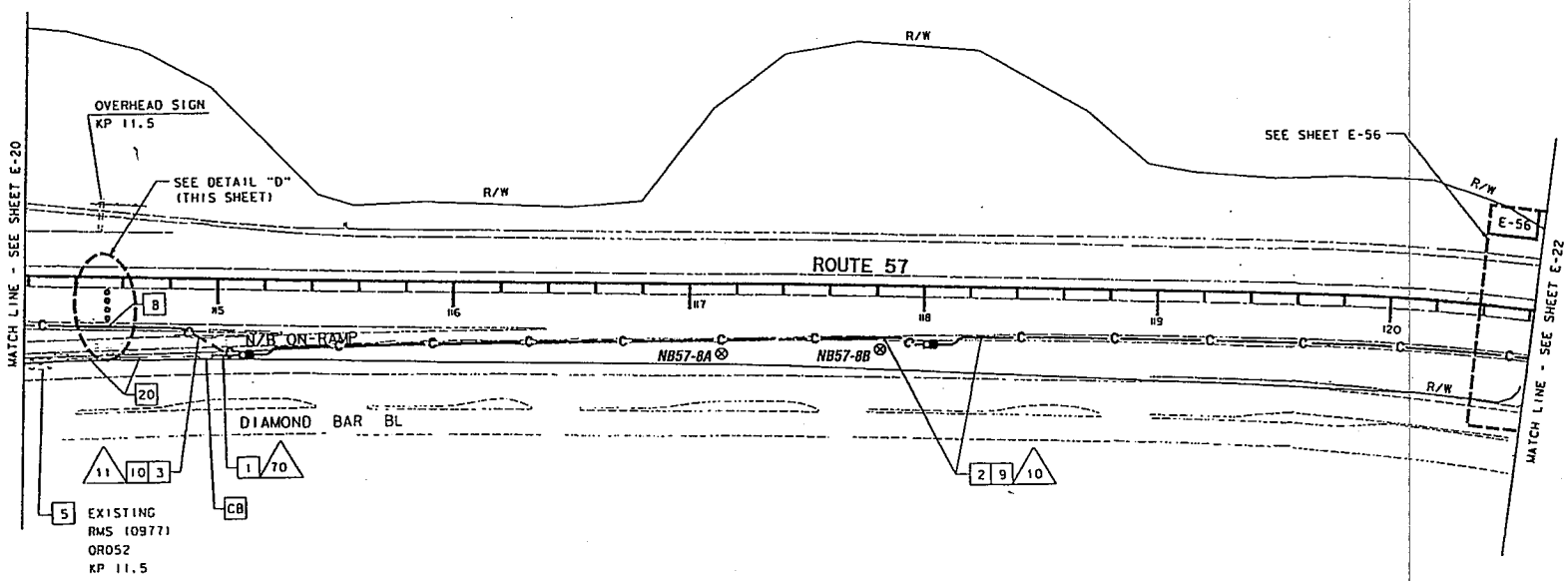
Task Order No. 07-120971-3E	November 2000	Figure 7



LEGEND:

⊗ Approximate Boring Location

0 20 40m
Scale: 1:2,000

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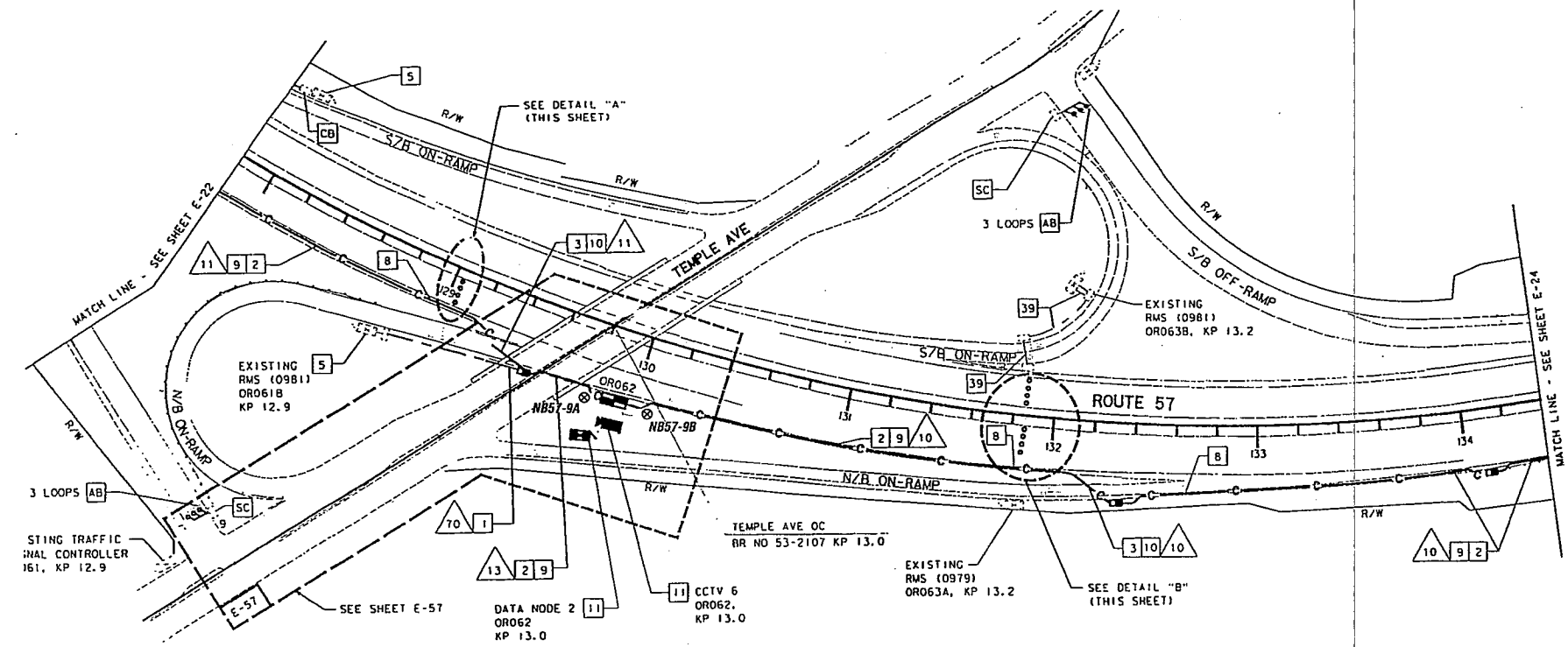
Figure 8



LEGEND:

⊗ Approximate Boring Location

0 20 40m

Scale: 1:2,000

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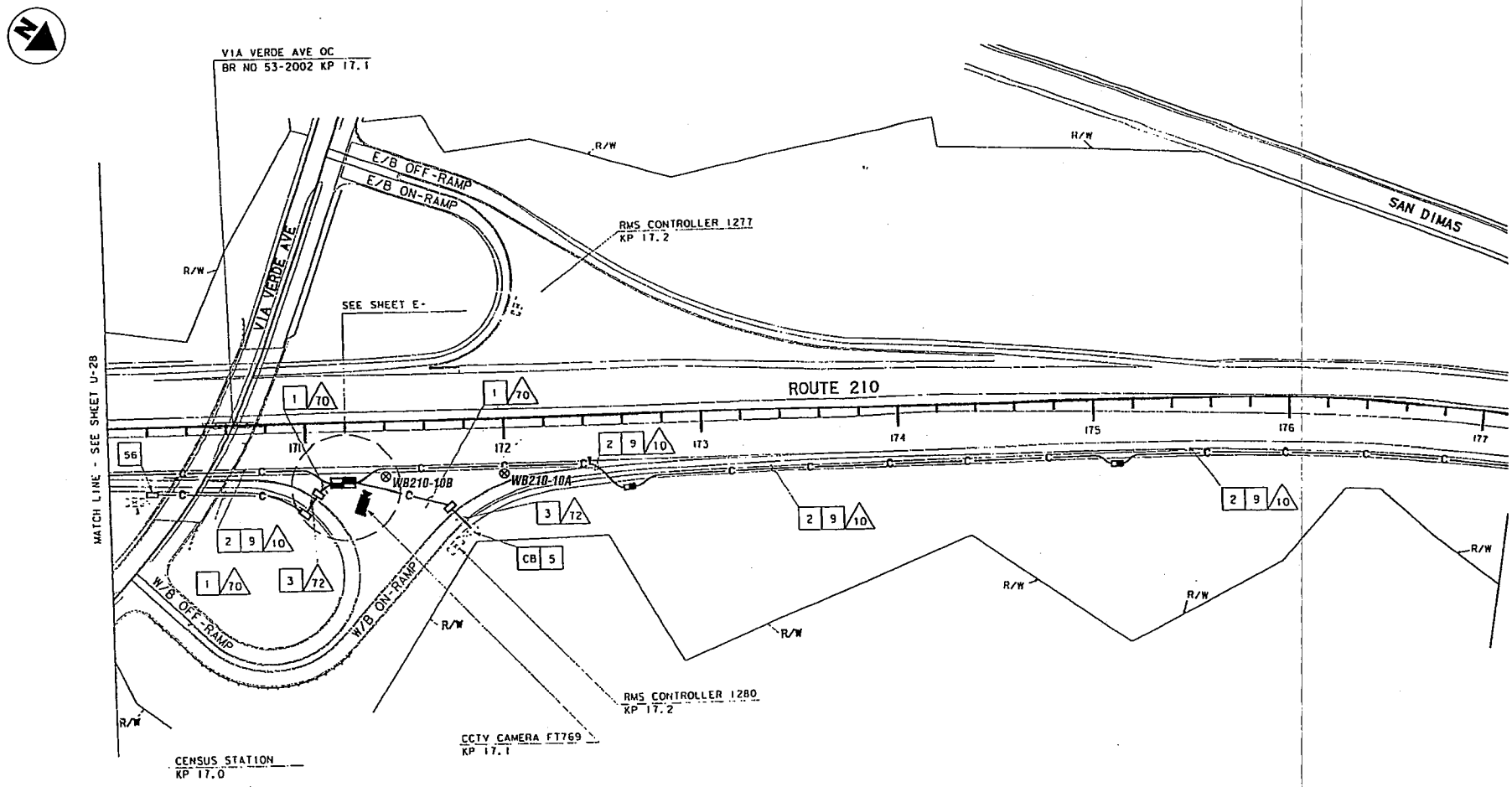
Los Angeles County, California

GEOCON Proj. No. A8066-66-05

SITE PLAN

Task Order No. 07-120971-3E | November 2000 | Figure 9



LEGEND:

⊗ Approximate Boring Location

0 20 40m
Scale: 1:2,000

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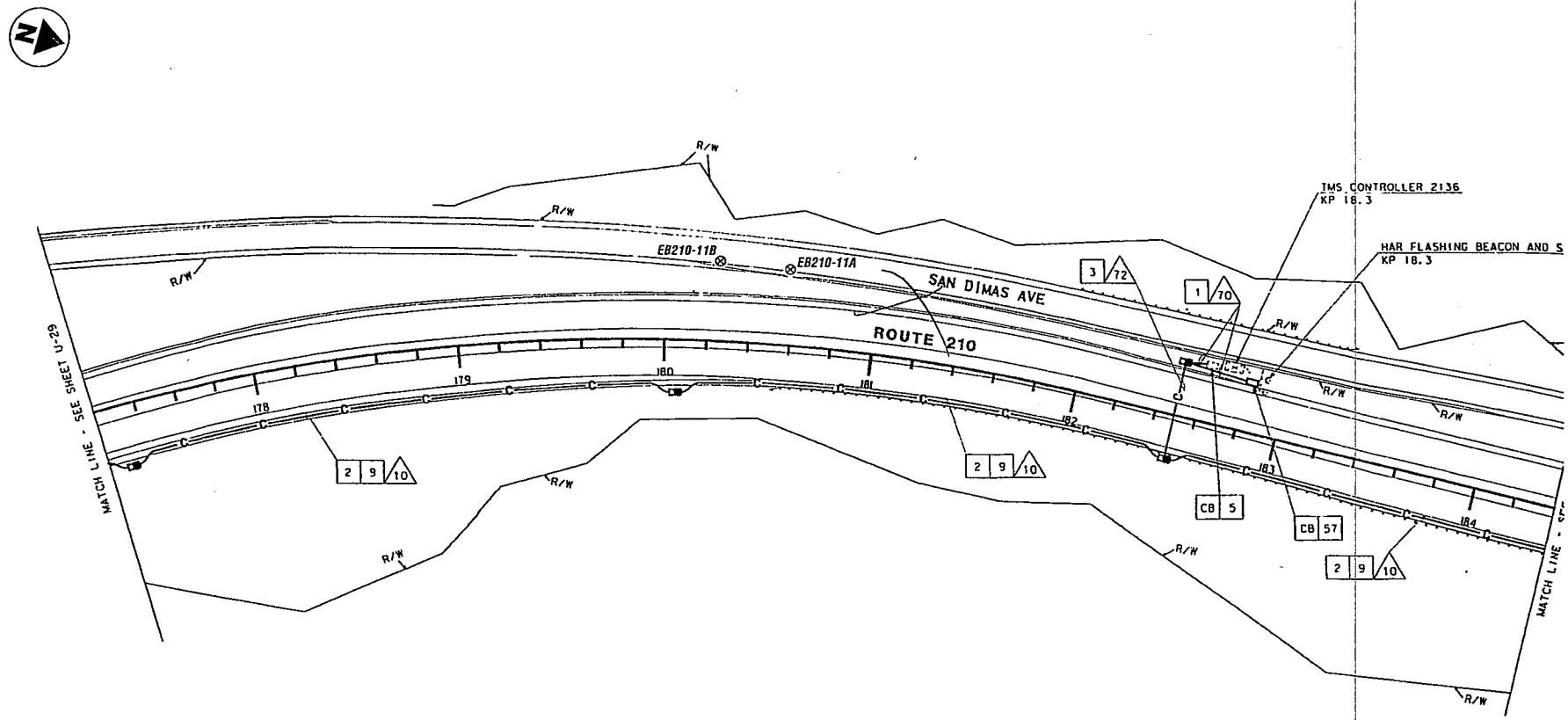
Task Order No. 07-120971-3E	November 2000 — Figure 10



LEGEND:

⊗ Approximate Boring Location

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Scale: 1:2,000

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Routes 57, 60 & 210	
Los Angeles County, California	**SITE PLAN**
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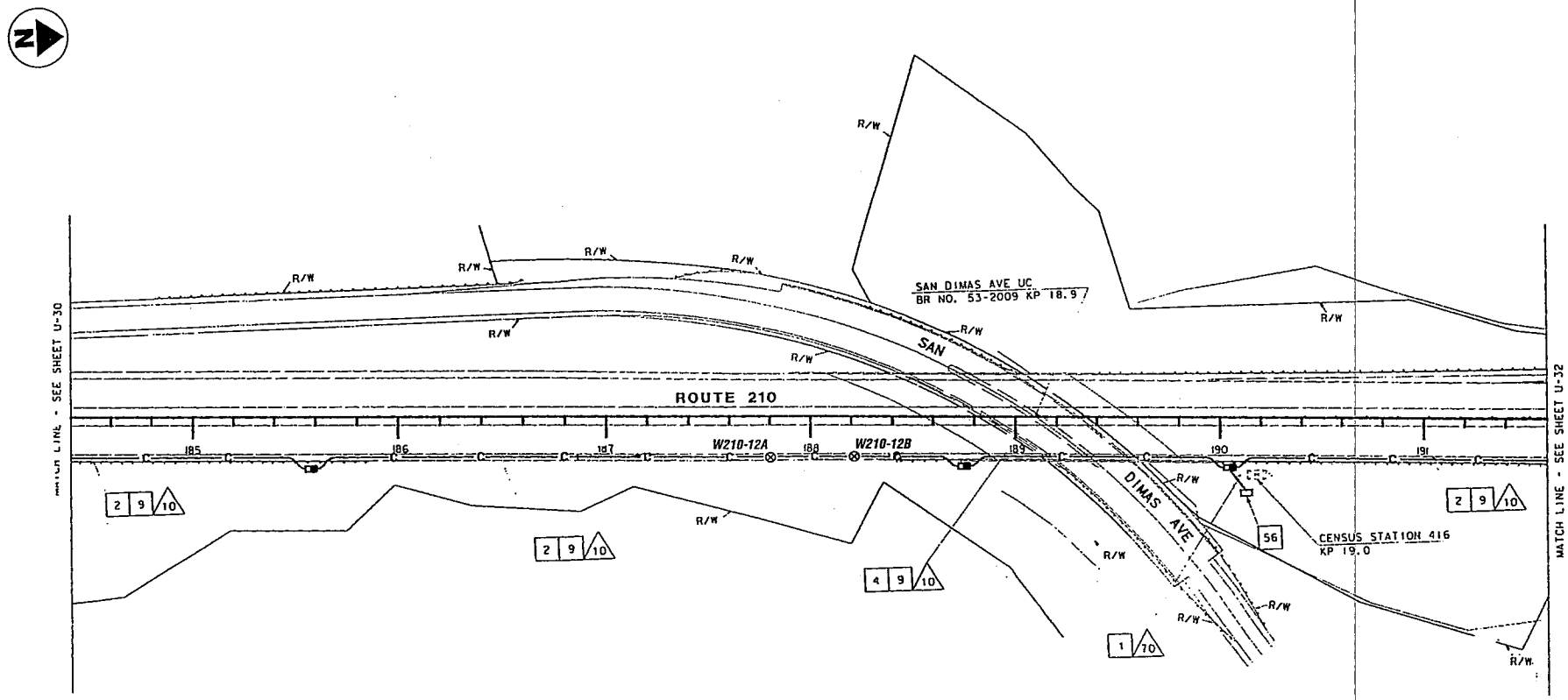
Task Order No. 07-120971-3E	November 2000 / Figure 11



LEGEND:

⊗ Approximate Boring Location

0 20 40m
Scale: 1:2,000

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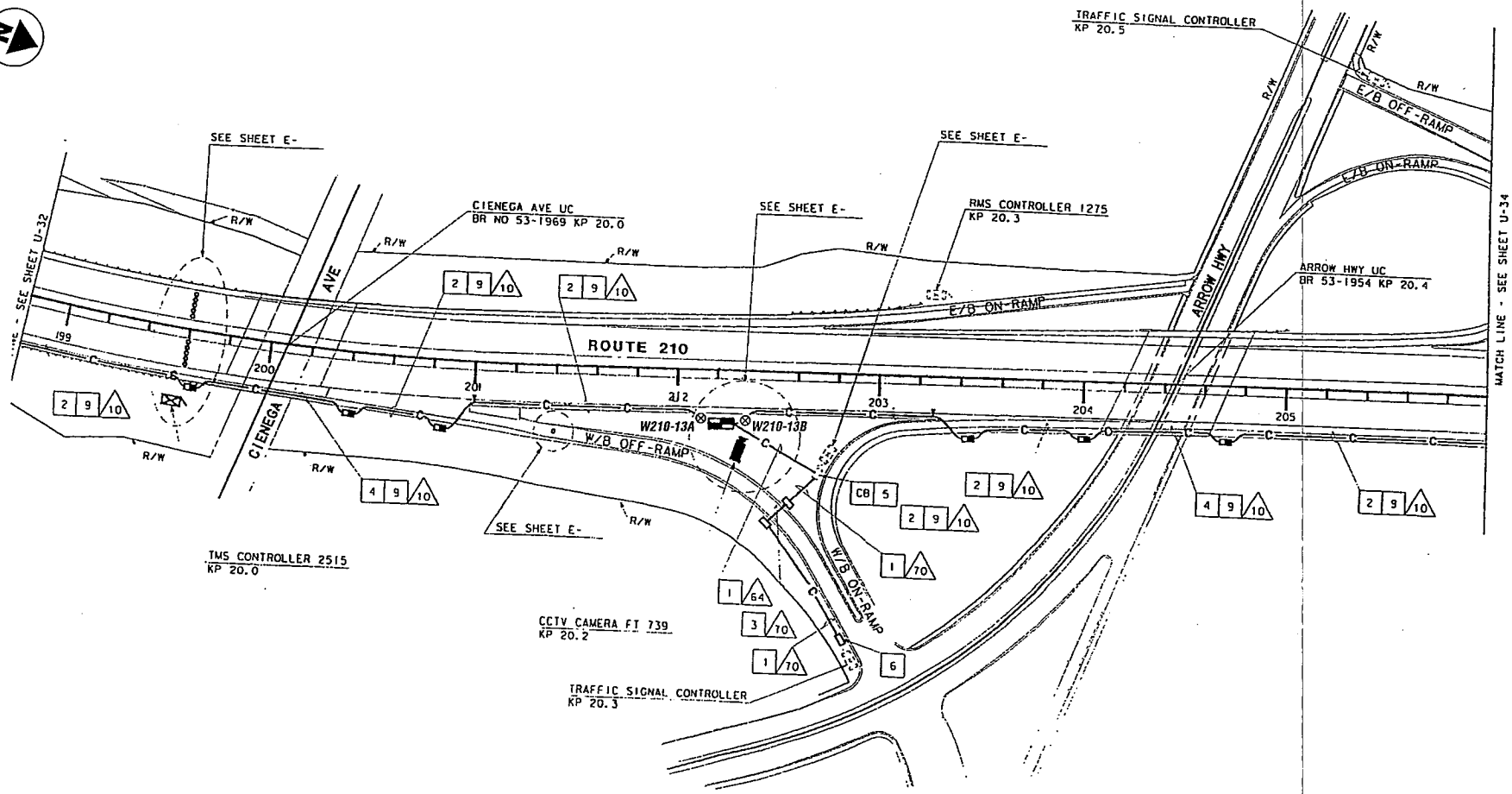
Routes 57, 60 & 210		
Los Angeles County, California	SITE PLAN	
GEOCON Proj. No. A8066-66-05		
Task Order No. 07-120971-3E	November 2000	Figure 12



LEGEND:

⊗ Approximate Boring Location

0 20 40m
Scale: 1:2,000

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Los Angeles County, California	**SITE PLAN**
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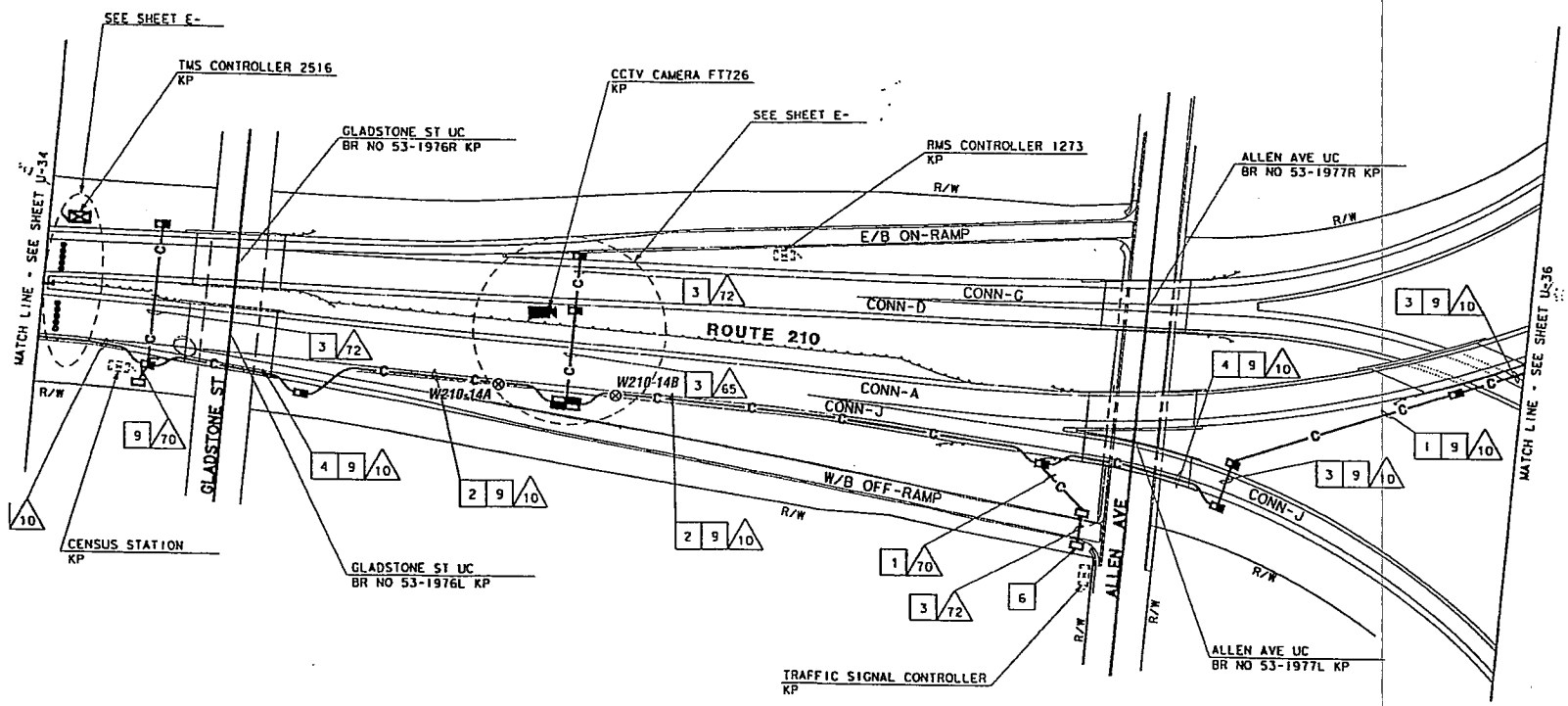
Task Order No. 07-120971-3E	November 2000 / Figure 13



LEGEND:

⊗ Approximate Boring Location

0 20 40m

Scale: 1:2,000

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Routes 57, 60 & 210	
Los Angeles County, California	**SITE PLAN**
GEOCON Proj. No. A8066-66-05	
Task Order No. 07-120971-3E	November 2000 — Figure 14

TABLE 1
SUMMARY OF GPS DATA
ROUTES 57, 60, AND 210

ID.	Description	Feature	Latitude	Longitude
C1A	Highway Shoulder	Point	33.96793	-117.84964
~~C1B~~	~~Highway Shoulder~~	~~Point~~	~~33.96764~~	~~-117.84985~~
C2A	Highway Shoulder	Point	33.96906	-117.84779
C2B	Highway Shoulder	Point	33.96943	-117.84756
C3A	Highway Shoulder	Point	33.98408	-117.84367
C3B	Highway Shoulder	Point	33.98349	-117.84319
C4A	Highway Shoulder	Point	33.99971	-117.83714
C4B	Highway Shoulder	Point	33.99940	-117.83744
EB210-11A	Highway Shoulder	Point	34.08494	-117.81964
EB210-11B	Highway Shoulder	Point	34.08419	-117.81942
EB60-4A	Connector Ramp	Point	34.00188	-117.83399
EB60-4B	Connector Ramp	Point	34.00193	-117.83377
EB60-5A	Highway Shoulder	Point	34.01014	-117.82286
EB60-5B	Highway Shoulder	Point	34.01037	-117.82265
EB60-5B	Highway Shoulder	Point	34.02205	-117.81283
EB60-6A	Highway Shoulder	Point	34.02205	-117.81291
EB60-6B	Highway Shoulder	Point	34.02221	-117.81271
NB57-2A	On-ramp Shoulder	Point	33.96906	-117.84778
NB57-2B	On-ramp Shoulder	Point	33.96944	-117.84755
NB57-2BCOR	Highway Shoulder	Point	33.96949	-117.84768
NB57-8A	Highway Shoulder	Point	34.02670	-117.81181
NB57-8B	Highway Shoulder	Point	34.02705	-117.81169
NB57-9A	Highway Shoulder	Point	34.04364	-117.80047
NB57-9B	Highway Shoulder	Point	34.04386	-117.80044
SB57-1A	Highway Shoulder	Point	33.96794	-117.84965
SB57-1B	Highway Shoulder	Point	33.96764	-117.84985
SB57-2ACOR	Highway Shoulder	Point	33.96910	-117.84792
SB57-3A	On-ramp Shoulder	Point	33.98481	-117.84326
SB57-3ACOR	Highway Shoulder	Point	33.98326	-117.84299
SB57-3B	On-ramp Shoulder	Point	33.98351	-117.84319
SB57-7A	Highway Shoulder	Point	34.03049	-117.81079
SB57-7B	Highway Shoulder	Point	34.03003	-117.81101
W210-12A	Highway Shoulder	Point	34.09129	-117.81925
W210-12B	Highway Shoulder	Point	34.09161	-117.81923
W210-13A	Highway Shoulder	Point	34.10470	-117.82036
W210-13B	Highway Shoulder	Point	34.10495	-117.82049
W210-14A	Highway Shoulder	Point	34.11526	-117.82378
W210-14B	Highway Shoulder	Point	34.11558	-117.82379
WB210-10A	Highway Shoulder	Point	34.07897	-117.81458
WB210-10B	Highway Shoulder	Point	34.07858	-117.81422

TABLE 2
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS
ROUTES 57, 60, AND 210

Total Lead - EPA Test Method 6010
Soluble Lead (WET and WET-DI) - EPA Test Method 7420
Soil pH - EPA Test Method 9045

Sample ID	Sample Depth (m)	Sample Depth (ft)	Total Lead (mg/kg)	Soluble Lead-WET (mg/l)	Soluble Lead-WET-DI (mg/l)	pH
NB57-2A-T	Surface	Surface	6.1	---	---	---
NB57-2A-0.3	0.3	1	5.6	---	---	---
NB57-2A-0.6	0.6	2	5.7	---	---	---
NB57-2B-T	Surface	Surface	13	---	---	8.39
NB57-2B-0.3	0.3	1	8.8	---	---	---
NB57-2B-0.6	0.6	2	ND	---	---	---
NB57-8A-T	Surface	Surface	42	---	---	---
NB57-8A-0.3	0.3	1	69	5.1	ND	---
NB57-8A-0.6	0.6	2	76	4.8	---	---
NB57-8B-T	Surface	Surface	60	3.0	---	---
NB57-8B-0.3	0.3	1	ND	---	---	---
NB57-8B-0.6	0.6	2	ND	---	---	---
NB57-9A-T	Surface	Surface	97	1.4	---	---
NB57-9A-0.3	0.3	1	75	1.2	---	---
NB57-9A-0.6	0.6	2	108	1.3	---	---
NB57-9B-T	Surface	Surface	134	1.4	---	---
NB57-9B-0.3	0.3	1	193	1.6	---	---
NB57-9B-0.6	0.6	2	155	1.5	---	---
SB57-1A-T	Surface	Surface	26	---	---	---
SB57-1A-0.3	0.3	1	7.4	---	---	---
SB57-1A-0.6	0.6	2	5.3	---	---	8.15
SB57-1B-T	Surface	Surface	58	3.2	---	---
SB57-1B-0.3	0.3	1	ND	---	---	---
SB57-1B-0.6	0.6	2	6.4	---	---	---
SB57-3A-T	Surface	Surface	28	---	---	---
SB57-3A-0.3	0.3	1	5.4	---	---	---
SB57-3A-0.6	0.6	2	9.4	---	---	---

TABLE 2
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS
ROUTES 57, 60, AND 210

Total Lead - EPA Test Method 6010
Soluble Lead (WET and WET-DI) - EPA Test Method 7420
Soil pH - EPA Test Method 9045

Sample ID	Sample Depth (m)	Sample Depth (ft)	Total Lead (mg/kg)	Soluble Lead-WET (mg/l)	Soluble Lead-WET-DI (mg/l)	pH
SB57-3B-T	Surface	Surface	13	---	---	7.61
SB57-3B-0.3	0.3	1	ND	---	---	---
SB57-3B-0.6	0.6	2	11	---	---	---
SB57-7A-T	Surface	Surface	520	52	ND	---
SB57-7A-0.3	0.3	1	309	23	ND	---
SB57-7A-0.6	0.6	2	194	21	0.16	---
SB57-7B-T	Surface	Surface	52	3.1	---	7.15
SB57-7B-0.3	0.3	1	24	---	---	---
SB57-7B-0.6	0.6	2	12	---	---	---
EB60-4A-T	Surface	Surface	158	2.6	---	---
EB60-4A-0.3	0.3	1	76	3.5	---	---
EB60-4A-0.6	0.6	2	42	---	---	---
EB60-4B-T	Surface	Surface	202	2.8	---	---
EB60-4B-0.3	0.3	1	**	---	---	---
EB60-4B-0.6	0.6	2	**	---	---	---
EB60-5A-T	Surface	Surface	80	4.3	---	---
EB60-5A-0.3	0.3	1	37	---	---	---
EB60-5A-0.6	0.6	2	15	---	---	---
EB60-5B-T	Surface	Surface	63	3.1	---	---
EB60-5B-0.3	0.3	1	77	1.6	---	8.04
EB60-5B-0.6	0.6	2	77	2.7	---	---
EB60-6A-T	Surface	Surface	154	11	ND	---
EB60-6A-0.3	0.3	1	147	6.4	ND	---
EB60-6A-0.6	0.6	2	12	---	---	---
EB60-6B-T	Surface	Surface	253	14	ND	---
EB60-6B-0.3	0.3	1	169	7.4	---	---
EB60-6B-0.6	0.6	2	22	---	---	---

TABLE 2
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS
ROUTES 57, 60, AND 210

Total Lead - EPA Test Method 6010
Soluble Lead (WET and WET-DI) - EPA Test Method 7420
Soil pH - EPA Test Method 9045

Sample ID	Sample Depth (m)	Sample Depth (ft)	Total Lead (mg/kg)	Soluble Lead-WET (mg/l)	Soluble Lead-WET-DI (mg/l)	pH
WB210-10A-T	Surface	Surface	87	6.7	ND	6.85
WB210-10A-0.3	0.3	1	5.9	---	---	---
WB210-10A-0.6	0.6	2	195	13	ND	---
WB210-10B-T	Surface	Surface	106	7.4	ND	---
WB210-10B-0.3	0.3	1	123	8.8	0.19	---
WB210-10B-0.6	0.6	2	66	3.8	---	7.21
W210-12A-T	Surface	Surface	692	36	---	---
W210-12A-0.3	0.3	1	255	18	---	---
W210-12A-0.6	0.6	2	46	---	---	---
W210-12B-T	Surface	Surface	1850	---	---	---
W210-12B-0.3	0.3	1	103	1.8	---	---
W210-12B-0.6	0.6	2	57	1.4	---	---
W210-13A-T	Surface	Surface	286	16	---	---
W210-13A-0.3	0.3	1	154	6.9	---	7.97
W210-13A-0.6	0.6	2	241	13	---	---
W210-13B-T	Surface	Surface	524	39	---	---
W210-13B-0.3	0.3	1	52	2.6	---	---
W210-13B-0.6	0.6	2	55	3.0	---	---
W210-14A-T	Surface	Surface	121	6.9	---	---
W210-14A-0.3	0.3	1	5.4	---	---	---
W210-14A-0.6	0.6	2	9.4	---	---	---
W210-14B-T	Surface	Surface	125	8.1	---	---
W210-14B-0.3	0.3	1	16	---	---	---
W210-14B-0.6	0.6	2	29	---	---	---
EB210-11A-T	Surface	Surface	247	18	ND	---
EB210-11A-0.3	0.3	1	254	18	ND	---
EB210-11A-0.6	0.6	2	222	17	ND	---

TABLE 2
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS
ROUTES 57, 60, AND 210

Total Lead - EPA Test Method 6010
Soluble Lead (WET and WET-DI) - EPA Test Method 7420
Soil pH - EPA Test Method 9045

Sample ID	Sample Depth (m)	Sample Depth (ft)	Total Lead (mg/kg)	Soluble Lead-WET (mg/l)	Soluble Lead-WET-DI (mg/l)	pH
EB210-11B-T	Surface	Surface	414	1.9	---	---
EB210-11B-0.3	0.3	1	628	4.4	---	---
EB210-11B-0.6	0.6	2	241	3.5	---	---

Notes:

mg/kg = milligrams per kilogram --- = Analysis not performed
mg/l = milligrams per liter

TABLE 3
LEAD STATISTICS
ROUTES 57, 60, AND 210

Routes 57 and 210 - UCLs for the Total Lead Mean and Their Predicted Soluble (WET) Lead Concentrations

Excavation Scenario	90% UCL* (mg/kg)	Predicted Soluble Lead (mg/l)	95% UCL** (mg/kg)	Predicted Soluble Lead (mg/l)
Surface to 1 foot	468	**27**	518	**30**
Underlying soil (1 to 3 feet)	*154*	*8.9*	*167*	*10*
Surface to 2 feet	325	**19**	358	**21**

Route 60 - UCLs for the Total Lead Mean and Their Predicted Soluble (WET) Lead Concentrations

Excavation Scenario	90% UCL* (mg/kg)	Predicted Soluble Lead (mg/l)	95% UCL** (mg/kg)	Predicted Soluble Lead (mg/l)
Surface to 1 foot	216	**12**	229	**13**
Underlying soil (1 to 3 feet)	*109*	*6.3*	*116*	*6.7*
Surface to 2 feet	184	**11**	195	**11**

Notes:

* = 90% UCL applicable if soil will be reused on-site

** = 95% UCL applicable if soil will be relinquished to contractor for disposal or re-use off-site

mg/kg = milligrams per kilogram

mg/l = miligrams per liter

Soluble lead concentrations were predicted using the equation of the regression line (y = 0.0576x).

Concentrations shown in bold are equal to or greater than the lead STLC of 5.0 mg/l.

APPENDIX A

Contract	Task Order	Name	Description	Type of Study	Start Date	End Date
43A0012	07-120971-3E	Route 57, 60, and 210	Route 57, 60, and 210	Aerial lead		

Expenditure Authorization Number

Site ID	Description	Feature	Sequence Number	Point Latitude	Point Longitude
SB57-1A	Highway Shoulder	Point	1	33.96794	-117.84965
SB57-1B	Highway Shoulder	Point	2	33.96764	-117.84985
SB57-3A	On-ramp Shoulder	Point	3	33.98481	-117.84326
SB57-3B	On-ramp Shoulder	Point	4	33.98351	-117.84319
SB57-7A	Highway Shoulder	Point	5	34.03049	-117.81079
SB57-7B	Highway Shoulder	Point	6	34.03003	-117.81101
NB57-2A	On-ramp Shoulder	Point	1	33.96906	-117.84778
NB57-2B	On-ramp Shoulder	Point	2	33.96944	-117.84755
NB57-8A	Highway Shoulder	Point	3	34.02670	-117.81181
NB57-8B	Highway Shoulder	Point	4	34.02705	-117.81169
NB57-9A	Highway Shoulder	Point	5	34.04364	-117.80047
NB57-9B	Highway Shoulder	Point	6	34.04386	-117.80044
EB60-4A	Connector Ramp	Point	1	34.00188	-117.83399
EB60-4B	Connector Ramp	Point	2	34.00193	-117.83377
EB60-5A	Highway Shoulder	Point	3	34.01014	-117.82286
EB60-5B	Highway Shoulder	Point	4	34.01037	-117.82265
EB60-6A	Highway Shoulder	Point	5	34.02205	-117.81291
EB60-6B	Highway Shoulder	Point	6	34.02221	-117.81271
EB210-11A	Highway Shoulder	Point	1	34.08494	-117.81964
EB210-11B	Highway Shoulder	Point	2	34.08419	-117.81942
WB210-12A	Highway Shoulder	Point	1	34.09129	-117.81925
WB210-12B	Highway Shoulder	Point	2	34.09161	-117.81923
WB210-13A	Highway Shoulder	Point	3	34.10470	-117.82036
WB210-13B	Highway Shoulder	Point	4	34.10495	-117.82049
WB210-14A	Highway Shoulder	Point	5	34.11526	-117.82378
WB210-14B	Highway Shoulder	Point	6	34.11558	-117.82379
WB210-10A	Highway Shoulder	Point	7	34.07897	-117.81458
WB210-10B	Highway Shoulder	Point	8	34.07858	-117.81422

Site ID	Roadway Segment ID	District	County	Route	Beginning Post Mile	BPM Suffix	Ending Post Mile	EPM Suffix	Beginning Kilometer Post	BKP Suffix	Ending Kilometer Post	EKP Suffix
SB57	1	7	LA	57	0.0		7.7		0.0		12.4	
SB57	2	7	LA	57	0.0		7.7		0.0		12.4	
SB57	3	7	LA	57	0.0		7.7		0.0		12.4	
SB57	4	7	LA	57	0.0		7.7		0.0		12.4	
SB57	5	7	LA	57	0.0		7.7		0.0		12.4	
SB57	6	7	LA	57	0.0		7.7		0.0		12.4	
NB57	1	7	LA	57	0.0		7.7		0.0		12.4	
NB57	2	7	LA	57	0.0		7.7		0.0		12.4	
NB57	3	7	LA	57	0.0		7.7		0.0		12.4	
NB57	4	7	LA	57	0.0		7.7		0.0		12.4	
NB57	5	7	LA	57	0.0		7.7		0.0		12.4	
NB57	6	7	LA	57	0.0		7.7		0.0		12.4	
EB60	1	7	LA	60	23.2		25.5		37.3		41.0	
EB60	2	7	LA	60	23.2		25.5		37.3		41.0	
EB60	3	7	LA	60	23.2		25.5		37.3		41.0	
EB60	4	7	LA	60	23.2		25.5		37.3		41.0	
EB60	5	7	LA	60	23.2		25.5		37.3		41.0	
EB60	6	7	LA	60	23.2		25.5		37.3		41.0	
EB210	1	7	LA	210	44.4		48.5		71.5		78.1	
EB210	2	7	LA	210	44.4		48.5		71.5		78.1	
WB210	1	7	LA	210	44.4		48.5		71.5		78.1	
WB210	2	7	LA	210	44.4		48.5		71.5		78.1	
WB210	3	7	LA	210	44.4		48.5		71.5		78.1	
WB210	4	7	LA	210	44.4		48.5		71.5		78.1	
WB210	5	7	LA	210	44.4		48.5		71.5		78.1	
WB210	6	7	LA	210	44.4		48.5		71.5		78.1	
WB210	7	7	LA	210	44.4		48.5		71.5		78.1	
WB210	8	7	LA	210	44.4		48.5		71.5		78.1	

Site ID	Roadway Segment ID	Contractor Borehole ID	Borehole Description	Borehole Latitude	Borehole Longitude	Borehole Depth	BHD Units	Parcel Number	Sample ID	Sample Date	Sample Depth	SD Units	Matrix
SB57	1	SB57-1A	Hand Auger Borehole	33.96794	-117.84965	0.6	meters		NB57-1A-T	9/25/2000	0	meters	soil
SB57	1	SB57-1A	Hand Auger Borehole	33.96794	-117.84965	0.6	meters		NB57-1A-0.3	9/25/2000	0.3	meters	soil
SB57	1	SB57-1A	Hand Auger Borehole	33.96794	-117.84965	0.6	meters		NB57-1A-0.6	9/25/2000	0.6	meters	soil
SB57	2	SB57-1B	Hand Auger Borehole	33.96764	-117.84985	0.6	meters		NB57-1B-T	9/25/2000	0	meters	soil
SB57	2	SB57-1B	Hand Auger Borehole	33.96764	-117.84985	0.6	meters		NB57-1B-0.3	9/25/2000	0.3	meters	soil
SB57	2	SB57-1B	Hand Auger Borehole	33.96764	-117.84985	0.6	meters		NB57-1B-0.6	9/25/2000	0.6	meters	soil
SB57	3	SB57-3A	Hand Auger Borehole	33.98481	-117.84326	0.6	meters		SB57-3A-T	9/26/2000	0	meters	soil
SB57	3	SB57-3A	Hand Auger Borehole	33.98481	-117.84326	0.6	meters		SB57-3A-0.3	9/26/2000	0.3	meters	soil
SB57	3	SB57-3A	Hand Auger Borehole	33.98481	-117.84326	0.6	meters		SB57-3A-0.6	9/26/2000	0.6	meters	soil
SB57	4	SB57-3B	Hand Auger Borehole	33.98351	-117.84319	0.6	meters		SB57-3B-T	9/25/2000	0	meters	soil
SB57	4	SB57-3B	Hand Auger Borehole	33.98351	-117.84319	0.6	meters		SB57-3B-0.3	9/25/2000	0.3	meters	soil
SB57	4	SB57-3B	Hand Auger Borehole	33.98351	-117.84319	0.6	meters		SB57-3B-0.6	9/25/2000	0.6	meters	soil
SB57	5	SB57-7A	Hand Auger Borehole	34.03049	-117.81079	0.6	meters		SB57-7A-T	9/26/2000	0	meters	soil
SB57	5	SB57-7A	Hand Auger Borehole	34.03049	-117.81079	0.6	meters		SB57-7A-0.3	9/26/2000	0.3	meters	soil
SB57	5	SB57-7A	Hand Auger Borehole	34.03049	-117.81079	0.6	meters		SB57-7A-0.6	9/26/2000	0.6	meters	soil
SB57	6	SB57-7B	Hand Auger Borehole	34.03003	-117.81101	0.6	meters		SB57-7B-T	9/26/2000	0	meters	soil
SB57	6	SB57-7B	Hand Auger Borehole	34.03003	-117.81101	0.6	meters		SB57-7B-0.3	9/26/2000	0.3	meters	soil
SB57	6	SB57-7B	Hand Auger Borehole	34.03003	-117.81101	0.6	meters		SB57-7B-0.6	9/26/2000	0.6	meters	soil
NB57	1	NB57-2A	Hand Auger Borehole	33.96906	-117.84778	0.6	meters		NB57-2A-T	9/26/2000	0	meters	soil
NB57	1	NB57-2A	Hand Auger Borehole	33.96906	-117.84778	0.6	meters		NB57-2A-0.3	9/26/2000	0.3	meters	soil
NB57	1	NB57-2A	Hand Auger Borehole	33.96906	-117.84778	0.6	meters		NB57-2A-0.6	9/26/2000	0.6	meters	soil
NB57	2	NB57-2B	Hand Auger Borehole	33.96944	-117.84755	0.6	meters		NB57-2B-T	9/26/2000	0	meters	soil
NB57	2	NB57-2B	Hand Auger Borehole	33.96944	-117.84755	0.6	meters		NB57-2B-0.3	9/26/2000	0.3	meters	soil
NB57	2	NB57-2B	Hand Auger Borehole	33.96944	-117.84755	0.6	meters		NB57-2B-0.6	9/26/2000	0.6	meters	soil
NB57	3	NB57-8A	Hand Auger Borehole	34.02670	-117.81181	0.6	meters		NB57-8A-T	9/27/2000	0	meters	soil
NB57	3	NB57-8A	Hand Auger Borehole	34.02670	-117.81181	0.6	meters		NB57-8A-0.3	9/27/2000	0.3	meters	soil
NB57	3	NB57-8A	Hand Auger Borehole	34.02670	-117.81181	0.6	meters		NB57-8A-0.6	9/27/2000	0.6	meters	soil
NB57	4	NB57-8B	Hand Auger Borehole	34.02705	-117.81169	0.6	meters		NB57-8B-T	9/27/2000	0	meters	soil
NB57	4	NB57-8B	Hand Auger Borehole	34.02705	-117.81169	0.6	meters		NB57-8B-0.3	9/27/2000	0.3	meters	soil
NB57	4	NB57-8B	Hand Auger Borehole	34.02705	-117.81169	0.6	meters		NB57-8B-0.6	9/27/2000	0.6	meters	soil
NB57	5	NB57-9A	Hand Auger Borehole	34.04364	-117.80047	0.6	meters		NB57-9A-T	9/27/2000	0	meters	soil
NB57	5	NB57-9A	Hand Auger Borehole	34.04364	-117.80047	0.6	meters		NB57-9A-0.3	9/27/2000	0.3	meters	soil
NB57	5	NB57-9A	Hand Auger Borehole	34.04364	-117.80047	0.6	meters		NB57-9A-0.6	9/27/2000	0.6	meters	soil
NB57	6	NB57-9B	Hand Auger Borehole	34.04386	-117.80044	0.6	meters		NB57-9B-T	9/27/2000	0	meters	soil
NB57	6	NB57-9B	Hand Auger Borehole	34.04386	-117.80044	0.6	meters		NB57-9B-0.3	9/27/2000	0.3	meters	soil
NB57	6	NB57-9B	Hand Auger Borehole	34.04386	-117.80044	0.6	meters		NB57-9B-0.6	9/27/2000	0.6	meters	soil
EB60	1	EB60-4A	Hand Auger Borehole	34.00188	-117.83399	0.6	meters		EB60-4A-T	9/26/2000	0	meters	soil
EB60	1	EB60-4A	Hand Auger Borehole	34.00188	-117.83399	0.6	meters		EB60-4A-0.3	9/26/2000	0.3	meters	soil
EB60	1	EB60-4A	Hand Auger Borehole	34.00188	-117.83399	0.6	meters		EB60-4A-0.6	9/26/2000	0.6	meters	soil
EB60	2	EB60-4B	Hand Auger Borehole	34.00193	-117.83377	0.6	meters		EB60-4B-T	9/26/2000	0	meters	soil
EB60	2	EB60-4B	Hand Auger Borehole	34.00193	-117.83377	0.6	meters		EB60-4B-0.3	9/26/2000	0.3	meters	soil
EB60	2	EB60-4B	Hand Auger Borehole	34.00193	-117.83377	0.6	meters		EB60-4B-0.6	9/26/2000	0.6	meters	soil
EB60	3	EB60-5A	Hand Auger Borehole	34.01014	-117.82286	0.6	meters		EB60-5A-T	9/26/2000	0	meters	soil

Site ID	Roadway Segment ID	Contractor Borehole ID	Borehole Description	Borehole Latitude	Borehole Longitude	Borehole Depth	BHD Units	Parcel Number	Sample ID	Sample Date	Sample Depth	SD Units	Matrix
EB60	3	EB60-5A	Hand Auger Borehole	34.01014	-117.82286	0.6	meters		EB60-5A-0.3	9/26/2000	0.3	meters	soil
EB60	3	EB60-5A	Hand Auger Borehole	34.01014	-117.82286	0.6	meters		EB60-5A-0.6	9/26/2000	0.6	meters	soil
EB60	4	EB60-5B	Hand Auger Borehole	34.01037	-117.82265	0.6	meters		EB60-5B-T	9/26/2000	0	meters	soil
EB60	4	EB60-5B	Hand Auger Borehole	34.01037	-117.82265	0.6	meters		EB60-5B-0.3	9/26/2000	0.3	meters	soil
EB60	4	EB60-5B	Hand Auger Borehole	34.01037	-117.82265	0.6	meters		EB60-5B-0.6	9/26/2000	0.6	meters	soil
EB60	5	EB60-6A	Hand Auger Borehole	34.02205	-117.81291	0.6	meters		EB60-6A-T	9/26/2000	0	meters	soil
EB60	5	EB60-6A	Hand Auger Borehole	34.02205	-117.81291	0.6	meters		EB60-6A-0.3	9/26/2000	0.3	meters	soil
EB60	5	EB60-6A	Hand Auger Borehole	34.02205	-117.81291	0.6	meters		EB60-6A-0.6	9/26/2000	0.6	meters	soil
EB60	6	EB60-6B	Hand Auger Borehole	34.02221	-117.81271	0.6	meters		EB60-6B-T	9/26/2000	0	meters	soil
EB60	6	EB60-6B	Hand Auger Borehole	34.02221	-117.81271	0.6	meters		EB60-6B-0.3	9/26/2000	0.3	meters	soil
EB60	6	EB60-6B	Hand Auger Borehole	34.02221	-117.81271	0.6	meters		EB60-6B-0.6	9/26/2000	0.6	meters	soil
EB210	1	EB210-11A	Hand Auger Borehole	34.08494	-117.81964	0.6	meters		EB210-11A-T	9/27/2000	0	meters	soil
EB210	1	EB210-11A	Hand Auger Borehole	34.08494	-117.81964	0.6	meters		EB210-11A-0.3	9/27/2000	0.3	meters	soil
EB210	1	EB210-11A	Hand Auger Borehole	34.08494	-117.81964	0.6	meters		EB210-11A-0.6	9/27/2000	0.6	meters	soil
EB210	2	EB210-11B	Hand Auger Borehole	34.08419	-117.81942	0.6	meters		EB210-11B-T	9/27/2000	0	meters	soil
EB210	2	EB210-11B	Hand Auger Borehole	34.08419	-117.81942	0.6	meters		EB210-11B-0.3	9/27/2000	0.3	meters	soil
EB210	2	EB210-11B	Hand Auger Borehole	34.08419	-117.81942	0.6	meters		EB210-11B-0.6	9/27/2000	0.6	meters	soil
WB210	1	WB210-12A	Hand Auger Borehole	34.09129	-117.81925	0.6	meters		WB210-12A-T	9/28/2000	0	meters	soil
WB210	1	WB210-12A	Hand Auger Borehole	34.09129	-117.81925	0.6	meters		WB210-12A-0.3	9/28/2000	0.3	meters	soil
WB210	1	WB210-12A	Hand Auger Borehole	34.09129	-117.81925	0.6	meters		WB210-12A-0.6	9/28/2000	0.6	meters	soil
WB210	2	WB210-12B	Hand Auger Borehole	34.09161	-117.81923	0.6	meters		WB210-12B-T	9/28/2000	0	meters	soil
WB210	2	WB210-12B	Hand Auger Borehole	34.09161	-117.81923	0.6	meters		WB210-12B-0.3	9/28/2000	0.3	meters	soil
WB210	2	WB210-12B	Hand Auger Borehole	34.09161	-117.81923	0.6	meters		WB210-12B-0.6	9/28/2000	0.6	meters	soil
WB210	3	WB210-13A	Hand Auger Borehole	34.10470	-117.82036	0.6	meters		WB210-13A-T	9/28/2000	0	meters	soil
WB210	3	WB210-13A	Hand Auger Borehole	34.10470	-117.82036	0.6	meters		WB210-13A-0.3	9/28/2000	0.3	meters	soil
WB210	3	WB210-13A	Hand Auger Borehole	34.10470	-117.82036	0.6	meters		WB210-13A-0.6	9/28/2000	0.6	meters	soil
WB210	4	WB210-13B	Hand Auger Borehole	34.10495	-117.82049	0.6	meters		WB210-13B-T	9/28/2000	0	meters	soil
WB210	4	WB210-13B	Hand Auger Borehole	34.10495	-117.82049	0.6	meters		WB210-13B-0.3	9/28/2000	0.3	meters	soil
WB210	4	WB210-13B	Hand Auger Borehole	34.10495	-117.82049	0.6	meters		WB210-13B-0.6	9/28/2000	0.6	meters	soil
WB210	5	WB210-14A	Hand Auger Borehole	34.11526	-117.82378	0.6	meters		WB210-14A-T	9/28/2000	0	meters	soil
WB210	5	WB210-14A	Hand Auger Borehole	34.11526	-117.82378	0.6	meters		WB210-14A-0.3	9/28/2000	0.3	meters	soil
WB210	5	WB210-14A	Hand Auger Borehole	34.11526	-117.82378	0.6	meters		WB210-14A-0.6	9/28/2000	0.6	meters	soil
WB210	6	WB210-14B	Hand Auger Borehole	34.11558	-117.82379	0.6	meters		WB210-14B-T	9/28/2000	0	meters	soil
WB210	6	WB210-14B	Hand Auger Borehole	34.11558	-117.82379	0.6	meters		WB210-14B-0.3	9/28/2000	0.3	meters	soil
WB210	6	WB210-14B	Hand Auger Borehole	34.11558	-117.82379	0.6	meters		WB210-14B-0.6	9/28/2000	0.6	meters	soil
WB210	7	WB210-10A	Hand Auger Borehole	34.07897	-117.81458	0.6	meters		WB210-10A-T	9/27/2000	0	meters	soil
WB210	7	WB210-10A	Hand Auger Borehole	34.07897	-117.81458	0.6	meters		WB210-10A-0.3	9/27/2000	0.3	meters	soil
WB210	7	WB210-10A	Hand Auger Borehole	34.07897	-117.81458	0.6	meters		WB210-10A-0.6	9/27/2000	0.6	meters	soil
WB210	8	WB210-10B	Hand Auger Borehole	34.07858	-117.81422	0.6	meters		WB210-10B-T	9/27/2000	0	meters	soil
WB210	8	WB210-10B	Hand Auger Borehole	34.07858	-117.81422	0.6	meters		WB210-10B-0.3	9/27/2000	0.3	meters	soil
WB210	8	WB210-10B	Hand Auger Borehole	34.07858	-117.81422	0.6	meters		WB210-10B-0.6	9/27/2000	0.6	meters	soil

Contract	Task Order
43A0012	07-120971-3E

Site ID	Contractor Borehole ID	Sample ID	Analysis	Lab Analysis ID	Matrix	Analysis Date	Lab Name	Result Units	Analyte	Values	Method Detection Limit
SB57	SB57-1A	SB57-1A-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	7.4	5.0
SB57	SB57-1A	SB57-1A-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	5.3	5.0
SB57	SB57-1A	SB57-1A-0.6	pH	9045	Soil	10/4/2000	ATL	pH	pH	8.15	0.01
SB57	SB57-1A	SB57-1A-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	26	5.0
SB57	SB57-1B	SB57-1B-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	ND	5.0
SB57	SB57-1B	SB57-1B-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	6.4	5.0
SB57	SB57-1B	SB57-1B-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	58	5.0
SB57	SB57-1B	SB57-1B-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	3.2	0.15
SB57	SB57-3A	SB57-3A-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	5.4	5.0
SB57	SB57-3A	SB57-3A-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	9.4	5.0
SB57	SB57-3A	SB57-3A-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	28	5.0
SB57	SB57-3B	SB57-3B-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	ND	5.0
SB57	SB57-3B	SB57-3B-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	11	5.0
SB57	SB57-3B	SB57-3B-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	13	5.0
SB57	SB57-3B	SB57-3B-T	pH	9045	Soil	10/4/2000	ATL	pH	pH	7.61	0.01
SB57	SB57-7A	SB57-7A-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	309	5.0
SB57	SB57-7A	SB57-7A-0.3	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	23	0.15
SB57	SB57-7A	SB57-7A-0.3	STLC (DI)	7420	Soil	11/13/2000	ATL	mg/l	Lead	ND	0.10
SB57	SB57-7A	SB57-7A-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	194	5.0
SB57	SB57-7A	SB57-7A-0.6	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	21	0.15
SB57	SB57-7A	SB57-7A-0.6	STLC (DI)	7420	Soil	11/3/2000	ATL	mg/l	Lead	0.16	0.10
SB57	SB57-7A	SB57-7A-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	520	5.0
SB57	SB57-7A	SB57-7A-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	52	0.15
SB57	SB57-7A	SB57-7A-T	STLC (DI)	7420	Soil	11/15/2000	ATL	mg/l	Lead	ND	0.10
SB57	SB57-7B	SB57-7B-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	24	5.0
SB57	SB57-7B	SB57-7B-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	12	5.0
SB57	SB57-7B	SB57-7B-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	52	5.0
SB57	SB57-7B	SB57-7B-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	3.1	0.15
SB57	SB57-7B	SB57-7B-T	pH	9045	Soil	10/4/2000	ATL	pH	pH	7.15	0.01
NB57	NB57-2A	NB57-2A-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	5.6	5.0
NB57	NB57-2A	NB57-2A-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	5.7	5.0
NB57	NB57-2A	NB57-2A-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	6.1	5.0
NB57	NB57-2B	NB57-2B-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	8.8	5.0
NB57	NB57-2B	NB57-2B-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	ND	5.0
NB57	NB57-2B	NB57-2B-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	13	5.0
NB57	NB57-2B	NB57-2B-T	pH	9045	Soil	10/4/2000	ATL	pH	pH	8.39	0.01
NB57	NB57-8A	NB57-8A-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	69	5.0
NB57	NB57-8A	NB57-8A-0.3	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	5.1	0.15

Site ID	Contractor Borehole ID	Sample ID	Analysis	Lab Analysis ID	Matrix	Analysis Date	Lab Name	Result Units	Analyte	Values	Method Detection Limit
NB57	NB57-8A	NB57-8A-0.3	STLC (DI)	7420	Soil	11/14/2000	ATL	mg/l	Lead	ND	0.10
NB57	NB57-8A	NB57-8A-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	76	5.0
NB57	NB57-8A	NB57-8A-0.6	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	4.8	0.15
NB57	NB57-8A	NB57-8A-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	42	5.0
NB57	NB57-8B	NB57-8B-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	ND	5.0
NB57	NB57-8B	NB57-8B-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	ND	5.0
NB57	NB57-8B	NB57-8B-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	60	5.0
NB57	NB57-8B	NB57-8B-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	3.0	0.15
NB57	NB57-9A	NB57-9A-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	75	5.0
NB57	NB57-9A	NB57-9A-0.3	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	1.2	0.15
NB57	NB57-9A	NB57-9A-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	108	5.0
NB57	NB57-9A	NB57-9A-0.6	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	1.3	0.15
NB57	NB57-9A	NB57-9A-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	97	5.0
NB57	NB57-9A	NB57-9A-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	1.4	0.15
NB57	NB57-9B	NB57-9B-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	193	5.0
NB57	NB57-9B	NB57-9B-0.3	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	1.6	0.15
NB57	NB57-9B	NB57-9B-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	155	5.0
NB57	NB57-9B	NB57-9B-0.6	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	1.5	0.15
NB57	NB57-9B	NB57-9B-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	134	5.0
NB57	NB57-9B	NB57-9B-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	1.4	0.15
EB60	EB60-4A	EB60-4A-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	76	5.0
EB60	EB60-4A	EB60-4A-0.3	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	3.5	0.15
EB60	EB60-4A	EB60-4A-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	42	5.0
EB60	EB60-4A	EB60-4A-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	158	5.0
EB60	EB60-4A	EB60-4A-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	2.6	0.15
EB60	EB60-4B	EB60-4B-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	202	5.0
EB60	EB60-4B	EB60-4B-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	2.8	0.15
EB60	EB60-5A	EB60-5A-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	37	5.0
EB60	EB60-5A	EB60-5A-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	15	5.0
EB60	EB60-5A	EB60-5A-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	80	5.0
EB60	EB60-5A	EB60-5A-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	4.3	0.15
EB60	EB60-5B	EB60-5B-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	77	5.0
EB60	EB60-5B	EB60-5B-0.3	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	1.6	0.15
EB60	EB60-5B	EB60-5B-0.3	pH	9045	Soil	10/4/2000	ATL	pH	pH	8.04	0.01
EB60	EB60-5B	EB60-5B-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	77	5.0
EB60	EB60-5B	EB60-5B-0.6	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	2.7	0.15
EB60	EB60-5B	EB60-5B-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	63	5.0
EB60	EB60-5B	EB60-5B-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	3.1	0.15

Site ID	Contractor Borehole ID	Sample ID	Analysis	Lab Analysis ID	Matrix	Analysis Date	Lab Name	Result Units	Analyte	Values	Method Detection Limit
EB60	EB60-6A	EB60-6A-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	147	5.0
EB60	EB60-6A	EB60-6A-0.3	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	6.4	0.15
EB60	EB60-6A	EB60-6A-0.3	STLC (DI)	7420	Soil	11/16/2000	ATL	mg/l	Lead	ND	0.10
EB60	EB60-6A	EB60-6A-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	12	5.0
EB60	EB60-6A	EB60-6A-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	154	5.0
EB60	EB60-6A	EB60-6A-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	11	0.15
EB60	EB60-6A	EB60-6A-T	STLC (DI)	7420	Soil	11/11/2000	ATL	mg/l	Lead	ND	0.10
EB60	EB60-6B	EB60-6B-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	169	5.0
EB60	EB60-6B	EB60-6B-0.3	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	7.4	0.15
EB60	EB60-6B	EB60-6B-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	22	5.0
EB60	EB60-6B	EB60-6B-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	253	5.0
EB60	EB60-6B	EB60-6B-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	14	0.15
EB60	EB60-6B	EB60-6B-T	STLC (DI)	7420	Soil	11/12/2000	ATL	mg/l	Lead	ND	0.10
EB210	EB210-11A	EB210-11A-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	254	5.0
EB210	EB210-11A	EB210-11A-0.3	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	18	0.15
EB210	EB210-11A	EB210-11A-0.3	STLC (DI)	7420	Soil	11/9/2000	ATL	mg/l	Lead	ND	0.10
EB210	EB210-11A	EB210-11A-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	222	5.0
EB210	EB210-11A	EB210-11A-0.6	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	17	0.15
EB210	EB210-11A	EB210-11A-0.6	STLC (DI)	7420	Soil	11/8/2000	ATL	mg/l	Lead	ND	0.10
EB210	EB210-11A	EB210-11A-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	247	5.0
EB210	EB210-11A	EB210-11A-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	18	0.15
EB210	EB210-11A	EB210-11A-T	STLC (DI)	7420	Soil	11/10/2000	ATL	mg/l	Lead	ND	0.10
EB210	EB210-11B	EB210-11B-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	628	5.0
EB210	EB210-11B	EB210-11B-0.3	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	4.4	0.15
EB210	EB210-11B	EB210-11B-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	241	5.0
EB210	EB210-11B	EB210-11B-0.6	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	3.5	0.15
EB210	EB210-11B	EB210-11B-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	414	5.0
EB210	EB210-11B	EB210-11B-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	1.9	0.15
WB210	W210-12A	W210-12A-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	255	5.0
WB210	W210-12A	W210-12A-0.3	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	18	0.15
WB210	W210-12A	W210-12A-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	46	5.0
WB210	W210-12A	W210-12A-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	692	5.0
WB210	W210-12A	W210-12A-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	36	0.15
WB210	W210-12B	W210-12B-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	103	5.0
WB210	W210-12B	W210-12B-0.3	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	1.8	0.15
WB210	W210-12B	W210-12B-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	57	5.0
WB210	W210-12B	W210-12B-0.6	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	1.4	0.15
WB210	W210-12B	W210-12B-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	.1850	5.0

Site ID	Contractor Borehole ID	Sample ID	Analysis	Lab Analysis ID	Matrix	Analysis Date	Lab Name	Result Units	Analyte	Values	Method Detection Limit
WB210	W210-13A	W210-13A-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	154	5.0
WB210	W210-13A	W210-13A-0.3	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	6.9	0.15
WB210	W210-13A	W210-13A-0.3	pH	9045	Soil	10/4/2000	ATL	pH	pH	7.97	0.01
WB210	W210-13A	W210-13A-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	241	5.0
WB210	W210-13A	W210-13A-0.6	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	13	0.15
WB210	W210-13A	W210-13A-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	286	5.0
WB210	W210-13A	W210-13A-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	16	0.15
WB210	W210-13B	W210-13B-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	52	5.0
WB210	W210-13B	W210-13B-0.3	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	2.6	0.15
WB210	W210-13B	W210-13B-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	55	5.0
WB210	W210-13B	W210-13B-0.6	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	3.0	0.15
WB210	W210-13B	W210-13B-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	524	5.0
WB210	W210-13B	W210-13B-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	39	0.15
WB210	W210-14A	W210-14A-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	5.4	5.0
WB210	W210-14A	W210-14A-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	9.4	5.0
WB210	W210-14A	W210-14A-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	121	5.0
WB210	W210-14A	W210-14A-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	6.9	0.15
WB210	W210-14B	W210-14B-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	16	5.0
WB210	W210-14B	W210-14B-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	29	5.0
WB210	W210-14B	W210-14B-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	125	5.0
WB210	W210-14B	W210-14B-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	8.1	0.15
WB210	WB210-10A	WB210-10A-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	5.9	5.0
WB210	WB210-10A	WB210-10A-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	195	5.0
WB210	WB210-10A	WB210-10A-0.6	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	13	0.15
WB210	WB210-10A	WB210-10A-0.6	STLC (DI)	7420	Soil	11/7/2000	ATL	mg/l	Lead	ND	0.10
WB210	WB210-10A	WB210-10A-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	87	5.0
WB210	WB210-10A	WB210-10A-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	6.7	0.15
WB210	WB210-10A	WB210-10A-T	STLC (DI)	7420	Soil	11/5/2000	ATL	mg/l	Lead	ND	0.10
WB210	WB210-10A	WB210-10A-T	pH	9045	Soil	10/4/2000	ATL	pH	pH	6.85	0.01
WB210	WB210-10B	WB210-10B-0.3	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	123	5.0
WB210	WB210-10B	WB210-10B-0.3	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	8.8	0.15
WB210	WB210-10B	WB210-10B-0.3	STLC (DI)	7420	Soil	11/4/2000	ATL	mg/l	Lead	0.19	0.10
WB210	WB210-10B	WB210-10B-0.6	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	66	5.0
WB210	WB210-10B	WB210-10B-0.6	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	3.8	0.15
WB210	WB210-10B	WB210-10B-0.6	pH	9045	Soil	10/4/2000	ATL	pH	pH	7.21	0.01
WB210	WB210-10B	WB210-10B-T	TTLC	6010	Soil	10/5/2000	ATL	mg/kg	Lead	106	5.0
WB210	WB210-10B	WB210-10B-T	STLC	7420	Soil	10/27/2000	ATL	mg/l	Lead	7.4	0.15
WB210	WB210-10B	WB210-10B-T	STLC (DI)	7420	Soil	11/6/2000	ATL	mg/l	Lead	ND	0.10

APPENDIX B

ELAP No.: 1838

Geocon Environmental
624 S. Grand Avenue, Suite 2900
Los Angeles, CA 90017-3330

ATTN: Curt Welty

Client's Project: Route 210, 57, 60, #A8066-06-05
Lab No.: 46977-001/066

Enclosed are the results for sample(s) received by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company. Please feel free to call me at (562) 989 - 4045 if I can be of further assistance to your company.

Sincerely,

Date: 11/15/01

Cheryl De Los Reyes
Technical Operations Manager
CDR/jh

Enclosures

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

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purpose without authorization is prohibited.

Client: Geocon Environmental
Attn: Curt Welty

Client's Project: Route 210, 57, 60, #A8066-06-05

Date Received: 09/27/00
Date Sampled: 09/25/00
Date Digested: 10/04/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46977-001	SB57-1A-T	EPA 6010 (Lead)	10/05/00	26	Soil, mg/kg	5.0	5.0	DJ
46977-002	SB57-1A-0.3	EPA 6010 (Lead)	10/05/00	7.4	Soil, mg/kg	5.0	5.0	DJ
46977-003	SB57-1A-0.6	EPA 6010 (Lead)	10/05/00	5.3	Soil, mg/kg	5.0	5.0	DJ
46977-004	SB57-1B-T	EPA 6010 (Lead)	10/05/00	58	Soil, mg/kg	5.0	5.0	DJ
46977-005	SB57-1B-0.3	EPA 6010 (Lead)	10/05/00	ND	Soil, mg/kg	5.0	5.0	DJ
46977-006	SB57-1B-0.6	EPA 6010 (Lead)	10/05/00	6.4	Soil, mg/kg	5.0	5.0	DJ
46977-007	SB57-3B-T	EPA 6010 (Lead)	10/05/00	13	Soil, mg/kg	5.0	5.0	DJ
46977-008	SB57-3B-0.3	EPA 6010 (Lead)	10/05/00	ND	Soil, mg/kg	5.0	5.0	DJ
46977-009	SB57-3B-0.6	EPA 6010 (Lead)	10/05/00	11	Soil, mg/kg	5.0	5.0	DJ
46977-010	EB60-4A-T	EPA 6010 (Lead)	10/05/00	158	Soil, mg/kg	5.0	5.0	DJ
46977-010Dup	EB60-4A-T	EPA 6010 (Lead)	10/05/00	106	Soil, mg/kg	5.0	5.0	DJ
46977-011	EB60-4B-T	EPA 6010 (Lead)	10/05/00	202	Soil, mg/kg	5.0	5.0	DJ
46977-014	EB60-5A-T	EPA 6010 (Lead)	10/05/00	80	Soil, mg/kg	5.0	5.0	DJ
46977-015	EB60-5A-0.3	EPA 6010 (Lead)	10/05/00	37	Soil, mg/kg	5.0	5.0	DJ
46977-016	EB60-5A-0.6	EPA 6010 (Lead)	10/05/00	15	Soil, mg/kg	5.0	5.0	DJ
46977-017	EB60-5A-T	EPA 6010 (Lead)	10/05/00	63	Soil, mg/kg	5.0	5.0	DJ
46977-018	EB60-5B-0.3	EPA 6010 (Lead)	10/05/00	77	Soil, mg/kg	5.0	5.0	DJ
46977-019	EB60-5B-0.6	EPA 6010 (Lead)	10/05/00	77	Soil, mg/kg	5.0	5.0	DJ
46977-020	NB57-2A-T	EPA 6010 (Lead)	10/05/00	6.1	Soil, mg/kg	5.0	5.0	DJ
46977-020Dup	NB57-2A-T	EPA 6010 (Lead)	10/05/00	8.4	Soil, mg/kg	5.0	5.0	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 10/9/00
Eddie Rodriguez
Inorganics Supervisor

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

Client: Geocon Environmental
Attn: Curt Welty

Client's Project: Route 210, 57, 60, #A8066-06-05

Date Received: 09/27/00
Date Sampled: 09/25/00
Date Digested: 10/04/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46977-021	NB57-2A-0.3	EPA 6010 (Lead)	10/05/00	5.6	Soil, mg/kg	5.0	5.0	DJ
46977-022	NB57-2A-0.6	EPA 6010 (Lead)	10/05/00	5.7	Soil, mg/kg	5.0	5.0	DJ
46977-023	NB57-2B-T	EPA 6010 (Lead)	10/05/00	13	Soil, mg/kg	5.0	5.0	DJ
46977-024	NB57-2B-0.3	EPA 6010 (Lead)	10/05/00	8.8	Soil, mg/kg	5.0	5.0	DJ
46977-025	NB57-2B-0.6	EPA 6010 (Lead)	10/05/00	ND	Soil, mg/kg	5.0	5.0	DJ
46977-026	SB57-3A-T	EPA 6010 (Lead)	10/05/00	28	Soil, mg/kg	5.0	5.0	DJ
46977-027	SB57-3A-0.3	EPA 6010 (Lead)	10/05/00	5.4	Soil, mg/kg	5.0	5.0	DJ
46977-028	SB57-3A-0.6	EPA 6010 (Lead)	10/05/00	9.4	Soil, mg/kg	5.0	5.0	DJ
46977-029	EB60-6A-T	EPA 6010 (Lead)	10/05/00	154	Soil, mg/kg	5.0	5.0	DJ
46977-030	EB60-6A-0.3	EPA 6010 (Lead)	10/05/00	147	Soil, mg/kg	5.0	5.0	DJ
46977-030Dup	EB60-6A-0.3	EPA 6010 (Lead)	10/05/00	77	Soil, mg/kg	5.0	5.0	DJ
46977-031	EB60-6A-0.6	EPA 6010 (Lead)	10/05/00	12	Soil, mg/kg	5.0	5.0	DJ
46977-032	EB60-6B-T	EPA 6010 (Lead)	10/05/00	253	Soil, mg/kg	5.0	5.0	DJ
46977-033	EB60-6B-0.3	EPA 6010 (Lead)	10/05/00	169	Soil, mg/kg	5.0	5.0	DJ
46977-034	EB60-6B-0.6	EPA 6010 (Lead)	10/05/00	22	Soil, mg/kg	5.0	5.0	DJ
46977-035	SB57-7A-T	EPA 6010 (Lead)	10/05/00	520	Soil, mg/kg	5.0	5.0	DJ
46977-036	SB57-7A-0.3	EPA 6010 (Lead)	10/05/00	309	Soil, mg/kg	5.0	5.0	DJ
46977-037	SB57-7A-0.6	EPA 6010 (Lead)	10/05/00	194	Soil, mg/kg	5.0	5.0	DJ
46977-038	SB57-7B-T	EPA 6010 (Lead)	10/05/00	52	Soil, mg/kg	5.0	5.0	DJ
46977-039	SB57-7B-0.3	EPA 6010 (Lead)	10/05/00	24	Soil, mg/kg	5.0	5.0	DJ
46977-040	SB57-7B-0.6	EPA 6010 (Lead)	10/05/00	12	Soil, mg/kg	5.0	5.0	DJ
46977-040Dup	SB57-7B-0.6	EPA 6010 (Lead)	10/05/00	ND	Soil, mg/kg	5.0	5.0	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 10/9/00
Eddie Rodriguez
Inorganics Supervisor

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

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Curt Welty

Client's Project: Route 210, 57, 60, #A8066-06-05

Date Received: 09/27/00
Date Sampled: 09/25/00
Date Digested: 10/04/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46977-041	NB57-8A-T	EPA 6010 (Lead)	10/05/00	42	Soil, mg/kg	5.0	5.0	DJ
46977-042	NB57-8A-0.3	EPA 6010 (Lead)	10/05/00	69	Soil, mg/kg	5.0	5.0	DJ
46977-043	NB57-8A-0.6	EPA 6010 (Lead)	10/05/00	76	Soil, mg/kg	5.0	5.0	DJ
46977-044	NB57-8B-T	EPA 6010 (Lead)	10/05/00	60	Soil, mg/kg	5.0	5.0	DJ
46977-045	NB57-8B-0.3	EPA 6010 (Lead)	10/05/00	ND	Soil, mg/kg	5.0	5.0	DJ
46977-046	NB57-8B-0.6	EPA 6010 (Lead)	10/05/00	ND	Soil, mg/kg	5.0	5.0	DJ
46977-047	NB57-9A-T	EPA 6010 (Lead)	10/05/00	97	Soil, mg/kg	5.0	5.0	DJ
46977-048	NB57-9A-0.3	EPA 6010 (Lead)	10/05/00	75	Soil, mg/kg	5.0	5.0	DJ
46977-049	NB57-9A-0.6	EPA 6010 (Lead)	10/05/00	108	Soil, mg/kg	5.0	5.0	DJ
46977-050	NB57-9B-T	EPA 6010 (Lead)	10/05/00	134	Soil, mg/kg	5.0	5.0	DJ
46977-050Dup	NB57-9B-T	EPA 6010 (Lead)	10/05/00	142	Soil, mg/kg	5.0	5.0	DJ
46977-051	NB57-9B-0.3	EPA 6010 (Lead)	10/05/00	193	Soil, mg/kg	5.0	5.0	DJ
46977-052	NB57-9B-0.6	EPA 6010 (Lead)	10/05/00	155	Soil, mg/kg	5.0	5.0	DJ
46977-053	WB210-10A-T	EPA 6010 (Lead)	10/05/00	87	Soil, mg/kg	5.0	5.0	DJ
46977-054	WB210-10A-0.3	EPA 6010 (Lead)	10/05/00	5.9	Soil, mg/kg	5.0	5.0	DJ
46977-055	WB210-10A-0.6	EPA 6010 (Lead)	10/05/00	195	Soil, mg/kg	5.0	5.0	DJ
46977-056	WB210-10B-T	EPA 6010 (Lead)	10/05/00	106	Soil, mg/kg	5.0	5.0	DJ
46977-057	WB210-10B-0.3	EPA 6010 (Lead)	10/05/00	123	Soil, mg/kg	5.0	5.0	DJ
46977-058	WB210-10B-0.6	EPA 6010 (Lead)	10/05/00	66	Soil, mg/kg	5.0	5.0	DJ
46977-059	EB210-11A-T	EPA 6010 (Lead)	10/05/00	247	Soil, mg/kg	5.0	5.0	DJ
46977-060	EB210-11A-0.3	EPA 6010 (Lead)	10/05/00	254	Soil, mg/kg	5.0	5.0	DJ
46977-060Dup	EB210-11A-0.3	EPA 6010 (Lead)	10/05/00	217	Soil, mg/kg	5.0	5.0	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 10/9/00
Eddie Rodriguez
Inorganics Supervisor

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

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Curt Welty

Client's Project: Route 210, 57, 60, #A8066-06-05

Date Received: 09/27/00
Date Sampled: 09/25/00
Date Digested: 10/04/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46977-061	EB210-11A-0.6	EPA 6010 (Lead)	10/05/00	222	Soil, mg/kg	5.0	5.0	DJ
46977-062	EB210-11B-T	EPA 6010 (Lead)	10/05/00	414	Soil, mg/kg	5.0	5.0	DJ
46977-063	EB210-11B-0.3	EPA 6010 (Lead)	10/05/00	628	Soil, mg/kg	5.0	5.0	DJ
46977-064	EB210-11B-0.6	EPA 6010 (Lead)	10/05/00	241	Soil, mg/kg	5.0	5.0	DJ
46977-065	EB60-4A-0.3	EPA 6010 (Lead)	10/05/00	76	Soil, mg/kg	5.0	5.0	DJ
46977-066	EB60-4A-0.6	EPA 6010 (Lead)	10/05/00	48	Soil, mg/kg	5.0	5.0	DJ
46977-066Dup	EB60-4A-0.6	EPA 6010 (Lead)	10/05/00	42	Soil, mg/kg	5.0	5.0	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 10/9/00
Eddie Rodriguez
Inorganics Supervisor

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

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Spike Recovery and RPD Summary Report

Method: EPA 6010 (Lead)

Analyst: DJ/OL

Data File: ICP001004-6

QA File: 0276-6

Date Analyzed: 10/5/00

Date Digested: 10/4/00

Sample ID: See below

Matrix: Soil

QC Batch NO: 001004S-6

Sample ID	UNITS	METH BLANK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	%MS REC	MDL
046977-010	mg/kg	ND	158	106	39	250	300	57	0.25
046977-020	mg/kg	ND	6.1	8.4	32	250	235	92	0.25
046977-030	mg/kg	ND	147	77	63	250	273	50	0.25
046977-040*	mg/kg	ND	12	ND	*	250	213	80	0.25
046977-050	mg/kg	ND	134	142	6	250	364	92	0.25
046977-060	mg/kg	ND	254	217	16	250	430	70	0.25
046977-066	mg/kg	ND	48	42	13	250	243	78	0.25

* %DEV not calculated, result at/near detection limit.

Approved by: _____

Eddie F. Rodriguez
Inorganic Supervisor

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *11-Oct-00*

CLIENT: Geocon Environmental
Lab Order: 046977
Project: Rte 210, 57, 60 - A8066-06-05

Sample ID	Client Sample ID	Test No	pH	Units	Analysis Date	Analyst
046977-018	EB60-5B-0.3	EPA 9045C	8.04	pH Units	10/4/00	HLP
046977-023	NB57-2B-T	EPA 9045C	8.39	pH Units	10/4/00	HLP
046977-003	SB57-1A-0.6	EPA 9045C	8.15	pH Units	10/4/00	HLP
046977-007	SB57-3B-T	EPA 9045C	7.61	pH Units	10/4/00	HLP
046977-038	SB57-7B-T	EPA 9045C	7.15	pH Units	10/4/00	HLP
046977-053	WB210-10A-T	EPA 9045C	6.85	pH Units	10/4/00	HLP
046977-058	WB210-10B-0.6	EPA 9045C	7.21	pH Units	10/4/00	HLP

Initial By: _____

Advanced Technology Laboratories

1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *13-Nov-00*

CLIENT: Geocon Environmental
Work Order: 046977
Project: Rte 210, 57, 60 - A8066-06-05

QC SUMMARY REPORT
Sample Duplicate

Sample ID **047014-001A** Batch ID: **R3243** Test Name **TOTAL FILTERABLE RESIDUE** Units **mg/L** Analysis Date: **10/4/00** Prep Date: **10/4/00**
DUP SeqNo: **54277**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	547	10	0	0	0	0	0	542	1	30	

Sample ID **046977-053A** Batch ID: **R3243** Test Name **pH** Units **pH Uni** Analysis Date: **10/4/00** Prep Date: **10/4/00**
DUP SeqNo: **69737**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	6.82	0.10	0	0	0	0	0	0	0	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
M - Not Monitored. Highly Reactive

Initials: DR

Client: Geocon Environmental
Attn: Curt Welty

Client's Project: Route 210, 57, 60, #A8066-06-05

Date Received: 09/27/00
Date Sampled: 09/25/00
Date Extracted: 10/14/00
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II)

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46977-004	SB57-1B-T	EPA 7420 (Lead)	10/20/00	3.2	STLC Extract, mg/L	0.15	0.15	NS
46977-010	EB60-4A-T	EPA 7420 (Lead)	10/20/00	2.6	STLC Extract, mg/L	0.15	0.15	NS
46977-011	EB60-4B-T	EPA 7420 (Lead)	10/20/00	2.8	STLC Extract, mg/L	0.15	0.15	NS
46977-014	EB60-5A-T	EPA 7420 (Lead)	10/20/00	4.3	STLC Extract, mg/L	0.15	0.15	NS
46977-017	EB60-5A-T	EPA 7420 (Lead)	10/20/00	3.1	STLC Extract, mg/L	0.15	0.15	NS
46977-018	EB60-5B-0.3	EPA 7420 (Lead)	10/20/00	1.6	STLC Extract, mg/L	0.15	0.15	NS
46977-019	EB60-5B-0.6	EPA 7420 (Lead)	10/20/00	2.7	STLC Extract, mg/L	0.15	0.15	NS
46977-029	EB60-6A-T	EPA 7420 (Lead)	10/20/00	11	STLC Extract, mg/L	0.15	0.15	NS
46977-030	EB60-6A-0.3	EPA 7420 (Lead)	10/20/00	6.4	STLC Extract, mg/L	0.15	0.15	NS
46977-030Dup	EB60-6A-0.3	EPA 7420 (Lead)	10/20/00	5.2	STLC Extract, mg/L	0.15	0.15	NS
46977-032	EB60-6B-T	EPA 7420 (Lead)	10/20/00	14	STLC Extract, mg/L	0.15	0.15	NS
46977-035	SB57-7A-T	EPA 7420 (Lead)	10/20/00	52	STLC Extract, mg/L	0.15	0.60	NS
46977-036	SB57-7A-0.3	EPA 7420 (Lead)	10/20/00	23	STLC Extract, mg/L	0.15	0.30	NS
46977-037	SB57-7A-0.6	EPA 7420 (Lead)	10/20/00	21	STLC Extract, mg/L	0.15	0.30	NS
46977-038	SB57-7B-T	EPA 7420 (Lead)	10/20/00	3.1	STLC Extract, mg/L	0.15	0.15	NS
46977-042	NB57-8A-0.3	EPA 7420 (Lead)	10/20/00	5.1	STLC Extract, mg/L	0.15	0.15	NS
46977-043	NB57-8A-0.6	EPA 7420 (Lead)	10/20/00	4.8	STLC Extract, mg/L	0.15	0.15	NS
46977-044	NB57-8B-T	EPA 7420 (Lead)	10/20/00	3.0	STLC Extract, mg/L	0.15	0.15	NS
46977-047	NB57-9A-T	EPA 7420 (Lead)	10/20/00	1.4	STLC Extract, mg/L	0.15	0.15	NS
46977-048	NB57-9A-0.3	EPA 7420 (Lead)	10/20/00	1.2	STLC Extract, mg/L	0.15	0.15	NS
46977-048Dup	NB57-9A-0.3	EPA 7420 (Lead)	10/20/00	1.3	STLC Extract, mg/L	0.15	0.15	NS

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 10/20/00
Eddie Rodriguez
Inorganics Supervisor

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

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Curt Welty

Client's Project: Route 210, 57, 60, #A8066-06-05

Date Received: 09/27/00
Date Sampled: 09/25/00
Date Extracted: 10/14/00
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II)

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46977-049	NB57-9A-0.6	EPA 7420 (Lead)	10/20/00	1.3	STLC Extract, mg/L	0.15	0.15	NS
46977-050	NB57-9B-T	EPA 7420 (Lead)	10/20/00	1.4	STLC Extract, mg/L	0.15	0.15	NS
46977-051	NB57-9B-0.3	EPA 7420 (Lead)	10/20/00	1.6	STLC Extract, mg/L	0.15	0.15	NS
46977-052	NB57-9B-0.6	EPA 7420 (Lead)	10/20/00	1.5	STLC Extract, mg/L	0.15	0.15	NS
46977-053	WB210-10A-T	EPA 7420 (Lead)	10/20/00	6.7	STLC Extract, mg/L	0.15	0.15	NS
46977-055	WB210-10A-0.6	EPA 7420 (Lead)	10/20/00	13	STLC Extract, mg/L	0.15	0.15	NS
46977-056	WB210-10B-T	EPA 7420 (Lead)	10/20/00	7.4	STLC Extract, mg/L	0.15	0.15	NS
46977-057	WB210-10B-0.3	EPA 7420 (Lead)	10/20/00	8.8	STLC Extract, mg/L	0.15	0.15	NS
46977-058	WB210-10B-0.6	EPA 7420 (Lead)	10/20/00	3.8	STLC Extract, mg/L	0.15	0.15	NS
46977-059	EB210-11A-T	EPA 7420 (Lead)	10/20/00	18	STLC Extract, mg/L	0.15	0.30	NS
46977-059Dup	EB210-11A-T	EPA 7420 (Lead)	10/20/00	18	STLC Extract, mg/L	0.15	0.30	NS
46977-060	EB210-11A-0.3	EPA 7420 (Lead)	10/20/00	18	STLC Extract, mg/L	0.15	0.30	NS
46977-061	EB210-11A-0.6	EPA 7420 (Lead)	10/20/00	17	STLC Extract, mg/L	0.15	0.30	NS
46977-062	EB210-11B-T	EPA 7420 (Lead)	10/20/00	1.9	STLC Extract, mg/L	0.15	0.15	NS
46977-063	EB210-11B-0.3	EPA 7420 (Lead)	10/20/00	4.4	STLC Extract, mg/L	0.15	0.15	NS
46977-064	EB210-11B-0.6	EPA 7420 (Lead)	10/20/00	3.5	STLC Extract, mg/L	0.15	0.15	NS
46977-065	EB60-4A-0.3	EPA 7420 (Lead)	10/20/00	3.5	STLC Extract, mg/L	0.15	0.15	NS
46977-065Dup	EB60-4A-0.3	EPA 7420 (Lead)	10/20/00	3.3	STLC Extract, mg/L	0.15	0.15	NS

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 10/20/00
Eddie Rodriguez
Inorganics Supervisor

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

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Curt Welty

Client's Project: Route 210, 57, 60, #A8066-06-05

Date Received: 09/27/00
Date Sampled: 09/25/00
Date Extracted: 10/21/00
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II)

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46977-033	EB60-6B-0.3	EPA 7420 (Lead)	10/24/00	7.4	STLC Extract, mg/L	0.15	0.15	NS

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 10/25/00
Eddie Rodriguez
Inorganics Supervisor

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

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Spike Recovery and RPD Summary Report

Method: EPA 7420 (LEAD)

Analyst: NS

Data File: PBF001020STLC-1

QA File: 0294-1ST

Date Analyzed: 10/20/00

Date Digested: N/A

Sample ID: See below

Matrix: STLC EXTRACT

QC Batch No. : PBF001020STLC-1

Sample ID	UNITS	METH BLANK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	%MS REC	% REC Limit	MDL
046977-030	mg/l	ND	6.4	5.2	21	5.0	11	92	80-120	0.15
046977-048	mg/l	ND	1.2	1.3	8	5.0	5.8	92	80-120	0.15
046977-059	mg/l	ND	18	18	0	5.0	26	160	80-120	0.15
046977-065	mg/l	ND	3.5	3.3	6	5.0	7.6	82	80-120	0.15

Approved by: EFR 10/20/00

Eddie F. Rodriguez
Inorganics Supervisor

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Spike Recovery and RPD Summary Report

Method: EPA 7420 (LEAD)

Analyst: NS

Data File: PBF001024STLC-1

QA File: 0298-1STLC

Date Analyzed: 10/24/00

Date Digested: N/A

Sample ID: See below

Matrix: STLC EXTRACT

QC Batch No. : PBF001024STLC-1

Sample ID	UNITS	METH BLANK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	%MS REC	% REC Limit	MDL
047069-687	mg/l	ND	2.07	0.91	78	5.0	6.2	83	80-120	0.15

Approved by: 10/25/00

Eddie F. Rodriguez
Inorganics Supervisor

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Curt Welty

Client's Project: Route 210, 57, 60, #A8066-06-05

Date Received: 09/27/00
Date Sampled: 09/25/00
Date Extracted: 10/21/00
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II) Modified

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46977-029	EB60-6A-T	EPA 7420 (Lead)	10/24/00	ND	STLC DI Extract, mg/L	0.15	0.15	NS
46977-030	EB60-6A-0.3	EPA 7420 (Lead)	10/24/00	ND	STLC DI Extract, mg/L	0.15	0.15	NS
46977-032	EB60-6B-T	EPA 7420 (Lead)	10/24/00	ND	STLC DI Extract, mg/L	0.15	0.15	NS
46977-035	SB57-7A-T	EPA 7420 (Lead)	10/24/00	ND	STLC DI Extract, mg/L	0.15	0.15	NS
46977-036	SB57-7A-0.3	EPA 7420 (Lead)	10/24/00	ND	STLC DI Extract, mg/L	0.15	0.15	NS
46977-037	SB57-7A-0.6	EPA 7420 (Lead)	10/24/00	0.16	STLC DI Extract, mg/L	0.15	0.15	NS
46977-042	NB57-8A-0.3	EPA 7420 (Lead)	10/24/00	ND	STLC DI Extract, mg/L	0.15	0.15	NS
46977-053	WB210-10A-T	EPA 7420 (Lead)	10/24/00	ND	STLC DI Extract, mg/L	0.15	0.15	NS
46977-053Dup	WB210-10A-T	EPA 7420 (Lead)	10/24/00	ND	STLC DI Extract, mg/L	0.15	0.15	NS
46977-055	WB210-10A-0.6	EPA 7420 (Lead)	10/24/00	ND	STLC DI Extract, mg/L	0.15	0.15	NS
46977-056	WB210-10B-T	EPA 7420 (Lead)	10/24/00	ND	STLC DI Extract, mg/L	0.15	0.15	NS
46977-057	WB210-10B-0.3	EPA 7420 (Lead)	10/24/00	0.19	STLC DI Extract, mg/L	0.15	0.15	NS
46977-059	EB210-11A-T	EPA 7420 (Lead)	10/24/00	ND	STLC DI Extract, mg/L	0.15	0.15	NS
46977-060	EB210-11A-0.3	EPA 7420 (Lead)	10/24/00	ND	STLC DI Extract, mg/L	0.15	0.15	NS
46977-061	EB210-11A-0.6	EPA 7420 (Lead)	10/24/00	ND	STLC DI Extract, mg/L	0.15	0.15	NS
46977-061Dup	EB210-11A-0.6	EPA 7420 (Lead)	10/24/00	ND	STLC DI Extract, mg/L	0.15	0.15	NS

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 10/25/00
Eddie Rodriguez
Inorganics Supervisor

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

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Spike Recovery and RPD Summary Report

Method: EPA 7420 (LEAD)
Analyst: NS
Data File: PBF001024DI-2
QA File: 0298-2DI

Date Analyzed: 10/24/00
Date Digested: N/A
Sample ID: See below
Matrix: DI WATER EXTRACT
QC Batch No. : PBF001024DI-2

Sample ID	UNITS	METH BLANK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	%MS REC	% REC Limit	MDL
047069-656	mg/l	ND	0.84	0.84	0	5.0	5.2	87	80-120	0.15
046977-053	mg/l	ND	ND	ND	0	5.0	5.2	104	80-120	0.15
046977-061	mg/l	ND	ND	ND	0	5.0	5.2	104	80-120	0.15

Approved by: ER 10/25/00
Eddie F. Rodriguez
Inorganics Supervisor

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *11/6/00*

CLIENT: Geocon Environmental
Lab Order: 046977
Project: Rte 210, 57, 60 - A8066-06-05
Lab ID: 046977-033A

Client Sample ID: EB60-6B-0.3
Collection Date: 9/26/00
Matrix: DI-EXTRACT

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
LEAD BY ATOMIC ABSORPTION			**EPA 7420**			
RunID: **AA2_001104C** BatchID: **1929**				PrepDate: **11/1/00**		Analyst: **NS**
Lead	ND	0.15		mg/L	1	11/4/00

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *06-Nov-00*

CLIENT: Geocon Environmental
Work Order: 046977
Project: Rte 210, 57, 60 - A8066-06-05

QC SUMMARY REPORT
Method Blank

Sample ID: **MB-1929** Batch ID: **1929** Test Name: **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **11/4/00** Prep Date: **11/1/00**

MBLK SeqNo: **67603**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.15	0	0	0	0	0	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
M - Not Monitored. Highly Reactive

Initials: (illegible)

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *06-Nov-00*

CLIENT: Geocon Environmental
Work Order: 046977
Project: Rte 210, 57, 60 - A8066-06-05

QC SUMMARY REPORT
Sample Duplicate

Sample ID: **047394-046A** Batch ID: **1929** Test Name: **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **11/4/00** Prep Date: **11/1/00**
DUP SeqNo: **67615**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.1439	0.15	0	0	0	0	0	0.4386	101	30	JR

Sample ID: **046977-033A** Batch ID: **1929** Test Name: **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **11/4/00** Prep Date: **11/1/00**
DUP SeqNo: **67618**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.1432	0.15	0	0	0	0	0	0.1485	4	30	J

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
M - Not Monitored. Highly Reactive

Initials: [illegible]

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *06-Nov-00*

CLIENT: Geocon Environmental
Work Order: 046977
Project: Rte 210, 57, 60 - A8066-06-05

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: **047394-046A** Batch ID: **1929** Test Name: **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **11/4/00** Prep Date: **11/1/00**
MS SeqNo: **67616**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	4.948	0.15	5	0.4386	90	80	120	0			

Sample ID: **046977-033A** Batch ID: **1929** Test Name: **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **11/4/00** Prep Date: **11/1/00**
MS SeqNo: **67619**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	4.957	0.15	5	0.1485	96	80	120	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
M - Not Monitored. Highly Reactive

Initials: _____

CHAIN OF CUSTODY RECORD

Pg 1 of 9

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☑

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

Client: Geocon Consultants
Attn: Curt Welty
Address: 624 S. Grand Ave, Suite 2900
City: L.A. State: CA Zip Code: 90017
TEL: (213) 538-1282
FAX: (213) 538-1283

Project Name: Route 210, 57, 60
Project #: A8066-06-05
Sampler: (Printed Name) Gerardo Zuñiga (Signature) Gerardo Zuñiga

Relinquished by: (Signature and Printed Name) Gerardo Zuñiga Gerardo Zuñiga Date: 9/25/00 Time:
Received by: (Signature and Printed Name) Date: 9/27/00 Time: 1:50
Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Curt Welty (Print Name) _____ (Date) Gerardo Zuñiga (Signature)

Send Report To:
Attn: SAME
Co: AS
Address: ABOVE
City _____ State _____ Zip _____

Bill To:
Attn: SAME
Co: AS
Address: ABOVE
City _____ State _____ Zip _____

Special Instructions/Comments: Caltrans Project
Analyze samples EPA 6010 for total lead. If TTLC >50 ppm [Pb] but <1000 ppm run WET, If STLC is >5 mg/kg (Pb) run DI WET. Run pH on 1% of samples

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); pH (EPA 9045)

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☑ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	pH (EPA 9045)	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	~~46977~~ 001	46977 SB57-1A-T	9/25/00	9:28				X				X							E	1	J G C		
	2	SB57-1A-0.3		9:32																			
	3	SB57-1A-0.6		9:37					X	X													
	4	SB57-1B-T		9:41																			
	5	SB57-1B-0.3		9:43																			
	6	SB57-1B-0.6		9:45																			
	7	~~NB57-2A-T~~		~~9:50~~																			
	8	~~NB57-2A-0.3~~		~~9:53~~																			
	9	~~NB57-2A-0.6~~		~~9:58~~																			
	10	~~SB57-2B-T~~		10:13																			

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg ___ of ___

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: ____

Logged By: ____ Date: ____ Time: ____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON CONSULTANTS INC
Attn: CURT WELTY
Address: 624 SOUTH GRAND AVENUE STE 2900
City: LA State: CA Zip Code: 90017
TEL: (213) 538-1282
FAX: (213) 538-1283

Project Name: ROUTE 210, 57, 60
Project #: A8066-06-05
Sampler: (Printed Name) Jeanne Brown (Signature) Jeanne

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Jeanne Jeanne Brown				9/27/06	13:50
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Jeanne Brown (Print Name) Date
Signature: Jeanne

Send Report To: Attn: SAME AS Co: ABOVE Address: ↓ City ____ State ____ Zip ____

Bill To: Attn: SAME AS Co: ABOVE Address: ↓ City ____ State ____ Zip ____

Special Instructions/Comments: CALTRANS PROJECT
ANALYZE SAMPLES EPA 6010 for Total Lead.
IF TTLC > 50 ppm [mg/kg] [Pb] but < 100 ppm (mg/kg)
RUN WET. IF STLC is > 5 mg/kg [Pb] run
DI-WET.
RUN PH on 10% of samples

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ____
☐ Return To: ____
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000) (Lead); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); PH (EPA 9045)

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER ____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000) (Lead)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	PH (EPA 9045)	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		NB57-2B-0.3	9/25/06	10:07				X				X							E	1	J G	C	
		NB57-2B-0.6		10:15						X													
		SB57-3A-T		10:25																			
		SB57-3A-0.3		10:27																			
		SB57-3A-0.6		10:35																			
	46977-007	SB57-3B-T		10:47						X													
	8	SB57-3B-0.3		11:01																			
	9	SB57-3B-0.6		11:19																			
	10	EB60-4A-T	9/26/06	9:40																			
		EB60-4A-0.3		9:45																			

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=HCl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GEOCON CONSULTANTS INC
Attn: CURT WELTY
Address: 624 SOUTH GRAND AVENUE STE 2200
City: LA State: CA Zip Code: 90017
TEL: (213) 538-1282
FAX: (213) 538-1283

Project Name: ROUTE 210, 57, 60
Project #: A8066-06-05
Sampler: (Printed Name) Jeanne Brown (Signature)

Relinquished by: (Signature and Printed Name) Jeanne Brown Date: Time: Received by: (Signature and Printed Name) Date: 9/27/00 Time: 13:50
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Jeanne Brown
Print Name Date
Signature

Send Report To: Attn: SAME AS ABOVE Co: Address: City State Zip

Bill To: Attn: SAME AS ABOVE Co: Address: City State Zip

Special Instructions/Comments:
CALTRANS PROJECT
ANALYZE SAMPLES EPA 6010 FOR TOTAL LEAD. IF TTLC [Pb] > 50 mg/kg, but < 1000 mg/kg run WET. IF STLC is > 5 mg/kg RUN DI-WET.

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000) (Lead); 8015M TPHG/BTEX (COMBINATION); 8015M TPHD (Diesel-GC); PH (EPA 9045)

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8015M TPHG/BTEX (COMBINATION)	SOLID • SOIL • SLUDGE	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
		~~EB 60-4A-0.6~~	9/26/00	9:40	X	X	E	1	J	GC	refusal
	46977-011	EB 60-4B-T		9:55							
	12	EB 60-4B-0.3		10:07							
	13	EB 60-4B-0.6		10:20							
	14	EB 60-5A-T		10:51							
	15	EB 60-5A-0.3		10:58							
	16	EB 60-5A-0.6		11:09							
	17	EB 60-5B-T		11:17							
	18	EB 60-5B-0.3		11:24	X						
	19	EB 60-5B-0.6		11:29							

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: Geocon Consultants
Attn: Curt Wiedly
Address: Geocon LA
City / State / Zip Code
TEL: (213) 538-1287
FAX: (213) 538-1289

Project Name: Route 210, 57.60 Project #: A8066-06-05 Sampler: (Printed Name) Jeanne Brown (Signature)

Relinquished by: (Signature and Printed Name) Jeanne Brown Date: 9/27/00 Time: 1:46 Received by: (Signature and Printed Name) Date: 9/27/00 Time: 13:50

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Jeanne Brown 9/27/00
Print Name Date
Signature

Send Report To: Attn: SAME Co: Address: City State Zip

Bill To: Attn: SAME Co: Address: City State Zip

Special Instructions/Comments:
CALTRANS PROJECT.
Please analyze EPA6010 for total lead. IF TTLC > 50 ppm [Pb] mg/kg but < 1000 ppm mg/kg (Pb). IF STLC > 5 mg/L

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other
☐ Return To:
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); pH - (EPA 9045)

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	pH - (EPA 9045)	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	46977-020	NB57-2A-T	9/27/00	12:33				X				X							E	1	JG	C	
	21	NB57-2A-0.3		12:38																			
	22	NB57-2A-0.6		12:42																			
	23	NB57-2B-T		1:15					X														
	24	NB57-2B-0.3		1:27																			
	25	NB57-2B-0.6		1:33																			
	26	SB57-3A-T		2:28																			
	27	SB57-3A-0.3		2:36																			
	28	SB57-3A-0.6		2:48																			

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 6 of 8, 9

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____
Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GeoCon Consultants, Inc.
Attn: Curt Weith
Address: 624 South Grand Avenue Ste 2900
City: LA State: CA Zip Code: 90017
TEL: (213) 538-1282
FAX: (213) 538-1283

Project Name: Route 210, 57, 60
Project #: A80666-06-05
Sampler: (Printed Name) Jeanne Brown (Signature) Jeanne Brown

Relinquished by: (Signature and Printed Name) Jeanne Brown Date: Time: Received by: (Signature and Printed Name) Date: 9/27/00 Time: 13:51
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Jeanne Brown (Print Name) _____ (Date)
Signature

Send Report To: Attn: SAME AS ABOVE Co: Address: City: State: Zip:

Bill To: Attn: SAME AS ABOVE Co: Address: City: State: Zip:

Special Instructions/Comments:
CALTRANS PROJECT
Analyze samples EPA6010 for total LEAD.
IF TTLC >50 mg/kg but <1000 mg/kg Run WET. IF STLC >5 mg/l Run DI-WET

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other
☐ Return To:
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000) Lead; 8015M TPHG/BTEX (COMBINATION); 8015M TPHD (Diesel-GC); PH (EPA 9045)

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	Analysis	Matrix	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	46977-029	EB 60-6A-T	9/26/00	3:06	Lead	SOLID • SOIL • SLUDGE	E	1	J G	1	
	30	EB 60-6A-0.3		3:11							
	31	EB 60-6A-0.6		3:18							
	32	EB 60-6B-T		3:37							
	33	EB 60-6B-0.3		3:43							
	34	EB 60-6B-0.6		3:48							
		~~SB 57-3A-T~~									
		~~SB 57-3A-0.3~~									
		~~SB 57-3A-0.6~~									
	35	SB 57-7A-T									

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: GeoCon Consultants Inc
Attn: CURT WERTY
Address: 624 S. SOUTHGRAND Ave. Ste 2900
City: LA State: CA Zip Code: 90017
TEL: (213) 538-1285
FAX: (213) 538-1283

Project Name: Route 210, 57, 60 Project #: A8066-06-05 Sampler: (Printed Name) Jeanne Brown (Signature) Jeanne

Relinquished by: (Signature and Printed Name) Jeanne Brown Date: 9/27/00 Time: 1:45 Received by: (Signature and Printed Name) Date: 9/27/00 Time: 1:55
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Jeanne Brown 9/27/00 (Print Name / Date)
Signature: Jeanne

Send Report To: Attn: SAME Co: AS ABOVE Address: City: State: Zip:

Bill To: Attn: SAME AS Co: ABOVE Address: City: State: Zip:

Special Instructions/Comments: Project Caltrans
Analyze samples EPA 6010 for total (PL). IF TTLC[PL] > 50 mg/kg but < 1000 mg/kg run WET. IF STLC > 5 mg/kg run DI-WET

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); TTLC/STLC

CIRCLE APPROPRIATE MATRIX: SOLID (SOIL) • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

Q A / Q C: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	TTLC/STLC	SOLID (SOIL) • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	46977-36	SB57-7A-0.3	9/26/00	3:08				X				X							E	1	J	G	C
	37	SB57-7A-0.6		3:29																			
	38	SB57-7B-T		3:50																			
	39	SB57-7B-0.3		3:56																			
	40	SB57-7B-0.6		4:03																			
	41	NB57-8A-T	9/27/00	8:21																			
	42	NB57-8A-0.3		8:29																			
	43	NB57-8A-0.6		8:33																			
	44	NB57-8B-T		9:21																			
	45	NB57-8B-0.3		9:27																			

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: Geocon Consultants Inc
Attn: Curt Weity
Address: 624 South Grand Avenue Ste 2900
City: CA State: CA Zip Code: 90017
TEL: (213) 538-1282
FAX: (213) 538-1283

Project Name: Route 210 5760 Project #: A8066-06-05 Sampler: (Printed Name) Jeanne Brown (Signature) Jeanne

Relinquished by: (Signature and Printed Name) Jeanne Date: 9/27/00 Time: 1:45 Received by: (Signature and Printed Name) Date: 9/27/00 Time: 13:51

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Jeanne Brown 9/27/00
Print Name Date
Signature

Send Report To: Attn: SAME AS ABOVE
Co: ↓
Address ↓
City _____ State _____ Zip _____

Bill To: Attn: SAME AS ABOVE
Co: ↓
Address ↓
City _____ State _____ Zip _____

Special Instructions/Comments:
CALTRANS PROJECT
Analyze Samples EPA 6010 for total (Pb) ~~but~~ IF TTLC ≥ 750 mg/kg (Pb) but less than 1000 mg/kg Run WET. IF STLC ≥ 5 mg/kg run DI-WET.

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); DH (EPA 9045)

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	DH (EPA 9045)	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	46977-046	NB57-8B-0.6	9/27/00	9:43				X				X							E	1	JG	C	
	47	NB57-9A-T		10:02				↓				↓							↓	↓	↓	↓	
	48	NB57-9A-0.3		10:07																			
	49	NB57-9A-0.6		10:12																			
	50	NB57-9B-T		10:46																			
	51	NB57-9B-0.3		10:51																			
	52	NB57-9B-0.6		10:58																			
	53	WB21D-10A-T		11:28						X													
	54	WB21D-10A-0.3		11:33																			
	55	WB21D-10A-0.6	↓	11:39				↓				↓							↓	↓	↓	↓	

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 2 of 2

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: Geocon Consultants, Inc
Address: 624 South Grand Ave Ste 2900
City: LA State: CA Zip Code: 90017
TEL: (213) 538-1282
FAX: (213) 538-1283
Attn: Curt Welty

Project Name: Route 210 57 60
Project #: A80666-06-05
Sampler: (Printed Name) Jeanne Brown (Signature) Jeanne

Relinquished by: (Signature and Printed Name) Jeanne Brown Date: 9/27/00 Time: 1:45 Received by: (Signature and Printed Name) Date: 9/27/00 Time: 1:51
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Jeanne Brown 9/27/00
Print Name Date
Signature

Send Report To: Attn: SAME AS Co: ABOVE Address: City: State: Zip:

Bill To: Attn: SAME AS Co: ABOVE Address: City: State: Zip:

Special Instructions/Comments:
CALTRANS PROJECT
Analyze samples EPA 6010 for total lead. IF TTLC > 50 mg/kg [Pb] but < 1000 mg/kg run WET. IF STLC > 5 mg/kg (Pb) run DI-WET

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other
☐ Return To:

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000) (100); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); pH (EPA 9045)

CIRCLE APPROPRIATE MATRIX: SOLID • (SOIL) • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000) (100)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	pH (EPA 9045)	SOLID • (SOIL) • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	46977-056	WB210-10B-T	9/27/00	11:36				X				X							E	1	J G	C	
	57	WB210-10B-0.3		11:41																			
	58	WB210-10B-0.6		11:44						X													
	59	EB210-11A-T		12:15																			
	60	EB210-11A-0.3		12:24																			
	61	EB210-11A-0.6		12:29																			
	62	EB210-11B-T		12:30																			
	63	EB210-11B-0.3		12:41																			
	64	EB210-11B-0.6		12:45																			

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 2 of 2

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: Geocon consultants
Attn: Curt Welty
Address: 624 S. Grand Ave. Ste. 2900
City State Zip Code
TEL: (213) 538-1282
FAX: (213) 538-0283

Project Name: Rte. 210, 57, 60
Project #: 8086-06-05
Sampler: (Printed Name) (Signature)

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Print Name Date
Signature

Send Report To:
Attn: SAME
Co:
Address
City State Zip

Bill To:
Attn:
Co:
Address
City State Zip

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other
☐ Return To:

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-TCLP/CAC-6010 / 7000; 8015M TPHG/BTEX (COMBINATION); 8015M TPHD (Diesel-GC)

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

Q A / Q C: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☐ OTHER

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082	8260	625 / 8270	Metals-TCLP/CAC-6010 / 7000	8015M TPHG/BTEX (COMBINATION)	8015M TPHD (Diesel-GC)	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	46977-65	EB60-4A-0.3	9/26	9:45				X							
	66	EB60-4A-0.6	9/26	9:49				X							

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

ELAP No.: 1838

Geocon Environmental
624 S. Grand Avenue, Suite 2900
Los Angeles, CA 90017-3330

ATTN: Curt Welty

Client's Project: Route 210, 57, 60, #A8066-06-05
Lab No.: 47032-001/009

Enclosed are the results for sample(s) received by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company. Please feel free to call me at (562) 989 - 4045 if I can be of further assistance to your company.

Sincerely,

Date: 11/14/10

Cheryl De Los Reyes
Technical Operations Manager
CDR/jh

Enclosures

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

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purpose without authorization is prohibited.

Client: Geocon Environmental
Attn: Curt Welty

Client's Project: Route 210, 57, 60, #A8066-06-05

Date Received: 09/29/00
Date Sampled: 09/28/00
Date Digested: 10/10/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
47032-001	W210-12A-T	EPA 6010 (Lead)	10/10/00	692	Soil, mg/kg	5.0	5.0	DJ
47032-002	W210-12A-0.3	EPA 6010 (Lead)	10/10/00	255	Soil, mg/kg	5.0	5.0	DJ
47032-003	W210-12A-0.6	EPA 6010 (Lead)	10/10/00	46	Soil, mg/kg	5.0	5.0	DJ
47032-004	W210-13A-T	EPA 6010 (Lead)	10/10/00	286	Soil, mg/kg	5.0	5.0	DJ
47032-005	W210-13A-0.3	EPA 6010 (Lead)	10/10/00	154	Soil, mg/kg	5.0	5.0	DJ
47032-006	W210-13A-0.6	EPA 6010 (Lead)	10/10/00	241	Soil, mg/kg	5.0	5.0	DJ
47032-007	W210-14A-T	EPA 6010 (Lead)	10/10/00	121	Soil, mg/kg	5.0	5.0	DJ
47032-008	W210-14A-0.3	EPA 6010 (Lead)	10/10/00	5.4	Soil, mg/kg	5.0	5.0	DJ
47032-009	W210-14A-0.6	EPA 6010 (Lead)	10/10/00	9.4	Soil, mg/kg	5.0	5.0	DJ
47032-010	W210-12B-T	EPA 6010 (Lead)	10/10/00	1850	Soil, mg/kg	5.0	5.0	DJ
47032-010Dup	W210-12B-T	EPA 6010 (Lead)	10/10/00	1650	Soil, mg/kg	5.0	5.0	DJ
47032-011	W210-12B-0.3	EPA 6010 (Lead)	10/10/00	103	Soil, mg/kg	5.0	5.0	DJ
47032-012	W210-12B-0.6	EPA 6010 (Lead)	10/10/00	57	Soil, mg/kg	5.0	5.0	DJ
47032-013	W210-13B-T	EPA 6010 (Lead)	10/10/00	524	Soil, mg/kg	5.0	5.0	DJ
47032-014	W210-13B-0.3	EPA 6010 (Lead)	10/10/00	52	Soil, mg/kg	5.0	5.0	DJ
47032-015	W210-13B-0.6	EPA 6010 (Lead)	10/10/00	55	Soil, mg/kg	5.0	5.0	DJ
47032-016	W210-14B-T	EPA 6010 (Lead)	10/10/00	125	Soil, mg/kg	5.0	5.0	DJ
47032-017	W210-14B-0.3	EPA 6010 (Lead)	10/10/00	16	Soil, mg/kg	5.0	5.0	DJ
47032-018	W210-14B-0.6	EPA 6010 (Lead)	10/10/00	29	Soil, mg/kg	5.0	5.0	DJ
47032-018Dup	W210-14B-0.6	EPA 6010 (Lead)	10/10/00	21	Soil, mg/kg	5.0	5.0	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: _____
Eddie Rodriguez
Inorganics Supervisor

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

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Curt Welty

Client's Project: Route 210, 57, 60, #A8066-06-05

Date Received: 09/29/00
Date Sampled: 09/28/00
Date Digested: 10/10/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
47032-001	W210-12A-T	EPA 6010 (Lead)	10/10/00	692	Soil, mg/kg	5.0	5.0	DJ
47032-002	W210-12A-0.3	EPA 6010 (Lead)	10/10/00	255	Soil, mg/kg	5.0	5.0	DJ
47032-003	W210-12A-0.6	EPA 6010 (Lead)	10/10/00	46	Soil, mg/kg	5.0	5.0	DJ
47032-004	W210-13A-T	EPA 6010 (Lead)	10/10/00	286	Soil, mg/kg	5.0	5.0	DJ
47032-005	W210-13A-0.3	EPA 6010 (Lead)	10/10/00	154	Soil, mg/kg	5.0	5.0	DJ
47032-006	W210-13A-0.6	EPA 6010 (Lead)	10/10/00	241	Soil, mg/kg	5.0	5.0	DJ
47032-007	W210-14A-T	EPA 6010 (Lead)	10/10/00	121	Soil, mg/kg	5.0	5.0	DJ
47032-008	W210-14A-0.3	EPA 6010 (Lead)	10/10/00	5.4	Soil, mg/kg	5.0	5.0	DJ
47032-009	W210-14A-0.6	EPA 6010 (Lead)	10/10/00	9.4	Soil, mg/kg	5.0	5.0	DJ
47032-010	W210-12B-T	EPA 6010 (Lead)	10/10/00	1850	Soil, mg/kg	5.0	5.0	DJ
47032-010Dup	W210-12B-T	EPA 6010 (Lead)	10/10/00	1650	Soil, mg/kg	5.0	5.0	DJ
47032-011	W210-12B-0.3	EPA 6010 (Lead)	10/10/00	103	Soil, mg/kg	5.0	5.0	DJ
47032-012	W210-12B-0.6	EPA 6010 (Lead)	10/10/00	57	Soil, mg/kg	5.0	5.0	DJ
47032-013	W210-13B-T	EPA 6010 (Lead)	10/10/00	524	Soil, mg/kg	5.0	5.0	DJ
47032-014	W210-13B-0.3	EPA 6010 (Lead)	10/10/00	52	Soil, mg/kg	5.0	5.0	DJ
47032-015	W210-13B-0.6	EPA 6010 (Lead)	10/10/00	55	Soil, mg/kg	5.0	5.0	DJ
47032-016	W210-14B-T	EPA 6010 (Lead)	10/10/00	125	Soil, mg/kg	5.0	5.0	DJ
47032-017	W210-14B-0.3	EPA 6010 (Lead)	10/10/00	16	Soil, mg/kg	5.0	5.0	DJ
47032-018	W210-14B-0.6	EPA 6010 (Lead)	10/10/00	29	Soil, mg/kg	5.0	5.0	DJ
47032-018Dup	W210-14B-0.6	EPA 6010 (Lead)	10/10/00	21	Soil, mg/kg	5.0	5.0	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 10/4/00
Eddie Rodriguez
Inorganics Supervisor

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

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Spike Recovery and RPD Summary Report

Method: EPA 6010 (Lead)
Analyst: DJ/OL
Data File: ICP001010-1
QA File: 0281-1

Date Analyzed: 10/10/00
Date Digested: 10/10/00
Sample ID: See below
Matrix: Soil
QC Batch No: ICAP 001010S-1

Sample ID	UNITS	METH BLANK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	%MS REC	% REC Limit	MDL
047223-010	mg/kg	ND	12	11	9	250	252	96	67-119	0.25
047223-020	mg/kg	ND	147	140	5	250	391	98	67-119	0.25
047223-030	mg/kg	ND	267	242	10	250	470	81	67-119	0.25
047223-040	mg/kg	ND	56	72	25	250	320	106	67-119	0.25
047223-050	mg/kg	ND	132	135	2	250	358	90	67-119	0.25
047223-054	mg/kg	ND	5.1	4.4	15	250	236	92	67-119	0.25
047032-010	mg/kg	ND	1850	1650	11	250	1570	112	67-119	0.25
047032-018	mg/kg	ND	29	21	32	250	247	87	67-119	0.25

Approved by: _____ 10/11/00
Eddie F. Rodriguez
Inorganic Supervisor

1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040
Advanced Technology Laboratories

Advanced Technology Laboratories

Print Date: *10/17/2000*

CLIENT: Geocon Environmental
Lab Order: 047032
Project: Route 210,57,60 - A8066-06-05
Lab ID: 047032-005A

Client Sample ID: W210-13A-0.3
Collection Date: 09/28/2000 2:35:00 PM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PH			**EPA 9045C**			
RunID: **WETCHEM_001016** BatchID: **R3430**				PrepDate: **10/16/2000**		Analyst: **HLP**
pH	7.97	0.10		pH Units	1	10/16/2000

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: (B)

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *10/17/2000*

CLIENT: Geocon Environmental
Lab Order: 047032
Project: Route 210,57,60 - A8066-06-05
Lab ID: 047032-015A

Client Sample ID: W210-13B-0.6
Collection Date: 09/28/2000 4:10:00 PM
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PH			**EPA 9045C**			
RunID: **WETCHEM_001016** BatchID: **R3430**				PrepDate: **10/16/2000**		Analyst: **HLP**
pH	6.87	0.10		pH Units	1	10/16/2000

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: PB

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *21-Nov-00*

CLIENT: Geocon Environmental
Work Order: 047032
Project: Route 210,57,60 - A8066-06-05

QC SUMMARY REPORT
Sample Duplicate

Sample ID: **047032-016A** Batch ID: **R4243** Test Name: **pH** Units **pH Uni** Analysis Date: **10/16/00** Prep Date: **10/16/00**

DUP SeqNo: **72424**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	8.01	0.10	0	0	0	0	0	8.06	1	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
M - Not Monitored. Highly Reactive

Initials: DW

Client: Geocon Environmental
Attn: Curt Welty

Client's Project: Route 210, 57, 60, #A8066-06-05

Date Received: 09/29/00
Date Sampled: 09/28/00
Date Extracted: 10/24/00
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II)

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
47032-001	W210-12A-T	EPA 7420 (Lead)	10/27/00	36	STLC Extract, mg/L	0.15	0.45	NS
47032-002	W210-12A-0.3	EPA 7420 (Lead)	10/27/00	18	STLC Extract, mg/L	0.15	0.30	NS
47032-004	W210-13A-T	EPA 7420 (Lead)	10/27/00	16	STLC Extract, mg/L	0.15	0.30	NS
47032-005	W210-13A-0.3	EPA 7420 (Lead)	10/27/00	6.9	STLC Extract, mg/L	0.15	0.15	NS
47032-006	W210-13A-0.6	EPA 7420 (Lead)	10/27/00	13	STLC Extract, mg/L	0.15	0.15	NS
47032-007	W210-14A-T	EPA 7420 (Lead)	10/27/00	6.9	STLC Extract, mg/L	0.15	0.15	NS
47032-011	W210-12B-0.3	EPA 7420 (Lead)	10/27/00	1.8	STLC Extract, mg/L	0.15	0.15	NS
47032-012	W210-12B-0.6	EPA 7420 (Lead)	10/27/00	1.4	STLC Extract, mg/L	0.15	0.15	NS
47032-013	W210-13B-T	EPA 7420 (Lead)	10/27/00	39	STLC Extract, mg/L	0.15	0.45	NS
47032-014	W210-13B-0.3	EPA 7420 (Lead)	10/27/00	2.6	STLC Extract, mg/L	0.15	0.15	NS
47032-014Dup	W210-13B-0.3	EPA 7420 (Lead)	10/27/00	2.5	STLC Extract, mg/L	0.15	0.15	NS
47032-015	W210-13B-0.6	EPA 7420 (Lead)	10/27/00	3.0	STLC Extract, mg/L	0.15	0.15	NS
47032-015Dup	W210-13B-0.6	EPA 7420 (Lead)	10/27/00	3.0	STLC Extract, mg/L	0.15	0.15	NS

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 10/26/00
Eddie Rodriguez
Inorganics Supervisor

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

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Curt Welty

Client's Project: Route 210, 57, 60, #A8066-06-05

Date Received: 09/29/00
Date Sampled: 09/28/00
Date Extracted: 10/25/00
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II)

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
47032-016	W210-14B-T	EPA 7420 (Lead)	10/31/00	8.1	STLC Extract, mg/L	0.15	0.15	NS

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 11/1/00
Eddie Rodriguez
Inorganics Supervisor

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

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Spike Recovery and RPD Summary Report

Method: EPA 7420 (LEAD)
Analyst: NS
Data File: PBF001026STLC-2
QA File: 0300-2STLC

Date Analyzed: 10/26/00,10/27/00
Date Digested: N/A
Sample ID: See below
Matrix: STLC EXTRACT
QC Batch No. : PBF001026STLC-2

Sample ID	UNITS	METH BLANK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	%MS REC	% REC Limit	MDL
046292-012	mg/l	ND	11	8.8	22	5.0	14	60	80-120	0.15
046292-024	mg/l	ND	5.8	5.8	0	5.0	10	84	80-120	0.15
047032-014	mg/l	ND	2.6	2.5	4	5.0	6.9	86	80-120	0.15
047032-015	mg/l	ND	3.0	3.0	0	5.0	7.5	90	80-120	0.15

Approved by: 10/28/00
Eddie F. Rodriguez
Inorganics Supervisor

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Spike Recovery and RPD Summary Report

Method: EPA 7420 (LEAD)
Analyst: NS
Data File: PBF001031STLC-1
QA File: 0305-1STLC

Date Analyzed: 10/31/00
Date Digested: N/A
Sample ID: See below
Matrix: STLC EXTRACT
QC Batch No. : PBF001031STLC-1

Sample ID	UNITS	METH BLANK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	%MS REC	% REC Limit	MDL
047223-050	mg/l	ND	7.6	7.7	1	5.0	12	88	80-120	0.15
046977-033	mg/l	ND	8.1	8.2	1	5.0	12	78	80-120	0.15
047244-024	mg/l	ND	6.6	6.8	3	5.0	11	88	80-120	0.15
047244-045	mg/l	ND	6.1	6.6	8	5.0	11	98	80-120	0.15

Approved by: ph 11/1/00
Eddie F. Rodriguez
Inorganics Supervisor

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *11/14/00*

CLIENT: Geocon Environmental
Lab Order: 047032
Project: Route 210,57,60 - A8066-06-05
Lab ID: 047032-001A

Client Sample ID: W210-12A-T
Collection Date: 9/28/00 2:15:00 AM
Matrix: DI-EXTRACT

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS BY STLC EXTRACTION				WET/ EPA 6010B		
RunID: ICP3_001103B BatchID: 1862				PrepDate: 10/31/00		Analyst: NS
Lead	0.13	0.10		mg/L	1	11/3/00

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: ____

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *11/14/00*

CLIENT: Geocon Environmental
Lab Order: 047032
Project: Route 210,57,60 - A8066-06-05
Lab ID: 047032-002A

Client Sample ID: W210-12A-0.3
Collection Date: 9/28/00 2:30:00 PM
Matrix: DI-EXTRACT

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS BY STLC EXTRACTION				WET/ EPA 6010B		
RunID: ICP3_001103B BatchID: 1862				PrepDate: 10/31/00		Analyst: NS
Lead	ND	0.10		mg/L	1	11/3/00

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *11/14/00*

CLIENT: Geocon Environmental
Lab Order: 047032
Project: Route 210,57,60 - A8066-06-05
Lab ID: 047032-004A

Client Sample ID: W210-13A-T
Collection Date: 9/28/00 2:20:00 PM
Matrix: DI-EXTRACT

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS BY STLC EXTRACTION				WET/ EPA 6010B		
RunID: ICP3_001103B BatchID: 1862				PrepDate: 10/31/00		Analyst: NS
Lead	ND	0.10		mg/L	1	11/3/00

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *11/14/00*

CLIENT:	Geocon Environmental	**Client Sample ID:**	W210-13A-0.3
Lab Order:	047032		
Project:	Route 210,57,60 - A8066-06-05	**Collection Date:**	9/28/00 2:35:00 PM
Lab ID:	047032-005A	**Matrix:**	DI-EXTRACT

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS BY STLC EXTRACTION			WET/ EPA 6010B			
RunID: ICP3_001103B BatchID: 1862				PrepDate: 10/31/00		Analyst: NS
Lead	0.10	0.10		mg/L	1	11/3/00

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: (B)

Advanced Technology Laboratories

1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *11/14/00*

CLIENT: Geocon Environmental
Lab Order: 047032
Project: Route 210,57,60 - A8066-06-05
Lab ID: 047032-006A

Client Sample ID: W210-13A-0.6
Collection Date: 9/28/00 2:50:00 PM
Matrix: DI-EXTRACT

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS BY STLC EXTRACTION			WET/ EPA 6010B			
RunID: ICP3_001103B BatchID: 1862				PrepDate: 10/31/00		Analyst: NS
Lead	ND	0.10		mg/L	1	11/3/00

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *11/14/00*

CLIENT: Geocon Environmental
Lab Order: 047032
Project: Route 210,57,60 - A8066-06-05
Lab ID: 047032-007A

Client Sample ID: W210-14A-T
Collection Date: 9/28/00 2:58:00 PM
Matrix: DI-EXTRACT

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS BY STLC EXTRACTION				WET/ EPA 6010B		
RunID: ICP3_001103B BatchID: 1862				PrepDate: 10/31/00		Analyst: NS
Lead	ND	0.10		mg/L	1	11/3/00

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: [illegible]

Advanced Technology Laboratories *1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *11/14/00*

CLIENT: Geocon Environmental
Lab Order: 047032
Project: Route 210,57,60 - A8066-06-05
Lab ID: 047032-013A

Client Sample ID: W210-13B-T
Collection Date: 9/28/00 3:50:00 PM
Matrix: DI-EXTRACT

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS BY STLC EXTRACTION				WET/ EPA 6010B		
RunID: ICP3_001103B BatchID: 1862				PrepDate: 10/31/00		Analyst: NS
Lead	0.26	0.10		mg/L	1	11/3/00

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories *1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *11/14/00*

CLIENT: Geocon Environmental
Lab Order: 047032
Project: Route 210,57,60 - A8066-06-05
Lab ID: 047032-016A

Client Sample ID: W210-14B-T
Collection Date: 9/28/00 3:55:00 PM
Matrix: DI-EXTRACT

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS BY STLC EXTRACTION				WET/ EPA 6010B		
RunID: ICP3_001103B BatchID: 1862				PrepDate: 10/31/00		Analyst: NS
Lead	ND	0.10		mg/L	1	11/3/00

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *04-Nov-00*

CLIENT: Geocon Environmental
Work Order: 047032
Project: Route 210,57,60 - A8066-06-05

QC SUMMARY REPORT
Method Blank

Sample ID **MB-1862** Batch ID: **1862** Test Name **ICP METALS** Units **mg/L** Analysis Date: **11/3/00** Prep Date: **10/31/00**

MBLK SeqNo: **67398**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.0215	0.0050									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
M - Not Monitored. Highly Reactive

Initials: ____

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *04-Nov-00*

CLIENT: Geocon Environmental
Work Order: 047032
Project: Route 210,57,60 - A8066-06-05

QC SUMMARY REPORT
Sample Duplicate

Sample ID **047032-016A** Batch ID: **1862** Test Name **ICP METALS** Units **mg/L** Analysis Date: **11/3/00** Prep Date: **10/31/0**

DUP SeqNo: **67369**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.0312	0.0050	0	0	0	0	0	0.0376	19	30	B

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *04-Nov-00*

CLIENT: Geocon Environmental
Work Order: 047032
Project: Route 210,57,60 - A8066-06-05

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID **047032-016A** Batch ID: **1862** Test Name **ICP METALS** Units **mg/L** Analysis Date: **11/3/00** Prep Date: **10/31/00**

MS SeqNo: **67370**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	1.951	0.0050	5	0.0376	38	65	110	0			BS

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
M - Not Monitored. Highly Reactive

Initials: _____

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: Geocon Consultants
Attn: Curt Welty
Address: 624 S. Grand Ave, Suite 2800
City: LA State: CA Zip Code: 90017
TEL: (213) 538-1282
FAX: (213) 538-1283

Project Name: Route 210, 57, 60
Project #: A8066-06-05
Sampler: (Printed Name) Gerardo Zuñiga (Signature) Gerardo Zuñiga

Relinquished by: (Signature and Printed Name) Gerardo Zuñiga Gerardo Zuñiga Date: Time: Received by: (Signature and Printed Name) Date: 9/29/00 Time: 11:20
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Curt Welty/Gerardo
Print Name Date
Gerardo Zuñiga
Signature

Send Report To: Attn: SAME Co: AS ABOVE Address: City State Zip

Bill To: Attn: SAME Co: AS ABOVE Address: City State Zip

Special Instructions/Comments: Caltrans Project
Analyze samples EPA 6010 for total lead if TTLC [Pb] > 50 mg/kg but < 1000 mg/kg. Run WET. If STLC is > 5 mg/kg run DI WET. Run pH for 10% of samples

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other
☐ Return To:
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000) (lead); 8015M TPHG/BTEX (COMBINATION); 8015M TPHD (Diesel-GC); TTLC EPA 6010

CIRCLE APPROPRIATE MATRIX: SOLID (SOIL) • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000) (lead)	8015M TPHG/BTEX (COMBINATION)	8015M TPHD (Diesel-GC)	TTLC EPA 6010	SOLID (SOIL) • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	H7032-001	W 210-12A-T	9/28	2:15				X				X							E	1	J G	C	
	002	W 210-12A-0.3		2:30																			
	003	W 210-12A-0.6		2:40																			
	004	W 210-13A-T		2:20																			
	005	W 210-13A-0.3		2:35					X														
	006	W 210-13A-0.6		2:50																			
	007	W 210-14A-T		2:58																			
	008	W 210-14A-0.3		3:15																			
	009	W 210-14A-0.6		3:30																			

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: White with report, Yellow to folder, Pink to submitter.

CHAIN OF CUSTODY RECORD

Pg ___ of ___

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: ____

Logged By: ____ Date: ____ Time: ____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☑

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

Client: Geocon Consultants
Attn: Curt Welty
Address: 624 S. Grand Ave, Suite 2900
City: LA State: CA Zip Code: 90017
TEL: (213) 538-1282
FAX: (213) 538-1283

Project Name: Route 210, 57, 60 Project #: A8066-06-05 Sampler: (Printed Name) Gerardo Zuniga (Signature) Gerardo Zuniga

Relinquished by: (Signature and Printed Name) Gerardo Zuniga Gerardo Zuniga Date: 9/28 Time: 5:00 Received by: (Signature and Printed Name) Date: 9/29/00 Time: 11:20

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Curt Welty / Gerardo 9/28/00 (Print Name / Date)
Signature: Gerardo Zuniga

Send Report To: Attn: SAME Co: AS Address: ABOVE City ____ State ____ Zip ____

Bill To: Attn: SAME Co: AS Address: ABOVE City ____ State ____ Zip ____

Special Instructions/Comments: Caltrans Project analyze samples EPA 6010 for total lead. If TTLC > 50mg/kg but < 1000mg/kg, run WET. If STLC is > 5mg/kg, run DI WET. Run pH for 10% samples

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ____
☐ Return To: ____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000) (lead); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); pH-EPA 9045

CIRCLE APPROPRIATE MATRIX: SOLID (SOIL) • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER ____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000) (lead)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	pH-EPA 9045	SOLID (SOIL) • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	47032-01	W210-12B-T	9/28	3:00			X					X							E	1	J	G	
	012	W210-12B-0.3		3:20																			
	013	W210-12B-0.6		3:35																			
	014	W210-13B-T		3:50																			
	015	W210-13B-0.3		3:59																			
	016	W210-13B-0.6		4:10					X														
	017	W210-14B-T		3:55																			
	018	W210-14B-0.3		3:59																			
	019	W210-14B-0.6		4:15																			

• TAT starts 8 a.m. following day if samples received after 5 p.m.

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

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

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

APPENDIX C

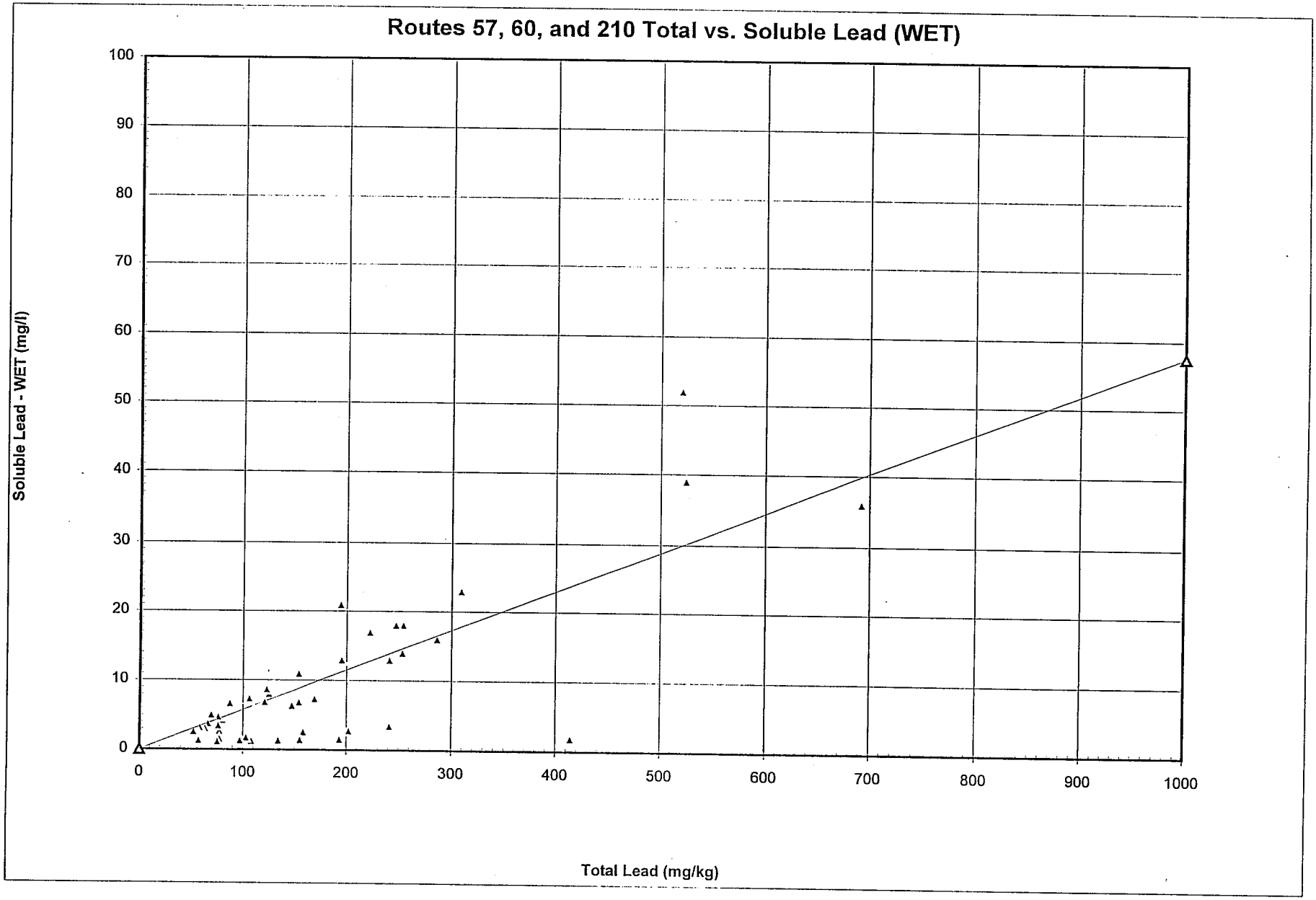
Project Name: Routes 57/60/210
Project Number: A8066-06-05
Task Order Number: 07-120971-3E

Regression Analysis Results for Total Lead vs. Soluble Lead (WET)

Regression Output:

Constant (b)	0
Slope (m)	0.0576
Correlation (r)	0.814
Number of (x, y) Observations	47
Total Lead Mean	142
Total Lead Standard Error	40
Total Lead Standard Deviation	274
Soluble Lead (WET) Mean	9
Soluble Lead (WET) Standard Error	1.6
Soluble Lead (WET) Standard Deviation	11

Regression Line: $y = m(x) + b$, where x = total lead and y = soluble lead (WET)


Routes 57, 60, and 210 Total vs. Soluble Lead (WET)
Soluble Lead - WET (mg/l)
Total Lead (mg/kg)
0
10
20
30
40
50
60
70
80
90
100
0
100
200
300
400
500
600
700
800
900
1000

Routes 57/210

Sample ID.	x = Total Lead (mg/kg)	y = asin(x/xmax)
SB57-1A-T	26	0.81
SB57-1B-T	58	1.80
SB57-3B-T	13	0.40
NB57-2A-T	6.1	0.19
NB57-2B-T	13	0.40
SB57-3A-T	28	0.87
SB57-7A-T	520	16.32
SB57-7B-T	52	1.61
NB57-8A-T	42	1.30
NB57-8B-T	60	1.86
NB57-9A-T	97	3.01
NB57-9B-T	134	4.15
WB210-10A-T	87	2.70
WB210-10B-T	106	3.28
EB210-11A-T	247	7.67
EB210-11B-T	414	12.93
W210-12A-T	692	21.97
W210-13A-T	286	8.89
W210-14A-T	121	3.75
W210-12B-T	1850	90.00
W210-13B-T	524	16.45
W210-14B-T	125	3.87

surface

MEAN (x)	250
MEAN (y)	9.28
VARIANCE (S_x^2)	165461.6
VARIANCE (S_y^2)	362.618
STDEV (S_y)	19.043
OBSERVATIONS (n)	22
t90%	1.3232
t95%	1.7207
90% UCL	**468.1**
95% UCL	**518.3**

	80%	95%
surface	468	518
1 foot	181	199
2 feet	127	135
surface	468	518
underlying	154	167
surface+1	325	358
underlying	127	135
surface +1 +2	259	284

Sample ID.	x = Total Lead (mg/kg)	y = asin(x/xmax)
SB57-1A-0.3	7.4	0.68
SB57-1B-0.3	2.5	0.23
SB57-3B-0.3	2.5	0.23
NB57-2A-0.3	5.6	0.51
NB57-2B-0.3	8.8	0.80
SB57-3A-0.3	5.4	0.49
SB57-7A-0.3	309	29.47
SB57-7B-0.3	24	2.19
NB57-8A-0.3	69	6.31
NB57-8B-0.3	2.5	0.23
NB57-9A-0.3	75	6.86
NB57-9B-0.3	193	17.90
WB210-10A-0.3	5.9	0.54
WB210-10B-0.3	123	11.29
EB210-11A-0.3	254	23.86
EB210-11B-0.3	628	90.00
W210-12A-0.3	255	23.96
W210-13A-0.3	154	14.20
W210-14A-0.3	5.4	0.49
W210-12B-0.3	103	9.44
W210-13B-0.3	52	4.75
W210-14B-0.3	16	1.46

1 foot

MEAN (x)	105
MEAN (y)	11.18
VARIANCE (S_x^2)	22840.13
VARIANCE (S_y^2)	391.474
STDEV (S_y)	19.786
OBSERVATIONS (n)	22
t90%	1.3232
t95%	1.7207
90% UCL	**181.1**
95% UCL	**198.6**

Sample ID.	x = Total Lead (mg/kg)	y = asin(x/xmax)
SB57-1A-0.6	5.3	1.26
SB57-1B-0.6	6.4	1.52
SB57-3B-0.6	11	2.62
NB57-2A-0.6	5.7	1.36
NB57-2B-0.6	2.5	0.59
SB57-3A-0.6	9.4	2.24
SB57-7A-0.6	194	53.61
SB57-7B-0.6	12	2.85
NB57-8A-0.6	76	18.38
NB57-8B-0.6	2.5	0.59
NB57-9A-0.6	108	26.62
NB57-9B-0.6	155	40.03
WB210-10A-0.6	195	54.01
WB210-10B-0.6	66	15.89
EB210-11A-0.6	222	67.10
EB210-11B-0.6	241	90.00
W210-12A-0.6	46	11.00
W210-13A-0.6	241	90.00
W210-14A-0.6	9.4	2.24
W210-12B-0.6	57	13.68
W210-13B-0.6	55	13.19
W210-14B-0.6	29	6.91

2 feet

MEAN (x)	80
MEAN (y)	23.44
VARIANCE (S_x^2)	7506.546
VARIANCE (S_y^2)	850.839
STDEV (S_y)	29.169
OBSERVATIONS (n)	22
t90%	1.3232
t95%	1.7207
90% UCL	**126.5**
95% UCL	**135.3**

Route 60

Sample ID.	x = Total Lead (mg/kg)	y = asin(x/xmax)
EB60-4A-T	158	38.65
EB60-4B-T	202	52.98
EB60-5A-T	80	18.43
EB60-5A-T	63	14.42
EB60-6A-T	154	37.50
EB60-6B-T	253	90.00

surface

MEAN (x)	152
MEAN (y)	42.00
VARIANCE (S_x^2)	5169.067
VARIANCE (S_y^2)	754.435
STDEV (S_y)	27.467
OBSERVATIONS (n)	6
t90%	1.4759
t95%	2.0150
90% UCL	**215.8**
95% UCL	**228.5**

Sample ID.	x = Total Lead (mg/kg)	y = asin(x/xmax)
EB60-5A-0.3	37	12.65
EB60-5B-0.3	77	27.10
EB60-6A-0.3	147	60.44
EB60-6B-0.3	169	90.00
EB60-4A-0.3	76	26.72

1 foot

MEAN (x)	101
MEAN (y)	43.38
VARIANCE (S_x^2)	3009.2
VARIANCE (S_y^2)	987.807
STDEV (S_y)	31.429
OBSERVATIONS (n)	5
t90%	1.5332
t95%	2.1318
90% UCL	**153.1**
95% UCL	**161.9**

Sample ID.	x = Total Lead (mg/kg)	y = asin(x/xmax)
EB60-5A-0.6	15	11.23
EB60-5B-0.6	77	90.00
EB60-6A-0.6	12	8.97
EB60-6B-0.6	22	16.60
EB60-4A-0.6	48	38.56

2 feet

MEAN (x)	35
MEAN (y)	33.07
VARIANCE (S_x^2)	757.7
VARIANCE (S_y^2)	1150.066
STDEV (S_y)	33.913
OBSERVATIONS (n)	5
t90%	1.5332
t95%	2.1318
90% UCL	**64.1**
95% UCL	**70.0**

	80%	95%
surface	216	229
1 foot	153	162
2 feet	64	70
surface	216	229
underlying	109	116
surface+1	184	195
underlying	64	70
surface +1 +2	144	153