



321 Court Street
Woodland California 95695
Tel (530) 406-1760
Fax (530) 406-1071
A, Haz 933586

RECEIVED

9:27 am, Jan 06, 2011

Alameda County
Environmental Health

December 15, 2010

Paresh C. Khatri
Hazardous Materials Specialist
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

SUBJECT: Fuel Leak Case No. RO0000022
1310 Central Avenue
Alameda, CA
Report Submittal – Site Investigation Report – December 2010

Dear Mr. Khatri:

Please find enclosed the *Site Investigation Report - December 2010* prepared by Matriks for Nissan Saidian, Joe Zadik, and Leon Zektser

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document are true and correct to the best of my knowledge.

Please call me at 530-406-1760 or email thenderson@matrikscorp.com if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tom Henderson", with a long horizontal flourish extending to the right.

Tom Henderson
President

SITE INVESTIGATION REPORT

**Alaska Gas
1310 Central Avenue
Alameda, California 94501
LOP Case No. RO0000022**

PREPARED FOR:
Nissan Saidian
5733 Medallion Court
Castro Valley, California 94520

SUBMITTED TO:
Alameda County Environmental Health Services
Local Oversight Program
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

December 15, 2010

Project No. 6022



PREPARED BY:
Matriks Corporation
321 Court Street
Woodland, California 95695

TABLE OF CONTENTS

PROFESSIONAL CERTIFICATION	iv
ACRONYMS AND ABBREVIATIONS	v
INTRODUCTION	1
Site Description and Physical Setting.....	1
Site Geology and Hydrogeology.....	1
PROJECT BACKGROUND AND DATA SUMMARY	1
SCOPE OF WORK.....	4
PREPARATORY PROCEDURES	4
Site-Specific Health and Safety Plan	4
Permits and Utility Clearance	5
Field Procedures	5
Soil Borings.....	5
Groundwater Sampling.....	6
Abandonment of Borings.....	6
Field Equipment Decontamination Procedures.....	7
RESULTS.....	7
Soil Samples	7
Ground Water Samples.....	7
CONCLUSIONS	7
RECOMMENDATIONS	8

LIST OF TABLES

Table 1	Summary of Soil Analytical Results from Previous Investigations
Table 2	Laboratory Analytical Data for Groundwater Samples

LIST OF FIGURES

Figure 1	Location Map
Figure 2	Site Plan
Figure 3	Boring Location Map

APPENDICES

Appendix A	Permits for Drilling
Appendix B	Boring Logs
Appendix C	Laboratory Analytical Reports

PROFESSIONAL CERTIFICATION

SITE INVESTIGATION REPORT

**Alaska Gas
1310 Central Avenue
Alameda, California 94501
LOP Case No. RO0000022**



**Project No. 6022
December 15, 2010**

Matriks Corporation prepared this document under the professional supervision of the person whose seal and signature appears hereon. No warranty, either expressed or implied, is made as to the professional advice presented herein. The analysis, conclusions, and recommendations contained in this document are based upon site conditions at the time of the investigation, which are subject to change.

The conclusions presented in this document are professional opinions based solely upon visual observations of the site and vicinity, and interpretation of available information as described in this report. The limited scope of services performed in execution of this investigation may not be appropriate to satisfy the needs, or requirements of other regulatory agencies, or of other users. Any use or reuse of this document or its findings, conclusions or recommendations presented herein is at the sole risk of said user.

A handwritten signature in blue ink, appearing to read "Tom Henderson".

Tom Henderson
President



Fred Mueller, P.E.
Senior Engineer

ACRONYMS AND ABBREVIATIONS

ACEHS	Alameda County Environmental Health Services
AEI	All Environmental, Inc.
amsl	above mean sea level
ASE	Aqua Science Engineers, Inc.
bgs	below ground surface
BTEX	benzene, toluene, ethyl-benzene, xylenes
cfm	cubic feet per minute
DCA	1,2-dichloroethane
DIPE	di-isopropyl ether
DO	dissolved oxygen
EDB	ethylene di-bromide
EDF	electronic data file
ESL	Environmental Screening Level
EtBE	ethyl tert-butyl ether
FS/CAP	Feasibility Study/Corrective Action Plan
Geotracker	Geographical Information Management System
lbs.	pounds
Matriks	Matriks Corporation
MtBE	methyl tert-butyl ether
MCL	Maximum contaminant levels
µg/L	micrograms per liter
mg/Kg	milligrams per kilogram
ml	milliliter
MW	monitoring well
NPDES	National Pollutant Discharge Elimination System
OS	ozone sparge
PDF	portable document format
PID	photo-ionization detector
psi	pounds per square inch
PVC	polyvinyl chloride

RWQCB	Regional Water Quality Control Board
SC	specific conductance
tAME	tert-amyl methyl ether
tBA	tert butyl alcohol
TPH-d	total petroleum hydrocarbons as diesel
TPH-g	total petroleum hydrocarbons as gasoline
UST	underground storage tank
VOA	volatile organic analysis
VOC	volatile organic compounds

INTRODUCTION

This *Site Investigation Report* (SIR) has been prepared by Matriks Corporation for Alaska Gas, located at 1310 Central Avenue in Alameda, California. The SIR was requested by Alameda County Environmental Health Services (ACEHS) in an October 22, 2009 letter to the responsible parties. The purpose of the SIR is to present a description of drilling techniques used to install soil borings at the Site. This SIR will present information gathered from these borings to define the vertical extent of contamination. The contamination was caused by a release of petroleum hydrocarbons from former underground storage tanks and/or the associated piping formerly at the Site. ACEHS is the lead regulatory agency overseeing this investigation. The case number for the Site is RO0000022.

Site Description and Physical Setting

The Site is currently a gas station located in an area of mixed commercial and residential properties in the south-central part of Alameda. The Site is located at the intersection of Encinal Avenue, Sherman Street, and Central Avenue. A Site location map is shown on **Figure 1** and a site plan showing physical features and monitoring well locations is shown of **Figure 2**.

The Site is relatively flat and the investigation area has a surface elevation of approximately 25 feet above mean sea level (amsl). San Francisco Bay and the Alameda Estuary are located approximately one half mile from the Site.

Site Geology and Hydrogeology

Based on interpretation of historical boring logs, the site is underlain by sandy fill to a depth of approximately 3.5 feet. Fine sandy silt and poorly graded sand was encountered beneath the fill to approximately 26 feet below ground surface (bgs), the maximum depth explored. Groundwater was encountered in the borings between 6 and 13 feet bgs. From the two years of quarterly groundwater monitoring, depth to water seasonally ranged from 2 to 6 feet bgs and flow was toward the northwest

PROJECT BACKGROUND AND DATA SUMMARY

In May 1996, Petrotek removed four underground storage tanks (UST) from the Site. One 10,000-gallon, one 7,500-gallon, and one 5,000-gallon UST formerly containing gasoline were removed from the western corner of the Site. A 500-gallon waste oil tank was removed from next to the building in the southern portion of the Site. Pump dispensers and related product piping were also removed.

Free product was observed floating on the groundwater in the gasoline UST excavation. A water sample from the gasoline UST excavation yielded 2,800 micrograms per liter ($\mu\text{g/L}$) of total petroleum hydrocarbons as gasoline (TPH-g) and 100 $\mu\text{g/L}$ benzene. Soil samples collected from this same excavation yielded up to 5,000 milligrams per kilogram (mg/Kg) of TPH-g and 31 mg/Kg benzene. Soil samples collected from beneath the pump island yielded up to 6,800 mg/Kg TPH-g and 63 mg/Kg benzene. A water sample from the waste oil excavation yielded 35,000 $\mu\text{g/L}$ of diesel and motor oil range hydrocarbons, and 1,300 $\mu\text{g/L}$ of TPH-g. These results are documented in a *UST Closure Report* submitted by Petrotek in May 1996.

Petrotek reportedly excavated and disposed of approximately 600 cubic yards of contaminated soil from both UST excavations. Approximately 15,000 gallons of water were pumped from the excavations, treated and discharged to the sanitary sewer. Two new USTs, dispensers, and product piping were installed after the excavation work was completed.

In November 1998, All Environmental, Inc. (AEI) drilled 14 soil borings at the Site and collected soil and groundwater samples for analysis. Up to 5,900 mg/Kg of TPH-g was detected in soil samples collected from the borings. Up to 120,000 $\mu\text{g/L}$ TPH-g and 7,200 $\mu\text{g/L}$ benzene were detected in groundwater samples from the borings.

In October 1999, HerSchy Environmental installed three monitoring wells at the Site. Up to 43,000 $\mu\text{g/L}$ TPH-g, 8,700 $\mu\text{g/L}$ total petroleum hydrocarbons as diesel (TPH-d), 1,300 $\mu\text{g/L}$ benzene, and 120,000 $\mu\text{g/L}$ methyl tert-butyl ether (MtBE) were detected in groundwater samples from the borings. The groundwater flow direction was southwesterly under a gradient of 0.0085.

On May 16, 2000, Aqua Science Engineers, Inc. (ASE) began quarterly monitoring at the Site. Groundwater samples collected from MW-1 contained 2,000 $\mu\text{g/L}$ TPH-g, 38 $\mu\text{g/L}$ benzene, 6.3 $\mu\text{g/L}$ toluene, 740 $\mu\text{g/L}$ ethyl benzene, and 1,600 $\mu\text{g/L}$ total xylenes. No MtBE or other oxygenates were detected in the sample from MW-1. No hydrocarbons were detected in the groundwater sample taken from MW-2. The groundwater sample from MW-3 contained 17,000 $\mu\text{g/L}$ TPH-g, 2,800 $\mu\text{g/L}$ benzene, 60 $\mu\text{g/L}$ toluene, 380 $\mu\text{g/L}$ ethyl benzene, 190 $\mu\text{g/L}$ total xylenes, 990 $\mu\text{g/L}$ MtBE, 9.1 $\mu\text{g/L}$ tert-amyl methyl ether (tAME), and 350 $\mu\text{g/L}$ tert butyl alcohol (tBA).

On July 28, 2000, ASE collected soil and groundwater samples from 12 Geoprobe borings (borings BH-1 through BH-L) to delineate the extent of down gradient contamination. The soil samples collected from 3.0 feet bgs in boring BH-K contained 0.00061 $\mu\text{g/L}$ of MtBE. There were no hydrocarbons or oxygenates detected in soil samples from the remaining borings. The groundwater samples collected from boring BH-A contained 0.7 $\mu\text{g/L}$ toluene and 0.9 $\mu\text{g/L}$ total xylenes. The groundwater samples collected from boring BH-B contained 1,800 $\mu\text{g/L}$ TPH-g, 270 $\mu\text{g/L}$ benzene, 8.8 $\mu\text{g/L}$ toluene, 18 $\mu\text{g/L}$ ethyl benzene, 13 $\mu\text{g/L}$ total xylenes, 4,100 $\mu\text{g/L}$ MtBE, 5.6 $\mu\text{g/L}$ tAME, and 440 $\mu\text{g/L}$ tBA. The groundwater samples collected from boring BH-C contained 230 $\mu\text{g/L}$ TPH-g, 11 $\mu\text{g/L}$ benzene, 1.2 $\mu\text{g/L}$ toluene, 0.96 $\mu\text{g/L}$ total $\mu\text{g/L}$, 760 $\mu\text{g/L}$ MtBE, 6.6 $\mu\text{g/L}$ TAME, and 130 $\mu\text{g/L}$ TBA. The groundwater sample collected from boring BH-D

contained 72 µg/L TPH-d, and 1.7 µg/L MtBE. The groundwater sample collected from boring BH-I contained 0.55 µg/L MtBE. The ground water sample collected from boring BH-J contained 200 µg/L TPH-d. The groundwater sample collected from boring BH-K contained 520 µg/L TPH-d and 0.77 µg/L MtBE. The groundwater sample collected from boring BH-L contained 2.5 µg/L MtBE. Analytical results for soil and groundwater are presented in **Tables 1** and **Table 2**, respectively.

In December 2002, ASE performed a conduit study to investigate whether subsurface utility lines could provide a pathway for the movement of groundwater. ASE requested USA to mark underground utilities in the Site vicinity as well as reviewed sewer line maps at the Alameda City Public Works Agency. ASE also called other agencies whose marks were not visible in the street areas to confirm that no lines were present in those areas. Results of the conduit study indicate that while it is likely present in the utility trenches, it does not appear that the utility lines act as a conduit for the movement of groundwater. This conclusion was based on the reasonable assumption that the backfill of the utility trenches is the exact same sandy material as the native material and that the Geoprobe borings containing the highest hydrocarbon concentrations are located beyond the conduits and their associated trenches. Although ASE concluded that the utility lines did not provide a pathway for the movement of groundwater, the ACEHS requested that water samples be collected from the sewer to determine whether contaminated groundwater may have entered the sewer line through seams or cracks.

In January 2004, ASE drilled four soil borings at the Site, BH-M through BH-P. The soil samples from all four borings contained very low concentrations of TPH-d, with the highest concentration from BH-M being 68 µg/L. No TPH-d, benzene, toluene, ethyl-benzene, xylenes (BTEX) or oxygenates were detected in any of the other soil samples. The groundwater samples collected from all four borings contained TPH-d at concentrations up to 170 µg/L. The groundwater sample collected from boring BH-O contained 19 µg/L MtBE. None of the other samples contained detectable concentrations of TPH-g, BTEX or oxygenates.

Groundwater samples were also collected from the sewer line beneath Central Avenue, both upgradient and down gradient of the Site. Low concentrations of TPH-g were detected in both samples. No BTEX or oxygenates were detected in either of these samples.

In December 2005, ASE conducted a records search at the Alameda City Public Works Agency and the California Department of Water Resources to identify water wells within a ½ mile radius of the Site. A total of 25 wells were located in the search area. The results include three domestic wells, 10 irrigation wells, one industrial, two cathodic protection wells, four monitoring wells, and 5 vapor extraction wells. The closest well is located more than 1,000 feet east of the Site. The closest, potentially down gradient, well is located approximately 1,260 feet northwest of the Site. ASE proposed additional soil and groundwater assessment for the Site.

In April 2006, ASE installed two additional borings and two monitoring wells at the Site. Borings BH-Q, BH-R, and monitoring wells MW-4 and MW-5 were installed using a drill rig equipped

with an 8-inch hollow-stem auger. The only hydrocarbons detected were 11 mg/Kg TPH-d in the sample from BH-Q and 1.7 mg/Kg TPH-d from the boring for MW-5. For both samples, the laboratory noted that the hydrocarbons reported as TPH-D did not exhibit a typical diesel chromatogram pattern. None of the soil samples contained detectable concentrations of TPH-g, BTEX, or oxygenates.

Groundwater samples collected during this phase of the investigation detected hydrocarbon concentrations in samples taken from BH-Q and BH-R. BH-Q yielded 220 µg/L TPH-d and BH-R yielded 770 µg/L TPH-d. Similar to the soil samples, the laboratory noted the hydrocarbons reported as TPH-d did not exhibit a typical diesel chromatogram pattern. Based on the results of there investigation, ASE did not recommend further definition of the extent of hydrocarbons.

From April 2006 to March 2009, the Site was monitored on a quarterly basis. From March 2009 to present, the Site has been monitored on a semi-annual basis, as directed by the ACEHS.

SCOPE OF WORK

The scope of work for preparation and implementation of the site investigation activities included:

- Obtained a drilling permit from the Alameda County Public Works Agency and a Right-of-Way permit from the City of Alameda;
- Marked the proposed soil boring locations and contacted Underground Service Alert (USA) to clear the areas for work;
- Installed four soil borings to a maximum depth of 20 feet bgs;
- Collected soil samples from each boring;
- Collected groundwater samples from each boring;
- Submitted the soil and groundwater samples for analysis of TPH-g, TPH-d, BTEX, MtBE, di-isopropyl ether (DIPE), ethyl tert-butyl ether (EtBE), tAME, tBA, total lead, and total iron; and
- Prepared and submitted this technical report certified by a California Registered Engineer describing the results of the Site Investigation.

PREPARATORY PROCEDURES

Site-Specific Health and Safety Plan

Matriks prepared a *Site-Specific Health and Safety Plan* in accordance with 29 CFR 1910.120. All personnel entering the work area were asked to indicate that they understand the plan. The health and safety plan specified the nature of the physical and chemical hazards associated

with the site, routes of exposure, first aid procedures associated with the expected hazards, and contact information for, and a map to, the nearest emergency medical facility.

Permits and Utility Clearance

City and County permits were obtained prior to the installation of the soil borings. A permit was obtained from the Alameda County Public Works Agency. For the proposed soil borings located in the streets, a right-of-way permit was obtained from the City of Alameda. Copies of these permits are presented in **Appendix A**.

Proper notice of the work was provided to the Alameda County Public Works Agency, Environmental Health Services, and the City of Alameda prior to the installation of the soil borings.

Matriks marked the proposed boring locations in white paint and notified USA two working days in advance of the drilling. USA notified public and private utility companies to mark the location of underground utilities owned and maintained by each company.

Work in the public right-of-way required passive (signs, cones, barricades, etc.) measures for traffic control. A standard traffic control plan was submitted along with the right-of-way permit application.

Field Procedures

Soil Borings

On November 12, 2010, Gregg Drilling, of Martinez, California drilled four soil borings, BX-1 through BX-4, with a truck-mounted drilling rig using direct push. Boring locations are shown on **Figure 3**.

A technician, under the direct supervision of a Registered Engineer, supervised the drilling and sampling operations. The soil borings were continuously logged using the Unified Soil Classification System and included significant changes in soil type, color, grain size, relative density, and relative moisture content. Boring logs are presented in **Appendix B**. The borings were advanced to a maximum of 20 feet bgs or below any obvious petroleum contamination.

The first five feet of each boring were cleared with a hand auger to ensure the hole was clear of buried utilities. Soil samples were collected using a 4-foot long steel sampler lined with a 1½-inch diameter acrylic sampling sleeve. Soil samples were collected from each soil boring at 5-

foot intervals. The ends of the sample tube were sealed with Teflon coated tape and plastic end caps.

The samples were labeled indicating sample ID, sample depth, project ID, and date collected. The samples were placed on ice in an ice chest for transport and submitted under documented chain-of custody control to McCampbell Analytical, Inc. of Pittsburg, California (DHS ELAP Certification No. 1644), within 72 hours of collection. The soil samples were analyzed for TPH-g, TPH-d, BTEX, MtBE, DIPE, EtBE, tAME, tBA, total lead, and total iron. Iron will be analyzed to evaluate Fenton's reagent as a potential remediation method.

Groundwater Sampling

Grab groundwater samples were collected from the bottom five feet of each boring. A 1-inch PVC slotted pipe was pressed down to the full depth of boring. A small diameter bailer or clean tubing (approximately $\frac{3}{4}$ inch) was lowered through the screen section for sample collection.

Groundwater samples were decanted into laboratory supplied vials. Care was taken to ensure that the vials were completely full and that no air bubbles were present after capping. Groundwater samples were labeled with the project ID, sample ID, sample depth, and date collected. Groundwater samples were placed in an ice chest cooled with ice pending delivery to a DHS certified laboratory. The samples were submitted under chain-of-custody control within 72 hours of collection, to McCampbell Analytical (DHS certification number 1644) of Pittsburg, California. The samples were analyzed for TPH-g, TPH-d, BTEX, MtBE, DIPE, EtBE, tAME, tBA, methanol, ethanol, EDB, EDC, and DCA.

Abandonment of Borings

The borings were abandoned the same day they were advanced by backfilling with Portland type I-II cement. The borings were tremie grouted using a 1-inch PVC line. The surface was backfilled with concrete or asphalt to match the existing grade.

Soil cuttings from the drilling operations are stored on-site in properly labeled, sealed 55-gallon, DOT-approved, steel drums. Drums are labeled with contents, date filled, generator name, and contact information. The investigation-derived wastes were characterized as non-hazardous based on the results of the laboratory analysis and will be disposed of according to applicable regulations.

Field Equipment Decontamination Procedures

Field equipment that came into contact with soil and groundwater were decontaminated before each use by washing in a laboratory grade detergent solution, followed by a tap water rinse. Potable water was used for decontamination of drilling equipment.

Rinsate water used in the decontamination process was stored onsite in 55-gallon drums for subsequent disposal. Disposal of water will conform to applicable requirements.

RESULTS

Soil Samples

Soil samples were collected at approximately five foot intervals to evaluate petroleum distribution to depth. Boring BX-2 was below detection levels for all constituents, and boring BX-4 contained elevated levels of TPH-g up to 20 fbg.

Soil samples collected from boring BX-1 contained TPH-g at 6.4 mg/Kg to 860 mg/Kg, TPH-d from 10 mg/Kg to 100 mg/Kg, and benzene from 0.02 mg/Kg to 3.9 mg/Kg. Soil samples collected from boring BX-3 at 5.5 fbg contained TPH-g to 26,000 mg/Kg, TPH-d to 4400 mg/kg and benzene to 54 mg/Kg. Soil samples collected from boring BX-4 contained TPH-g from 1,300 mg/Kg to 5,000 mg/Kg, TPH-d from 73 mg/Kg to 730 mg/Kg and benzene to 3.8 mg/Kg. Soil sample analytical is summarized in **Table 1**. A copy of the laboratory analytical report is included in **Appendix C**.

Ground Water Samples

Free product was observed in borings BX-1, BX-3, and BX-4. Groundwater samples collected from all borings contained TPH-g, TPH-d, and benzene. TPH-g was detected in boring BX-1, BX-2, BX-3, and BX-4 at 40,000 µg/L, 410 µg/L, 120,000 µg/L, and 81,000 µg/L, respectively. TPH-d was detected at 360,000 µg/L, 340 µg/L, 370,000 µg/L, and 1,100,000 µg/L, respectively. Groundwater sample analytical is summarized in **Table 2**.

CONCLUSIONS

Based on the results of this investigation, the extent of hydrocarbons in soil and groundwater is localized in the area of the current and former USTs. Borings were not placed in the street because both locations selected were heavily occupied by underground utilities.

TABLES

**Table 1
Soil Analytical Results
Alaska Gas
Alameda, California**

Boring	Depth(ft)/ Location	Date	TPH-g	TPH-d	benzene	toluene	ethyl- benzene	xylenes	MtBE	tAME	tBA	Other Oxygenates	Iron
BH-O	2.0	01/14/04	<1.0	2.2*	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA
BH-P	2.0	01/14/04	<1.0	4.9*	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA
BH-Q	2.0	04/03/06	<1.0	11*	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA
BH-R	2.0	04/03/06	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA
MW-4	2.0	04/03/06	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA
MW-5	2.0	04/03/06	<1.0	1.7*	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA
BX-1	6	11/12/10	860	100	2.5	1.1	11	2.2	<0.20	<0.20	<2.0	<0.20 ⁺	26,000
BX-1	10	11/12/10	920	52	3.9	<1.0	5.3	8.5	<0.20	<0.20	<2.0	<0.20 ⁺	NA
BX-1	15	11/12/10	56	10	0.27	0.042	0.37	0.34	<0.050	<0.050	<0.50	<0.050 ⁺	NA
BX-1	20	11/12/10	6.4	<1.0	0.020	0.0065	0.041	0.032	0.0073	<0.005	<0.05	<0.005 ⁺	NA
BX-2	5	11/12/10	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005 ⁺	NA
BX-2	10	11/12/10	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005 ⁺	9,400
BX-2	14	11/12/10	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005 ⁺	NA
BX-3	5.5	11/12/10	26,000	4,400	54	630	520	3,400	<2.0	<2.0	<2.0	<2.0 ⁺	NA
BX-3	12	11/12/10	1.2	<1.0	<0.005	0.012	0.014	0.084	<0.005	<0.005	<0.05	<0.005 ⁺	NA
BX-3	15	11/12/10	12	<1.0	0.0068	0.23	0.19	1.0	<0.005	<0.005	<0.05	<0.005 ⁺	12,000
BX-4	5	11/12/10	5,000	730	3.8	15	48	54	<0.50	<0.50	<5.0	<0.50 ⁺	NA
BX-4	10	11/12/10	1,400	170	<0.50	2.6	14	38	<0.20	<0.20	<2.0	<0.20 ⁺	18,000
BX-4	15	11/12/10	1,100	53	<1.0	1.3	3.0	5.8	<0.20	<0.20	<2.0	<0.20 ⁺	NA
BX-4	20	11/12/10	1,300	73	<0.17	1.7	10	30	<0.20	<0.20	<2.0	<0.20 ⁺	NA
ESL			83	100	0.044	2.9	2.3	2.3	0.023	NE	0.075	NE	

Notes:

Units are milligrams per kilogram (mg/KG).

NE ESL has not been established

TPH-g total petroleum hydrocarbons as gasoline

TPH-d total petroleum hydrocarbons as diesel

NA Not analyzed

* Laboratory noted that the hydrocarbons reported as TPH-d exhibited a non-typical diesel pattern.

* "Other Oxygenates" for samples collected 11/12/10 are comprised of results for Diisopropyl ether (DIPE) and Ethyl tert-butyl ether (ETBE)

MtBE methyl tert-butyl ether

tAME tert-amyl methyl ether

tBA tert-butanol

Table 2
Groundwater Analytical
Alaska Gas
Alameda, California

Boring	Date	TPH-g	TPH-d	benzene	toluene	ethyl-benzene	xylenes	MtBE	tAME	tBA	Other Oxygenates
BH-A	07/28/00	<50	<50	<0.5	0.7	<0.5	0.9	<0.5	<0.5	<5.0	<0.5
BH-B	07/28/00	1,800	<2000	270	8.8	18	13	4100	5.6	440	<3.0
BH-C	07/28/00	230	<100	11	1.2	<0.5	0.98	760	6.6	130	<0.5
BH-D	07/28/00	<50	72	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	<5.0	<0.5
BH-E	07/28/00	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
BH-F	07/28/00	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
BH-G	07/28/00	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
BH-H	07/28/00	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
BH-I	07/28/00	<50	<50	<0.5	<0.5	<0.5	<0.5	0.55	<0.5	<5.0	<0.5
BH-J	07/28/00	<50	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
BH-K	07/28/00	<50	520	<0.5	<0.5	<0.5	<0.5	0.77	<0.5	<5.0	<0.5
BH-L	07/28/00	<50	<50	<0.5	<0.5	<0.5	<0.5	2.5	<0.5	<5.0	<0.5
BH-M	01/14/04	<50	170*	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
BH-N	01/14/04	<50	68	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
BH-O	01/14/04	<50	100	<0.5	<0.5	<0.5	<0.5	19	<0.5	<5.0	<0.5
BH-P	01/14/04	<50	72	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
BH-Q	04/03/06	<50	220*	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
BH-R	04/03/06	<50	770*	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5
BX-1	11/12/10	40,000	360,000	6,300	110	1,700	930	160	7.5	49	<5.0 ⁺
BX-2	11/12/10	410	340	0.79	<0.5	3.5	1.6	3.5	<0.5	<2.0	<0.5 ⁺
BX-3	11/12/10	120,000	370,000	1,400	11,000	4,900	29,000	<5.0	<5.0	45	<5.0 ⁺
BX-4	11/12/10	81,000	1,100,000	950	830	3,700	18,000	<5.0	<5.0	<20	<5.0 ⁺
ESL		100	100	1	40	30	20	5	NE	12	NE
WQO				1.0	150	700	1750	5		12	

Notes:

Units are micrograms per liter (µg/L)

NE ESL has not been established

TPH-g total petroleum hydrocarbons as gasoline

TPH-d total petroleum hydrocarbons as diesel

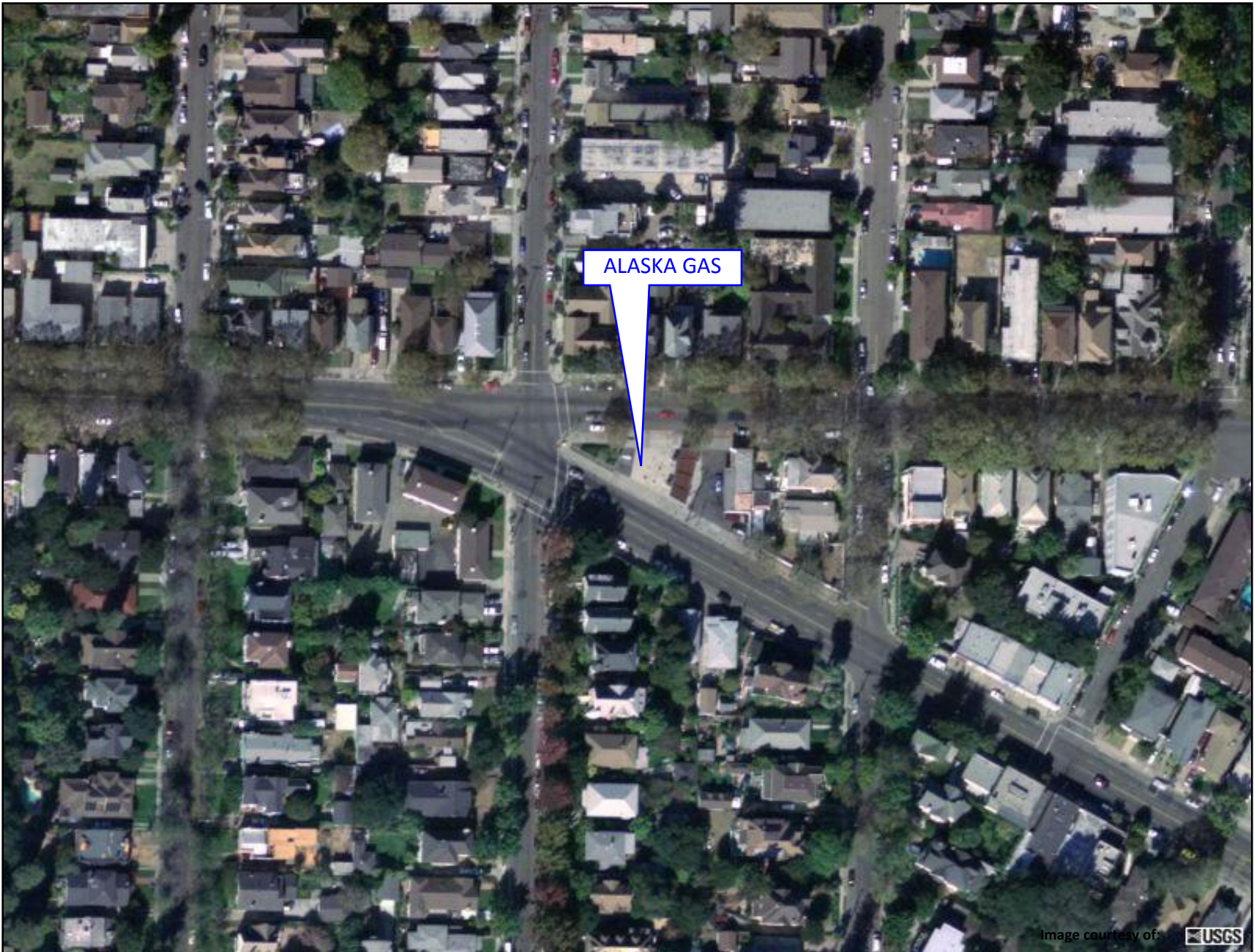
MtBE methyl tert-butyl ether

tAME tert-amyl methyl ether

tBA tert-butanol

* Laboratory noted that the hydrocarbons reported as TPH-d exhibited a non-typical diesel pattern.

FIGURES



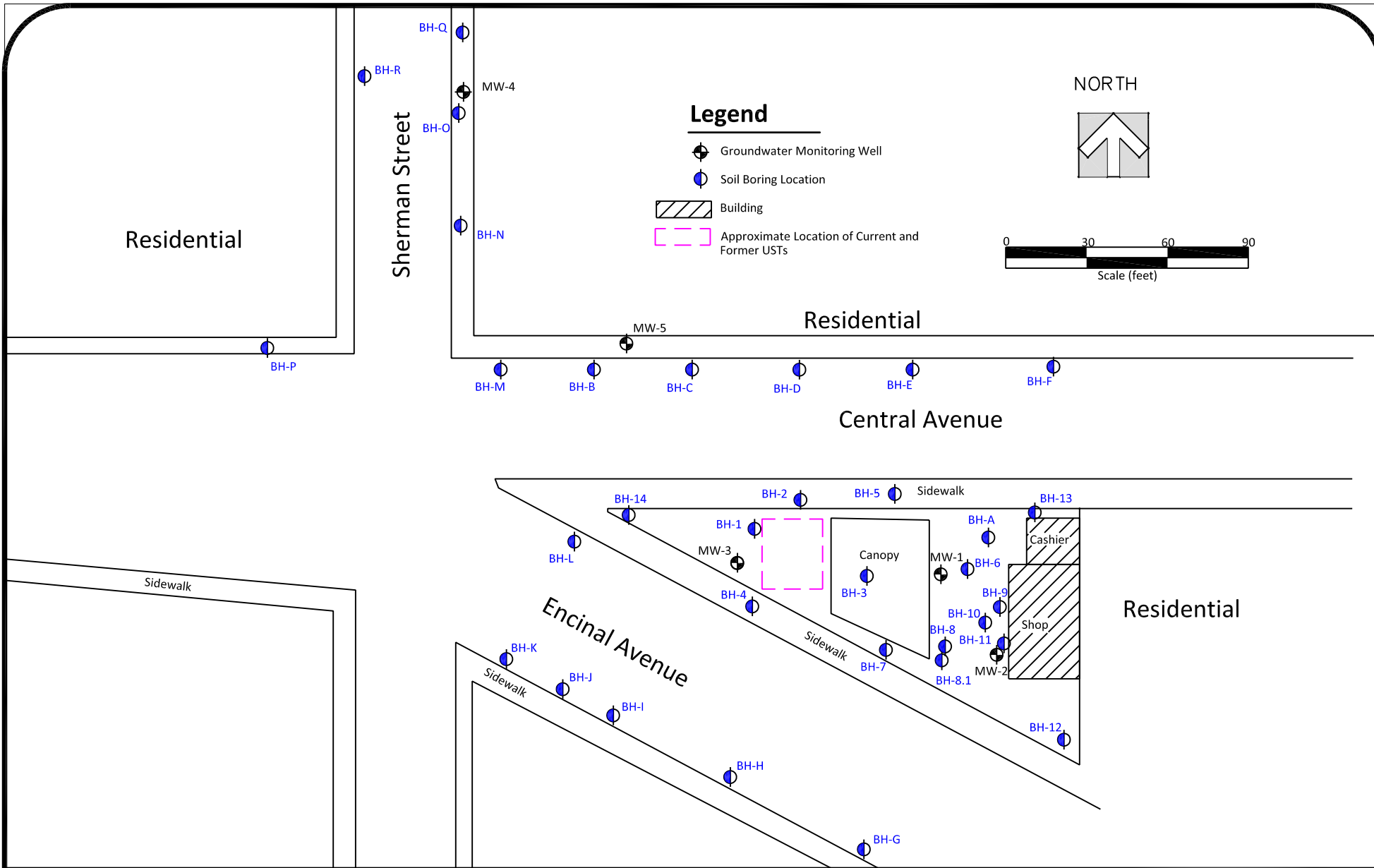
321 Court Street
Woodland, CA 95695
(530) 406-1760

Lic. No. 933586

Fax No. (530) 406-1071

Site Location Map
Alaska Gas
1310 Central Avenue, Alameda, CA

FIGURE 1



321 Court Street Lic. No. 909563
 Woodland, California 95695
 (530) 406-1760 Fax# (530) 406-1760

Site Map







Alaska Gasoline
 1310 Central Avenue
 Alameda, California

Project #: 6022	Figure:
Date: 11/15/2010	2
Scale: as shown	

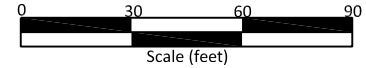
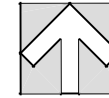
Residential

Sherman Street

Legend

-  Groundwater Monitoring Well
-  Shallow Soil Boring Location
-  Deep Soil Boring Location (>8 fbg)
-  New Boring Location
-  Building
-  Approximate Location of Current and Former USTs

NORTH



Residential

Central Avenue

Sidewalk

Encinal Avenue

Residential



321 Court Street Lic. No. 933586
 Woodland, California 95695
 (530) 406-1760 Fax# (530) 406-1760

Boring Locations

Alaska Gasoline
 1310 Central Avenue
 Alameda, California

Project #: 6022

Date: 11/15/2010

Scale: as shown

Figure:

3

APPENDIX A
PERMITS FOR DRILLING

Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 06/22/2010 By jamesy

Permit Numbers: W2010-0443
Permits Valid from 10/30/2010 to 11/30/2010

Application Id: 1277223716711
Site Location: 1310 Central Avenue, Alameda, CA
Project Start Date: 06/25/2010
Assigned Inspector: Contact Ron Smalley at (510) 670-5407 or ronaldws@acpwa.org
Extension Start Date: 10/30/2010
Extension Count: 2

City of Project Site: Alameda
Completion Date: 06/25/2010
Extension End Date: 11/30/2010
Extended By: vickyh1

Applicant: Matriks - Christine C. Truesdale
321 Court St., Woodland, CA 95695
Property Owner: Nissan Saidian
5722 Medallion Ct., Castro Valley, CA 94522
Client: ** same as Property Owner **

Phone: 530-406-1760

Phone: 510-268-0211

Receipt Number: WR2010-0214 Total Due: \$265.00
Payer Name : Matriks Total Amount Paid: \$265.00
Paid By: CHECK PAID IN FULL

Works Requesting Permits:

Borehole(s) for Investigation-Geotechnical Study/CPT's - 7 Boreholes
Driller: Gregg - Lic #: 485165 - Method: DP

Work Total: \$265.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2010-0443	06/22/2010	09/23/2010	7	1.50 in.	20.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
5. Applicant shall contact Ron Smalley for an inspection time at 510-670-5407 or email to ronaldws@acpwa.org at least

Alameda County Public Works Agency - Water Resources Well Permit

five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

6. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

7. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.



CITY OF ALAMEDA
 2263 SANTA CLARA AVENUE, ROOM 190
 ALAMEDA, CA 94501

*"Christine
 Truesdale"*

(510) 747-6800
 FAX (510) 747-6804

RIGHT OF WAY PERMIT: EX10-0088

Applicant Information

GREGG DRILLING & TESTING INC
 950 HOWE RD
 MARINEZ CA 94553
 925-313-5800

Contractor Information

GREGG DRILLING & TESTING INC
 950 HOWE RD
 MARINEZ CA 94553
 925-313-5800

Owner Information

SAIDIAN & ZEKTSER LLC & G & Z
 INC
 5977 SKYFARM DR
 CASTRO VALLEY CA 94552-1636

Project Information

Status: **Issued** Applied: **09/20/2010** Issued: **10/21/2010**
 Type: **Right-of-Way Permit** Finalized: Expires:
 Category: **NA**
 Sub-Type: **NA**
 Parcel Number: **072-0341-001-00** Valuation: **\$1,000.00**
 Job Address: **1310 CENTRAL AVE**
 Work Description: **EXCAVATION ~ SOIL BORING IN 3 LOCATIONS**

<u>ITEM #</u>	<u>FEE DESCRIPTION</u>	<u>ACCOUNT CODE</u>	<u>UNITS</u>	<u>FEE AMOUNT</u>	<u>PAID</u>
250	Filing Fee	481003-37450 (1050)	1	\$43.00	\$43.00
2999	Technology Fee	481003-33063 (1051)	1	\$5.10	\$5.10
620	Records Management Fee	482001-37900 (6210)	5	\$19.25	\$19.25
839	Excavation Permit Inspection Fee - Point Repair - Each Location	4210-37190 (6321)	1	\$59.00	\$59.00
965	Community Planning Fee	483001-33064 (8765)	1	\$3.00	\$3.00
TOTALS:				\$129.35	\$129.35

<u>RECEIPT #</u>	<u>PAYMENT METHOD</u>	<u>CHECK #</u>	<u>PAYOR:</u>	<u>RECEIPT DATE</u>	<u>RECEIPT AMOUNT</u>
465860	Check	2033	MATRIKS CORP	09/20/2010	\$129.35
Cashier: LFOYE					
Total Payments:					\$129.35
Balance Due:					\$0.00



City of Alameda
2263 Santa Clara Avenue, Room 190
Alameda, CA 94501
(510) 747-6800

Submit in Duplicate

RIGHT-OF-WAY PERMIT APPLICATION

SERVICE NUMBER _____

DATE _____ 20 _____

Application is hereby made to occupy or perform work in the public right-of-way on the See Attached Map side of
_____ Ave./
_____ St. _____ feet
Of _____

House No. 1310 Central Avenue Owner Nissan Sardinian

For the purpose of Characterizing the source area of groundwater & soil contamination.

Name of Applicant Green Drilling & Testing Address 950 Howe Rd. City/State Marchez, CA 94553
Contractor's License No. 485165 City Business License No. 026055 Phone Number 925-313-5800

INDICATE LOCATION BELOW OR ATTACH SEPARATE SHEET SHOWING LOCATION

Please see attached map for boring locations.
Work will utilize standard traffic control per the attached traffic control maps.

PLEASE NOTE THE FOLLOWING:

1. Urban runoff program requires that no contaminants, including dirt, enter the storm drain system. Contractor is required to protect inlets. Failure to comply is subject to \$200/day fine.
2. 48 hour advance notice is required for inspection. Contact: Engineering Division, Construction Inspection office at 749-5840. Required inspections: Trenching, backfill, concrete, traffic/pedestrian detours, urban runoff, final inspection. Failure to obtain inspection prior to work may result in rejection of said work.
3. All striping, painted graphics and pavement markers damaged or destroyed by street excavation work must be restored by the permittee.
4. All construction within the Public Right-of-Way must have barricades with flashers for night time protection.
5. All work involved is to be done in accordance with standard City of Alameda specifications and City of Alameda practices, all to the satisfaction of the City Engineer. Standard details are attached. Inspection charges shall be paid to the City monthly.
6. Processing time for routine permits is 5 days. Permits requiring extensive research may require up to 15 days.
7. **FAILURE TO OBTAIN INSPECTIONS PRIOR TO COMPLETION OF WORK IS SUBJECT TO ADDITIONAL INSPECTION COSTS AT A RATE OF \$32.70 PER HOUR.**

Acceptance of this permit constitutes acceptance of the conditions included.

[Signature]
APPLICANT SIGNATURE

Date 9/20/10

RECEIVED
SEP 20 2010
PERMIT CENTER
ALAMEDA, CA 94501

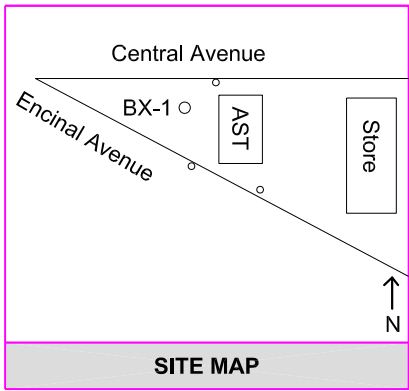
SPECIAL CONDITIONS

- NO OPEN TRENCH CUTTING
- STATE PERMIT REQUIRED
- ADDITIONAL SETS OF PLANS AND SPECIFICATIONS TO THE ENGINEERING DIVISION PRIOR TO CONSTRUCTION
_____ OF SETS
- OTHER _____

RECEIVED DATE 9/20/10 SIGNED [Signature] PERMIT NO. EX10-0088
 APPROVED DATE 10/11/10 SIGNED [Signature]
 ISSUED DATE 10/21/10 SIGNED [Signature]

\$129.35

APPENDIX B
BORING LOGS



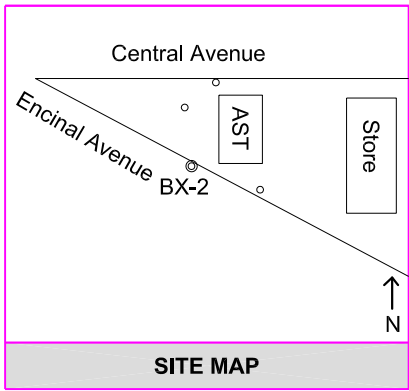
321 Court Street
Woodland CA 95695
530-406-1760
A Haz 933686

PROJECT: Alaska Gas	PROJECT #: 6022	BORING #: BX-1
DRILLING CONTRACTOR: Gregg Drilling	START: 8:40 FINISH: 10:20	DATE: 11/12/10
DRILLING METHOD: 1.75" Direct Push	TOTAL DEPTH: 20'	DEPTH TO WATER: Aprox. 6'
SAMPLER:	SCREEN INT:	CASING:
HAMMER WT: N/A	DROP: N/A	FIELD GEOLOGIST: Tom Henderson

DEPTH (ft)	SAMPLE #	INTERVAL	BLOWS/6"	PID (ppm)	WELL CONSTRUCTION	USCS SYMBOL & LITHOLOGIC LOG	LITHOLOGIC DESCRIPTION SOIL TYPE, GRAIN SIZE, COLOR, DENSITY, MOISTURE
2.5	BX-1						Hand auger to 5 fbg. Sand, green, petroleum odor
5						SP	
6	-6						Medium sand, some silt, wet, non plastic, loose
7.5						SM	
10	-10						Silty sand, stiff, wet, low plasticity, strong petroleum odor
12.5						SM	
15	-15						Free product observed from 13-15 fbg
17.5						SM	
18							Grading to more silt, slightly coarser sand, color change to brown at approximately 18 fbg, slight petroleum odor
20	-20						Light brown silty sand, drier, medium dense, no odor
						TOTAL DEPTH 20'	

CentralProjectFiles\Alaska Gas\Reports\SIR 11-10\BX-1.dwg

NOTE: THE LINE SEPARATING STRATA REPRESENT APPROXIMATE BOUNDARIES ONLY. THE ACTUAL TRANSITION MAY BE GRADUAL. NO WARRANTY IS PROVIDED AS TO THE CONTINUITY OF THE SOIL STRATA BETWEEN BORINGS. LOGS REPRESENT THE SOIL SECTION OBSERVED AT THE BORING LOCATION ON THE DATE OF DRILLING ONLY.



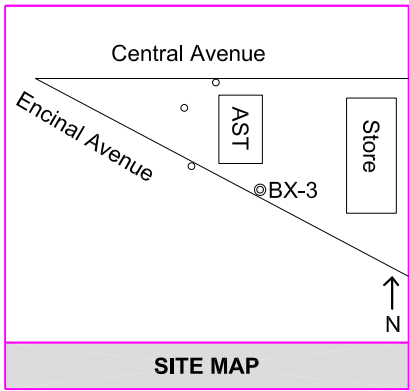
321 Court Street
Woodland CA 95695
530-406-1760
A Haz 933686

PROJECT: Alaska Gas	PROJECT #: 6022	BORING #: BX-2
DRILLING CONTRACTOR: Gregg Drilling	START: 10:35 FINISH: 11:50	DATE: 11/12/10
DRILLING METHOD: 1.75" Direct Push	TOTAL DEPTH: 15'	DEPTH TO WATER: Approx. 8'
SAMPLER:	SCREEN INT:	CASING:
HAMMER WT: N/A	DROP: N/A	FIELD GEOLOGIST: Tom Henderson

DEPTH (ft)	SAMPLE #	INTERVAL	BLOWS/6"	PID (ppm)	WELL CONSTRUCTION	USCS SYMBOL & LITHOLOGIC LOG	LITHOLOGIC DESCRIPTION SOIL TYPE, GRAIN SIZE, COLOR, DENSITY, MOISTURE
	BX-2						Asphalt, road base to 18 inches
2.5						SP	Hand auger to 5 fbg. Clean, moist sand
5	-5	█					Silty sand, medium, moist, brown, stiff
7.5						SM	Silty sand, loose, wet, brown
10	-10	█					Silty sand, finer, drier, medium firm, brown, no odor
12.5						SM	
15	-14	█					
17.5						TOTAL DEPTH 15'	
20							

CentralProjectFiles\Alaska Gas\Reports\SIR 11-10\BX-2.dwg

NOTE: THE LINE SEPARATING STRATA REPRESENT APPROXIMATE BOUNDARIES ONLY. THE ACTUAL TRANSITION MAY BE GRADUAL. NO WARRANTY IS PROVIDED AS TO THE CONTINUITY OF THE SOIL STRATA BETWEEN BORINGS. LOGS REPRESENT THE SOIL SECTION OBSERVED AT THE BORING LOCATION ON THE DATE OF DRILLING ONLY.



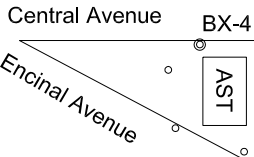
321 Court Street
Woodland CA 95695
530-406-1760
A Haz 933686

PROJECT: Alaska Gas	PROJECT #: 6022	BORING #: BX-3
DRILLING CONTRACTOR: Gregg Drilling	START: 12:15 FINISH: 13:50	DATE: 11/12/10
DRILLING METHOD: 1.75" Direct Push	TOTAL DEPTH: 18'	DEPTH TO WATER: Approx. 6'
SAMPLER:	SCREEN INT:	CASING:
HAMMER WT: N/A	DROP: N/A	FIELD GEOLOGIST: Tom Henderson

DEPTH (ft)	SAMPLE #	INTERVAL	BLOWS/6"	PID (ppm)	WELL CONSTRUCTION	USCS SYMBOL & LITHOLOGIC LOG	LITHOLOGIC DESCRIPTION SOIL TYPE, GRAIN SIZE, COLOR, DENSITY, MOISTURE
2.5	BX-3					SP	Hand auger to 5 fbg. Sand, petroleum odor
5	-5	█			▽	SM	Medium sand with gravel, some silt, wet, loose, petroleum odor Free product observed from 6-8 fbg
7.5						SM	No recovery from 8-10 fbg
10						SM	Silty sand, green, slight petroleum odor, wet
12.5	-12	█				SM	Grading to more silt, slightly finer sand, color transition to brown starts at approximately 13.5 fbg
15	-15	█				SM	Light brown silty sand, finer, drier, dense, no odor
17.5							
20						TOTAL DEPTH 18'	

CentralProjectFiles\Alaska Gas\Reports\SIR 11-10\BX-3.dwg

NOTE: THE LINE SEPARATING STRATA REPRESENT APPROXIMATE BOUNDARIES ONLY. THE ACTUAL TRANSITION MAY BE GRADUAL. NO WARRANTY IS PROVIDED AS TO THE CONTINUITY OF THE SOIL STRATA BETWEEN BORINGS. LOGS REPRESENT THE SOIL SECTION OBSERVED AT THE BORING LOCATION ON THE DATE OF DRILLING ONLY.



321 Court Street
Woodland CA 95695
530-406-1760
A Haz 933686

PROJECT: Alaska Gas	PROJECT #: 6022	BORING #: BX-4
DRILLING CONTRACTOR: Gregg Drilling	START: 14:10 FINISH: 15:30	DATE: 11/12/10
DRILLING METHOD: 1.75" Direct Push	TOTAL DEPTH: 20'	DEPTH TO WATER: Approx. 13'
SAMPLER:	SCREEN INT:	CASING:
HAMMER WT: N/A	DROP: N/A	FIELD GEOLOGIST: Tom Henderson

SITE MAP

DEPTH (ft)	SAMPLE #	INTERVAL	BLOWS/6"	PID (ppm)	WELL CONSTRUCTION	USCS SYMBOL & LITHOLOGIC LOG	LITHOLOGIC DESCRIPTION SOIL TYPE, GRAIN SIZE, COLOR, DENSITY, MOISTURE
2.5	BX-4					SM	Hand auger to 5 fbg. Silty sand, petroleum odor in cuttings
5	-5	█					Medium sand, some silt, green, stiff, low plasticity, petroleum odor
7.5						SM	grades to loose silty sand from 7-8 fbg
10	-10	█				SM	Sandy silt, drier, strong petroleum odor, green, low plasticity, stiffens at 11 fbg
12.5							Silty sand, green, slight petroleum odor, wet
15	-15	█				SM	Grading to more silt (50/50), brownish green, loose from 13-16 fbg
17.5							Silty sand, light greenish brown, fine, moist, no odor
20	-20	█				TOTAL DEPTH 20'	

CentralProjectFiles\Alaska Gas\Reports\SIR 11-10\BX-4.dwg

NOTE: THE LINE SEPARATING STRATA REPRESENT APPROXIMATE BOUNDARIES ONLY. THE ACTUAL TRANSITION MAY BE GRADUAL. NO WARRANTY IS PROVIDED AS TO THE CONTINUITY OF THE SOIL STRATA BETWEEN BORINGS. LOGS REPRESENT THE SOIL SECTION OBSERVED AT THE BORING LOCATION ON THE DATE OF DRILLING ONLY.

APPENDIX C
LABORATORY ANALYTICAL REPORTS



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Matriks Corporation 321 Court Street Woodland, CA 95695	Client Project ID: Alameda Gas	Date Sampled: 11/12/10
		Date Received: 11/15/10
	Client Contact: Tom Henderson	Date Reported: 11/23/10
	Client P.O.:	Date Completed: 11/23/10

WorkOrder: 1011432

November 23, 2010

Dear Tom:

Enclosed within are:

- 1) The results of the **18** analyzed samples from your project: **Alameda Gas**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

1011432



McCAMPBELL ANALYTICAL, INC.
 1534 WILLOW PASS ROAD
 PITTSBURG, CA 94565-1701
 Website: www.mccampbell.com Email: main@mccampbell.com
 Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD
TURN AROUND TIME RUSH 24 HR 48 HR 72 HR 5 DAY
 GeoTracker EDF PDF Excel Write On (DW)
 Check if sample is effluent and "J" flag is required

Report To: Tom Henderson Bill To: MATRIKS CORP
 Company: MATRIKS Corp
 321 Court St
 Woodland CA 95695 E-Mail: thenderson@matriks.com
 Tele: () Fax: ()
 Project #: Project Name: Alameda Gas
 Project Location: Alameda
 Sampler Signature: Tom Henschel

SAMPLE ID	LOCATION Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX				METHOD PRESERVED				Analysis Request	Other	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃			
Bx-1		11/12/10		4	1 1/2 gal	X					X	X				
Bx-2				4	1 1/2 gal	X										
Bx-3				4	1 1/2 gal	X										
Bx-4				4	1 1/2 gal	X										
Bx-1-b				1			X			X					X	Total Pb
Bx-1-10				1			X									
Bx-1-15				1			X									
Bx-1-20				1			X									
Bx-2-5				1			X									
Bx-2-10				1			X								X	Total Pb
Bx-2-14				1			X									

1-30
 11/15/10

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By: Tom Henschel	Date: 11/15/10	Time: 10:30	Received By: Kyle Clapp
Relinquished By: Kyle Clapp	Date: 11/15/10	Time: 6:00 pm	Received By: Brent St. E.T.
Relinquished By: Brent St. E.T.	Date: 11-15	Time: 10:30	Received By: Julia Alvarez

ICEA 2.8
 GOOD CONDITION _____
 HEAD SPACE ABSENT _____
 DECHLORINATED IN LAB _____
 APPROPRIATE CONTAINERS _____
 PRESERVED IN LAB _____
 COMMENTS:
 VOAS O&G METALS OTHER
 PRESERVATION pH<2



McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701

Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

GeoTracker EDF PDF Excel Write On (DW)

Check if sample is effluent and "J" flag is required

Report To: Tom Henderson Bill To: MATRIX Corp
Company: MATRIX Corp
321 Court St
Woodland CA 95695 E-Mail:
Tele: (530) 466 1760 Fax: ()
Project #: Project Name: Alameda Gas
Project Location: ALAMEDA
Sampler Signature: Joe L...

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX				METHOD PRESERVED				Analysis Request	Other	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃			
BX-3-5.5		11/12/10		1		X							X			
BX-3-12				1		X										
BX-3-15				1		X								X		Total Pb
BX-4-5				1		X										
BX-4-10				1		X								X		Total Pb
BX-4-15				1		X										
BX-4-20				1		X										

****MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.**

Relinquished By: <u>Joe L...</u>	Date: <u>11/15/10</u>	Time: <u>10:50</u>	Received By: <u>Kyle Clapp</u>
Relinquished By: <u>Kyle Clapp</u>	Date: <u>11/15/10</u>	Time: <u>6:50 am</u>	Received By: <u>Brian St...</u> E.T.
Relinquished By: <u>Brian St...</u> E.T.	Date: <u>11/15/10</u>	Time: <u>1430</u>	Received By: <u>Julia Nunez</u>

ICE/IF _____ COMMENTS: _____
 GOOD CONDITION _____
 HEAD SPACE ABSENT _____
 DECHLORINATED IN LAB _____
 APPROPRIATE CONTAINERS _____
 PRESERVED IN LAB _____
 VOAS O&G METALS OTHER
 PRESERVATION pH<2

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1011432

ClientCode: MCW

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:
 Tom Henderson
 Matriks Corporation
 321 Court Street
 Woodland, CA 95695
 (530) 406-1760 FAX (530) 406-1771

Email: thenderson@matrikscorp.com
cc:
PO:
ProjectNo: Alameda Gas

Bill to:
 Robert Neely
 Matriks Corporation
 321 Court Street
 Woodland, CA 95695

Requested TAT: **5 days**

Date Received: 11/15/2010
Date Printed: 11/15/2010

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1011432-001	Bx-1	Water	11/12/2010	<input type="checkbox"/>		B		A			C					
1011432-002	Bx-2	Water	11/12/2010	<input type="checkbox"/>		B		A			C					
1011432-003	Bx-3	Water	11/12/2010	<input type="checkbox"/>		B		A			C					
1011432-004	Bx-4	Water	11/12/2010	<input type="checkbox"/>		B		A			C					
1011432-005	Bx-1-6	Soil	11/12/2010	<input type="checkbox"/>	A		A		A	A						
1011432-006	Bx-1-10	Soil	11/12/2010	<input type="checkbox"/>	A		A			A						
1011432-007	Bx-1-15	Soil	11/12/2010	<input type="checkbox"/>	A		A			A						
1011432-008	Bx-1-20	Soil	11/12/2010	<input type="checkbox"/>	A		A			A						
1011432-009	Bx-2-5	Soil	11/12/2010	<input type="checkbox"/>	A		A			A						
1011432-010	Bx-2-10	Soil	11/12/2010	<input type="checkbox"/>	A		A		A	A						
1011432-011	Bx-2-14	Soil	11/12/2010	<input type="checkbox"/>	A		A			A						
1011432-012	Bx-3-5.5	Soil	11/12/2010	<input type="checkbox"/>	A		A			A						
1011432-013	Bx-3-12	Soil	11/12/2010	<input type="checkbox"/>	A		A			A						
1011432-014	Bx-3-15	Soil	11/12/2010	<input type="checkbox"/>	A		A		A	A						

Test Legend:

1	5-OXYS_S	2	5-OXYS_W	3	G-MBTEX_S	4	G-MBTEX_W	5	PB_S
6	TPH(D)_S	7	TPH(D)_W	8		9		10	
11		12							

Prepared by: Ana Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1011432

ClientCode: MCW

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:

Tom Henderson
 Matriks Corporation
 321 Court Street
 Woodland, CA 95695
 (530) 406-1760 FAX (530) 406-1771

Email: thenderson@matrikscorp.com
 cc:
 PO:
 ProjectNo: Alameda Gas

Bill to:

Robert Neely
 Matriks Corporation
 321 Court Street
 Woodland, CA 95695

Requested TAT: 5 days

Date Received: 11/15/2010

Date Printed: 11/15/2010

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1011432-015	Bx-4-5	Soil	11/12/2010	<input type="checkbox"/>	A		A			A						
1011432-016	Bx-4-10	Soil	11/12/2010	<input type="checkbox"/>	A		A		A	A						
1011432-017	Bx-4-15	Soil	11/12/2010	<input type="checkbox"/>	A		A			A						
1011432-018	Bx-4-20	Soil	11/12/2010	<input type="checkbox"/>	A		A			A						

Test Legend:

1	5-OXYS_S	2	5-OXYS_W	3	G-MBTEX_S	4	G-MBTEX_W	5	PB_S
6	TPH(D)_S	7	TPH(D)_W	8		9		10	
11		12							

Prepared by: Ana Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Matriks Corporation**

Date and Time Received: **11/15/2010 7:40:14 PM**

Project Name: **Alameda Gas**

Checklist completed and reviewed by: **Ana Venegas**

WorkOrder N°: **1011432** Matrix Soil/Water

Carrier: EnviroTech (RC)

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
 - Container/Temp Blank temperature Cooler Temp: 2.8°C NA
 - Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 - Sample labels checked for correct preservation? Yes No
 - Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 - Samples Received on Ice? Yes No
- (Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Matriks Corporation 321 Court Street Woodland, CA 95695	Client Project ID: Alameda Gas	Date Sampled: 11/12/10
		Date Received: 11/15/10
	Client Contact: Tom Henderson	Date Extracted: 11/15/10
	Client P.O.:	Date Analyzed: 11/16/10

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1011432

Lab ID	1011432-005A	1011432-006A	1011432-007A	1011432-008A	Reporting Limit for DF =1	
Client ID	Bx-1-6	Bx-1-10	Bx-1-15	Bx-1-20		
Matrix	S	S	S	S		
DF	40	40	10	1		

Compound	Concentration				mg/kg	ug/L
	tert-Amyl methyl ether (TAME)	ND<0.20	ND<0.20	ND<0.050	ND	0.005
t-Butyl alcohol (TBA)	ND<2.0	ND<2.0	ND<0.50	ND	0.05	NA
Diisopropyl ether (DIPE)	ND<0.20	ND<0.20	ND<0.050	ND	0.005	NA
Ethyl tert-butyl ether (ETBE)	ND<0.20	ND<0.20	ND<0.050	ND	0.005	NA
Methyl-t-butyl ether (MTBE)	ND<0.20	ND<0.20	ND<0.050	0.0073	0.005	NA

Surrogate Recoveries (%)

%SS1:	97	98	93	87	
Comments	a3	a3	a3		

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or surrogate coelutes with another peak.

a3) sample diluted due to high organic content.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Matriks Corporation 321 Court Street Woodland, CA 95695	Client Project ID: Alameda Gas	Date Sampled: 11/12/10
		Date Received: 11/15/10
	Client Contact: Tom Henderson	Date Extracted: 11/15/10
	Client P.O.:	Date Analyzed: 11/16/10

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1011432

Lab ID	1011432-009A	1011432-010A	1011432-011A	1011432-012A	Reporting Limit for DF =1	
Client ID	Bx-2-5	Bx-2-10	Bx-2-14	Bx-3-5.5		
Matrix	S	S	S	S		
DF	1	1	1	400		

Compound	Concentration				mg/kg	ug/L
	tert-Amyl methyl ether (TAME)	ND	ND	ND	ND<2.0	0.005
t-Butyl alcohol (TBA)	ND	ND	ND	ND<20	0.05	NA
Diisopropyl ether (DIPE)	ND	ND	ND	ND<2.0	0.005	NA
Ethyl tert-butyl ether (ETBE)	ND	ND	ND	ND<2.0	0.005	NA
Methyl-t-butyl ether (MTBE)	ND	ND	ND	ND<2.0	0.005	NA

Surrogate Recoveries (%)

%SS1:	90	88	89	96	
-------	----	----	----	----	--

Comments				a3	
----------	--	--	--	----	--

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or surrogate coelutes with another peak.

a3) sample diluted due to high organic content.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Matriks Corporation 321 Court Street Woodland, CA 95695	Client Project ID: Alameda Gas	Date Sampled: 11/12/10
		Date Received: 11/15/10
	Client Contact: Tom Henderson	Date Extracted: 11/15/10
	Client P.O.:	Date Analyzed: 11/16/10

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1011432

Lab ID	1011432-013A	1011432-014A	1011432-015A	1011432-016A	Reporting Limit for DF =1	
Client ID	Bx-3-12	Bx-3-15	Bx-4-5	Bx-4-10		
Matrix	S	S	S	S		
DF	1	1	100	40		

Compound	Concentration				mg/kg	ug/L
tert-Amyl methyl ether (TAME)	ND	ND	ND<0.50	ND<0.20	0.005	NA
t-Butyl alcohol (TBA)	ND	ND	ND<5.0	ND<2.0	0.05	NA
Diisopropyl ether (DIPE)	ND	ND	ND<0.50	ND<0.20	0.005	NA
Ethyl tert-butyl ether (ETBE)	ND	ND	ND<0.50	ND<0.20	0.005	NA
Methyl-t-butyl ether (MTBE)	ND	ND	ND<0.50	ND<0.20	0.005	NA

Surrogate Recoveries (%)

%SS1:	89	92	92	94	
-------	----	----	----	----	--

Comments			a3	a3	
----------	--	--	----	----	--

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or surrogate coelutes with another peak.

a3) sample diluted due to high organic content.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Matriks Corporation 321 Court Street Woodland, CA 95695	Client Project ID: Alameda Gas	Date Sampled: 11/12/10
		Date Received: 11/15/10
	Client Contact: Tom Henderson	Date Extracted: 11/15/10
	Client P.O.:	Date Analyzed: 11/16/10

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1011432

Lab ID	1011432-017A	1011432-018A			Reporting Limit for DF =1	
Client ID	Bx-4-15	Bx-4-20				
Matrix	S	S				
DF	40	40				

Compound	Concentration				mg/kg	ug/L
	tert-Amyl methyl ether (TAME)	ND<0.20	ND<0.20			0.005
t-Butyl alcohol (TBA)	ND<2.0	ND<2.0			0.05	NA
Diisopropyl ether (DIPE)	ND<0.20	ND<0.20			0.005	NA
Ethyl tert-butyl ether (ETBE)	ND<0.20	ND<0.20			0.005	NA
Methyl-t-butyl ether (MTBE)	ND<0.20	ND<0.20			0.005	NA

Surrogate Recoveries (%)

%SS1:	90	95			
Comments	a3	a3			

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or surrogate coelutes with another peak.

a3) sample diluted due to high organic content.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Matriks Corporation 321 Court Street Woodland, CA 95695	Client Project ID: Alameda Gas	Date Sampled: 11/12/10
		Date Received: 11/15/10
	Client Contact: Tom Henderson	Date Extracted: 11/16/10-11/17/10
	Client P.O.:	Date Analyzed: 11/16/10-11/17/10

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1011432

Lab ID	1011432-001B	1011432-002B	1011432-003B	1011432-004B	Reporting Limit for DF =1	
Client ID	Bx-1	Bx-2	Bx-3	Bx-4		
Matrix	W	W	W	W		
DF	10	1	10	10		

Compound	Concentration				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	7.5	ND	ND<5.0	ND<5.0	NA	0.5
t-Butyl alcohol (TBA)	49	ND	45	ND<20	NA	2.0
Diisopropyl ether (DIPE)	ND<5.0	ND	ND<5.0	ND<5.0	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND<5.0	ND	ND<5.0	ND<5.0	NA	0.5
Methyl-t-butyl ether (MTBE)	160	3.5	ND<5.0	ND<5.0	NA	0.5

Surrogate Recoveries (%)

%SS1:	93	96	92	88	
Comments	b6,b1	b1	b6,b1	b6,a3,b1	

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or surrogate coelutes with another peak.

a3) sample diluted due to high organic content.

b1) aqueous sample that contains greater than ~1 vol. % sediment

b6) lighter than water immiscible sheen/product is present



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Matriks Corporation 321 Court Street Woodland, CA 95695	Client Project ID: Alameda Gas	Date Sampled: 11/12/10
		Date Received: 11/15/10
	Client Contact: Tom Henderson	Date Extracted: 11/15/10
	Client P.O.:	Date Analyzed: 11/16/10

Lead by ICP*

Extraction method: SW3050B

Analytical methods: SW6010B

Work Order: 1011432

Lab ID	Client ID	Matrix	Extraction Type	Lead	DF	% SS	Comments
1011432-005A	Bx-1-6	S	TOTAL	ND	1	100	
1011432-010A	Bx-2-10	S	TOTAL	ND	1	108	
1011432-014A	Bx-3-15	S	TOTAL	ND	1	110	
1011432-016A	Bx-4-10	S	TOTAL	ND	1	107	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	NA	µg/L
	S	TOTAL	5.0	mg/Kg

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.
 TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.
 DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

%SS = Percent Recovery of Surrogate Standard
 DF = Dilution Factor



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Matriks Corporation 321 Court Street Woodland, CA 95695	Client Project ID: Alameda Gas	Date Sampled: 11/12/10
		Date Received: 11/15/10
	Client Contact: Tom Henderson	Date Extracted: 11/15/10
	Client P.O.:	Date Analyzed 11/17/10-11/21/10

Total Extractable Petroleum Hydrocarbons*

Extraction method SW3510C/SW3550B

Analytical methods: SW8015B

Work Order: 1011432

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS	Comments
1011432-001C	Bx-1	W	360,000	100	---	e4/e11,e2,b6,b1
1011432-002C	Bx-2	W	340	1	101	e11,e2,e7,b1
1011432-003C	Bx-3	W	370,000	20	84	e4,e2,b6,b1
1011432-004C	Bx-4	W	1,100,000	200	82	e4,e2,b6,b1
1011432-005A	Bx-1-6	S	100	10	103	e11
1011432-006A	Bx-1-10	S	52	1	113	e11,e2
1011432-007A	Bx-1-15	S	10	1	106	e11
1011432-008A	Bx-1-20	S	ND	1	106	
1011432-009A	Bx-2-5	S	ND	1	101	
1011432-010A	Bx-2-10	S	ND	1	108	
1011432-011A	Bx-2-14	S	ND	1	108	
1011432-012A	Bx-3-5.5	S	4400	10	96	e4,e2
1011432-013A	Bx-3-12	S	ND	1	107	
1011432-014A	Bx-3-15	S	ND	1	107	
1011432-015A	Bx-4-5	S	730	1	103	e4,e2

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	1.0	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

%SS = Percent Recovery of Surrogate Standard. DF = Dilution Factor

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- b1) aqueous sample that contains greater than ~1 vol. % sediment
- b6) lighter than water immiscible sheen/product is present
- e2) diesel range compounds are significant; no recognizable pattern
- e4) gasoline range compounds are significant.; and/or e11) stoddard solvent/mineral spirit (?)
- e7) oil range compounds are significant



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Matriks Corporation 321 Court Street Woodland, CA 95695	Client Project ID: Alameda Gas	Date Sampled: 11/12/10
		Date Received: 11/15/10
	Client Contact: Tom Henderson	Date Extracted: 11/15/10-11/22/10
	Client P.O.:	Date Analyzed: 11/16/10-11/22/10

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1011432

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	Bx-1	W	40,000	ND<500	6300	110	1700	930	100	114	d1,b6,b1
002A	Bx-2	W	410	ND	0.79	ND	3.5	1.6	1	121	d9,b1
003A	Bx-3	W	120,000	ND<500	1400	11,000	4900	29,000	100	115	d1,b6,b1
004A	Bx-4	W	81,000	ND<500	950	830	3700	18,000	100	116	d1,b6,b1
005A	Bx-1-6	S	860	ND<5.0	2.5	1.1	11	2.2	100	---#	d1
006A	Bx-1-10	S	920	ND<10	3.9	ND<1.0	5.3	8.5	200	74	d7,d9
007A	Bx-1-15	S	56	ND<0.25	0.27	0.042	0.37	0.34	5	94	d7,d9
008A	Bx-1-20	S	6.4	ND	0.020	0.0065	0.041	0.032	1	91	d9
009A	Bx-2-5	S	ND	ND	ND	ND	ND	ND	1	90	
010A	Bx-2-10	S	ND	ND	ND	ND	ND	ND	1	88	
011A	Bx-2-14	S	ND	ND	ND	ND	ND	ND	1	86	
012A	Bx-3-5.5	S	26,000	ND<50	54	630	520	3400	1000	---#	d2,d9
013A	Bx-3-12	S	1.2	ND	ND	0.012	0.014	0.084	1	89	d2
014A	Bx-3-15	S	12	ND	0.0068	0.23	0.19	1.0	1	83	d2,d9
015A	Bx-4-5	S	5000	ND<10	3.8	15	48	54	200	---#	d1
016A	Bx-4-10	S	1400	ND<5.0	ND<0.50	2.6	14	38	100	---#	d2,d9

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	μg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples are reported in μg/L, soil/sludge/solid samples in mg/kg, wipe samples in μg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts in mg/L.

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

%SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment

b6) lighter than water immiscible sheen/product is present

d1) weakly modified or unmodified gasoline is significant

d2) heavier gasoline range compounds are significant (aged gasoline?)

d7) strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 54398

WorkOrder 1011432

Analyte	EPA Method SW8260B Extraction SW5030B								Spiked Sample ID: 1011364-010a			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	83.5	80.8	3.24	82.3	80.7	1.99	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	91.3	94.1	3.02	88.4	90.2	1.96	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	106	104	1.95	106	103	2.49	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	97.7	94.5	3.25	96.9	95.4	1.55	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	109	107	1.69	108	106	1.70	70 - 130	30	70 - 130	30
%SS1:	89	0.13	87	87	0	87	87	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 54398 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1011432-005A	11/12/10	11/15/10	11/16/10 2:20 PM	1011432-006A	11/12/10	11/15/10	11/16/10 2:58 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 54403

WorkOrder 1011432

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 1011377-004A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	0.60	95	98.9	4.02	86.2	90.5	4.92	70 - 130	20	70 - 130	20
MTBE	ND	0.10	108	119	9.84	107	109	2.45	70 - 130	20	70 - 130	20
Benzene	ND	0.10	102	109	7.06	96.3	94.9	1.41	70 - 130	20	70 - 130	20
Toluene	ND	0.10	88.1	94.3	6.76	93.7	92.7	1.12	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	91.4	97.2	6.16	95.3	93.8	1.55	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	102	108	5.35	97.4	96.8	0.595	70 - 130	20	70 - 130	20
%SS:	88	0.10	92	87	5.23	108	96	12.5	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 54403 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1011432-005A	11/12/10	11/15/10	11/17/10 9:16 PM	1011432-006A	11/12/10	11/15/10	11/16/10 9:43 PM
1011432-007A	11/12/10	11/15/10	11/17/10 11:14 PM	1011432-008A	11/12/10	11/15/10	11/20/10 8:31 AM
1011432-009A	11/12/10	11/15/10	11/22/10 6:37 PM	1011432-010A	11/12/10	11/15/10	11/17/10 2:09 AM
1011432-011A	11/12/10	11/15/10	11/17/10 2:38 AM	1011432-012A	11/12/10	11/15/10	11/20/10 8:02 AM
1011432-013A	11/12/10	11/15/10	11/17/10 3:08 AM	1011432-014A	11/12/10	11/15/10	11/17/10 3:37 AM
1011432-015A	11/12/10	11/15/10	11/16/10 7:43 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 54446

WorkOrder 1011432

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 1011483-001A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	0.60	104	105	1.19	101	106	4.71	70 - 130	20	70 - 130	20
MTBE	ND	0.10	103	101	2.55	91.7	101	9.80	70 - 130	20	70 - 130	20
Benzene	ND	0.10	91	90	1.18	87.4	88.8	1.59	70 - 130	20	70 - 130	20
Toluene	ND	0.10	93.8	92.6	1.28	90.8	91.5	0.762	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	98.6	96.6	2.03	94.4	95.4	1.05	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	97	96.9	0.0865	95.1	96	0.951	70 - 130	20	70 - 130	20
%SS:	88	0.10	85	83	1.74	81	84	4.43	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 54446 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1011432-016A	11/12/10	11/15/10	11/18/10 12:42 AM	1011432-017A	11/12/10	11/15/10	11/17/10 5:05 AM
1011432-018A	11/12/10	11/15/10	11/18/10 2:10 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 54448

WorkOrder 1011432

EPA Method SW8260B		Extraction SW5030B							Spiked Sample ID: 1011454-003A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	75.2	70.3	6.80	78.3	77	1.73	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	77.8	75.4	3.20	88.5	90	1.59	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	99.9	94.8	5.23	98.5	97.7	0.735	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	91.2	86.4	5.41	91.1	89.5	1.81	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	99.6	94.6	5.11	103	102	0.777	70 - 130	30	70 - 130	30
%SS1:	92	0.13	85	83	2.68	86	87	0.635	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 54448 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1011432-007A	11/12/10	11/15/10	11/16/10 7:18 PM	1011432-008A	11/12/10	11/15/10	11/16/10 2:13 PM
1011432-009A	11/12/10	11/15/10	11/16/10 2:52 PM	1011432-010A	11/12/10	11/15/10	11/16/10 3:30 PM
1011432-011A	11/12/10	11/15/10	11/16/10 4:08 PM	1011432-012A	11/12/10	11/15/10	11/16/10 7:57 PM
1011432-013A	11/12/10	11/15/10	11/16/10 4:47 PM	1011432-014A	11/12/10	11/15/10	11/16/10 5:25 PM
1011432-015A	11/12/10	11/15/10	11/16/10 8:35 PM	1011432-016A	11/12/10	11/15/10	11/16/10 5:32 PM
1011432-017A	11/12/10	11/15/10	11/16/10 6:03 PM	1011432-018A	11/12/10	11/15/10	11/16/10 6:11 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.
 Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 54427

WorkOrder 1011432

EPA Method SW8260B		Extraction SW5030B							Spiked Sample ID: 1011409-010B			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	91.1	89.4	1.92	87.7	86.7	1.25	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	92.6	92.5	0.163	85.6	83.3	2.74	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	108	106	2.01	115	114	0.384	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	104	102	2.48	103	102	0.439	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	121	115	4.32	111	112	1.69	70 - 130	30	70 - 130	30
%SS1:	107	25	93	93	0	107	106	0.868	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 54427 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1011432-001B	11/12/10	11/16/10	11/16/10 8:00 PM	1011432-002B	11/12/10	11/16/10	11/16/10 8:39 PM
1011432-003B	11/12/10	11/17/10	11/17/10 12:52 PM	1011432-004B	11/12/10	11/17/10	11/17/10 12:09 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 54442

WorkOrder 1011432

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 1011430-003A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	60	96.1	95.8	0.324	97.3	95.6	1.79	70 - 130	20	70 - 130	20
MTBE	ND	10	115	115	0	123	121	1.54	70 - 130	20	70 - 130	20
Benzene	ND	10	110	109	0.856	111	107	3.66	70 - 130	20	70 - 130	20
Toluene	ND	10	97.8	96.5	1.33	97	94.5	2.64	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	96.1	96.2	0.171	96.6	93.7	3.11	70 - 130	20	70 - 130	20
Xylenes	ND	30	110	109	0.851	110	106	3.03	70 - 130	20	70 - 130	20
%SS:	100	10	103	100	2.94	99	98	0.663	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 54442 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1011432-001A	11/12/10	11/17/10	11/17/10 2:19 AM	1011432-002A	11/12/10	11/17/10	11/17/10 2:48 AM
1011432-003A	11/12/10	11/17/10	11/17/10 3:18 AM	1011432-004A	11/12/10	11/17/10	11/17/10 3:47 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



QC SUMMARY REPORT FOR 6010B

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 1011432

EPA Method SW6010B		Extraction SW3050B				BatchID: 54397			Spiked Sample ID: 1011360-016A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	Spiked	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	mg/Kg	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Lead	13	50	89.6	107	14.0	10	85.7	81.1	5.49	75 - 125	25	75 - 125	25
%SS:	106	250	103	103	0	250	99	102	2.45	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 54397 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1011432-005A	11/12/10	11/15/10	11/16/10 12:48 PM	1011432-010A	11/12/10	11/15/10	11/16/10 12:50 PM
1011432-014A	11/12/10	11/15/10	11/16/10 12:52 PM	1011432-016A	11/12/10	11/15/10	11/16/10 12:54 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Matriks Corporation 321 Court Street Woodland, CA 95695	Client Project ID: Alameda Gas	Date Sampled: 11/12/10
		Date Received: 11/15/10
	Client Contact: Tom Henderson	Date Reported: 11/23/10
	Client P.O.:	Date Completed: 11/30/10

WorkOrder: 1011432 A

December 02, 2010

Dear Tom:

Enclosed within are:

- 1) The results of the **4** analyzed samples from your project: **Alameda Gas**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

1011432



McCAMPBELL ANALYTICAL, INC.
 1534 WILLOW PASS ROAD
 PITTSBURG, CA 94565-1701
 Website: www.mccampbell.com Email: main@mccampbell.com
 Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD
 TURN AROUND TIME
 RUSH 24 HR 48 HR 72 HR 5 DAY
 GeoTracker EDF PDF Excel Write On (DW)
 Check if sample is effluent and "J" flag is required

Report To: Tom Henderson Bill To: MATRIKS CORP
 Company: MATRIKS Corp
 321 Court St
 Woodland CA 95695 E-Mail: thenderson@matriks.com
 Tele: () Fax: ()
 Project #: Project Name: Alameda Gas
 Project Location: Alameda
 Sampler Signature: Tom Henderson

Analysis Request Other Comments

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED		BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE TPH as Diesel (8015) Total Petroleum Oil & Grease (1664 / 5520 E/B&F) Total Petroleum Hydrocarbons (418.1) EPA 502.2 / 601 / 8010 / 8021 (HVOCs) MTBE / BTEX ONLY (EPA 602 / 8021) EPA 505 / 608 / 8081 (CI Pesticides) EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners EPA 507 / 8141 (NP Pesticides) EPA 515 / 8151 (Acidic CI Herbicides) EPA 524.2 / 624 / 8260 (VOCs) Fuel oxys EPA 525.2 / 625 / 8270 (SVOCs) EPA 8270 SIM / 8310 (PAHs / PNAs) CAM 17 Metals (200.7 / 200.8 / 6010 / 6020) LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020) Lead (200.7 / 200.8 / 6010 / 6020)	Filter sample for DISSOLVED metals analysis	Comments			
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL				HNO ₃	Other	
Bx-1		11/12/10		4	1 Am 3 Grad	X					X	X	X	X				
Bx-2				4		X												
Bx-3				4		X												
Bx-4				4		X												
Bx-1-6				1			X				X					X	X	Total Pb
Bx-1-10				1			X											
Bx-1-15				1			X											
Bx-1-20				1			X											
Bx-2-5				1			X											
Bx-2-10				1			X									X	X	Total Pb
Bx-2-14				1			X											

**MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

Relinquished By: Tom Henderson	Date: 11/15/10	Time: 10:30	Received By: KM Clapp	COMMENTS: ICE# 28 GOOD CONDITION HEAD SPACE ABSENT DECHLORINATED IN LAB APPROPRIATE CONTAINERS PRESERVED IN LAB VOAS O&G METALS OTHER PRESERVATION pH<2
Relinquished By: Kink Clapp	Date: 11/15/10	Time: 6:00 pm	Received By: Brent St E.T.	
Relinquished By: Brent St E.T.	Date: 11-15	Time: 19:30	Received By: Julia Alvarez	

1-30
 11/15/10



McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701

Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

GeoTracker EDF PDF Excel Write On (DW)

Check if sample is effluent and "J" flag is required

Report To: Tom Henderson Bill To: MATRIX Corp
Company: MATRIX Corp
321 Court St
Woodland CA 95695 E-Mail:
Tele: (530) 466 1760 Fax: ()
Project #: Project Name: Alameda Gas
Project Location: ALAMEDA
Sampler Signature: [Signature]

Analysis Request

Other

Comments

SAMPLE ID	LOCATION Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE TPH as Diesel (8015) Total Petroleum Oil & Grease (1664 / 5520 E/R&F) Total Petroleum Hydrocarbons (418.1) EPA 502.2 / 601 / 8010 / 8021 (HVOCs) MTBE / BTEX ONLY (EPA 602 / 8021) EPA 505/ 608 / 8081 (CI Pesticides) EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners EPA 507 / 8141 (NP Pesticides) EPA 515 / 8151 (Acidic CI Herbicides) EPA 524.2 / 624 (260)VOCs) Fuel Oxyg EPA 525.2 / 625 / 8270 (SVOCs) EPA 8270 SIM / 8310 (PAHs / PNAAs) CAM 17 Metals (200.7 / 200.8 / 6010 / 6020) LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020) Lead (200.7 / 200.8 / 6010 / 6020) Filter sample for DISSOLVED metals analysis	Other	Comments	
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other				
BX-3-5.5		11/12/10		1		X							X					
BX-3-12				1		X												
BX-3-15				1		X											X	Total Pb
BX-4-5				1		X												
BX-4-10				1		X											X	Total Pb
BX-4-15				1		X												
BX-4-20				1		X												

Fe added 11/24/10 S. d. g. p. m.

**Indicate here if these samples are potentially dangerous to handle:

****MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.**

Relinquished By: <u>[Signature]</u>	Date: <u>11/15/10</u>	Time: <u>10:53</u>	Received By: <u>Kyle Clapp</u>	COMMENTS: ICE/P _____ GOOD CONDITION _____ HEAD SPACE ABSENT _____ DECHLORINATED IN LAB _____ APPROPRIATE CONTAINERS _____ PRESERVED IN LAB _____ VOAS O&G METALS OTHER PRESERVATION pH-2
Relinquished By: <u>Kyle Clapp</u>	Date: <u>11/15/10</u>	Time: <u>6:30</u>	Received By: <u>[Signature] E.T.</u>	
Relinquished By: <u>[Signature] E.T.</u>	Date: <u>11/15/10</u>	Time: <u>1430</u>	Received By: <u>Julia Nunez</u>	

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1011432 A ClientCode: MCW

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:

Tom Henderson
Matriks Corporation
321 Court Street
Woodland, CA 95695
(530) 406-1760 FAX (530) 406-1771

Email: thenderson@matrikscorp.com
cc:
PO:
ProjectNo: Alameda Gas

Bill to:

Robert Neely
Matriks Corporation
321 Court Street
Woodland, CA 95695

Requested TAT: 5 days

Date Received: 11/15/2010

Date Add-On: 11/29/2010

Date Printed: 11/29/2010

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1011432-005	Bx-1-6	Soil	11/12/2010	<input type="checkbox"/>	A												
1011432-010	Bx-2-10	Soil	11/12/2010	<input type="checkbox"/>	A												
1011432-014	Bx-3-15	Soil	11/12/2010	<input type="checkbox"/>	A												
1011432-016	Bx-4-10	Soil	11/12/2010	<input type="checkbox"/>	A												

Test Legend:

1	ALKIMET_S	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Ana Venegas

Comments: Fe added 11/29/10 per email 5 day

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Matriks Corporation 321 Court Street Woodland, CA 95695	Client Project ID: Alameda Gas	Date Sampled: 11/12/10
		Date Received: 11/15/10
	Client Contact: Tom Henderson	Date Extracted: 11/29/10
	Client P.O.:	Date Analyzed: 11/29/10-11/30/10

ICP Metals*

Extraction method: SW3050B

Analytical methods: SW6010B

Work Order: 1011432

Lab ID	Client ID	Matrix	Extraction Type	Iron	DF	% SS	Comments
1011432-005A	Bx-1-6	S	TOTAL	26,000	5	121	
1011432-010A	Bx-2-10	S	TOTAL	9400	1	107	
1011432-014A	Bx-3-15	S	TOTAL	12,000	5	113	
1011432-016A	Bx-4-10	S	TOTAL	18,000	5	115	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	NA	µg/L
	S	TOTAL	15	mg/Kg

*water/product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate recovery outside of acceptance range due to matrix interference; & means low or no surrogate due to matrix interference; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.
 TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.
 DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

%SS = Percent Recovery of Surrogate Standard
 DF = Dilution Factor



QC SUMMARY REPORT FOR 6010B

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 1011432

EPA Method SW6010B		Extraction SW3050B				BatchID: 54668			Spiked Sample ID: 1011762-004A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	Spiked	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	mg/Kg	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Iron	5,700	500	NR	NR	NR	100	104	102	1.80	75 - 125	25	75 - 125	25
%SS:	98	250	104	105	0.959	250	105	105	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 54668 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1011432-005A	11/12/10	11/29/10	11/30/10 10:24 PM	1011432-010A	11/12/10	11/29/10	11/29/10 10:07 PM
1011432-014A	11/12/10	11/29/10	11/30/10 10:29 PM	1011432-016A	11/12/10	11/29/10	11/30/10 10:46 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 * MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not applicable to this method.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 54404

WorkOrder 1011432

EPA Method SW8015B		Extraction SW3550B							Spiked Sample ID: 1011377-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	4.6	40	126	131, F1	3.66	116	116	0	70 - 130	30	70 - 130	30
%SS:	101	25	106	107	0.651	100	100	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

F1 = MS / MSD outside of acceptance criteria. LCS - LCSD validate prep batch.

BATCH 54404 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1011432-005A	11/12/10	11/15/10	11/17/10 7:09 AM	1011432-006A	11/12/10	11/15/10	11/18/10 10:04 PM
1011432-007A	11/12/10	11/15/10	11/17/10 3:13 PM	1011432-008A	11/12/10	11/15/10	11/19/10 12:20 AM
1011432-009A	11/12/10	11/15/10	11/17/10 9:46 PM	1011432-010A	11/12/10	11/15/10	11/18/10 11:13 PM
1011432-011A	11/12/10	11/15/10	11/17/10 6:38 PM	1011432-012A	11/12/10	11/15/10	11/17/10 2:12 AM
1011432-013A	11/12/10	11/15/10	11/17/10 5:28 PM	1011432-014A	11/12/10	11/15/10	11/17/10 7:47 PM
1011432-015A	11/12/10	11/15/10	11/17/10 2:29 AM	1011432-016A	11/12/10	11/15/10	11/17/10 1:25 AM
1011432-017A	11/12/10	11/15/10	11/17/10 8:39 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 54412

WorkOrder 1011432

EPA Method SW8015B		Extraction SW3510C							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	117	115	1.69	N/A	N/A	70 - 130	30
%SS:	N/A	625	N/A	N/A	N/A	100	100	0	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 54412 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1011432-001C	11/12/10	11/15/10	11/20/10 8:08 AM	1011432-002C	11/12/10	11/15/10	11/20/10 3:31 AM
1011432-003C	11/12/10	11/15/10	11/17/10 11:01 PM	1011432-004C	11/12/10	11/15/10	11/21/10 8:42 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Matriks Corporation 321 Court Street Woodland, CA 95695	Client Project ID: Alameda Gas	Date Sampled: 11/12/10
		Date Received: 11/15/10
	Client Contact: Tom Henderson	Date Reported: 11/23/10
	Client P.O.:	Date Completed: 11/30/10

WorkOrder: 1011432 A

December 02, 2010

Dear Tom:

Enclosed within are:

- 1) The results of the **4** analyzed samples from your project: **Alameda Gas**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.



McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701

Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

GeoTracker EDF PDF Excel Write On (DW)

Check if sample is effluent and "J" flag is required

Report To: Tom Henderson Bill To: MATRIX Corp

Company: MATRIX Corp
321 Court St
Woodland CA 95695

Tele: (530) 466 1760

Project #:

Project Location: ALAMEDA

Sampler Signature: [Signature]

E-Mail:

Fax: ()

Project Name: Alameda Gas

Analysis Request

Other

Comments

SAMPLE ID	LOCATION Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED			BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE TPH as Diesel (8015) Total Petroleum Oil & Grease (1664 / 4520 E/R&F) Total Petroleum Hydrocarbons (418.1) EPA 502.2 / 601 / 8010 / 8021 (HVOCs) MTBE / BTEX ONLY (EPA 602 / 8021) EPA 505/ 608 / 8081 (CI Pesticides) EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners EPA 507 / 8141 (NP Pesticides) EPA 515 / 8151 (Acidic CI Herbicides) EPA 524.2 / 624 (260)VOCs) Fuel Oxyg EPA 525.2 / 625 / 8270 (SVOCs) EPA 8270 SIM / 8310 (PAHs / PNAAs) CAM 17 Metals (200.7 / 200.8 / 6010 / 6020) LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020) Lead (200.7 / 200.8 / 6010 / 6020) Filter sample for DISSOLVED metals analysis	Other	Comments		
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃				Other	
BX-3-5.5		11/12/10		1		X							X					
BX-3-12				1		X												
BX-3-15				1		X											X	Total Pb
BX-4-5				1		X												
BX-4-10				1		X											X	Total Pb
BX-4-15				1		X												
BX-4-20				1		X												

Fe added 11/24/10 S. d. g. p. m.

**Indicate here if these samples are potentially dangerous to handle:

****MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.**

Relinquished By: <u>[Signature]</u>	Date: <u>11/15/10</u>	Time: <u>10:53</u>	Received By: <u>Kyle Clapp</u>	COMMENTS: ICE/P _____ GOOD CONDITION _____ HEAD SPACE ABSENT _____ DECHLORINATED IN LAB _____ APPROPRIATE CONTAINERS _____ PRESERVED IN LAB _____ VOAS O&G METALS OTHER PRESERVATION pH-2
Relinquished By: <u>Kyle Clapp</u>	Date: <u>11/15/10</u>	Time: <u>6:30</u>	Received By: <u>[Signature] E.T.</u>	
Relinquished By: <u>[Signature] E.T.</u>	Date: <u>11/15/10</u>	Time: <u>1430</u>	Received By: <u>Julia Nunez</u>	

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1011432 A ClientCode: MCW

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:

Tom Henderson
 Matriks Corporation
 321 Court Street
 Woodland, CA 95695
 (530) 406-1760 FAX (530) 406-1771

Email: thenderson@matrikscorp.com
 cc:
 PO:
 ProjectNo: Alameda Gas

Bill to:

Robert Neely
 Matriks Corporation
 321 Court Street
 Woodland, CA 95695

Requested TAT: 5 days

Date Received: 11/15/2010

Date Add-On: 11/29/2010

Date Printed: 11/29/2010

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1011432-005	Bx-1-6	Soil	11/12/2010	<input type="checkbox"/>	A												
1011432-010	Bx-2-10	Soil	11/12/2010	<input type="checkbox"/>	A												
1011432-014	Bx-3-15	Soil	11/12/2010	<input type="checkbox"/>	A												
1011432-016	Bx-4-10	Soil	11/12/2010	<input type="checkbox"/>	A												

Test Legend:

1	ALKIMET_S	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Ana Venegas

Comments: Fe added 11/29/10 per email 5 day

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Matriks Corporation 321 Court Street Woodland, CA 95695	Client Project ID: Alameda Gas	Date Sampled: 11/12/10
		Date Received: 11/15/10
	Client Contact: Tom Henderson	Date Extracted: 11/29/10
	Client P.O.:	Date Analyzed: 11/29/10-11/30/10

ICP Metals*

Extraction method: SW3050B

Analytical methods: SW6010B

Work Order: 1011432

Lab ID	Client ID	Matrix	Extraction Type	Iron	DF	% SS	Comments
1011432-005A	Bx-1-6	S	TOTAL	26,000	5	121	
1011432-010A	Bx-2-10	S	TOTAL	9400	1	107	
1011432-014A	Bx-3-15	S	TOTAL	12,000	5	113	
1011432-016A	Bx-4-10	S	TOTAL	18,000	5	115	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	NA	µg/L
	S	TOTAL	15	mg/Kg

*water/product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate recovery outside of acceptance range due to matrix interference; & means low or no surrogate due to matrix interference; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.
 TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.
 DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

%SS = Percent Recovery of Surrogate Standard
 DF = Dilution Factor



QC SUMMARY REPORT FOR 6010B

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 1011432

EPA Method SW6010B		Extraction SW3050B				BatchID: 54668			Spiked Sample ID: 1011762-004A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	Spiked	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	mg/Kg	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Iron	5,700	500	NR	NR	NR	100	104	102	1.80	75 - 125	25	75 - 125	25
%SS:	98	250	104	105	0.959	250	105	105	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 54668 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1011432-005A	11/12/10	11/29/10	11/30/10 10:24 PM	1011432-010A	11/12/10	11/29/10	11/29/10 10:07 PM
1011432-014A	11/12/10	11/29/10	11/30/10 10:29 PM	1011432-016A	11/12/10	11/29/10	11/30/10 10:46 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 * MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not applicable to this method.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 54447

WorkOrder 1011432

Analyte	EPA Method SW8015B		Extraction SW3550B						Spiked Sample ID: 1011432-018A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	73	40	93	95.3	0.808	117	117	0	70 - 130	30	70 - 130	30
%SS:	112	25	109	110	0.779	104	103	0.320	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 54447 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1011432-018A	11/12/10	11/15/10	11/17/10 5:16 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.