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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,

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

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#### **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.

Tom Henderson President

Fred M Senior En

#### 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
Geotracker Ibs.	Geographical Information Management System pounds
lbs.	pounds
lbs. Matriks	pounds Matriks Corporation
lbs. Matriks MtBE	pounds Matriks Corporation methyl tert-butyl ether
lbs. Matriks MtBE MCL	pounds Matriks Corporation methyl tert-butyl ether Maximum contaminant levels
lbs. Matriks MtBE MCL μg/L	pounds Matriks Corporation methyl tert-butyl ether Maximum contaminant levels micrograms per liter
lbs. Matriks MtBE MCL μg/L mg/Kg	pounds Matriks Corporation methyl tert-butyl ether Maximum contaminant levels micrograms per liter milligrams per kilogram
lbs. Matriks MtBE MCL μg/L mg/Kg ml	pounds Matriks Corporation methyl tert-butyl ether Maximum contaminant levels micrograms per liter milligrams per kilogram milliliter
lbs. Matriks MtBE MCL μg/L mg/Kg ml MW	pounds Matriks Corporation methyl tert-butyl ether Maximum contaminant levels micrograms per liter milligrams per kilogram milliliter monitoring well
lbs. Matriks MtBE MCL μg/L mg/Kg ml MW NPDES	pounds Matriks Corporation methyl tert-butyl ether Maximum contaminant levels micrograms per liter milligrams per kilogram milliliter monitoring well National Pollutant Discharge Elimination System
lbs. Matriks MtBE MCL μg/L mg/Kg ml MW NPDES OS	pounds Matriks Corporation methyl tert-butyl ether Maximum contaminant levels micrograms per liter milligrams per kilogram milliliter monitoring well National Pollutant Discharge Elimination System ozone sparge
lbs. Matriks MtBE MCL μg/L mg/Kg ml MW NPDES OS PDF	pounds Matriks Corporation methyl tert-butyl ether Maximum contaminant levels micrograms per liter milligrams per kilogram milliliter monitoring well National Pollutant Discharge Elimination System ozone sparge portable document format
lbs. Matriks MtBE MCL μg/L mg/Kg ml MW NPDES OS PDF PID	pounds Matriks Corporation methyl tert-butyl ether Maximum contaminant levels micrograms per liter milligrams per kilogram milliliter monitoring well National Pollutant Discharge Elimination System ozone sparge portable document format photo-ionization detector

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 ( $\mu$ g/L) of total petroleum hydrocarbons as gasoline (TPH-g) and 100  $\mu$ g/L benzene. Soil samples collected from this same excavation yielded up to 5,000 milligrams per kilogram (mg/Kg) of THP-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  $\mu$ g/L of diesel and motor oil range hydrocarbons, and 1,300  $\mu$ 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  $\mu$ g/L TPH-g and 7,200  $\mu$ 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  $\mu$ g/L TPH-g, 8,700  $\mu$ g/L total petroleum hydrocarbons as diesel (TPH-d), 1,300  $\mu$ g/L benzene, and 120,000  $\mu$ 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  $\mu$ g/L TPH-g, 38  $\mu$ g/L benzene, 6.3  $\mu$ g/L toluene, 740  $\mu$ g/L ethyl benzene, and 1,600  $\mu$ 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  $\mu$ g/L TPH-g, 2,800  $\mu$ g/L benzene, 60  $\mu$ g/L toluene, 380  $\mu$ g/L ethyl benzene, 190  $\mu$ g/L total xylenes, 990  $\mu$ g/L MtBE, 9.1  $\mu$ g/L tert-amyl methyl ether (tAME), and 350  $\mu$ 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  $\mu$ 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  $\mu$ g/L toluene and 0.9  $\mu$ g/L total xylenes. The groundwater samples collected from boring BH-A contained 1,800  $\mu$ g/L TPH-g, 270  $\mu$ g/L benzene, 8.8  $\mu$ g/L toluene, 18  $\mu$ g/L ethyl benzene, 13  $\mu$ g/L total xylenes, 4,100  $\mu$ g/L MtBE, 5.6  $\mu$ g/L tAME, and 440  $\mu$ g/L tBA. The groundwater samples collected from boring BH-C contained 230  $\mu$ g/L TPH-g, 11  $\mu$ g/L benzene, 1.2  $\mu$ g/L toluene, 0.96  $\mu$ g/L total  $\mu$ g/L, 760  $\mu$ g/L MtBE, 6.6  $\mu$ g/L TAME, and 130  $\mu$ g/L TBA. The groundwater sample collected from boring BH-D

contained 72  $\mu$ g/L TPH-d, and 1.7  $\mu$ g/L MtBE. The groundwater sample collected from boring BH-I contained 0.55  $\mu$ g/L MtBE. The ground water sample collected from boring BH-J contained 200  $\mu$ g/L TPH-d. The groundwater sample collected from boring BH-K contained 520  $\mu$ g/L TPH-d and 0.77  $\mu$ g/L MtBE. The groundwater sample collected from boring BH-L contained 2.5  $\mu$ g/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  $\mu$ g/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  $\mu$ g/L. The groundwater sample collected from boring BH-O contained 19  $\mu$ g/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 that 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  $\mu$ g/L TPH-d and BH-R yielded 770  $\mu$ g/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 Rightof-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 ¾ 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  $\mu$ g/L, 410  $\mu$ g/L, 120,000  $\mu$ g/L, and 81,000  $\mu$ g/L, respectively. TPH-d was detected at 360,000  $\mu$ g/L, 340  $\mu$ g/L, 370,000  $\mu$ g/L, and 1,100,000  $\mu$ g/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
1	Fuel Tank Ex.	05/02/96	5,000	NA	31	250	74	560	<5.0	NA	NA	NA	NA
2	Fuel Tank Ex.	05/02/96	2,900	NA	<2.0	16	8.3	190	<5.0	NA	NA	NA	NA
3	Fuel Tank Ex.	05/02/96	4,400	NA	25	190	75	400	<5.0	NA	NA	NA	NA
4	Fuel Tank Ex.	05/02/96	3,600	NA	2.6	34	21	250	<5.0	NA	NA	NA	NA
5	N. Waste Oil Tank	05/02/96	<5.0	<200	<0.05	<0.05	<0.05	<0.05	<0.10	NA	NA	NA	NA
6	Waste Oil Tank	05/08/96	470	<1,000	<0.25	<0.25	0.30	0.85	<0.50	NA	NA	NA	NA
D1	Beneath Dispenser	05/09/96	6,800	NA	63	370	120	680	<40	NA	NA	NA	NA
D2	Beneath Dispenser	05/09/96	3,700	NA	<10	20	9.7	280	<20	NA	NA	NA	NA
D3	Beneath Dispenser	05/09/96	1,500	NA	<4.0	<4.0	<4.0	20	<8.0	NA	NA	NA	NA
D5	Beneath Dispenser	05/09/96	2,600	NA	<8.0	28	12	200	<16	NA	NA	NA	NA
D6	Beneath Dispenser	05/09/96	<5.0	NA	<0.05	<0.05	<0.05	<0.05	<0.10	NA	NA	NA	NA
T1	Unknown Trench	05/09/96	2,100	NA	<4.0	5.7	<4.0	140	<8.0	NA	NA	NA	NA
T2	Unknown Trench	05/09/96	1,400	NA	<2.0	5.1	<2.0	20	<5.0	NA	NA	NA	NA
BH-1 4'	4	11/12/98	810	<1	27	170	110	560	<0.02	NA	NA	NA	NA
BH-1 8'	8	11/12/98	1,100	<1	9.8	33	11	64	<0.02	NA	NA	NA	NA
BH-2 4'	4	11/12/98	5,900	<1	2.9	76	57	410	1.8	NA	NA	NA	NA
BH-3 4'	4	11/12/98	570	<1	<0.005	0.065	0.073	0.38	<0.02	NA	NA	NA	NA
BH-4 3'	3	11/12/98	4,600	<1	<0.005	13	47	310	<0.02	NA	NA	NA	NA
BH-5 4'	4	11/12/98	3,700	<1	< 0.005	3.2	29	190	<0.02	NA	NA	NA	NA
BH-6 4'	4	11/11/98	< 0.05	<1	< 0.005	< 0.005	< 0.005	< 0.015	< 0.02	NA	NA	NA	NA
BH-7 4'	4	11/12/98	2,600	<1	< 0.005	< 0.005	6.9	68	< 0.02	NA	NA	NA	NA
BH-8 6'	6	11/11/98	270	<1	0.18	0.11	0.45	1.2	< 0.02	NA	NA	NA	NA
BH-8.1 5'	5	11/11/98	< 0.05	<1	< 0.005	0.008	< 0.005	<0.015	< 0.02	NA	NA	NA	NA
BH-9 5' BH-10 8'	8	11/11/98	<0.05 250	<1 <b>300</b>	<0.005 <0.005	0.02	<0.005	<0.015 1.4	< 0.02	NA NA	NA NA	NA NA	NA
BH-10 8 BH-11 5'	ہ 5	11/11/98 11/11/98	<0.05	<1	< 0.005	< 0.005	0.19 <0.005	<0.015	<0.02 <0.02	NA	NA	NA	NA NA
BH-11.5 BH-11.1 7'	7	11/11/98	< 0.05	<1	< 0.005	< 0.005	< 0.005	< 0.015	< 0.02	NA	NA	NA	NA
BH-12 5'	5	11/11/98	< 0.05	<1	< 0.005	< 0.005	< 0.005	< 0.015	< 0.02	NA	NA	NA	NA
BH-13 5'	5	11/11/98	< 0.05	<1	< 0.005	< 0.005	< 0.005	< 0.015	< 0.02	NA	NA	NA	NA
BH-14 5'	5	11/11/98	< 0.05	<1	< 0.005	< 0.005	< 0.005	< 0.015	< 0.02	NA	NA	NA	NA
MW-1	4	10/11/99	<1.0	<1.0	< 0.0050	<0.0050	< 0.0050	<0.0050	< 0.010	NA	NA	NA	NA
MW-2	5	10/11/99	<1.0	6.8	< 0.0050	<0.0050	< 0.0050	<0.0050	< 0.010	NA	NA	NA	NA
BH-A	3.5	07/28/00	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	< 0.005	< 0.005	< 0.005	<0.005	NA
BH-B	2.5	07/28/00	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	< 0.005	< 0.005	< 0.005	<0.005	NA
BH-C	3.0	07/28/00	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	< 0.005	< 0.005	< 0.005	<0.005	NA
BH-D	3.0	07/28/00	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	< 0.005	< 0.005	< 0.005	<0.005	NA
BH-E	3.0	07/28/00	<1.0	<1.0	< 0.005	<0.005	< 0.005	<0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA
BH-F	3.0	07/28/00	<1.0	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA
BH-G	3.0	07/28/00	<1.0	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<0.005	NA
BH-H	3.0	07/28/00	<1.0	<1.0	< 0.005	<0.005	< 0.005	<0.005	< 0.005	< 0.005	< 0.005	<0.005	NA
BH-I	3.0	07/28/00	<1.0	<1.0	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<0.005 <0.005	<0.005	NA NA
BH-J	3.0 3.0	07/28/00	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	0.0061	< 0.005	< 0.005	<0.005	NA
BH-K BH-L	3.0	07/28/00 07/28/00	<1.0 <1.0	<1.0 <1.0	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005	< 0.005	<0.005 <0.005	NA
BH-L BH-M	2.5	01/14/04	<1.0	68*	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA
BH-IM BH-N	2.5	01/14/04	<1.0	7.2*	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA

#### 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 <sup>+</sup>	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 <sup>+</sup>	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 <sup>+</sup>	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 <sup>+</sup>	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 <sup>+</sup>	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 <sup>+</sup>	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 <sup>+</sup>	NA
BX-3	5.5	11/12/10	26,000	4,400	54	630	520	3,400	<2.0	<2.0	<20	<2.0 <sup>+</sup>	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 <sup>+</sup>	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 <sup>+</sup>	12,000
BX-4	5	11/12/10	5,000	730	3.8	15	48	54	<0.50	<0.50	<5.0	< 0.50 <sup>+</sup>	NA
BX-4	10	11/12/10	1,400	170	<0.50	2.6	14	38	<0.20	<0.20	<2.0	< 0.20 <sup>+</sup>	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 <sup>+</sup>	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 <sup>+</sup>
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+
E	SL	100	100	1	40	30	20	5	NE	12	NE
W	QO			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

MtBE methyl tert-butyl ether

arbons as gasoline tAME tert

tAME tert-amyl methyl ether

TPH-d total petroleum hydrocarbons as diesel

tBA tert-butanol

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

FIGURES

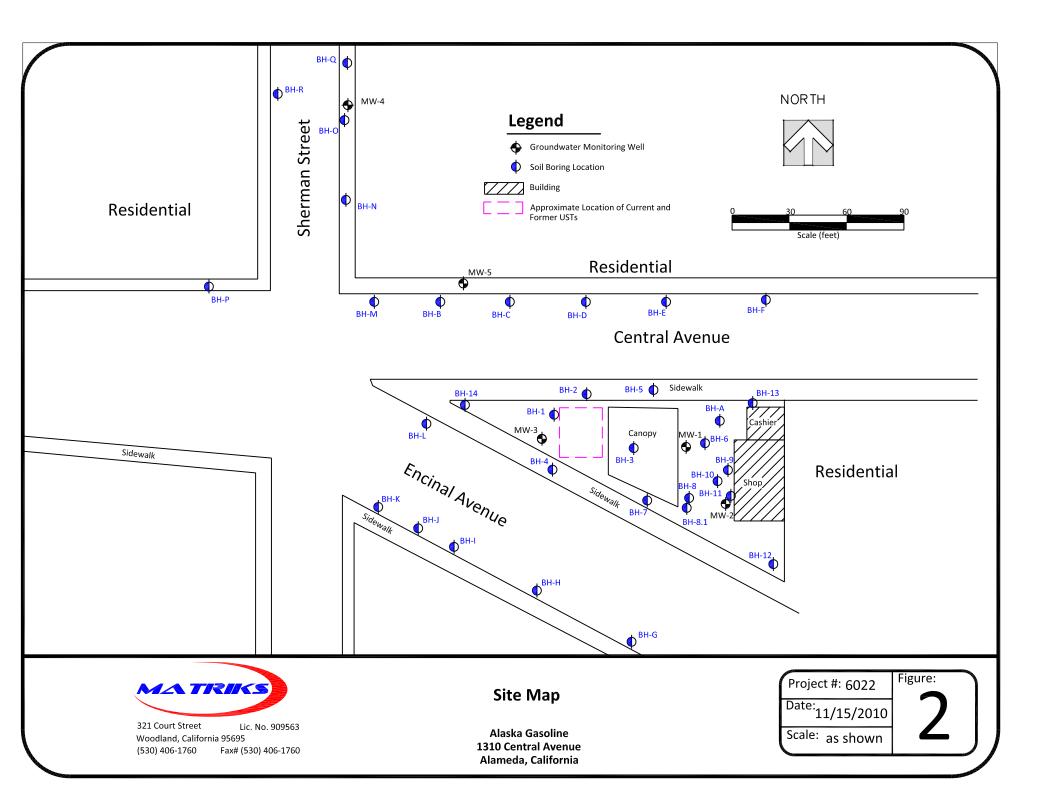


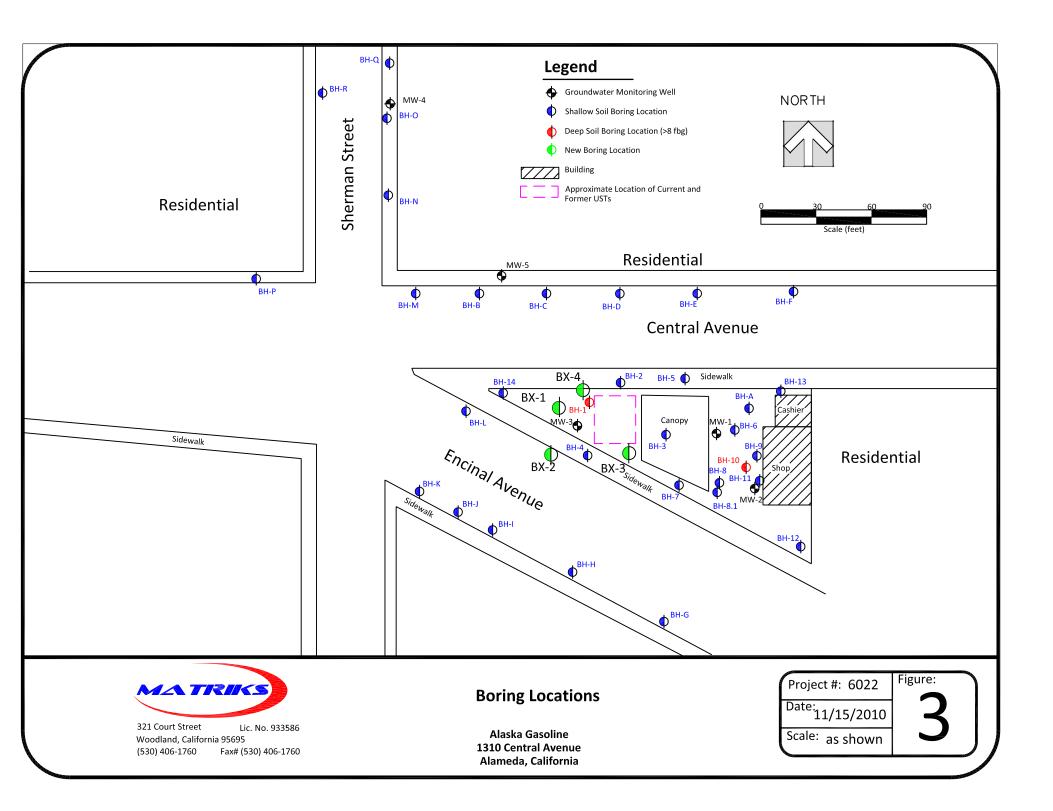


321 Court Street Woodland, CA 95695 (530) 406-1760

Lic. No. 933586 Fax No. (530) 406-1071 Site Location Map Alaska Gas 1310 Central Avenue, Alameda, CA

 ${\rm FIGURE}\ 1$ 





# 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 City of Project Site: Alameda Application Id: 1277223716711 Site Location: 1310 Central Avenue, Alameda, CA **Project Start Date:** 06/25/2010 Completion Date:06/25/2010 Contact Ron Smalley at (510) 670-5407 or ronaldws@acpwa.org Assigned Inspector: Extension End Date: 11/30/2010 Extension Start Date: 10/30/2010 Extension Count: 2 Extended By: vickyh1 Applicant: Matriks - Christine C. Truesdale Phone: 530-406-1760 321 Court St., Woodland, CA 95695 **Property Owner:** Nissan Saidian Phone: 510-268-0211 5722 Medallion Ct., Castro Valley, CA 94522 **Client:** \*\* same as Property Owner \*\* Total Due: \$265.00 Receipt Number: WR2010-0214 **Total Amount Paid:** \$265.00 PAID IN FULL Payer Name : Matriks Paid By: CHECK

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

#### **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.

PERMIT CENTER

PAGE 01/11

"Christme Truesdale "

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

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

#### **RIGHT OF WAY PERMIT: EX10-0088**

GREGG I 950 HOW	CA 94553	950 H MAR	Contr GG DRILLING IOWE RD INEZ CA 94553 13-5800		Contraction Contraction Contraction	INC 5977 SI	<u>Owner Informa</u> N & ZEKTSER LLC (YFARM DR O VALLEY CA 945	& G & Z
Status: Is Type: <b>Rig</b> Category: Sub-Type Parcel Nu	ht-of-Way Permit NA NA mber: 072-0341-001-( ss: 1310 CENTRAL)	AVE	BORING IN 3 L	Applied: Finaled: .OCATIONS	<b>09/20/2010</b>	lssued: Expires: Valuatio	10/21/2010 n: \$1,000.00	
ITEM #	FEE DESCRIPTION			ACCOU	NT CODE	UNITS	FEE AMOUNT	PAID
250	Filing Fee				-37450 (1050)	1	\$43.00	\$43.00
2999	Technology Fee				-33063 (1051)	1	\$5.10	\$5.10
620	Records Manageme	ent Fee			-37900 (6210)	5	\$19.25	\$19.25
839	Excavation Permit I Repair - Each Locat	nspection Fee	- Point		190 (6321)	1	\$59.00	\$59.00
965	Community Plannin			483001-	-33064 (8765)	1	\$3.00	\$3.00
						TOTALS:	\$129.35	\$129.35
RECEIPT 465860 Cashier:	Check	T METHOD	<u>CHECK #</u> 2033	PAYOR: MATRIKS	CORP	RECEIPT DA 09/20/2010	<u>TE RECEIPT</u>	AMOUNT \$129.35
						Total Payn	nents:	\$129.35
						Balance	Due:	\$0.00

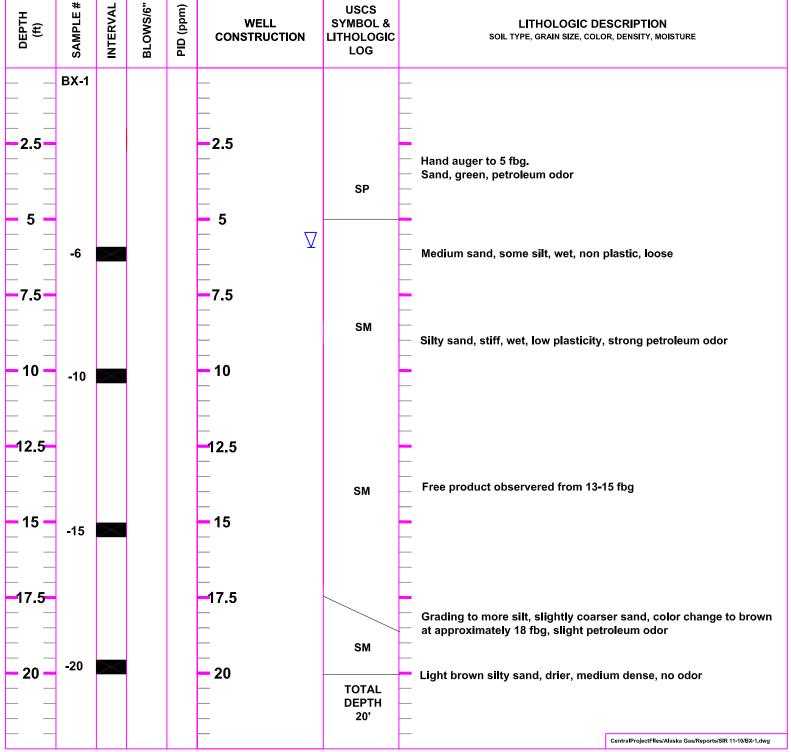
Page 1 of 2

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Name of Applicant, Groep, Applicant, Groep, Application, Address 920, Have, Rd., City/State Machurz, CA 94853 City Business City Business Number 725333-5300         INDICATE LOCATION BELOW OR ATTACH SEPARATE SHEET SHOWING LOCATION Masse Sce attached Map for borny locations. Work with Ukil2e Staubard traffic control per flue attached traffic control map.         PLEASE NOTE THE FOLLOWING: Contractor is required in the contaminant, including dill, enter the storm drain system. Contractor is required to protect Intels. Failure to comply is subject to S200day fine.         A dh hor work may result. In rejection Contract: Engineering Division. Construction inspection. Failure to obtain Inspection within the Public Right-of-Way must have barricades with fashers for right time protection. All stipping, painted graphics and pavement markers damaged or destroyed by street excavation work may result in rejection dead work more approximation service and protections. All construction within the Public Right-of-Way must have barricades with fashers for right time protection. All within the Public Right-of-Way must have barricades with fashers for right time protection. All within the Public Right-of-Way must have barricades with fashers for right time protection. All within the Public Right-of-Way must have barricades with fashers for right time protection. All within the Public Right-of-Way must have barricades with fashers for right time protection. All work the device is required water and right of All ways and the protection and right of have and right of ha	No. 1310 Centra	of Arenne	Owner Uissan S	Pardián	
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Plcase Sce attached map for borny locations.         Work will Ukilize standard traffic control per the attached traffic control map.         PLEASE NOTE THE FOLLOWING:         Uthan rundi program requires that no contaminants, including dirt, enter the storm drain system. Contractor is required to protect integer to salvance notice is required to integer to salvance notice is required to protect integer to work may neguli in rejection of salv work.         A thour advance notice is required for inspection. Contract: Engineering Division, Construction Inspection office at 749-5840.         Required inspection office at 749-5840.         Required inspection office at 749-5840.         Required inspection: Trenching, backfill, concrete, traffic/padestrian deturs, urban rundi, final inspection. Failure to obtain inspection of owork may neguli in rejection of salv work.         A All work involved is to be done in accordance with atandard City of Alemeda specifications and City of Alemeda practices, all to the satisfaction of the City Engineer. Standard details are attached. Inspection charges shall be paid to the City monthis.         Processing time for routine permits is 5 days. Permits requiring extensive research may reput to 10 days.         Processing time for routine permits is 5 days. Permits requiring extensive of the conditions included.         Market and the second an	Applicant (mean)n Contractor's (1951)	104 \$ Teshing_Address_	City Business , Ph		-580)
Intes. <u>Failure to comply is subject to \$200/day line</u> . 48 hour advance notice is required for inspection. Contact: Engineering Division, Construction Inspection office at 749-5840. Required inspections: Trenching, backfill concrete, träffic/pedestrind advance, urban runoff, final inspection. <u>Failure to obtain Inspection prior to work may result in rejection of said work</u> . All triping, painted graphics and pavement markers damaged or destroyed by street excavation work must be restored by the permittee. All construction within the Public Right-of-Way must have barricades with flashers for night time protection. All work involved is to be done in accordance with atandard 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 pial to the City monthly. Processing time for routine permits is 0 days. Permits requiring weighting we require up to 15 days. 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. MNO OPEN TRENCH CUTTING SEP 2 0 2010 SEP 2 0 2010 Keckived Date MO OPEN TRENCH CUTTING Starte PERMIT REQUIRED ADDITIONAL SETS OF PLANS AND SPECIFICATIONS TO THE ENGINEERING DIVISION PROF. TO CONSTRUCTION APPROVED DATE MO OPEN TRENCH CUTTING SIGNED PERMIT NO. ECCIO CONSTRUCTIONS BIGNED PERMIT NO. ECCIO Construction and provide and pr	INDICATE L	OCATION BELOW OR A	ATTACH SEPARATE SHE	EET SHOWING LOCATI	ON
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# APPENDIX B BORING LOGS

Central Avenue			•	Woo	21 Court Stree odland CA 950 530-406-1760 A Haz 933686	-
	PROJECT: Alaska Gas		PROJECT #:	6022	BORING #:	BX-1
	DRILLING CONTRACTOR:	Gregg Drilling	<b>START:</b> 8:40			11/12/10
$\uparrow$	DRILLING METHOD:	1.75" Direct Push	TOTAL DEPTH	l: 20'	DEPTH TO WAT	ER: Aprox. 6'
	SAMPLER:		SCREEN INT:		CASING:	
SITE MAP	HAMMER WT: <sub>N/A</sub>	DROP: <sub>N/A</sub>	FIELD GEOLOG	GIST:	Tom Henderson	



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.

Central Avenue		ATRIK	•	Woo	21 Court Stree odland CA 956 530-406-1760 A Haz 933686	-
BX-2	PROJECT: Alaska Gas		PROJECT #:	6022	BORING #:	BX-2
	DRILLING CONTRACTOR:	Gregg Drilling	START: 10:35		DATE:	11/12/10
$\uparrow$	DRILLING METHOD:	1.75" Direct Push	TOTAL DEPTH:	15'	DEPTH TO WAT	ER: <sub>Aprox. 8'</sub>
	SAMPLER:		SCREEN INT:		CASING:	
SITE MAP	HAMMER WT: <sub>N/A</sub>	DROP: <sub>N/A</sub>	FIELD GEOLOGI	ST:	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
						-	Hand auger to 5 fbg. Clean, moist sand
-2.5-					2.5		_
						SP	_
- 5 -	-5	$\ge$			- 5		
						-	Silty sand, medium, moist, brown, stiff
-7.5-					_7.5 ▽	-	-
						SM	Silty sand, loose, wet, brown
- 10 -	-10	$\ge$			10		
						-	
-12.5-					-12.5		_
						SM	 Silty sand, finer, drier, medium firm, brown, no odor
<u> </u>	-14	$\geq$			- 15		
						TOTAL DEPTH	_
						15'	—
-17.5-					<b></b> 17.5		_
							—
_ 20 _					20		
<u> </u>							—
					— —		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.

Central Avenue	MATRI	Wo	21 Court Street odland 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	
	DRILLING METHOD: 1.75" Direct Push	TOTAL DEPTH: 18'	DEPTH TO WATER: Aprox. 6'
	SAMPLER:	SCREEN INT:	CASING:
SITE MAP	HAMMER WT: N/A DROP: N/A	FIELD GEOLOGIST:	Tom Henderson

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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				2.5		Hand auger to 5 fbg.
5	-5	$\geq$			5	SP	Medium sand with gravel, some silt, wet, loose, petroleum odor
-7.5					7.5	SM	Free product observered from 6-8 fbg
10					- 10	SM	<ul> <li>No recovery from 8-10 fbg</li> <li>Silty sand, green, slight petroleum odor, wet</li> </ul>
-12.5	-12	$\times$			-12.5		
15	-15	$\times$			15	SM	Grading to more silt, slightly finer sand, color transition to brown starts at approximately 13.5 fbg
-17.5					-17.5		Light brown silty sand, finer, drier, dense, no odor
20					<b>20</b>	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.

Central Avenue BX-4			•	Woo	21 Court Street odland CA 956 530-406-1760 A Haz 933686	
	PROJECT: <sub>Alaska</sub> Gas		PROJECT #:	6022	BORING #:	BX-4
	DRILLING CONTRACTOR:	Gregg Drilling	<b>START:</b> 14:10		DATE:	11/12/10
$\uparrow$	DRILLING METHOD:	1.75" Direct Push	TOTAL DEPTH	20'	DEPTH TO WATE	R: Aprox. 13
	SAMPLER:		SCREEN INT:		CASING:	
SITE MAP	HAMMER WT: <sub>N/A</sub>	DROP: <sub>N/A</sub>	FIELD GEOLOG	BIST:	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-4						
					_		—
-2.5-							
						SM	<ul> <li>Hand auger to 5 fbg.</li> <li>Silty sand, petroleum odor in cuttings</li> </ul>
					_		—
- 5 -	-5				- 5		
	Ū						<ul> <li>Medium sand, some silt, green, stiff, low plasticity, petroleum</li> <li>odor</li> </ul>
					_		
-7.5-					-7.5	SM	grades to loose silty sand from 7-8 fbg
						511	
					_		<ul> <li>Sandy silt, drier, strong petroleum odor, green, low plasticity,</li> </ul>
- 10 -	-10	$\geq$			<u> </u>		stiffens at 11 fbg 
						SM	Silty sand, green, slight petroleum odor, wet
					_		[
-12.5-					<b>-12.5</b>		
					\[\begin{bmatrix} & \begin{bmatrix} & & & & & & & & & & & & & & & & & & &		
<u> </u>					 15		— Grading to more silt (50/50), brownish green, loose from 13-16 fbg
	-15	$\geq$				SM	
					_		
							Silty sand, light greenish brown, fine, moist, no odor
					_		
- 20 -	-20	$\geq$			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

When Oual		Web: www.mccampbell.c	Road, Pittsburg, CA 945 com E-mail: main@m 52-9262 Fax: 925-25	ccampbell.com
Matriks Corporation	Client Project ID: Alameda	Gas	Date Sampled:	11/12/10
321 Court Street			Date Received:	11/15/10
521 Court Street	Client Contact: Tom Hend	lerson	Date Reported:	11/23/10
Woodland, CA 95695	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

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.

														_	_																		
			1534 WI PITTSBU	LLOW PA	SS RO 4565-1	AD 701													ou	NI	) TI	M	E	1	RUS	н	24	HR		48 H	IR	<b>RD</b> [ 72 H	HR 5 DAY
	Tel	ephone: (877	) 252-92	262		Fax									G	eol	Гrа	cke	er E	DF	7	1	PD	F	X	Ex	cel		1	Wri	ite (	On (I	DW) 📮
																						1	Che	ck i	fsa	mpl	le is	effl	uen	t an	d ",	J" flag	g is required
	Report To: Ton			E	Bill To	: M	AT	RIK	<s< td=""><td>Co</td><td>RP</td><td>·</td><td></td><td></td><td>_</td><td>_</td><td>_</td><td>_</td><td>_</td><td>A</td><td>nal</td><td>sis</td><td>Req</td><td>ues</td><td>t</td><td></td><td></td><td></td><td></td><td></td><td>0</td><td>ther</td><td>Comments</td></s<>	Co	RP	·			_	_	_	_	_	A	nal	sis	Req	ues	t						0	ther	Comments
	Company: MA													_																			**Indicate
		Court S								_		-		_	BE		E/B&F)					sueus			2								here if these
		odland U	4 9569	75 E	E-Mai	1: +1	ner	nde	453	nC	m	at	rik	5 (	马		E/B					onge			oxys						ysis		samples are
	Tele: ( )			1	· a									_	8015)/		5520		_	-		s/C		_				5020)	020)		analysis		potentially
	Project #:	A.	4	r	Projec	t Nai	me:	AL	ane	da	6	45		-	8		64/	18.1	0Cs	802	-	oclor		ides)	3		(SV)	10/6	9/0		etals		dangerous to handle:
	Project Location: Sampler Signatur			0.17		-								-	021		e (16	ns (4	(HV	602 /	cides	I VL	ŝ	erbic	-	(8)	/ bN	/ 60	/ 601	50)	Dm		nancie:
	Sampler Signatur	6: Jour P				_	T	-				MET	HOI		(602 / 8021		Grease (1664 / 5520	arbo	<b>\$021</b>	VdS	Pesti	NIN	hicide	CIH	00	NO	AHS	200.8	00.8	09/0	LVE		
			SAM	PLING		10	L	MA	TRI	X			RVI		as (61	_	8	droe	10/1	N (I	Ð	530	Pest	idic	ŝ	70 (S	10 (P	11.0	712	109	SSO		
	SAMPLE ID	LOCATION/ Field Point Name	Date	Time	# Containers	Type Containers	Water	Soil	Air	Other	ICE	HCL	HNO <sub>3</sub>	Other	BTEX & TPH as Ga	TPH as Diesel (8015)	Total Petroleum Oil	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCS) Fuel	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		
19	BX-1		11/12/1		4	1 Am Brow	×		+		×	-		+	X	X									X								
XB	Bk-2		1	1	4	1	X		-	-	1	1		+	,										1								
3	BX-3				4	+	X		+	+	₩	+		+	+									-		-							
3	Bx -4				4	t	1		-	+	t,	t		+	+	+				_				-	+	-							
~	Bx-1-b				i	1	1	×		-	×	1		+		1												_		$\checkmark$			TOTAL Pb
	Bx-1-10				i			×	-	+	1			+	1	1									1					^			i dince e p
	Bx-1-15				1			Y			Ħ				T																		
	Bx-1-20				1			Y			Ħ				T	1																	
	Bx-2-5				1			4			Ħ				1																		
	Br -======				1			¥			I				T	T									1					X			Toran Pb
	Bx-2-14				1			Y			17				1	1									1								
	**MAI clients MUST gloved, open air, samp allowing us to work sa	le handling by M	igerous ch MAI staff.	emicals kno Non-disclo	own to osure in	be pro	esent an im	in th media	eir su ate Sž	ıbmi 250 s	tted :	samı arge	ples i and	in con	ncen clien	trati it is s	ions f	that is	may full	caus legal	e imn liabi	nedia lity f	ite ha	rm (	or sei	rious red.	s futu Tha	ire h nk yo	ealth ou fo	end r yo	ange ur ur	rment a iderstar	as a result of brief, ading and for
	Relinquished By:		Date:	Time:	Rece	ived B	By:		_			-	-			int I		0		-		-		-	-	-		(	COM	IME	NTS	:	
	Jon Hen_		11/15/10	10:30	K	M	2	CI	ap	1								DIT			_												
	Relinquished By:	N	Date:	Time:	Rece	ived B	NY -	31		-		6			DE	CHL	ORI	NAT	ED	IN L	AB	s	-										
	Relinquished By: /		Date:	Time:	Rece	ived B	ly:	24		-	_	E		-	PRI	ESEI	RVE	D IN	LAI	B	_												
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### 1011432

We We	bsite: <u>www.mc</u> lephone: (877	1534 WII PITTSBU campbell ) 252-92	LOW PAS RG, CA 94 L <u>com</u> Em 62	SS RO. 1565-17 nail: m	AD 01 ain@ Fax:	meca (92	ampt 5) 25	oell.c	om 269						UR eo7			OU	ND			E PD Che	F	RUS A. f sal	H Exe	24 cel	HR	• •	48 1 Wr	HR ite	On "J"	72 H n (D flag	R 51 W)	ired	
Report To: Tom			В	ill To	: 1	5141	RIK	ς (	ur,	<u></u>			+		-	_			A	nal	ysis	Rec	ues		-	-		-		+	Othe	er		ments	
Company: NAM 32 We Tele: (53) ) 4	1 court 5 rodland C	T	F	-Mail		)							-	8015) / MTBE		520 E/B&F)					/ Congeners			Oras	2		(020)	20)		analysis			here i samp poten	licate if thes les ar itially	ie re
Project #:			P	rojec	t Nan	ne: /	410	med	la	GA	\$		_	801		4/5	8.1)	(S)	8021)		clors		des)	3		(sy	0/6	0/ 00		ctuls a				erous	to
Project Location:	AGMEDA										_		4	8021+		0 (166	ons (418.1)	HNC	902/1	sides)	Aro	()	rbici	R	1	/PN/	/ 601	109/	50)	1 3			hand	le:	
Sampler Signatu	re: Jac 12		LING				MAT	RD	ĸ		IETI			Gas (602 / 8		Grease		/ 8021	(EPA	Cl Pesti	VINO	esticide	ic CI He	(NOC	(SVOC	(PAHs	/ 200.8	/ 200.8	010 / 60	OLVE					
SAMPLE ID	LOCATION/ Field Point Name	Date	Time	# Containers	Type Containers	er		Sludge		ICE	HCL		- 1	BTEX & TPH as Gas	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarb	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic CI Herbicides)	EPA 5242 / 624 ( 260 VOCS) Fuel	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metails (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 m					
BX-3-5.5		11/12/10		1			×	+		t		+	+	¥	4									×	+					$\vdash$	+	+	-		-
Bu-3-12		1/12/10		L.	-		X	+	+	$\vdash$		+	+	1	1	-								î		-			$\vdash$	t	-	+	-		
Bx-3-15					-		X	+	+	$\vdash$		+	+	+										$^{\dagger}$	+				X	$\vdash$	+	+	Tora	PL	-
Bx-4-5				1			X	+	+	$\vdash$		+	+	Ħ										Ħ		-			C	t	+	+			-
Bx-3-12 Bx-3-15 Bx-4-5 Bx-4-10				1			X	+	1	t			+	t															×	t	+	+	TATA	R	-
Bx-4-15				1			X			T			1	T															Ť	T	T	$\top$			
Bx-4-20		1		1			×							1	Y									Y											
							_	-				_	4	_			-		_				_	_		_			-	1	+				_
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																										_									_
**MAI clients MUST gloved, open air, sam allowing us to work s Relinquished By:	ple handling by l			osure in		in imi								clie													ink y		or ye	oura	unde				ef,
Relinquished By: Kyl, Clw Relinquished By:		14/15/10 Date: Date:	10:50 Time:	Reca	ived B	iy:	Z	P		t	-7.		_	GO HE DE AP	AD S CHL PRO	OR	CE A INAT	BSE CON LA	NT_IN L NTAI B	INEI			-												
BIAMST	ETi	1/15/10	1930	Jul	ia	Ne	ner	yac	2	_		_		PR	ESE	RVA	TIO		AS	04	kG	ME pH-		s	OTH	ER				_		_			

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1534 Willow Pass Rd CA 04565 1701

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

(925) 252-9262						WorkOrder: 1011432 Client					Client(	Code: N	1CW				
		WaterTrax	WriteOn	EDF		Excel	[	Fax		🗸 Email		Harc	lCopy	🗌 Thir	rdParty	□ J-	flag
Report to:							Bill to:						Req	uested	TAT:	5 (	days
•				natrikscorp.com		Robert Neely Matriks Corporation 321 Court Street Woodland, CA 95695					Date Received: Date Printed:			11/15/2010			
									Req	uested	Tests	(See le	gend b	elow)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
1011432-001	Bx-1		Water	11/12/2010			В		Α			С			Τ		
1011432-002	Bx-2		Water	11/12/2010			В		Α			С					
1011432-003	Bx-3		Water	11/12/2010			В		Α			С					
1011432-004	Bx-4		Water	11/12/2010			В		А			С					
1011432-005	Bx-1-6		Soil	11/12/2010		Α		Α		А	Α						
1011432-006	Bx-1-10		Soil	11/12/2010		Α		Α			А						
1011432-007	Bx-1-15		Soil	11/12/2010		Α		Α			Α						
1011432-008	Bx-1-20		Soil	11/12/2010		Α		Α			А						
1011432-009	Bx-2-5		Soil	11/12/2010		Α		Α			Α						
1011432-010	Bx-2-10		Soil	11/12/2010		Α		Α		А	Α						
1011432-011	Bx-2-14		Soil	11/12/2010		Α		Α			Α						
1011432-012	Bx-3-5.5		Soil	11/12/2010		Α		Α			Α						
					-	1			1						1		
1011432-013	Bx-3-12		Soil	11/12/2010		Α		Α			Α						

### Test Legend:

1	5-OXYS_S	2	5-OXYS
6	TPH(D)_S	7	TPH(D)
11		12	

′S_W	3	G-MBTEX_S
D)_W	8	

4	G-MBTEX_W
9	

5	PB_S
10	

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.



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

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

	52-9262					Work	Order	: 10114	432	ClientC	ode: MCW	7			
		WaterTrax	WriteOn			Excel		Fax	🖌 Ema	ail	HardCopy	/ 🗌 Т	hirdParty	□ J-	flag
Report to:							Bill to:				R	equeste	d TAT:	5 (	days
Tom Hende	erson	Email: t	thenderson@	matrikscorp.com			Ro	bert Ne	ely						
Matriks Cor	poration	CC:					Ma	atriks Co	orporation						
321 Court S	Street	PO:			321 Court Street						Date Received:			11/15/	2010
Woodland,	CA 95695	ProjectNo:	Alameda Gas	da Gas Woodland, CA 95695						Date Printed:				2010	
(530) 406-17	60 FAX (530) 406-1771														
									Requeste	ed Tests (	(See legend	l below)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4 5	6	7 8	9	10	11	12
1011432-015	Bx-4-5		Soil	11/12/2010		А		А		А					
1011432-016	Bx-4-10		Soil	11/12/2010		А		Α	A	А					

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А

А

А

А

11/12/2010

11/12/2010

Soil

Soil

#### Test Legend:

1011432-017

1011432-018

1	5-OXYS_S	2
6	TPH(D)_S	7
11		12

Bx-4-15

Bx-4-20

5-OXYS_W	
TPH(D)_W	

3	G-MBTEX_S
8	

4	G-MBTEX_W
9	

А

А

5	PB_S
10	

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.



"When Ouality Counts"

### Sample Receipt Checklist

Client Name:	Matriks Corporat	ion					Date a	and Time Received:	11/15/2010	7:40:14 PM
Project Name:	Alameda Gas						Check	klist completed and r	eviewed by:	Ana Venegas
WorkOrder N°:	1011432	Matrix	Soil/Water				Carrie	r: <u>EnviroTech (R</u>	<u>C)</u>	
			<u>Chain</u>	of Cu	stody (C	COC) In	forma	ation		
Chain of custody	present?			Yes	$\checkmark$	N	•			
Chain of custody	signed when relinqui	shed and	d received?	Yes	$\checkmark$	N	•			
Chain of custody	agrees with sample I	abels?		Yes	✓	N	•			
Sample IDs noted	by Client on COC?			Yes	✓	N	₀ □			
Date and Time of	collection noted by Cli	ient on C	OC?	Yes	✓	N	₀ □			
Sampler's name r	noted on COC?			Yes	✓	N	o 🗆			
	Sample Receipt Information									
Custody seals int	tact on shipping conta	iner/cool	ler?	Yes		N	•		NA 🔽	
Shipping containe	er/cooler in good cond	lition?		Yes	✓	N	o 🗆			
Samples in prope	er containers/bottles?			Yes	✓	N	o 🗆			
Sample containe	rs intact?			Yes	✓	N	₀ 🗆			
Sufficient sample	e volume for indicated	test?		Yes	✓	N	o 🗌			
		<u>Sa</u>	mple Preser	vatior	n and Ho	old Tim	e (HT	) Information		
All samples recei	ived within holding tim	e?		Yes	✓	N	•			
Container/Temp B	Blank temperature			Coole	er Temp:	2.8°C			NA 🗆	
Water - VOA vial	ls have zero headspa	ce / no b	oubbles?	Yes		N	₀ 🗸	No VOA vials subm	itted	
Sample labels checked for correct preservation?				Yes	✓	N	o 🗌			
Metal - pH accep	table upon receipt (pH	l<2)?		Yes		N	o 🗆		NA 🗹	
Samples Receive	ed on Ice?			Yes	✓	N	0			
			(Ice Type	e: WE	TICE	)				
* NOTE: If the "No" box is checked, see comments below.										

Client contacted:

Date contacted:

Contacted by:

Comments:

"When Ouality C	alytical, In		Web: www.mccamp Telephone: 8		@mccampbell.c 5-252-9269	John
Matriks Corporation	Client Pro	oject ID: Alame	da Gas	Date Sampled:	11/12/10	
321 Court Street				Date Received:	11/15/10	
	Client Co	ontact: Tom He	nderson	Date Extracted:	11/15/10	
Woodland, CA 95695	Client P.0	D.:		Date Analyzed:	11/16/10	
Extraction Method: SW5030B		atile Organics by ytical Method: SW82	y P&T and GC/M	IS*	Work Order:	1011432
Lab ID	1011432-005A	1011432-006A	1011432-007A	1011432-008A		
Client ID	Bx-1-6	Bx-1-10	Bx-1-15	Bx-1-20	Reporting DF	Limit for
Matrix	S	S	S	S	-	
DF	40	40	10	1	S	W
Compound		Conc	centration		mg/kg	ug/L
tert-Amyl methyl ether (TAME)	ND<0.20	ND<0.20	ND<0.050	ND	0.005	NA
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
	Surre	ogate Recoverie	es (%)			·
%SS1:	97	98	93	87		
	a3	a3	a3			

Recovery of Surrogate Standard; DF = Dilution Factor

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

When Ouality C		<u>c.</u>	•	bell.com E-mail: main 377-252-9262 Fax: 925	-	com		
Matriks Corporation	Client Pr	oject ID: Alam	eda Gas	Date Sampled:	11/12/10			
321 Court Street				Date Received: 11/15/10				
	Client Co	ontact: Tom He	enderson	Date Extracted:	11/15/10			
Woodland, CA 95695	Client P.0	D.:		Date Analyzed:	11/16/10			
(	Oxygenated Vola	atile Organics b	y P&T and GC/M	IS*				
Extraction Method: SW5030B	Anal	ytical Method: SW8	260B	1	Work Order:	1011432		
Lab ID	1011432-009A	1011432-010A	1011432-011A	1011432-012A				
Client ID	Bx-2-5	Bx-2-10	Bx-2-14	Bx-3-5.5	Reporting DF	Limit for		
Matrix	S	S	S	S	1			
DF	1	1	1	400	S	W		
Compound		Con	centration	mg/kg ug/				
tert-Amyl methyl ether (TAME)	ND	ND	ND	ND<2.0	0.005	NA		
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		
	Surr	ogate Recoveri	es (%)					
%SS1:	90	88	89	96				
Comments				a3				
* water and vapor samples are reported in μ extracts are reported in mg/L, wipe samples		lid samples in mg	/kg, product/oil/non-a	l aqueous liquid sample	es and all TC	LP & SPL		
ND means not detected above the reporting Recovery of Surrogate Standard; DF = Dil		ection limit; N/A	means analyte not ap	pplicable to this analy	ysis; %SS =	Percent		

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

"When Ouality Co	alytical, In	_	Web: www.mccamp Telephone: 8		-252-9269	om		
Matriks Corporation	Client Pr	oject ID: Alamed	la Gas	Date Sampled:	11/12/10			
321 Court Street				Date Received:	ate Received: 11/15/10			
	Client Co	ontact: Tom Hen	derson	Date Extracted:	11/15/10			
Woodland, CA 95695	Client P.	D.:		Date Analyzed:	11/16/10			
(	Dxygenated Vol	atile Organics by	P&T and GC/M	IS*				
Extraction Method: SW5030B		ytical Method: SW826	0B		Work Order:	1011432		
Lab ID	1011432-013A	1011432-014A	1011432-015A	1011432-016A				
Client ID	Bx-3-12	Bx-3-15	Bx-4-5	Bx-4-10	Reporting DF			
Matrix	S	S	S	S				
DF	1	1	100	40	S	W		
Compound		Conce	entration		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		
	Surr	ogate Recoveries	s (%)					
%SS1:	89	92	92	94				
Comments			a3	a3				
water and vapor samples are reported in μ xtracts are reported in mg/L, wipe samples		blid samples in mg/k	g, product/oil/non-a	I Iqueous liquid sample	s and all TC	LP & SPL		

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

"When Ouality C	Counts"		Telephor	ne: 877-252-9262 Fax: 925	-252-9269	om			
Matriks Corporation	Client Pr	oject ID: Alamed	la Gas	Date Sampled:	11/12/10				
321 Court Street				Date Received:	11/15/10				
	Client Co	ontact: Tom Hen	derson	Date Extracted:	11/15/10				
Woodland, CA 95695	Client P.0	O.:		Date Analyzed:	11/16/10				
(	Oxygenated Vola	atile Organics by	P&T and GC	C/MS*					
Extraction Method: SW5030B	Anal	ytical Method: SW826	0B		Work Order:	1011432			
Lab ID	1011432-017A	1011432-018A							
Client ID	Bx-4-15	Bx-4-20			Reporting DF				
Matrix	S	S							
DF	40	40			S	W			
Compound		Conce	entration		mg/kg	ug/L			
tert-Amyl methyl ether (TAME)	ND<0.20	ND<0.20			0.005	NA			
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			
	Surr	ogate Recoveries	s (%)		-				
%SS1:	90	95				_			
Comments	a3	a3							
* water and vapor samples are reported in μ extracts are reported in mg/L, wipe samples		blid samples in mg/k	g, product/oil/no	on-aqueous liquid sample	es and all TC	LP & SPL			

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

McCampbell An		<u>c.</u>	Web: www.mccamp		@mccampbell.c	com
Matriks Corporation		aliant ID: Aliana			5-252-9269	
Matrixs Corporation	Client Pro	oject ID: Alam	eda Gas	Date Sampled:		
321 Court Street				Date Received:	11/15/10	
	Client Co	ontact: Tom He	enderson	Date Extracted:	11/16/10-1	1/17/10
Woodland, CA 95695	Client P.0	D.:		Date Analyzed:	11/16/10-1	1/17/10
	•••	6	y P&T and GC/N	IS*		
Extraction Method: SW5030B		ytical Method: SW8		1	Work Order:	1011432
Lab ID	1011432-001B	1011432-002B	1011432-003B	1011432-004B	_	
Client ID	Bx-1	Bx-2	Bx-3	Bx-4	Reporting DF	
Matrix	W	W	W	W		
DF	10	1	10	10	S	W
Compound		Con	centration		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
	Surr	ogate Recoveri	es (%)			
%SS1:	93	96	92	88		
Comments	b6,b1	b1	b6,b1	b6,a3,b1		
* water and vapor samples are reported in performance of the sample samp		olid samples in mg	/kg, product/oil/non-a	uqueous liquid sample	es and all TC	LP & SPLI
ND means not detected above the reportin Recovery of Surrogate Standard; DF = Di	-	ection limit; N/A	means analyte not a	pplicable to this anal	lysis; %SS =	Percent
# surrogate diluted out of range or surroga	te coelutes with an	other 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

	CCampbell Analyti "When Ouality Counts"	ical, Inc.		Web: www	v.mccamp	Pass Road, Pittsburg, CA bbell.com E-mail: main@ 377-252-9262 Fax: 925		.com		
Matriks Corp	oration	Client Project ID	D: /	Alameda Gas		Date Sampled:	11/12/10	1		
321 Court Stre	eet					Date Received:	11/15/10			
521 Court Su		Client Contact:	То	Fom Henderson   Date Extracted:   11/15/10						
Woodland, CA	A 95695	Client P.O.:				Date Analyzed:	11/16/10	1		
			Le	ad by ICP*						
Extraction method:	: SW3050B	А	naly	tical methods: SW60	10B			Work Ord	ler: 1011432	
Lab ID	Client ID	Matr	ix	Extraction Type		Lead	DF	% SS	Comments	
1011432-005A	Bx-1-6		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;	W	TOTAL	NA	μg/L
ND means not detected at or above the reporting limit	S	TOTAL	5.0	mg/Kg

\*water samples are reported in  $\mu g/L$ , 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  $\mu g/wipe$ , filter samples in  $\mu g/filter$ .

# 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  $\mu$ m filtered and acidified sample.

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



	cCampbell Analyti	cal, Inc.		1534 Willow F Web: www.mccamp		-					
	"When Ouality Counts"			· · ·	377-252-9262		-252-926	9			
Matriks Corpo	ration	Client Projec	t ID:	Alameda Gas	Date Sam	pled:	11/12/1	10			
321 Court Stree	et				Date Rec	eived:	11/15/1	10			
		Client Conta	act: To	om Henderson	Date Extr	acted:	11/15/1	10			
Woodland, CA	95695	Client P.O.: Date Analyzed 11/17/10-11/21/1									
	То	tal Extractab	le Petr	oleum Hydrocarbons*							
Extraction method	SW3510C/SW3550B	Ana	alytical m	nethods: SW8015B			Work Ord	er: 1011432			
Lab ID	Client ID	Matrix		TPH-Diesel (C10-C23)	% 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		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			
-	ting Limit for DF =1;	W		50			μ	g/L			
	eans not detected at or ve the reporting limit	S		1.0			mg	y/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  $\mu g/L.$ 

# 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 McCampbell Analytical is not responsible for their interpretation:

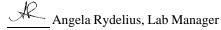
b1) aqueous sample that contains greater than ~1 vol. % sediment

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



	Campbell Analyt	ical, Inc.	Web: www.mccamp	Pass Road, Pitts bbell.com E-1 877-252-9262	mail: main		bell.com			
Matriks Corpora		Client Project ID:		Date Sam						
321 Court Street				Date Rec	eived:	11/15/1	.0			
521 Court Street		Client Contact: T	Com Henderson	Date Extr	acted:	11/15/1	0			
Woodland, CA 9	5695	Client P.O.:	Client P.O.: Date Analyzed 11/17/10-1							
	Te	otal Extractable Pet	roleum Hydrocarbons*							
Extraction method SW	/3510C/SW3550B	Analytical	methods: SW8015B			Work Ord	er: 1011432			
Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	% SS	Comments					
1011432-016A	Bx-4-10	S	170		10	75	e4,e2			
1011432-017A	Bx-4-15	S	53		1	113	e11,e2			
1011432-018A	Bx-4-20	S	73		1	112	e11,e2			
	ng Limit for DF =1; ns not detected at or	W	50			μg	r/L			
	the reporting limit	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 McCampbell Analytical is not responsible for their interpretation:

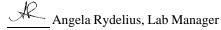
b1) aqueous sample that contains greater than ~1 vol. % sediment

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



	McCampbe	<b>ell An</b> en Oualitv		<u>l, Inc.</u>	Web	: www.mccamp	Pass Road, Pittsburg bell.com E-mail: 377-252-9262 Fa	main@mccamp	bell.com					
Matril	s Corporation		Cl	ient Project ID:	Alameda Gas	5	Date Sample	d: 11/12	2/10					
321 C	ourt Street						Date Receive	ed: 11/15	5/10					
521 C	Sur Succi		Cl	ient Contact: To	m Henderso	on	Date Extract	ed: 11/15	5/10-11/	1/22/10         1/22/10         1/22/10         vork Order:       1011432         9% SS       Comment         114       d1,b6,b1         121       d9,b1         115       d1,b6,b1         116       d1,b6,b1         117       d1,b6,b1         118       d1,b6,b1         119       74         41,00       74         991       d9         991       d9         990       888         88       86         0      #         42,d9       89         42,d9       89				
Wood	land, CA 95695		Cl	ient P.O.:			Date Analyz	ed: 11/16	5/10-11/2	22/10				
Extractio	Ga on method: SW5030B	asoline l	Range (C6-	C12) Volatile Hy Analy	drocarbons			nd MTBE*		k 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	120,00	0 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			
-	ting Limit for DF =1;	W	50	5.0	0.5	0.5	0.5	0.5		μg/I				
	eans not detected at or ve the reporting limit	S	1.0	0.05	0.005	0.005	0.005	0.005		mg/k	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 McCampbell 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) standalar and assolian on dissal assocs as manuado oro significont in



Ĵ	McCampbe	ell An en Ouality (		ical, Iı	<u>nc.</u>		: www.mccamp	Pass Road, Pittsburg bell.com E-mail: 377-252-9262 Fa:	main@mccamp	bell.com		
Matrik	s Corporation			Client P	Project ID: A	Alameda Gas		Date Sample	d: 11/12	2/10		
321 Co	ourt Street							Date Receive	ed: 11/15	/10		
021 00				Client C	Contact: To	om Henderso	n	Date Extracto	ed: 11/15	5/10-11/2	22/10	
Wood	and, CA 95695			Client P	.0.:			Date Analyz	ed: 11/16	/10-11/2	22/10	
	321 Court Street Client Conta Woodland, CA 95695 Client P.O.: Gasoline Range (C6-C12) Vola Extraction method: SW5030B ab ID Client ID Matrix TPH(g) M 17A Bx-4-15 S 1100 N								and MTBE*			
						tical methods: S		1			k Order:	1
Lab ID		Matrix	TP	PH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
017A	Bx-4-15	S	1	100	ND<10	ND<1.0	1.3	3.0	5.8	200	#	d9
018A	Bx-4-20	S	1	300	ND<10	ND<0.17	1.7	10	30	33	#	d7,d9
Repor	ting Limit for DF =1;	w		50	5.0	0.5	0.5	0.5	0.5		<u>на</u> /Г	
ND me	eans not detected at or e the reporting limit	S		1.0	0.05	0.005	0.005	0.005	0.005		µg/I mg/k	
* water	and vapor samples are re z SPLP extracts in mg/I				olid samples			µg/wipe, product	t/oil/non-aque	ous liqui		

# 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 McCampbell 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 and assoling or discal range of manuado ora significont in



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

## "When Ouality Counts"

### QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil		QC Matrix: Soil					Batch	ID: 54398	WorkOrder 1011432			
EPA Method SW8260B	Extrac	ction SW	5030B					s	Spiked San	nple ID	: 1011364-0	)10a
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCSD LCS-LCSD Acceptance Cri				)
Analyte	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.

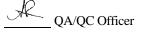
% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

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.



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

"When Ouality Counts"

### QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil	QC Matrix: Soil BatchID: 54403 WorkOrder											
EPA Method SW8021B/8015Bm	Extra	ction SW	5030B					5	Spiked San	nple ID	: 1011377-0	004A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	,
Analyte	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 E NONE	lank of this	extraction	batch we	re ND les	s than the	method R	L with th	e following	exceptions:			

			BATCH 54403 SL	<u>JMMARY</u>			
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).

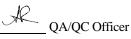
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the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



"When Ouality Counts"

### QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Soil	QC Matrix: Soil BatchID: 54446 WorkOrder 1011432											
EPA Method SW8021B/8015Bm	Extra	ction SW	5030B					5	Spiked San	nple ID	: 1011483-0	001A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	e Criteria (%)	1
Analyte	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				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 B NONE	batch we	re ND les	s than the	method R	L with th	e following	exceptions:					

### 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).

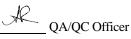
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the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



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"When Ouality Counts"

### QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil	QC Matrix: Soil BatchID: 54448 WorkOrder 1011432											32
EPA Method SW8260B	Extra	ction SW	5030B					s	piked San	nple ID	: 1011454-0	03A
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
, indigite	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 NONE	Blank of this	extraction	batch we	re ND les	s than the	method R	L with th	e following o	exceptions:			

### 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.

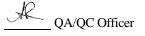
% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

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.





"When Ouality Counts"

### QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water	r QC Matrix: Water BatchID: 54427 WorkOrder 1011432											
EPA Method SW8260B	Extra	ction SW	5030B					S	Spiked San	nple ID	: 1011409-0	10B
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acce	eptance	Criteria (%)	
, indigite	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		
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 NONE	Blank of this	extraction	batch we	re ND les	s than the	method R	L with th	e following	exceptions:			

### 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.

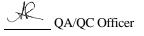
% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

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.





"When Ouality Counts"

### QC SUMMARY REPORT FOR SW8021B/8015Bm

QC Matrix: Water W.O. Sample Matrix: Water BatchID: 54442 WorkOrder 1011432 EPA Method SW8021B/8015Bm Extraction SW5030B Spiked Sample ID: 1011430-003A MSD MS-MSD LCS LCSD LCS-LCSD Sample Spiked MS Acceptance Criteria (%) Analyte % RPD MS / MSD RPD LCS/LCSD RPD µg/L µg/L % Rec. % Rec. % Rec. % Rec. % RPD TPH(btex) ND 96.1 95.8 0.324 97.3 95.6 1.79 70 - 130 70 - 130 60 20 20 MTBE 10 ND 115 115 0 123 121 1.54 70 - 130 2.0 70 - 130 20 Benzene ND 10 110 109 0.856 111 107 3.66 70 - 130 20 70 - 130 20 97 Toluene ND 10 97.8 96.5 1.33 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 2.0 70 - 130 20 20 %SS: 100 10 103 100 2.94 99 98 0.663 70 - 130 20 70 - 130 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).

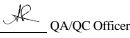
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the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





### <u>McCampbell Analytical, Inc.</u>

"When Ouality Counts"

### 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 MSD MS-MSD LCSD LCS-LCSD Sample Spiked MS Spiked 1 CS Acceptance Criteria (%) Analyte % Rec. MS / MSD RPD LCS/LCSD RPD % Rec. % RPD % Rec. % RPD mg/Kg mg/Kg % Rec. mg/Kg Lead 13 50 89.6 107 14.0 10 85.7 81.1 5.49 75 - 125 25 75 - 125 25 106 2.45 %SS: 250 103 103 0 250 99 102 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 Extracte	d Date Analyzed	Lab ID	Date Sampled	Date Extracte	ed 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

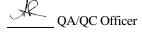
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% 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.



McCampbell An "When Quality		Web: www.mccampbell.c	coad, Pittsburg, CA 945 om E-mail: main@mc 52-9262 Fax: 925-252	ccampbell.com
Matriks Corporation	Client Project ID: Alameda	Gas	Date Sampled:	11/12/10
321 Court Street			Date Received:	11/15/10
	Client Contact: Tom Hend	erson	Date Reported:	11/23/10
Woodland, CA 95695		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

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.

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F	oninpret organital			PLING			Г	MA	TR	v			ГНО		(602/		Grea	carb	802	(EPA	1 Pes	ONL	sticio	G	(VO	(SVC	PAH	/ 200	200.	10/6	OLV	0		
			SALM	I		sus	$\vdash$	CTACK	IR		Pl	RES	ERV	ED	Gas (	15)	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 / Conget	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOC3) Fuel	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)	sample for DISSOLVED metals analysis	2		
L	SAMPLE ID	LOCATION/			Containers	Containers									H as	TPH as Diesel (8015)	m	m	/ 105	N OI	3/80	82 P(	41 ()	151 ()	524/	\$25/	M/8	als (2	als (2	200.	for			
L		Field Point Name	Date	Time	tair	Con				e				Other	TPI	Diese	trole	trole	2.2/6	BTF	S/ 606	8/80	1/ 81	5/81	12/6	\$276	70 SI	Met	Met	00.7 /	mple	added		
L			Dute		0	Type (	Water	-	-	Other		HCL	HNO <sub>3</sub>	her	EX &	H as	al Pe	al Pe	A 500	BE /	A 50	A 60	A 50	A 51	A 52	A 52	A 82	M 17	FT 5	od (2)	ler sa	ada		
L					#	E.	3	Soil	N S		۶I۲		Ξ	ō	BT	TP	Tot	Tol	EP	EW	EP	E	EP	1	EP	1	EP	CA	TI	Lei	Filter	12		
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Γ	BX-3				4		X																											
T	Bx -4				4	14	Y				1	14	1									_												
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F	BK-1-20				1			Y			Π																							
Γ	Bx-2-5				1			4			T																							
L	Bx -12/10				1			X			T																			×		R	Tot	n R
F	Bx-2-14			-	1			Y			17	/			1	1									7							~		
	**MAI clients MUST	disalose any day		hamicals kn	own to	he nr		t in th	oire	uhm	ittad		mlas	in or	1	ntrat	ione	that		coned	imm	nodio	to be			rion	- fut	are b	anlth	and	lange	emont	as a resul	tofbrief
	gloved, open air, samp	le handling by l	MAI staff	L Non-discle	osure i	ncurs a	in im	med	iate S	250 s	surch	harg	e and	d the	clie	nt is :	subje	ect to	full	legal	liabi	lity f	or ha	arm	suffe	red.	Tha	nk y	ou fo	or yo	ur un	dersta	nding an	d for
	allowing us to work sa	fely.															0	T															5.5	
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# 1011432

M M	McCAMPBELL ANALYTICAL, INC. 1534 WILLOW PASS ROAD PITTSBURG, CA 94565-1701								Т	U	RN	AF	101	UNI	) T	IM	E		C	1	Ę				1			网					
	bsite: <u>www.mo</u> ephone: (877	campbell	.com Em	ail: m	ain@ Fax:	(92	5) 2	52-	9269					0	Geo	Tra	ack	er	ED	FC													5 DAY W) 🖵 s required
Report To: Tom	Henderso	~	B	ill To	: 1	Na	TRIE	5	Cor	1					Analysis Request						0	ther		Comments									
Company: MAT																															un.		**Indicate
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Wo	odland C	4 9569	5 E	-Mail	:			_			_			MTBE		E/B					onge			1 č						ysis	200		samples are
Tele: (530) 41	Fele: (530) 466 1760 Fax: ( )							_	8015)/		5520			-		3/0						9020)	020)		anal	Saley		potentially					
Project #:												115	18.1)	00	8021	1	oclor		ides)	44		(SA)	10/6	0/0		ctuls			dangerous to handle:				
<b>Project Location:</b>	ATAMEDA													8021+		(166	(4) (4)	IN	02 /	ides	And	()	rbic	u u	1	Nd/	1601	601	20)	Dime	0		nanule;
Sampler Signatur	re: Jon 1)	-				_	_	_		_						ease	rbon	021(	PA 6	estic	(TX)	cide	He	S	VOC	THIS	00.8	90.8	/ 60	VEI	12-11		
SAMPLING MATRIX METHOD PRESERVE						as (602 /		& Gr	droca	10/8	LY (E	(CI P	3's Or	Pesti	idie C	100	20 (S	10 (P	0.7/2	0.7 / 20	6010	IOSS	11										
SAMPLE ID	LOCATION/ Field Point Name	Date	Time	# Containers	Type Containers	Water	Soil	Air	Sludge Other	ICE	HCL	HNO	Other	BTEX & TPH as Gas	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 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA S07 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 (8260) VOCS) Fuel	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 metuls analysis	Fe added		<i>1</i> 0
BX-3-5.5		11/12/10		1			×	T		t				¥	4									×									
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**MAI clients MUST gloved, open air, sam allowing us to work s	ple handling by	ngerous ch MAI staff.	emicals kn Non-discle	iown to osure in	be pr	resent an in	in th medi	eir	subm \$250	itted	l san harj	nple: ge ar	s in o nd th	conce le cli	entri ent i	ation s sub	s the	t ma to fu	iy cau H leg	ise in al lia	amed bility	iate l	harm	or s	seriou fered.	s fut Th	ure l ank y	healt you f	h endor yo	dange our u	ermen nderst	t as tand	a result of brief, ling and for
Relinquished By: bm Acco Relinquished By: Kyli, Clury		Date: 14/15/60 Date:	Time:	Rec	eived I	By:	Clo	np Z	8		E.	T.		G H D A	EAI ECH PPR	D CO D SP/ HLOI	ACE RIN/	ABS	N SENT D IN ONT/ AB	LAB	Concernance of the local division of the loc	_	_					CO	MMI	ENTS	i:		
Relinquished By:	E.T.	Date:	Time:		eived I	1	ne	90	2					P	RES	ERV	ATI		VOAS		&G	M pH		LS	от	HER							

1534 Willow Pass Rd CA 04565 1701

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

(925) 252-920					V	WorkO	order:	101143	32 A	Client	Code: N	ACW				
		WaterTrax	Write	On EDF	Γ	Excel		Fax	Er Er	mail	Hard	Сору	🗌 Thii	rdParty	J-	flag
Report to:							Bill to:					Req	uested	I TAT:	5	days
Tom Henderson Matriks Corporati 321 Court Street Woodland, CA 99 (530) 406-1760		Email: the cc: PO: ProjectNo: Ala		matrikscorp.com			Ma 32	1 Court	orporation	i		Dai	te Reco te Add te Prin	-On:	11/29	5/2010 D/2010 D/2010
									Request	ed Tests	(See leg	gend b	elow)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4 5	6	7	8	9	10	11	12
1011432-005	Bx-1-6		Soil	11/12/2010		А										
1011432-010	Bx-2-10		Soil	11/12/2010		А										
1011432-014	Bx-3-15		Soil	11/12/2010		А										

А

#### Test Legend:

1011432-016

1	ALKIMET_S
6	
11	

2	
7	
12	

Soil

11/12/2010

3	
8	

4	
9	

5			
10			

Prepared by: Ana Venegas

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

Bx-4-10

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.

	CCampbell Analyti	cal, Inc.		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 Corp	oration	Client Project ID	: A	Alameda Gas Date Sampled:				11/12/10					
321 Court Stre	-et					Date Received:	: 11/15/10						
521 Court but		Client Contact:	Tor	m Henderson		Date Extracted:	11/29/10						
Woodland, CA	A 95695				Date Analyzed:	11/29/10	-11/30/1	0					
	ICP Metals*												
Extraction method:	SW3050B	Aı	nalyti	ical methods: SW60	10B			Work Ore	ler: 1011432				
Lab ID Client ID Matrix Extra						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;	W	TOTAL	NA	μg/L
ND means not detected at or above the reporting limit	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  $\mu$ m filtered and acidified sample.

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





"When Ouality Counts"

1011762-004A

LCS/LCSD

75 - 125

70 - 130

RPD

25

30

### **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: MSD MS-MSD LCSD LCS-LCSD Sample Spiked MS Spiked 1 CS Acceptance Criteria (%) Analyte % Rec. MS / MSD RPD % Rec. % Rec. % RPD % Rec. % RPD mg/Kg mg/Kg mg/Kg Iron 5,700 500 NR NR NR 100 104 102 1.80 75 - 125 25 0.959 105 105 %SS: 98 250 104 105 250 0 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 Extracte	d Date Analyzed	Lab ID	Date Sampled	Date Extracte	ed 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

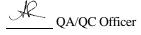
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% 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.





"When Ouality Counts"

### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil			QC Matri	k: Soil			Batch	ID: 54404	WorkOrder 1011432							
EPA Method SW8015B	Extra	ction SW	3550B				Spiked Sample ID: 1011377-001A									
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)							
, and yo	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				
Moss: All target compounds in the Metho NONE								Ŭ		30	70 - 130	3				
F1 = MS / MSD outside of accepta	nce criteria. LCS	- LCSD v	alidate pr	ep 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.

QA/QC Officer



"When Ouality Counts"

### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water			QC Matrix	k: Water			Batch	ID: 54412		WorkC	Order 10114	32
EPA Method SW8015B	Extra	ction SW	3510C					5	Spiked Sar	nple ID	: N/A	
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acc	eptance	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 Metho NONE								e following		1N/A	70 - 130	

### 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.

A QA/QC Officer

McCampbell An "When Quality		Web: www.mccampbell.c	coad, Pittsburg, CA 945 om E-mail: main@mc 52-9262 Fax: 925-252	ccampbell.com
Matriks Corporation	Client Project ID: Alameda	Gas	Date Sampled:	11/12/10
321 Court Street			Date Received:	11/15/10
	Client Contact: Tom Hend	erson	Date Reported:	11/23/10
Woodland, CA 95695	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

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.

Г	M M	(cCAMP)					AL	, I	NC					Ì		( )			_	H	AI	N	<b>D</b> F	C	U	ST	0]	DY	R	E	CO	RD		~
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	We We	bsite: www.mo	campbe	ell.com En	nail: n	nain@	mee	amp	bell	com					6	'eo'	Fra	eke	r F	DF			pn					HR		48 H		721	$\mathbf{W}$	DAY
	Tel	ephone: (877	) 252-92	262		Fax	: (92	25) 2	52-	9265	,				0	reo.	11a	CRC	IL	DI	Ē												is requ	
	Report To: Tom	Hender	rson	I	Bill To	0: M	AT	RIV	es	Co	RP	>								A	naly	sis )	-	-							-	ther	-	ments
	Company: MA																															Net	**In	dicate
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_	Project #: Project Location:	Alena		1	rojec	ct ivai	ne:	Peri	am	e de a		~~>		-	+ 8		664 /	418.1	VOC	/ 802	ŝ	roclo		cides	IT		NAs)	010 /	10/		betals	Pe	hand	
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F	oninpret organital			PLING			Г	MA	TR	v			ГНО		(602/		Grea	carb	802	(EPA	1 Pes	ONL	sticio	G	(VO	(SVC	PAH	/ 200	200.	10/6	OLV	0		
			SALM	I		sus	$\vdash$	CTACK	IR		PI	RES	ERV	ED	Gas (	15)	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 / Conget	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOC3) Fuel	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)	sample for DISSOLVED metals analysis	2		
L	SAMPLE ID	LOCATION/			Containers	Containers									H as	TPH as Diesel (8015)	m	m	/ 105	N OI	3/80	82 P(	41 ()	151 ()	524/	\$25/	M/8	als (2	als (2	200.	for			
L		Field Point Name	Date	Time	tair	Con				e				Other	TPI	Diese	trole	trole	2.2/6	BTF	S/ 606	8/80	1/ 81	5/81	12/6	\$276	70 SI	Met	Met	00.7 /	mple	added		
L			Dute		0	Type (	Water	-	-	Other		HCL	HNO <sub>3</sub>	her	EX &	H as	al Pe	al Pe	A 500	BE /	A 50	A 60	A 50	A 51	A 52	A 52	A 82	M 17	FT 5	od (2)	ler sa	ada		
L					#	E.	3	Soil	N S		۶I۲		Ξ	ō	BT	TP	Tot	Tol	EP	EW	EP	E	EP	1	EP	1	EP	CA	TI	Lei	Filter	12		
Γ	BX-1		11/12/1	/o	4	1 Am Brow	×				×	X			X	X									X									
	BK-Z		1		4	1	X				1	1			1	1									1									
Γ	BX-3				4		X																											
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Γ	Bx-1-6				t			×			Y	4																		×		X	TOTA	286
Γ	Bx-1-10				1			×			1																					~		1
Γ	Bx-1-15				1			Y			Π																							
F	BK-1-20				1			Y			Π																							
Γ	Bx-2-5				1			4			T																							
L	Bx -12/10				1			X			T																			×		R	Tot	n R
F	Bx-2-14			-	1			Y			17	/			1	1									7							~		
	**MAI clients MUST	disalose any day		hamicals kn	own to	he nr		t in th	oire	uhm	ittad		mlas	in or	1	ntrat	ione	that		coned	imm	nodio	to be			rion	e fut	are b	anlth	and	lange	emont	as a resul	tofbrief
	gloved, open air, samp	le handling by l	MAI staff	L Non-discle	osure i	ncurs a	in im	med	iate S	250 s	surch	harg	e and	d the	clie	nt is :	subje	ect to	full	legal	liabi	lity f	or ha	arm	suffe	red.	Tha	nk y	ou fo	or yo	ur un	dersta	nding an	d for
	allowing us to work sa	fely.															0	T															5.5	
h	Relinquished By:		Date:	Time:	Rec	eived I	y:					-				E/t		0		_	_	-	-				_		COM	IME	NTS			
ŀ	Jon Hen_	_	11/15/0	\$ 10:30		541	C	C	(9)	21								DIT:			-													
Г	Relinquished By:		Date:	Time:	Rec	eived I	N/K	24	1_						DE	CHI	ORI	NAT	ED	IN L		e	-											
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1	Relinquished By:		Date:	Time:	Rec	cived I	y:												vo	DAS	0.8	G	ME	TAL	S	OTH	IER							
Ľ	MAUST	E.T.	11P	17,2	1\4	lie	λle	And	an						PR	ESE	RVA	TIO			-		pH<		-			_						

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# 1011432

_ M	[cCAMP]					AL	, II	NC															C	U				R			RD	1 154
		1534 WIL PITTSBUI												Т	UF	IN .	AR	ou	ND	T	M	£							49 1		721	
	bsite: <u>www.mo</u>													0		Tra	oko	r L	DE	2	1	PD	F	A	Fv	cel		1	Vri	ite (	)n (I	IR 5 DAY
Tel	ephone: (877	) 252-926	52		Fax:	: (92	5) 2	52-	9269					G	reo	119	CAC		DI	Ē												is required
Report To: Tom	Henderco	2	B	ill To	: 1	Ja	reis	5	Cor	1	_		-						A	nal	ysis	-	-	-		. 10		acii		-	ther	Comments
Company: MAT							-																								-un	**Indicate
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	odland C		5 E	-Mail	:									MTBE		5/B&					nger			OXO						sis	100	samples are
Tele: (530) 40	6 1760			ax: (		)								1/6		\$20 I					1Ce						020)	120)		analysis	Saley	potentially
Project #:			P	rojec	t Nar	me:	Alo	m.	da	GA	\$			8015)/		4/5	8.1)	Cs)	9021		clors		des)	2		(1)	0/6	0/60		tals :	5	dangerous
<b>Project Location:</b>	ATAMEDA													+ 12		(166	s (41	HVO	02/8	ides)	Aro	-	rbick	5		PN/	601	601(	(0)	me	0	handle:
Sampler Signatur	e: Jon 1)	~												/ 8021		case	bom	21 ()	A 6	cstici	LN;	cides	Her	00	00	Hs /	90.8	0.8/	602	VED	11-21	
		SAMP	LING		20		MA	TR	IX			FHO ERV	D /ED	as Gas (602 /		& Gn	drocar	10/80	LY (EI	(CI P	3's ON	Pesti	idie C	NO N	70 (SV	10 (PA	0.7/20	0.7 / 20	6010	SSOL	11	
SAMPLE ID	LOCATION/ Field Point Name	Date	Time	# Containers	Type Containers	Water	Soil	Air	Sludge	E	CL	HNO	Other	Hd.I.	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; Arodors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 (8260) VOCS) Fuel	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 metuls	edded	
				#	Ê	2	S.	<	S C	Ĕ	H	Ŧ	0	m	Ę.	Ĕ	Ě	13	M	E	E	8	M	8	E	2	0	2	2	E	te	
BX-3-5.5		11/12/10		1			X							4	4									×								
Bx-3-12 Bx-3-15		1		1			X							1	1									1								
Bx-3-15				1			X			Т	Τ	T												11					X		X	TOTAL PL
Bx-4-5				1			×			Т					Π																	
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**MAI clients MUST gloved, open air, sam allowing us to work s	ple handling by	ngerous ch MAI staff.	emicals kn Non-discle	own to osure in	be pr	resent an in	t in th amed	eir iate	subm \$250	itted	l san harg	nple: ge ar	s in c nd th	e clie	entra ent is	tions subj	that ect to	may o full	caus l lega	se im I lial	med	iate l for l	arm	or so suff	eriou ered.	s fut Tha	ure l ank y	ou f	h end	lange our u	rment adersta	as a result of brid nding and for
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Relinquished By:	E.T.	Date:	Time:		eived I	1	ne	90	2					PI	RES	ERV	ATIO		OAS	0	&G	MI pH		LS	оті	IER						

1534 Willow Pass Rd CA 04565 1701

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

(925) 252-920					V	WorkO	order:	101143	32 A	Client	Code: N	ACW				
		WaterTrax	Write	On EDF	Γ	Excel		Fax	Er Er	mail	Hard	Сору	🗌 Thii	rdParty	J-	flag
Report to:							Bill to:					Req	uested	I TAT:	5	days
Tom Henderson Matriks Corporati 321 Court Street Woodland, CA 99 (530) 406-1760		Email: the cc: PO: ProjectNo: Ala		matrikscorp.com			Ma 32	1 Court	orporation	i		Dai	te Reco te Add te Prin	-On:	11/29	5/2010 D/2010 D/2010
									Request	ed Tests	(See leg	gend b	elow)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4 5	6	7	8	9	10	11	12
1011432-005	Bx-1-6		Soil	11/12/2010		А										
1011432-010	Bx-2-10		Soil	11/12/2010		А										
1011432-014	Bx-3-15		Soil	11/12/2010		А										

А

#### Test Legend:

1011432-016

1	ALKIMET_S
6	
11	

2	
7	
12	

Soil

11/12/2010

3	
8	

4	
9	

5			
10			

Prepared by: Ana Venegas

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

Bx-4-10

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.

	CCampbell Analyti	cal, Inc.		Web: www	v.mccamp	Pass Road, Pittsburg, CA bell.com E-mail: main 377-252-9262 Fax: 925	@mccampbell	.com	
Matriks Corp	oration	Client Project ID	: A	Alameda Gas		Date Sampled:	11/12/10		
321 Court Stre	-et					Date Received:	11/15/10	)	
521 Court but		Client Contact:	Tor	m Henderson		Date Extracted:	11/29/10	)	
Woodland, CA	A 95695	Client P.O.:				Date Analyzed:	11/29/10	-11/30/1	0
			IC	P Metals*					
Extraction method:	SW3050B		Work Ore	ler: 1011432					
Lab ID	Client ID	Matri	X	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;	W	TOTAL	NA	μg/L
ND means not detected at or above the reporting limit	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  $\mu$ m filtered and acidified sample.

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





"When Ouality Counts"

1011762-004A

LCS/LCSD

75 - 125

70 - 130

RPD

25

30

### **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: MSD MS-MSD LCSD LCS-LCSD Sample Spiked MS Spiked 1 CS Acceptance Criteria (%) Analyte % Rec. MS / MSD RPD % Rec. % Rec. % RPD % Rec. % RPD mg/Kg mg/Kg mg/Kg Iron 5,700 500 NR NR NR 100 104 102 1.80 75 - 125 25 0.959 105 105 %SS: 98 250 104 105 250 0 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 Extracte	d Date Analyzed	Lab ID	Date Sampled	Date Extracte	ed 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

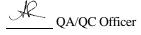
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% 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.





McCampbell Analytical, Inc. "When Ouality 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

### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil QC Matrix:					: Soil			BatchID: 54447		WorkOrder 1011432		
EPA Method SW8015B	Extraction SW3550B Spiked Sample ID: 1011432							: 1011432-0	18A			
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)	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	11/12/1	0 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.

A QA/QC Officer