

PHASE II SUBSURFACE SOIL INVESTIGATION 401 AND 425 N. E STREET MADERA, CALIFORNIA

Prepared for:

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Prepared by:

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June 27, 2019

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PHASE II SUBSURFACE SOIL INVESTIGATION 401 AND 425 N. E STREET MADERA, CALIFORNIA

1.0 INTRODUCTION

This Phase II Investigation report summarizes the field observations and analytical results of subsurface soil samples collected in the area of the onsite clarifier and underground storage tank (UST) to assess for the presence of petroleum hydrocarbons and heavy metals.

This work was preformed by the Environmental and Geological Services Division of Moore Twining Associates, Inc., located in Fresno, California.

2.0 <u>BACKGROUND</u>

A description of the site, the geologic and hydrologic characteristics, and the project history are summarized in the following subsections.

2.1 <u>Site Description</u>: The subject property at 401 and 425 North E Street in Madera, California is located on the northeastern side of North East Street, the northwestern side of East 3rd Street, and the southeastern side of East 2nd Street. The subject property is currently occupied by various tenants for commercial use. On-site operations consist of smog testing, general automotive service and repair, auto body repair, auto painting, transmission repair, auto storage, and routine facility maintenance. In addition to the current structures, the subject property is also improved with asphalt-paved parking areas and driveways, concrete-paved walkways and flatwork, and associated landscaping. The subject property is designated for commercial development by the City of Madera. Site features are depicted on Drawing 1.

2.2 <u>Geologic and Hydrologic Characteristics</u>: The following subsections summarize the geology and hydrology of the Fresno area.

2.2.1 <u>Geology</u>: The site is located in the central portion of the San Joaquin Valley within the southern portion of the Great Valley geomorphic province of California. The Great Valley is a nearly flat northwest to southeast trending structural basin approximately 450 miles long by 50 miles wide. The Great Valley has been filled with a sequence of older to younger alluvium of Pliocene to Holocene age which overlie sedimentary rocks of Cretaceous to Tertiary age. Cretaceous to Tertiary age sedimentary units overlie a crystalline basement of Paleozoic and Mesozoic metamorphic and igneous rocks. The shallow subsurface geology in the site vicinity is a heterogeneous mix of gravel, sand, silt, and clay (Hackel, 1966).

2.2.2 <u>Hydrology</u>: According to the map of lines of equal groundwater elevations, Fall 2018, published on the California Department of Water Resources website, first encountered groundwater in the site vicinity occurs under unconfined (water table) conditions at a depth of approximately 235 feet below site grade (bsg) and flows in a northerly direction.

Sediments containing fresh groundwater are largely unconsolidated silts and sands which were derived from river channel, flood plain, and alluvial fan deposits of Pliocene to Recent age (Davis and others, 1959). Local groundwater flow may be influenced by pumping of water wells and recharge from various sources. The effect of these influences on groundwater beneath the site is beyond the scope of this investigation.

2.3 <u>**Project History**</u>: Partner Engineering and Science, Inc. (Partner) conducted a Phase I Environmental Site Assessment (ESA) for the property in April 2019. According to the Phase I ESA, Partner identified the following Recognized Environmental Conditions (RECs) associated with the Site:

- An oil/water clarifier was observed in a former car wash tenant space at 401 N. E Street. The clarifier was reportedly used for the car wash operations and is connected to the municipal sanitary sewer system. An interior visual assessment of the clarifier could not be conducted, and the structural integrity of the clarifier is unknown. Furthermore, the age of the clarifier is unknown, and it is unknown if it was used in association with the automotive repair operations prior to being used for the on-site car wash. The clarifier had been recently pumped and the contents were released in the alley adjacent to the northeast of Parcel. Oily residue and a slight sheen were noted in the clarifier discharge sludge that was released to the alley. However, the alley is paved, and the discharge was confined over the paved surfaces. Partner recommends that the practice of discharging the clarifier sludge to the alley cease. However, the sludge noted in the alley is considered a *de minimis* condition. Partner notes that the clarifier has the potential to impact the subsurface of the subject property should the system become compromised. Based on the unknown structural integrity of the clarifier and the potential use of the clarifier in connection with automotive repair-related operations for 50-plus years, the clarifier is considered a REC.
- A pipe of unknown use was observed protruding from the ground surface near 425 N E Street. Because the purpose of the pipe could not be ascertained, Partner could not rule out the possibility that the pipe is associated with potential vent or fill pipes for an underground storage tank (UST). Based on this information, the potential presence of a UST in the area of the pipe was considered a REC.

Based on the identified RECs, Partner recommended that a Phase II investigation of the Oil/Water clarifier and Pipe of unknown use be conducted at the site.

3.0 <u>PURPOSE AND SCOPE</u>

The purpose of the proposed investigation was to assess subsurface soil in the area of the onsite clarifier for the presence of petroleum hydrocarbons and heavy metals and determine the origin of the pipe of unknown use. Additionally, a subsurface soil sample was collected at the location of a UST discovered during the course of this investigation. The following work was conducted to achieve the above referenced objective:

- Underground service alert (USA) was notified to mark underground utilities for the site for the purpose of identifying the pipe of unknown use;
- Drilled one boring to 10 feet below site grade in the vicinity of the clarifier to assess shallow soils for petroleum product constituents (PPCs), volatile organic constituents (VOCs), and heavy metals;
- Drilled one soil boring in the vicinity of a UST discovered during the investigation to assess subsurface soils for PPCs, VOCs, and heavy metals;
- Analyzed selected soil samples for key PPCs, VOCs, and heavy metals; and

• Prepared this summary report to document the investigative procedures and summarize the field and analytical findings, and present our conclusions and recommendations.

4.0 **INVESTIGATIVE PROCEDURES**

This Phase II assessment consisted of a field investigation, a laboratory testing program, and preparation of this summary report. Standard operating procedures (SOPs), relevant to the field and laboratory activities, are described in Appendix A.

4.1 <u>Field Investigation</u>: The field investigation consisted of notifying underground service alert, drilling one soil boring at the clarifier location and one soil boring at the UST discovered during the investigation. All borings were drilled with the use of a hand auger digging tool consistent with Moore Twining's SOPs included in Appendix A. The location of the clarifier, UST, and the soil borings are depicted on Drawing 2.

Based on the markings from underground service alert, the pipe of unknown use was identified as a gas service line for the 425 E Street building. The location of this gas line is depicted on Drawing 2.

A sink hole in the asphalt was observed outside the north building wall of Martin's Electrical and Auto Repair at 401 North E Street. Further investigation of this area identified a fuel fill port at the surface of the asphalt. The fill port was opened to identify the contents of the fuel UST. A gasoline odor was observed within the UST. The size of the UST could not be determined.

Soil boring B-1 was drilled in the area of the clarifier to a depth of 10 feet bsg. Soil samples were collected at a depth of 6 and 10 feet bsg. Soil boring B-2 was drilled at the location of the UST discovered during this investigation to a depth of 11 feet bsg. A soil sample was collected at a depth of 11 feet bsg. Groundwater was not encountered during this investigation, thus no groundwater samples were collected during this assessment.

During drilling activities, soil sample splits were field screened for evidence of VOCs and/or other contaminants. The field screening consisted of visual observation for staining or free fluids, unusual odor, and headspace analysis using a photoionization detector (PID). No hydrocarbon odor, staining, or PID detections were observed from the soil borings drilled during this investigation.

Soil samples were collected in 2-inch diameter stainless steel sleeves. The ends of the sleeves were covered with Teflon® tape and tight-fitting plastic end caps. Each sample was then labeled, logged, and placed in a chilled ice chest for transport to Moore Twining's analytical laboratory for analysis. After completion of the soil sampling, the soil borings were backfilling with native soil and patched at the surface with concrete.

4.2 <u>Laboratory Analyses</u>: One soil sample selected from each boring was analyzed for the presence of petroleum hydrocarbons and metals. The samples collected during field activities were delivered under chainof-custody to Moore Twining's analytical laboratory in Fresno, California. Moore Twining is a California Department of Health Services certified hazardous waste laboratory (Certificate No. 1371) for the analyses outlined herein. The selected soil samples were submitted and analyzed in the laboratory for Phase II Investigation June 27, 2019

total petroleum hydrocarbons as gasoline (TPHg), diesel (TPHd), and motor oil (TPHmo) by EPA Method 8015M; volatile organic constituents (VOCs) by EPA Method 8260B; and CAM 17 metals by EPA Method 6010B. The following samples from each boring were selected for initial analysis:

Clarifier: 6-foot sample UST: 11-foot sample

5.0 <u>RESULTS AND FINDINGS</u>

The results of the field investigation and laboratory testing program are summarized in the following subsections.

5.1 <u>Soil Profile</u>: The soil profile beneath the site consisted of silty sands to a depth of 11 feet below site grade, the maximum depth explored. No hydrocarbon odor or staining were observed in the soils encountered during this investigation.

5.2 <u>Analytical Results</u>: Tables 1 and 2 provides a summary of soil sample analytical results. Chain-ofcustody documentation and the laboratory analytical report are included in Appendix B. No detectible concentrations of petroleum hydrocarbon constituents, including TPHd, TPHmo, TPHg; or VOCs including benzene, toluene, ethlybenzene, xylenes, or fuel oxygenates were reported in the subsurface soil samples collected below the clarifier and UST.

Detections of several heavy metals were reported in the analyzed samples. Analytical results for metals are presented in Table 2. With the exception of arsenic, all metal detections were below applicable Regional Screening Levels (RSLs) for both residential and commercial/industrial land use scenarios.

Arsenic was detected at a concentration of 2.7 mg/kg and 5.5 mg/kg in samples B1-6' and B2-11', respectively. The applicable commercial RSL for arsenic is 0.36 mg/kg. While the reported arsenic concentrations are above the commercial RSL value, it should be noted that the detected concentration are within the range of naturally occurring background arsenic concentrations that exist in soils in Fresno County (Kearney, 1996).

6.0 <u>EVALUATION</u>

- The pipe of unknown use identified during the Phase I Investigation appears to be a gas service line for the 425 N E Street building.
- The soil profile beneath the site consisted of silty sands to a depth of 11 feet bgs, the maximum depth explored. No hydrocarbon odor or staining were observed in the soil encountered during this investigation;
- No petroleum product constituents or VOCs were detected from the sample collected below the onsite clarifier.

Phase II Investigation June 27, 2019

- A gasoline UST was discovered during this investigation. A soil sample collected at a depth of 11 feet below site grade in the vicinity of the UST showed no evidence of petroleum product constituents or VOCs. Moore Twining recommends that the UST be removed in accordance with State and Local laws and guidelines for UST removals. As required, soil samples should be collected below the bottom of the UST upon removal.
- All reported detections of heavy metals in the analyzed soil samples are either below applicable RSLs or within the range of background concentrations within Fresno County.

7.0 <u>RECOMMENDATIONS</u>

Based on the findings of this investigation, Moore Twining has the following recommendations:

• Moore Twining recommends that the UST discovered during this investigation be removed in accordance with State and Local laws and guidelines for UST removals. As required, soil samples should be collected below the bottom of the UST upon removal.

8.0 <u>LIMITATIONS</u>

In performing such a study, it is understood that a balance must be struck between a reasonable inquiry into the site conditions and an exhaustive analysis of each conceivable environmental characteristic. This work was intended to be an interactive process. Additional work may be required if analytical results indicate PPCs in the subsurface soils.

No investigation is thorough enough to describe all geologic/hydrogeologic conditions of interest at a given site. If conditions are not identified during the study, such a finding should not be construed as a guarantee of the absence of such conditions at the site, but rather as the result of the services performed within the scope, limitations, and cost of the work performed. Geologic/hydrogeologic conditions may exist at the site that cannot be identified solely by visual observation. Where subsurface exploratory work is performed, our professional opinions are based in part on interpretation of data from discrete sampling locations that may not represent actual conditions at unsampled locations.

This work was performed for the sole use of our client and appropriate regulatory agencies. Any reliance on this report by a third party is at such party's sole risk. The professional services will be performed, the findings obtained, and the conclusions prepared in accordance with generally-accepted engineering principles and practices in Madera County at the time the work is performed. This warranty is in lieu of all other warranties, either expressed or implied. Phase II Investigation June 27, 2019

9.0 <u>CLOSING</u>

Moore Twining appreciates the opportunity to be of service to you on this project. If you should have any questions, please do not hesitate to contact our office (559) 268-7021.

Respectfully Submitted,

MOORE TWINING ASSOCIATES, INC. Environmental and Geological Services Division

Keith Maye

Keith Mayes, PG No. 7555 Project Manager

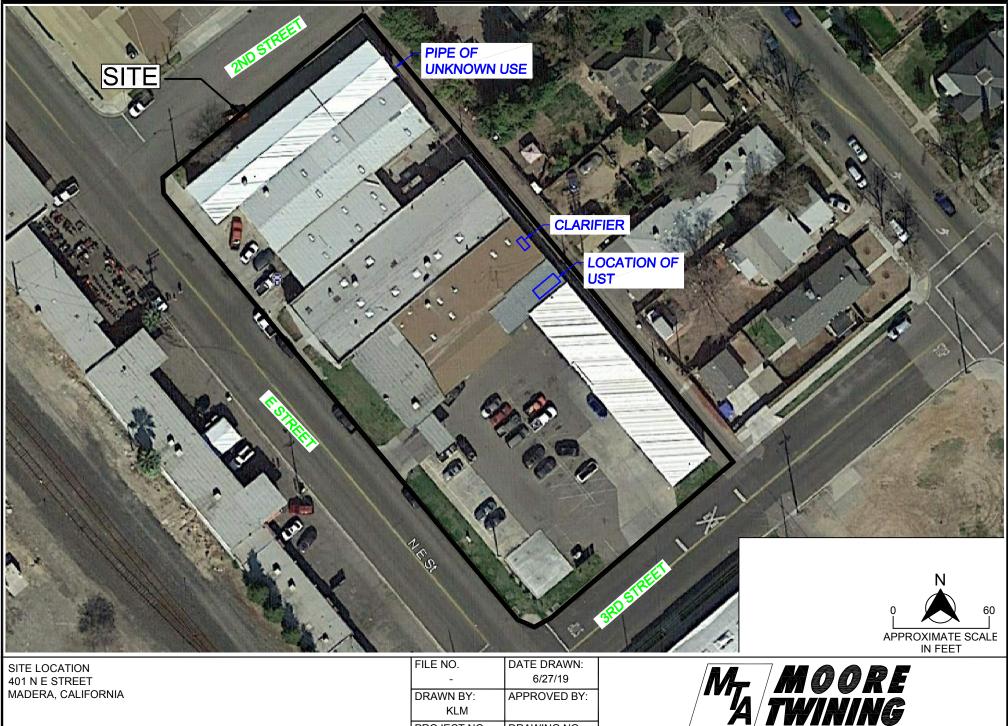


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10.0 <u>REFERENCES</u>

- Davis, G. H., J. H. Green, F. H. Olmsted, and D. W. Brown, 1959, Groundwater water conditions and storage capacity in the San Joaquin Valley, California: U.S. Geological Survey Water-Supply Paper 1469, p 287.
- Hackel, Otto, 1966, Geology of the Great Central Valley, California, chap. 5 of Bailey, Edgar H. ed.: California Division of Mines and Geology Bulletin 190, p. 215-238
- Kearney Foundation of Soil Science Division of Agricultural and Natural Resources, University of California, Background Concentrations of Trace and Major Elements in California Soils, dated March 1996.

DRAWINGS



-	6/27/19
DRAWN BY:	APPROVED BY:
KLM	
PROJECT NO.	DRAWING NO.
G76501.01	1

EST.1898

ASSOCIATES, INC. FRESNO/MODESTO/SACRAMENTO/CORONA/BAKERSFIELD/WONTEREY TABLES

APPENDIX A MOORE TWINING ASSOCIATES, INC STANDARD OPERATING PROCEDURES

This appendix contains the standard operating procedures used by Moore Twining Associates, Inc. (Moore Twining) in performing investigations. Moore Twining observes these procedures in order to obtain consistent, reliable data. The procedures used for this investigation included the following.

- Hand Augering and Soil Sampling
- Drilling and Soil sampling
- Equipment Decontamination
- Sample Handling and Chain-of-Custody
- Laboratory Quality Assurance/Quality Control (QA/QC)
- Photoionization Detector (PID) and Drager Tube Analyses
- Performing Head Space Analyses

Hand Augering and Soil Sampling: Subsurface assessment permits, if required, are filed with the appropriate regulatory agencies prior to conducting field operations. Field activities are performed under the supervision of a California registered environmental assessor II. Sampling equipment is thoroughly cleaned before, during, and after each use according to Moore Twining's "Standard Operating Procedures for Equipment Decontamination".

Hand auger soil borings are between 1.5 and 3.0 inches in diameter depending upon the size of the auger. These soil borings are advanced by turning the hand auger handle repeatedly which causes the auger bit to cut into the soil. After approximately 6 inches of advance, the bucket of the auger fills with soil cuttings and it is then removed from the borehole and the cuttings are emptied. The auger is then replaced in the borehole to advance another 6-inch interval. In this manner the borehole is extended to the designated sampling depth.

Soil samples are collected from hand auger soil borings by lowering a soil sampler equipped with a stainless-steel retention sleeve into the undisturbed soil at the bottom of the borehole. The soil sampler is then driven approximately 6 inches using a slide hammer.

The soil borings are abandoned by grouting with a 6-sack cement slurry containing 3 to 5 percent bentonite, or backfilling with clean soil. Abandonment procedures depend upon the boring depth, depth to groundwater, project objectives, and regulatory requirements.

Standard Operating Procedures for Drilling and Soil Sampling: Subsurface assessment and/or well construction permits are filed with the appropriate government agency before conducting field operations. Underground Service Alert is notified at least 48 hours prior to initiation of field activities. Field activities are performed under the direction of a California registered geologist or certified professional engineer.

Soil borings are advanced using an appropriate method. The method selected will depend upon project objectives and subsurface conditions. Typically soil borings are advanced using a Central Mine Equipment Company model 75 (CME-75) truck-mounted drill rig equipped with 6-5/8-inch outside diameter, continuous-flight, hollow-stem augers. Moore Twining is a licensed drilling contractor under C-57 classification (Contractor's License No. 506159). The soil borings are advanced under the direction of a Moore Twining geologist.

Drilling and sampling equipment are thoroughly cleaned before, during and after each use. Cleaning procedures are described in a subsequent paragraph.

Soil samples are collected using a continuous-coring device, by driving a split-spoon sampler, or by grabbing samples from the drilling cutting returns. The sampler or coring device is lined with brass, stainless steel, or acrylic tubes, in which samples may be retained for subsequent chemical analyses. To collect samples using the split-spoon sampler, the sampler is initially lowered to the bottom of the soil boring and driven 6 inches into undisturbed soil. It is then driven 12 inches deeper by repeatedly dropping a 140-pound weight from a height of 30 inches. The number of blows required to advance the sampler 12 inches is recorded on the boring logs as "blows per foot". This information is used in estimating soil density.

Soil samples are examined for the purpose of preparing lithologic logs. Soils are logged consistent with the American Society for Testing and Materials (ASTM). The soil boring logs note soil types encountered at depth including consistency, soil moisture, particle size, color, and other distinguishing features.

The soil samples are field screened for evidence of volatile organic chemicals (VOCs) and/or other contaminates. The field screening consist of; visual observation for straining or free fluids, unusual odor, and head space analysis using a photo ionization detector (PID). The procedure for performing head space analysis are describe in a subsequent paragraph (if pertinent to this investigation).

Generally, soil samples selected for analyses typically represent those which the field screening indicated will be most likely to contain the contaminate of concern. In most instances the deepest two samples and/or and sample collected from just above groundwater are selected for analyses. Samples intended for chemical analyses are sealed with Teflon tape and plastic end caps, labeled, placed on ice, and delivered to a laboratory, along with chain-of-custody documentation.

The soil borings may be completed as groundwater monitoring wells, or abandoned by grouting with either a sand-cement slurry comprised of a mixture of approximately two parts sand to one part cement, or neat cement containing approximately five percent bentonite. Abandonment procedures depend upon the boring depth, depth to groundwater, project objectives, and regulatory requirements. For borings greater than 15 feet deep, grout is emplaced through the hollow augers or a tremie pipe which will extend to within 15 feet of the bottom of the boring. The slurry is pumped through the annulus in the hollow-stem augers or the tremie pipe. Backfill is placed in one continuous operation from the bottom to the top of the borehole. When the annulus/borehole fills with the slurry, auger flights or tremie pipe sections are removed (no more than 10 feet at a time) from the borehole, allowing the slurry to uniformly fill the borehole to the surface. SOPs for groundwater monitoring well installation are described in a subsequent paragraph (if pertinent to this investigation).

Soil cuttings generated during drilling are containerized in properly labeled, United States Department of Transportation (DOT)-approved drums, or placed on and covered with plastic sheeting, and stored on site in an area inaccessible to the general public. Typically, the stockpiled soil is characterized by collecting and analyzing composite samples from the stockpile. Moore Twining can recommend an appropriate method for disposition of the cuttings based on the analytical results. Disposal will be the responsibility of the client.

Equipment Decontamination: Proper decontamination procedures reduce the potential for: crosscontamination among sample locations; and introduction of contamination from outside sources.

Before, during, and following drilling operations, drilling equipment is thoroughly cleaned using a high pressure hot water (steam) washer. Well casing, screen, end caps, and centralizers will also be cleaned using the steam washer. Steam cleaning condensate will be containerized for later disposal. Generally, disposal will be the client's responsibility.

Sampling equipment and any tools, measuring devices, or other equipment which will contact soil, groundwater, or any media being assessed will be washed in a low-phosphate soap and water solution, and rinsed in clean water before each use. The type of soap used will depend upon project requirements.

<u>Sample Handling and Chain-of-Custody</u>: Records are developed for samples which include: sampling date, sample type, location, job number, name of sampling personnel, and method of preservation. Each sample container is labeled immediately following collection. Sample containers are transported under custody seal. Chain-of-custody protocol, as described in United States Environmental Protection Agency, 1986, <u>Test Methods for Evaluating Solid Waste</u>, SW-846, Third Edition, is followed. Samples will be maintained at approximately 4°C. Upon arrival at the laboratory, the samples will be preserved for analysis as appropriate. Sample containers will be sealed with a custody seal during transport.

Samples may be delivered to Moore Twining's chemistry laboratory in Fresno, California. The Moore Twining representative in charge of the field work transport or direct the transportation of the samples and custody forms to the laboratory, where the samples are transferred to the sample control department. A receiving clerk, or an authorized analyst, signs the custody forms, present a duplicate copy to the Moore Twining representative, and transfers the samples to a laboratory analyst. The condition of the custody seal will be annotated on the custody form in the "remarks" section. The laboratory manager retains possession of the custody forms during analyses of the samples.

The laboratory manager's responsibilities include monitoring the sample integrity within the laboratory. This involves assigning each sample a laboratory number and maintaining cross-reference between the sample's field and laboratory identifications. The analysts' responsibilities include maintaining accurate records of the samples analyzed along with the analytical data produced. This involves labeling chromatograms and maintaining the laboratory numbers on subsamples taken from the submitted samples, labeling glassware used in the analyses, and properly labeling sample extract containers with each sample's laboratory number.

Following analyses, the samples are transferred to a limited-access storage room. Chain-of-custody forms, chromatograms, and other pertinent information are filed for future reference. Splits of samples analyzed are kept for 30 days. Samples containing hazardous concentrations will be returned to the client for disposal.

Laboratory Quality Assurance/Quality Control (QA/QC): These laboratory QA/QC procedures were developed to reduce outside interferences during analyses of samples. The laboratory director is responsible for creating and maintaining the program. General QA/QC procedures follow:

- Analytical instruments are serviced on a regular basis to assure accurate calibration;
- Organic-free water is monitored daily for quality;
- Gas chromatographs are calibrated daily;

- Method blanks are run to check whether the glassware and reagents are free of interference from chemicals that would invalidate the analyses;
- Standards are prepared using the applicable reference materials;
- Matrix spikes are analyzed in duplicate to validate the accuracy and precision of the method; and
- During groundwater sampling, a travel blank sample consisting of organic-free water is prepared and containerized in the laboratory, transported to the site, and handled and transported in the same manner as the groundwater samples.

Photoionization Detector (PID) and Drager Tube Analyses : The PID is calibrated in accordance with the manufacture's recommendations prior to use in the field. Upon arrival at the project site, the PID is used to monitor background concentrations of organic vapors in the atmosphere at the site. The background concentrations are measured in a location upwind and removed as possible from sources of organic vapors on the site. When background concentrations of organic vapors register as "0.0" on the PID, subsequent readings of "0.0" registered from samples tested in the field are recorded as "0" (not detected). When background concentrations of organic vapors register at some quantity above "0.0", subsequent readings registered from samples tested in the field at or below this value are recorded as "B/G" (background).

<u>Performing Head Space Analyses</u>: Head space analysis is performed using a photoionization detector (PID) or a drager tube. A soil sample is placed in a sealed glass container or plastic bag, agitated, and placed in a warm atmosphere. After approximately 15 minutes, which is generally sufficient for some of the vocatives to escape from the soil, the PID probe or tip of the drager tube is inserted into the container and the gas is sampled. The highest concentration of organic vapors displayed by the PID or the drager tube reading will be recorded.

APPENDIX B

Laboratory Analytical Reports



June 06, 2019

Work Order #: FE22048

Keith Mayes MTA Environmental Division 2527 Fresno Street Fresno, CA 93721

RE: 401 N. E Street, Madera, CA

Enclosed are the analytical results for samples received by our laboratory on **05/22/19**. For your reference, these analyses have been assigned laboratory work order number **FE22048**.

All analyses have been performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, Moore Twining Associates, Inc. (MTA) is not responsible for use of less than complete reports. Results apply only to samples analyzed.

If you have any questions, please feel free to contact us at the number listed above.

Sincerely,

Moore Twining Associates, Inc.

Julio Morales Client Services Supervisor



MTA Environmental Division	Project:	401 N. E Street, Madera, CA	B oportody
2527 Fresno Street	Project Number:	[none]	Reported: 06/06/2019
Fresno CA, 93721	Project Manager:	Keith Mayes	06/06/2019

Analytical Report for the Following Samples

Sample ID	Notes	Laboratory ID	Matrix	Date Sampled	Date Received
B1-6'		FE22048-01	Soil	05/22/19 10:33	05/22/19 16:15
B2-11'		FE22048-02	Soil	05/22/19 15:04	05/22/19 16:15



MTA Environmental Division 2527 Fresno Street Fresno CA, 93721			Proje Project Numb Project Manag	er: [none]	E Street, Ma layes	idera, CA			Reported: 06/06/2019
			I	B1-6'					
		FE2204	8-01 (Soil)	Sar	mpled: 05/2	22/19 10:33	i		
Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
letals (Total)									
Antimony		ND	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010E
Arsenic		5.5	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010E
Barium		110	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010E
Beryllium		ND	0.40	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010E
Cadmium		0.60	0.40	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010E
Chromium		19	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010E
Cobalt		6.8	0.80	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010E
Copper		14	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010E
_ead		9.0	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010E
Jeau Mercury		ND	0.040	mg/kg	1	B9E2304 B9E2116	05/23/19	05/24/19	EPA 00101
Molybdenum		ND	2.0		1	B9E2110 B9E2304	05/30/19	05/30/19	EPA 747 17 EPA 6010
				mg/kg					
		13	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010
Selenium		ND	5.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010
Silver		ND	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010
Fhallium		ND	5.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010
Vanadium		44	2.5	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010
Zinc		33	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010
Semi-Volatile Organics									
PH-D (C10-C28) Diesel		ND	10	mg/kg	1	B9E2918	05/29/19	06/01/19	EPA 80158
Surr: o-Terphenyl		69.7%		Limits: 11.8%		B9E2918	05/29/19	06/01/19	EPA 80151
PH-MO (C14-C40)		09.770	Necovery	Linnits. 11.07	0 - 13070	D9L2910	03/29/19	00/01/19	LFA 00151
Motor Oil		ND	10	mg/kg	1	B9E2918	05/29/19	06/01/19	EPA 80158
olatile Organics		ND	10	mg/ng		D322310	00/20/10	00/01/10	
260B Twining									
1,1,2-Tetrachloroethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 82601
1,1,1-Trichloroethane (TCA)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260
1,1,2,2-Tetrachloroethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260
(Freon 113)									
1,1,2-Trichloroethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260
1,1-Dichloroethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260
1,1-Dichloroethene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260
1,1-Dichloropropene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260
1,2,3-Trichlorobenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260
,2,3-Trichloropropane (123TCP)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260
,2,4-Trichlorobenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260
,2,4-Trimethylbenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260
I,2-Dibromo-3-chloropropane (DBCP)		ND	0.0050	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260
I,2-Dibromoethane (EDB)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 82601
1,2-Dichlorobenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260
1,2-Dichloroethane (1,2-DCA)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260
I,2-Dichloropropane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260
,3,5-Trimethylbenzene		ND	0.0010		1	B9E2405	05/24/19	05/24/19	EPA 8260
			0.0010	mg/kg	I	B9E2405	05/24/19	05/24/19	EPA 02000

Moore Twining Associates, Inc. Juliane Adams, Director of Analytical Chemistry

ND

0.0010

mg/kg

1

1,3-Dichlorobenzene

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

B9E2405

05/24/19

05/24/19

EPA 8260B



MTA Environmental Division Project: 401 N. E Street, Madera, CA							Depertud		
2527 Fresno Street			Project Numb	er: [none]					Reported:
Fresno CA, 93721		I	Project Manag	er: Keith M	layes				06/06/2019
			-						
		FF0004		31-6'			2		
		FE2204	8-01 (Soil)	Sar	npled: 05/2	22/19 10:3	3		
Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Volatile Organics									
8260B Twining									
1,3-Dichloropropane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,4-Dichlorobenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
2,2-Dichloropropane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
2-Butanone (MEK)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
2-Chloroethylvinyl ether		ND	0.020	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
2-Chlorotoluene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
2-Hexanone		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
4-Chlorotoluene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
4-Methyl-2-pentanone (MIBK)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Acetone		ND	0.020	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Acrolein		ND	0.050	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Acrylonitrile		ND	0.010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Benzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Bromobenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Bromochloromethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Bromodichloromethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Bromoform		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Bromomethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Carbon disulfide		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Carbon tetrachloride		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Chlorobenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Chloroethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Chloroform		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Chloromethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Chloroprene			0.0010				05/24/19	05/24/19	
cis-1,2-Dichloroethene		ND		mg/kg	1	B9E2405			EPA 8260B
cis-1,3-Dichloropropene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Dibromochloromethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Dibromomethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Dichlorodifluoromethane (CFC-12)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Di-isopropyl ether (DIPE)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Ethanol		ND	0.050	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Ethyl methacrylate		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Ethylbenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Hexachlorobutadiene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
lodomethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Isopropylbenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
m,p-Xylene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Methyl Methacrylate		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Methyl tert-Butyl Ether (MTBE)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Methylene chloride		ND	0.0020	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Naphthalene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
n-Butylbenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B

Moore Twining Associates, Inc. Juliane Adams, Director of Analytical Chemistry



MTA Environmental DivisionProject:401 N. E Street, Madera, CA2527 Fresno StreetProject Number:[none]Fresno CA, 93721Project Manager:Keith Mayes								Reported: 06/06/2019	
			E	31-6'					
		FE2204	8-01 (Soil)	San	npled: 05/2	22/19 10:33			
Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
/olatile Organics									
3260B Twining									
n-Propylbenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
o-Xylene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
p-Isopropyltoluene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
sec-Butylbenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Styrene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Tert-Amyl Methyl Ether (TAME)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
tert-Butyl alcohol (TBA)		ND	0.020	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
tert-Butylbenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Tetrachloroethene (PCE)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Toluene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
trans-1,2-Dichloroethene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
trans-1,3-Dichloropropene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
trans-1,4-Dichloro-2-butene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Trichloroethene (TCE)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Trichlorofluoromethane (CFC-11)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Trichlorotrifluoroethane (CFC-113)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Vinyl acetate		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Vinyl chloride		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Xylenes		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Surr: 4-Bromofluorobenzene		94.9%	Recovery	Limits: 70%	- 130%	B9E2405	05/24/19	05/24/19	EPA 8260B
Surr: Dibromofluoromethane		98.0%	Recovery	Limits: 70%	- 130%	B9E2405	05/24/19	05/24/19	EPA 8260B
Surr: Toluene-d8		99.1%	Recovery	Limits: 70%	- 130%	B9E2405	05/24/19	05/24/19	EPA 8260B
PH-G									
Gasoline (C6-C10)		ND	1.0	mg/kg	1	B9E2311	05/23/19	05/23/19	EPA 8015B
Surr: 4-Bromofluorobenzene (FID)		94.7%	Recovery	Limits: 70%	- 130%	B9E2311	05/23/19	05/23/19	EPA 8015B

B2-11'

FE22048-02 (Soil) Sampled: 05/22/19 15:04

Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)									
Antimony		ND	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010B
Arsenic		2.7	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010B
Barium		44	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010B
Beryllium		ND	0.40	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010B
Cadmium		ND	0.40	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010B
Chromium		6.0	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010B
Cobalt		2.4	0.80	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010B
Copper		4.1	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010B
Lead		2.9	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010B
Mercury		ND	0.040	mg/kg	1	B9E2116	05/23/19	05/24/19	EPA 7471A
Molybdenum		ND	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010B
Nickel		3.7	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010B

Moore Twining Associates, Inc. Juliane Adams, Director of Analytical Chemistry



MTA Environmental Division			Project:	401 N.	E Street, Ma	idera, CA			Description
2527 Fresno Street			Project Number:	[none]					Reported:
Fresno CA, 93721			Project Manager:	Keith N	layes				06/06/2019
			B2-	-11'					
		FE2204	8-02 (Soil)		mpled: 05/2	22/19 15:04			
Analyte	Flag	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method
Metals (Total)			Limit						
Selenium		ND	5.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010B
Silver		ND	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010B
Thallium		ND	5.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010B
Vanadium		18	2.5	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010B
Zinc		18	2.0	mg/kg	1	B9E2304	05/30/19	05/30/19	EPA 6010B
		10	2.0	iiig/kg		0002004	00/00/10	00/00/10	LINCOTOD
Semi-Volatile Organics TPH-D (C10-C28)									
Diesel		ND	10	malka	1	B9E2918	05/29/19	06/01/19	EPA 8015B
Surr: o-Terphenyl		63.6%	Recovery Lin	mg/kg	1	B9E2918 B9E2918	05/29/19	06/01/19	EPA 8015B EPA 8015B
TPH-MO (C14-C40)		03.0%	Recovery Lin	11115. 11.07	6 - 130%	DJEZJIO	03/29/19	00/01/19	EFA 6015B
Motor Oil		ND	10	mg/kg	1	B9E2918	05/29/19	06/01/19	EPA 8015B
~		ND	10	шу/ку	I	D9L2910	03/23/13	00/01/19	LFA 0015B
Volatile Organics									
260B Twining			0.0040		4	DOFO405	05/04/40	05/04/40	
1,1,1,2-Tetrachloroethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,1,1-Trichloroethane (TCA)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,1,2,2-Tetrachloroethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,1,2-Trichloroethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,1-Dichloroethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,1-Dichloroethene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,1-Dichloropropene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,2,3-Trichlorobenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,2,3-Trichloropropane (123TCP)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,2,4-Trichlorobenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,2,4-Trimethylbenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,2-Dibromo-3-chloropropane (DBCP)		ND	0.0050	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,2-Dibromoethane (EDB)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,2-Dichlorobenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,2-Dichloroethane (1,2-DCA)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,2-Dichloropropane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,3,5-Trimethylbenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,3-Dichlorobenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,3-Dichloropropane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
1,4-Dichlorobenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
2,2-Dichloropropane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
2-Butanone (MEK)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
2-Chloroethylvinyl ether		ND	0.020	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
2-Chlorotoluene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
2-Hexanone		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
4-Chlorotoluene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
4-Methyl-2-pentanone (MIBK)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Acetone		ND	0.020	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Acrolein		ND	0.050	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Acrylonitrile		ND	0.010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B

Moore Twining Associates, Inc. Juliane Adams, Director of Analytical Chemistry



MTA Environmental Division			Proje	ct: 401 N.	E Street, Ma	idera, CA			Reported:
2527 Fresno Street			Project Numb	er: [none]					06/06/2019
Fresno CA, 93721		I	Project Manag	er: Keith M	layes				00/00/2019
			P	32-11'					
		FE2204	8-02 (Soil)		npled: 05/2	22/19 15:04	4		
Analyte	Flag	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method
Analyte	Flag	Result	Limit	Units	Dilution	Batch	Flepaleu	Analyzeu	Wethou
/olatile Organics									
3260B Twining			0.0010	malka	4	B9E2405	05/04/40	05/04/40	
Benzene		ND ND	0.0010 0.0010	mg/kg	1 1	B9E2405 B9E2405	05/24/19 05/24/19	05/24/19 05/24/19	EPA 8260B
Bromobenzene				mg/kg					EPA 8260B
Bromochloromethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Bromodichloromethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Bromoform		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Bromomethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Carbon disulfide		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Carbon tetrachloride		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Chlorobenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Chloroethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Chloroform		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Chloromethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Chloroprene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
cis-1,2-Dichloroethene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
cis-1,3-Dichloropropene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Dibromochloromethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Dibromomethane		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Dichlorodifluoromethane (CFC-12)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Di-isopropyl ether (DIPE)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Ethanol		ND	0.050	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Ethyl methacrylate		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Ethyl tert-Butyl Ether (ETBE)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Ethylbenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Hexachlorobutadiene		ND	0.0010		1	B9E2405	05/24/19	05/24/19	EPA 8260B
lodomethane			0.0010	mg/kg	1	B9E2405 B9E2405	05/24/19	05/24/19	EPA 8260B
		ND		mg/kg					
Isopropylbenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
m,p-Xylene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Methyl Methacrylate		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Methyl tert-Butyl Ether (MTBE)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Methylene chloride		ND	0.0020	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Naphthalene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
n-Butylbenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
n-Propylbenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
o-Xylene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
p-Isopropyltoluene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
sec-Butylbenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Styrene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Tert-Amyl Methyl Ether (TAME)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
tert-Butyl alcohol (TBA)		ND	0.020	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
tert-Butylbenzene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Tetrachloroethene (PCE)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Toluene		ND	0.0010		1	B9E2405 B9E2405	05/24/19	05/24/19	
				mg/kg					EPA 8260B
trans-1,2-Dichloroethene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
trans-1,3-Dichloropropene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B

Moore Twining Associates, Inc. Juliane Adams, Director of Analytical Chemistry



MTA Environmental Division 2527 Fresno Street Fresno CA, 93721		I	Projec Project Numbo Project Manago			dera, CA			Reported: 06/06/2019
			В	2-11'					
FE22048-02 (Soil) Sampled: 05/22/19 15:04									
Analyte	Flag	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Volatile Organics									
8260B Twining									
trans-1,4-Dichloro-2-butene		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Trichloroethene (TCE)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Trichlorofluoromethane (CFC-11)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Trichlorotrifluoroethane (CFC-113)		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Vinyl acetate		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Vinyl chloride		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Xylenes		ND	0.0010	mg/kg	1	B9E2405	05/24/19	05/24/19	EPA 8260B
Surr: 4-Bromofluorobenzene		95.8%	Recovery	Limits: 70% -	130%	B9E2405	05/24/19	05/24/19	EPA 8260B
Surr: Dibromofluoromethane		98.7%	Recovery	/ Limits: 70% -	130%	B9E2405	05/24/19	05/24/19	EPA 8260B
Surr: Toluene-d8		98.4%	Recovery	· Limits: 70% -	130%	B9E2405	05/24/19	05/24/19	EPA 8260B
TPH-G									
Gasoline (C6-C10)		ND	1.0	mg/kg	1	B9E2311	05/23/19	05/23/19	EPA 8015B
Surr: 4-Bromofluorobenzene (FID)		101%	Recovery	/ Limits: 70% -	130%	B9E2311	05/23/19	05/23/19	EPA 8015B

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MTA Environmental Division	Project: 401 N. E Street, Madera, CA		Departed
2527 Fresno Street	Project Number: [none]		Reported: 06/06/2019
Fresno CA, 93721	Project Manager: Keith May	es	06/06/2019

Quality Control Sample Results - Metals (Total)

Analyte	Flag	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limits
Batch - B9E2116										
Blank (B9E2116-BLK1)		Prepared:	05/23/19 Ana	lyzed: 05/2	24/19					
EPA 7471A										
Mercury		ND	0.040	mg/kg						
LCS (B9E2116-BS1)		Prepared:	05/23/19 Ana	lyzed: 05/2	24/19					
EPA 7471A										
Mercury		0.306	0.040	mg/kg	0.333		91.8	80-120		
LCS Dup (B9E2116-BSD1)		Prepared:	05/23/19 Ana	lyzed: 05/2	24/19					
EPA 7471A										
Mercury		0.300	0.040	mg/kg	0.333		90.1	80-120	1.87	20
Matrix Spike (B9E2116-MS1)		Prepared:	05/23/19 Ana	lyzed: 05/2	24/19	Source: FE	17020-11			
EPA 7471A										
Mercury		0.308	0.040	mg/kg	0.334	ND	92.4	70-130		
Matrix Spike Dup (B9E2116-MSD1)		Prepared:	05/23/19 Ana	lyzed: 05/2	24/19	Source: FE	17020-11			
EPA 7471A										
Mercury		0.310	0.040	mg/kg	0.334	ND	92.8	70-130	0.563	20
Matrix Spike (B9E2116-MS2)		Prepared:)5/23/19 Ana	lyzed: 05/2	24/19	Source: FE	21034-01			
EPA 7471A										
Mercury		0.307	0.040	mg/kg	0.332	0.0164	87.6	70-130		
Matrix Spike Dup (B9E2116-MSD2)		Prepared:	05/23/19 Ana	lyzed: 05/2	24/19	Source: FE	21034-01			
EPA 7471A										
Mercury		0.323	0.040	mg/kg	0.335	0.0164	91.4	70-130	4.96	20
Batch - B9E2304										
Blank (B9E2304-BLK1)		Prepared 8	Analyzed: 0	5/30/19						
EPA 6010B										
Antimony		ND	2.0	mg/kg						
Arsenic		ND	2.0	mg/kg						
Barium		ND	2.0	mg/kg						
Beryllium		ND	0.40	mg/kg						
Cadmium		ND	0.40	mg/kg						
Chromium		ND	2.0	mg/kg						
Cobalt		ND	0.80	mg/kg						
Copper		ND	2.0	mg/kg						
Lead		ND	2.0	mg/kg						
Molybdenum		ND	2.0	mg/kg						
Nickel		ND	2.0	mg/kg						
Selenium		ND	5.0	mg/kg						
Silver		ND	2.0	mg/kg						
Thallium		ND	5.0	mg/kg						
Vanadium		ND	2.5	mg/kg						
Zinc		ND	2.0	mg/kg						
LCS (B9E2304-BS1)		Prepared 8	Analyzed: 0	5/30/19						

Moore Twining Associates, Inc. Juliane Adams, Director of Analytical Chemistry



MTA Environmental Division	Project:	401 N. E Street, Madera, CA	Deperted
2527 Fresno Street	Project Number:	[none]	Reported: 06/06/2019
Fresno CA, 93721	Project Manager:	Keith Mayes	00/00/2019

Quality Control Sample Results - Metals (Total)

Analyte	Flag	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limits
Batch - B9E2304										
LCS (B9E2304-BS1)		Prepared &	Analyzed: 0	5/30/19						
EPA 6010B										
Antimony		19.5	2.0	mg/kg	20.0		97.5	75-125		
Arsenic		38.6	2.0	mg/kg	40.0		96.5	75-125		
Barium		42.0	2.0	mg/kg	40.0		105	75-125		
Beryllium		4.19	0.40	mg/kg	4.00		105	75-125		
Cadmium		3.89	0.40	mg/kg	4.00		97.3	75-125		
Chromium		20.5	2.0	mg/kg	20.0		103	75-125		
Cobalt		8.05	0.80	mg/kg	8.00		101	75-125		
Соррег		20.5	2.0	mg/kg	20.0		103	75-125		
Lead		19.5	2.0	mg/kg	20.0		97.5	75-125		
Molybdenum		20.8	2.0	mg/kg	20.0		104	75-125		
Nickel		21.8	2.0	mg/kg	20.0		109	75-125		
Selenium		69.9	5.0	mg/kg	80.0		87.3	75-125		
Silver		18.8	2.0	mg/kg	20.0		93.9	75-125		
Thallium		73.8	5.0	mg/kg	80.0		92.2	75-125		
Vanadium		45.9	2.5	mg/kg	40.0		115	75-125		
Zinc		20.6	2.0	mg/kg	20.0		103	75-125		
LCS Dup (B9E2304-BSD1)		Prepared &	Analyzed: 0	5/30/19						
EPA 6010B										
Antimony		19.4	2.0	mg/kg	20.0		96.8	75-125	0.663	20
Arsenic		39.5	2.0	mg/kg	40.0		98.7	75-125	2.30	20
Barium		42.4	2.0	mg/kg	40.0		106	75-125	1.08	20
Beryllium		4.18	0.40	mg/kg	4.00		104	75-125	0.327	20
Cadmium		3.97	0.40	mg/kg	4.00		99.3	75-125	2.03	20
Chromium		20.4	2.0	mg/kg	20.0		102	75-125	0.634	20
Cobalt		8.14	0.80	mg/kg	8.00		102	75-125	1.13	20
Copper		21.0	2.0	mg/kg	20.0		105	75-125	2.46	20
Lead		19.9	2.0	mg/kg	20.0		99.4	75-125	1.91	20
Molybdenum		21.3	2.0	mg/kg	20.0		107	75-125	2.49	20
Nickel		22.2	2.0	mg/kg	20.0		111	75-125	2.12	20
Selenium		70.9	5.0	mg/kg	80.0		88.6	75-125	1.45	20
Silver		19.2	2.0	mg/kg	20.0		95.9	75-125	2.03	20
Thallium		75.2	5.0	mg/kg	80.0		94.0	75-125	1.89	20
Vanadium		45.9	2.5	mg/kg	40.0		115	75-125	0.00584	20
Zinc		20.9	2.0	mg/kg	20.0		105	75-125	1.39	20
Matrix Spike (B9E2304-MS1)			Analyzed: 0			Source: FE				
EPA 6010B										
Antimony	MS3	5.84	2.0	mg/kg	19.9	ND	29.4	75-125		
Arsenic		42.6	2.0	mg/kg	39.8	4.35	96.3	75-125		
Barium		83.7	2.0	mg/kg	39.8	44.2	99.3	75-125		
Beryllium	MS3	1.77	0.40	mg/kg	3.98	ND	44.5	75-125		

Moore Twining Associates, Inc. Juliane Adams, Director of Analytical Chemistry



MTA Environmental Division	Project: 401 N. E Stre	
2527 Fresno Street	Project Number: [none]	Reported: 06/06/2019
Fresno CA, 93721	Project Manager: Keith Mayes	

Quality Control Sample Results - Metals (Total)

Analyte	Flag	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limits
Batch - B9E2304										
Matrix Spike (B9E2304-MS1)		Prepared 8	Analyzed: 0	5/30/19		Source: FE	21001-02			
EPA 6010B										
Cadmium		4.38	0.40	mg/kg	3.98	0.385	101	75-125		
Chromium		24.9	2.0	mg/kg	19.9	6.56	92.3	75-125		
Cobalt		11.0	0.80	mg/kg	7.95	2.66	105	75-125		
Copper		27.3	2.0	mg/kg	19.9	5.96	107	75-125		
Lead		24.0	2.0	mg/kg	19.9	5.03	95.4	75-125		
Molybdenum		20.0	2.0	mg/kg	19.9	0.333	98.7	75-125		
Nickel		26.6	2.0	mg/kg	19.9	7.61	95.6	75-125		
Selenium		72.1	5.0	mg/kg	79.5	ND	90.7	75-125		
Silver		17.4	2.0	mg/kg	19.9	ND	87.5	75-125		
Thallium		73.2	5.0	mg/kg	79.5	ND	92.0	75-125		
Vanadium		68.1	2.5	mg/kg	39.8	22.1	116	75-125		
Zinc		44.9	2.0	mg/kg	19.9	23.4	108	75-125		
Matrix Spike Dup (B9E2304-MSD1)		Prepared 8	Analyzed: 0	5/30/19		Source: FE	21001-02			
EPA 6010B										
Antimony	MS3	6.35	2.0	mg/kg	20.0	ND	31.7	75-125	8.32	20
Arsenic		43.1	2.0	mg/kg	40.0	4.35	96.9	75-125	1.18	20
Barium		80.8	2.0	mg/kg	40.0	44.2	91.4	75-125	3.52	20
Beryllium	MS3	2.04	0.40	mg/kg	4.00	ND	50.9	75-125	14.1	20
Cadmium		4.41	0.40	mg/kg	4.00	0.385	101	75-125	0.677	20
Chromium		26.6	2.0	mg/kg	20.0	6.56	100	75-125	6.50	20
Cobalt		10.8	0.80	mg/kg	8.00	2.66	102	75-125	1.84	20
Copper		26.7	2.0	mg/kg	20.0	5.96	104	75-125	2.29	20
Lead		24.5	2.0	mg/kg	20.0	5.03	97.1	75-125	1.91	20
Molybdenum		20.3	2.0	mg/kg	20.0	0.333	99.9	75-125	1.82	20
Nickel		29.0	2.0	mg/kg	20.0	7.61	107	75-125	8.72	20
Selenium		72.8	5.0	mg/kg	80.0	ND	91.0	75-125	0.982	20
Silver		18.1	2.0	mg/kg	20.0	ND	90.6	75-125	4.14	20
Thallium		75.1	5.0	mg/kg	80.0	ND	93.8	75-125	2.57	20
Vanadium		68.0	2.5	mg/kg	40.0	22.1	115	75-125	0.0335	20
Zinc		44.3	2.0	mg/kg	20.0	23.4	105	75-125	1.40	20



MTA Environmental Division	Project: 401 N. E Street, Madera, CA	Depertude
2527 Fresno Street	Project Number: [none]	Reported: 06/06/2019
Fresno CA, 93721	Project Manager: Keith Mayes	00/00/2019

Quality Control Sample Results - Semi-Volatile Organics

Analyte	Flag	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limits
Batch - B9E2918										
Blank (B9E2918-BLK1)		Prepared:	05/29/19 Ar	nalyzed: 06/0	01/19					
EPA 8015B										
Surr: o-Terphenyl		1.43		mg/kg	2.00		71.7	11.8-130		
Diesel		ND	10	mg/kg						
Blank (B9E2918-BLK2)		Prepared:	05/29/19 Ar	nalyzed: 06/0	01/19					
EPA 8015B										
Surr: o-Terphenyl		1.58		mg/kg	2.00		79.1	11.8-130		
Motor Oil		ND	10	mg/kg						
LCS (B9E2918-BS1)		Prepared:	05/29/19 Ar	nalyzed: 06/0	01/19					
EPA 8015B										
Surr: o-Terphenyl		1.65		mg/kg	2.00		82.7	11.8-130		
Diesel		21.0	10	mg/kg	25.0		84.2	48-131		
LCS (B9E2918-BS2)		Prepared:	05/29/19 Ar	nalyzed: 06/0	01/19					
EPA 8015B										
Surr: o-Terphenyl		1.84		mg/kg	2.00		92.0	11.8-130		
Motor Oil		25.9	10	mg/kg	25.0		104	62-132		
LCS Dup (B9E2918-BSD1)		Prepared:	05/29/19 Ar	nalyzed: 06/0	01/19					
EPA 8015B										
Surr: o-Terphenyl		1.93		mg/kg	2.00		96.3	11.8-130		
Diesel		23.0	10	mg/kg	25.0		91.9	48-131	8.76	20
LCS Dup (B9E2918-BSD2)		Prepared:	05/29/19 Ar	nalyzed: 06/0	01/19					
EPA 8015B										
Surr: o-Terphenyl		1.76		mg/kg	2.00		88.1	11.8-130		
Motor Oil		25.5	10	mg/kg	25.0		102	62-132	1.70	20
Matrix Spike (B9E2918-MS1)		Prepared:	05/29/19 Ar	nalyzed: 06/0	02/19	Source: FE	16041-01			
EPA 8015B										
Surr: o-Terphenyl		2.05		mg/kg	2.00		103	11.8-130		
Diesel		24.5	10	mg/kg	25.0	ND	98.0	48-131		
Matrix Spike (B9E2918-MS2)		Prepared:	05/29/19 Ar	nalyzed: 06/0	02/19	Source: FE	16041-01			
EPA 8015B										
Surr: o-Terphenyl		1.81		mg/kg	2.00		90.3	11.8-130		
Motor Oil		26.1	10	mg/kg	25.0	ND	104	48-131		
Matrix Spike Dup (B9E2918-MSD1)		Prepared:	05/29/19 Ar	nalyzed: 06/0	02/19	Source: FE	16041-01		_	
EPA 8015B										
Surr: o-Terphenyl	S02	3.25		mg/kg	2.00		163	11.8-130		
Diesel		21.7	10	mg/kg	25.0	ND	86.9	48-131	11.9	20
Matrix Spike Dup (B9E2918-MSD2)		Prepared:	05/29/19 Ar	nalyzed: 06/0	02/19	Source: FE	16041-01			
EPA 8015B				-						
Surr: o-Terphenyl		1.78		mg/kg	2.00		89.1	11.8-130		
Motor Oil		23.6	10	mg/kg	25.0	ND	94.5	48-131	9.90	20



MTA Environmental Division	Project:	401 N. E Street, Madera, CA	Deperted
2527 Fresno Street	Project Number:	[none]	Reported: 06/06/2019
Fresno CA, 93721	Project Manager:	Keith Mayes	00/00/2019

Quality Control Sample Results - Volatile Organics

Analyte	Flag F	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limits
Batch - B9E2311										
Blank (B9E2311-BLK1)	Pre	pared 8	Analyzed: 0	5/23/19						
EPA 8015B										
Surr: 4-Bromofluorobenzene (FID)	C	0.0586		mg/kg	0.0625		93.7	70-130		
Gasoline (C6-C10)		ND	1.0	mg/kg						
LCS (B9E2311-BS1)	Pre	bared 8	Analyzed: 0	5/23/19						
EPA 8015B										
Surr: 4-Bromofluorobenzene (FID)	C	0.0523		mg/kg	0.0625		83.6	70-130		
Gasoline (C6-C10)		2.87	1.0	mg/kg	2.50		115	70-130		
LCS Dup (B9E2311-BSD1)	Pre	pared 8	Analyzed: 0	5/23/19						
EPA 8015B										
Surr: 4-Bromofluorobenzene (FID)	C	0.0541		mg/kg	0.0625		86.6	70-130		
Gasoline (C6-C10)		2.73	1.0	mg/kg	2.50		109	70-130	4.95	20
Batch - B9E2405										
Blank (B9E2405-BLK1)	Pro	parod 8	Analyzed: 0	5/24/10						
	FIE		Analyzeu. 0	5/24/19						
EPA 8260B Surr: 4-Bromofluorobenzene	ſ	0.0245		mg/kg	0.0250		97.9	70-130		
Surr: Dibromofluoromethane		.0240 .0249		mg/kg	0.0250		99.4	70-130		
Surr: Toluene-d8		0.0249		mg/kg	0.0250		96.9	70-130		
1,1,1,2-Tetrachloroethane	C C	ND	0.0010		0.0200		30.3	70-750		
1,1,1-Trichloroethane (TCA)		ND	0.0010	mg/kg						
1,1,2,2-Tetrachloroethane		ND	0.0010	mg/kg						
1,1,2,2-Trichloro-1,2,2-trifluoroethane (Freon		ND	0.0010	mg/kg						
113)				mg/kg						
1,1,2-Trichloroethane		ND	0.0010	mg/kg						
1,1-Dichloroethane		ND	0.0010	mg/kg						
1,1-Dichloroethene		ND	0.0010	mg/kg						
1,1-Dichloropropene		ND	0.0010	mg/kg						
1,2,3-Trichlorobenzene		ND	0.0010	mg/kg						
1,2,3-Trichloropropane (123TCP)		ND	0.0010	mg/kg						
1,2,4-Trichlorobenzene		ND	0.0010	mg/kg						
1,2,4-Trimethylbenzene		ND	0.0010	mg/kg						
1,2-Dibromo-3-chloropropane (DBCP)		ND	0.0050	mg/kg						
1,2-Dibromoethane (EDB)		ND	0.0010	mg/kg						
1,2-Dichlorobenzene		ND	0.0010	mg/kg						
1,2-Dichloroethane (1,2-DCA)		ND	0.0010	mg/kg						
1,2-Dichloropropane		ND	0.0010	mg/kg						
1,3,5-Trimethylbenzene		ND	0.0010	mg/kg						
1,3-Dichlorobenzene		ND	0.0010	mg/kg						
1,3-Dichloropropane		ND	0.0010	mg/kg						
1,4-Dichlorobenzene		ND	0.0010	mg/kg						
2,2-Dichloropropane		ND	0.0010	mg/kg						
2-Butanone (MEK)		ND	0.0010	mg/kg						



MTA Environmental Division	Project: 401 N. E Street, Madera, CA	Deperted
2527 Fresno Street	Project Number: [none]	Reported: 06/06/2019
Fresno CA, 93721	Project Manager: Keith Mayes	06/06/2019

Quality Control Sample Results - Volatile Organics

Analyte	Flag	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limits
Batch - B9E2405										
Blank (B9E2405-BLK1)		Prepared 8	& Analyzed: 0	5/24/19						
EPA 8260B			, -	-						
2-Chloroethylvinyl ether		ND	0.020	mg/kg						
2-Chlorotoluene		ND	0.0010	mg/kg						
2-Hexanone		ND	0.0010	mg/kg						
4-Chlorotoluene		ND	0.0010	mg/kg						
4-Methyl-2-pentanone (MIBK)		ND	0.0010	mg/kg						
Acetone		ND	0.020	mg/kg						
Acrolein		ND	0.050	mg/kg						
Acrylonitrile		ND	0.010	mg/kg						
Benzene		ND	0.0010	mg/kg						
Bromobenzene		ND	0.0010	mg/kg						
Bromochloromethane		ND	0.0010	mg/kg						
Bromodichloromethane		ND	0.0010	mg/kg						
Bromoform		ND	0.0010	mg/kg						
Bromomethane		ND	0.0010	mg/kg						
Carbon disulfide		ND	0.0010	mg/kg						
Carbon tetrachloride		ND	0.0010	mg/kg						
Chlorobenzene		ND	0.0010	mg/kg						
Chlorodifluoromethane		ND	0.0010	mg/kg						
Chloroethane		ND	0.0010	mg/kg						
Chloroform		ND	0.0010	mg/kg						
Chloromethane		ND	0.0010	mg/kg						
Chloroprene		ND	0.0010	mg/kg						
cis-1,2-Dichloroethene		ND	0.0010	mg/kg						
cis-1,3-Dichloropropene		ND	0.0010	mg/kg						
Dibromochloromethane		ND	0.0010	mg/kg						
Dibromomethane		ND	0.0010	mg/kg						
Dichlorodifluoromethane (CFC-12)		ND	0.0010	mg/kg						
Dichlorotetrafluoroethane (CFC-114)		ND	0.010	mg/kg						
Di-isopropyl ether (DIPE)		ND	0.0010	mg/kg						
Ethanol		ND	0.050	mg/kg						
Ethyl methacrylate		ND	0.0010	mg/kg						
Ethyl tert-Butyl Ether (ETBE)		ND	0.0010	mg/kg						
Ethylbenzene		ND	0.0010	mg/kg						
Hexachlorobutadiene		ND	0.0010	mg/kg						
lodomethane		ND	0.0010	mg/kg						
Isopropylbenzene		ND	0.0010	mg/kg						
m,p-Xylene		ND	0.0010	mg/kg						
Methyl Methacrylate		ND	0.0010	mg/kg						
Methyl tert-Butyl Ether (MTBE)		ND	0.0010	mg/kg						
Methylene chloride		ND	0.0020	mg/kg						
			0.0020							

Moore Twining Associates, Inc. Juliane Adams, Director of Analytical Chemistry



MTA Environmental Division	Project: 401 N. E Stre	et, Madera, CA
2527 Fresno Street	Project Number: [none]	Reported: 06/06/2019
Fresno CA, 93721	Project Manager: Keith Mayes	06/06/2019

Quality Control Sample Results - Volatile Organics

Analyte	Flag	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limits
Batch - B9E2405										
Blank (B9E2405-BLK1)	Pre	epared 8	Analyzed: 0	5/24/19						
EPA 8260B										
Naphthalene		ND	0.0010	mg/kg						
n-Butylbenzene		ND	0.0010	mg/kg						
n-Propylbenzene		ND	0.0010	mg/kg						
o-Xylene		ND	0.0010	mg/kg						
p-Isopropyltoluene		ND	0.0010	mg/kg						
sec-Butylbenzene		ND	0.0010	mg/kg						
Styrene		ND	0.0010	mg/kg						
Tert-Amyl Methyl Ether (TAME)		ND	0.0010	mg/kg						
tert-Butyl alcohol (TBA)		ND	0.020	mg/kg						
tert-Butylbenzene		ND	0.0010	mg/kg						
Tetrachloroethene (PCE)		ND	0.0010	mg/kg						
Toluene		ND	0.0010	mg/kg						
trans-1,2-Dichloroethene		ND	0.0010	mg/kg						
trans-1,3-Dichloropropene		ND	0.0010	mg/kg						
trans-1,4-Dichloro-2-butene		ND	0.0010	mg/kg						
Trichloroethene (TCE)		ND	0.0010	mg/kg						
Trichlorofluoromethane (CFC-11)		ND	0.0010	mg/kg						
Trichlorotrifluoroethane (CFC-113)		ND	0.0010	mg/kg						
Vinyl acetate		ND	0.0010	mg/kg						
Vinyl chloride		ND	0.0010	mg/kg						
Xylenes		ND	0.0010	mg/kg						
_CS (B9E2405-BS1)	Pre	epared 8	Analyzed: 0	5/24/19						
EPA 8260B										
Surr: 4-Bromofluorobenzene		0.0242		mg/kg	0.0250		97.0	70-130		
Surr: Dibromofluoromethane		0.0242		mg/kg	0.0250		97.0	70-130		
Surr: Toluene-d8		0.0245		mg/kg	0.0250		98.1	70-130		
1,1-Dichloroethene		0.0204	0.0010	mg/kg	0.0198		103	70-130		
Benzene		0.0200	0.0010	mg/kg	0.0200		100	70-130		
Chlorobenzene		0.0210	0.0010	mg/kg	0.0200		105	70-130		
Toluene		0.0209	0.0010	mg/kg	0.0200		104	70-130		
Trichloroethene (TCE)		0.0216	0.0010	mg/kg	0.0200		108	70-130		
_CS Dup (B9E2405-BSD1)	Pre	epared 8	Analyzed: 0	5/24/19						
EPA 8260B										
Surr: 4-Bromofluorobenzene		0.0247		mg/kg	0.0250		98.9	70-130		
Surr: Dibromofluoromethane		0.0238		mg/kg	0.0250		95.2	70-130		
Surr: Toluene-d8		0.0243		mg/kg	0.0250		97.2	70-130		
1,1-Dichloroethene		0.0180	0.0010	mg/kg	0.0198		91.0	70-130	12.3	20
Benzene		0.0182	0.0010	mg/kg	0.0200		91.2	70-130	9.25	20
Chlorobenzene		0.0196	0.0010	mg/kg	0.0200		98.2	70-130	6.78	20
Toluene		0.0188	0.0010	mg/kg	0.0200		93.8	70-130	10.8	20



MTA Environmental Division	Project	401 N. E Street, Madera, CA	Departed
2527 Fresno Street	Project Number:	[none]	Reported: 06/06/2019
Fresno CA, 93721	Project Manager:	Keith Mayes	00/00/2019

Quality Control Sample Results - Volatile Organics

Analyte	Flag	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limits
Batch - B9E2405										
LCS Dup (B9E2405-BSD1)	F	Prepared 8	Analyzed: 0	5/24/19						
EPA 8260B Trichloroethene (TCE)		0.0192	0.0010	mg/kg	0.0200		95.8	70-130	12.1	20

Notes and Definitions

- MS3 Recovery for this analyte was biased low; associated blank spike recoveries are within range.
- S02 Surrogate recovery was affected by the matrix.
- μ g/L micrograms per liter (parts per billion concentration units)
- mg/L milligrams per liter (parts per million concentration units)
- mg/kg milligrams per kilogram (parts per million concentration units)
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference

Analysis of pH, filtration, and residual chlorine is to take place immediately after sampling in the field. If the test was performed in the laboratory, the hold time was exceeded. (for aqueous matrices only)



CHAIN OF CUSTODY / ANALYSIS REQUEST 2527 FRESNO STREET + FRESNO, CA 93721 + PHONE (559) 268-7021 + FAX: (559) 268-0740

ANALYTICAL CHEMISTRY DIVISION CALIFORNIA ELAP CERTIFICATION # 1371 WORK ORDER #: FF22048 OF PAGE

REPORT TO:		ORT COPY TO:	REPORTING:
ATTENTION: Kith Mayes	ATTENTION: SAME		STANDARD FORMAT FORMAF
MOOR TWININ ASSOCIATE	Company Name:		
ADDRESS: 2527 FRESHOST	ADDRESS:		COUNTY ENVIRONMENTAL HEALTH:
Freque ct 93721	-		STATE WATER RESOURCES CONTROL BOARD:
PHONE: 554 268-7021 EMAIL/FAX:	PHONE:		
SAMPLE INFORMATION	SAMPLE TYPES		PROJECT INFORMATION
SAMPLED BY (PRINT):	50LID: BS - BIOSOLID	CONTRACT / P.O. NO.:	
SIGNATURE:	CR - CERAMIC SL - SOIL/SOLID LIQUED: DW - DRINKING WATER GW - GROUND WATER	PROJECT: 401 N E S PROJECT NUMBER:	theet, Madera, 24
	OL - OIL SF - SURFACE WATER ST - STORM WATER	PROJECT MANAGER	Mayes
TURY AROUND TIME X STANDARD RUSH, DUE ON:	WW- WASTEWATER	AN	
Notes on Received Condition]2	e eztore	
L CUSTODY SEAL(S) BROKEN SAMP	LES(S) DAMAGED	(mo (outor) 7 metads	
U S S S S S S S S S S S S S S S S S S S		१ में भू में	Hold Station Code
	TE TIME TYPE ["		
2 B1-6' spa 2 B2 B2-11' 1	419 1033 SL X 1504 L X	XXX	
3 BI-10'	1042		
			<u> </u>
COMMENTS / ADDITIONAL INSTRUCTIONS:			
RELINGUISTIND BY	Company Date	TIME RECEIVED BY	Company
flatter .	MDA 5.22.19 1	1015 1100	Hacely mos
Payment for services rendered as noted herein are due in full wit	hin 30 days from the date invoiced.	If not so poid, account balances	are deemed delinauent. Delinauent balances are subject

monthly service charges and interest specified in MTA's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody and agrees to MTA's terms and conditions for laboratory services unless contractually bound otherwise. MTA's current terms and conditions can be obtained by contacting our accounting department at (559) 268-7021.

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No	Yes No N/A	`(_	Yes No N/A												1																	<u>e/Initials</u>						FL-SC-0003-06
Yes	in voa ()																															Date/Time/Initials						
MTA Bottles	Were there bubbles in VOA vials? (Volatiles Only)	Was PM notified of	oiscrepanciesr PM: Bw/Time:							_																_						Preservative				-	_	()
	N/A	TES NO N/A Wa	Yes No N/A PM										_																			Container Pr					_	<u>) a 1790</u>
5048			J																													Ū	SPF		SPF	<u>م</u> ا	SPF	Labels checked by
Moore Twining Associates WO# <u>FERDO48</u>	Sold all bottle labels agree with COC? Was a sufficient amount of sample	received? Were correct containers and	preservatives received for the tests							-																						1		or 5	:61		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	1715 Labels che
ج الم ا	Yes Na NA Was	Yes No N/A Were	∢	3									- V - I																								- 100	
Sample Integrity Page 6	Was temperature within range? Chemistry ≤6°C Micro <10°C Temp °C	day, is there evidence				None (P)	Cr6 Buffer (P) Borate Carbonate Buffer	HNO _a (P)	H ₂ SO ₄ (P)	NaOH (P)	NaOH+ZnAc (P)	Dissolved Oxygen 300ml (P)		None (CG) 500ml	Na ₂ S ₂ O ₃ 250ml (Brown P) 549	Na ₂ S ₂ O ₃ (AG)	Na ₂ S ₂ O ₃ (AG)	Thio/K Citrate	NH₄CI (AG) 552	HCI (AG)	None (CG) 500mi	H _s PO4 (AG)	Other:	Plastic Bag	Low Level Hg/Metals Double Bag	Client Own	Glass Jar: 125/ 250/ 500	Soil Tube: Brass/ (Stee) Plastic	5 g Encore	Ascorboc Acid (AG) Voa							8	Labeled by
	<u> </u>	hni) I , = 1		╧╢╌	19	<u>۲</u>	10	1-	L <u>–</u>	<u> </u>	<u> </u>		<u> </u>	2						tto: T		.		<u>م</u>	<u> </u>	0	פו	<u>v</u>	LN LN	4	-		sı		Pac	ne 1	8	of 18