Appendix M

Supplemental Soil Gas Report

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

REPORT OF FINDINGS

SUPPLEMENTAL SOIL GAS ASSESSMENT
FORMER UNOCAL AVILA TERMINAL
10 SAN RAFAEL STREET, AVILA BEACH
SAN LUIS OBISPO COUNTY, CALIFORNIA

Prepared for:
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY

August 2012

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ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

August 22, 2012
Project No. 0801-0897

Chevron Environmental Management Company
276 Tank Farm Road
San Luis Obispo, California 93401

Attention: Mr. Rik Williams
Project Manager

Subject: Report of Findings, Supplemental Soil Gas Assessment, Former Unocal Avila Terminal, 10 San Rafael Street, Avila Beach, San Luis Obispo County, California

Dear Mr. Williams:

Padre Associates, Inc. (Padre) is pleased to submit to Chevron Environmental Management Company (CEMC) this report documenting the results of Padre's supplemental soil gas assessment activities recently completed at the subject site.

If you have any questions or comments please contact Mr. Louis Cappel at (805) 786-2650, ext. 26 or lcappel@padreinc.com.

Sincerely,

PADRE ASSOCIATES, INC.

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1.0 INTRODUCTION

Padre Associates, Inc. (Padre) has prepared this Report of Findings for submittal to Chevron Environmental Management Company (CEMC) documenting the results of the supplemental soil gas assessment activities recently completed at the former Unocal Avila Terminal (Project Site), which is located adjacent to Avila Beach at 10 San Rafael Street in San Luis Obispo County, California (refer to Plate 1). The supplemental soil gas assessment activities described herein were conducted in direct response to the County of San Luis Obispo Environmental Health Services (EHS) Action Determination Letter dated March 16, 2012.

1.1 OVERVIEW AND OBJECTIVE

In 2011 McDaniel Lambert, Inc. (McDaniel Lambert) prepared a Supplemental Human Health Risk Assessment (sHHRA) to evaluate the potential cancer risks and noncancer hazards from chemicals known to be present at the Project Site to future site users in specific exposure areas identified in the Development Plan. The exposure areas or Development Risk Evaluation Areas are illustrated on Plate 2. The sHHRA was prepared to supplement the 2005 Baseline Human Health Risk Assessment (HHRA) prepared for the Project Site.

The sHHRA was reviewed by EHS, San Luis Obispo County Air Pollution Control District (APCD), and the California Regional Water Control Board, Central Coast Region (RWQCB). Comments were provided on the sHHRA by the aforementioned agencies in the Action Determination Letter issued by EHS dated March 16, 2012. The Action Determination Letter identified that there was insufficient soil gas samples to calculate potential risk, using conservative U.S. Environmental Protection Agency (EPA) default criteria, in Development Risk Evaluation Areas A, K, N, Ma, and Mb.

Therefore, to satisfy this supplemental soil gas data request identified in the Action Determination Letter, Padre observed and documented the construction and sampling of 21 soil gas probes (SV-71 through SV-91) at the identified Development Risk Evaluation Areas at the Project Site (refer to Plate 2). Each drill hole was constructed as either an individual, or dual-nested soil gas probe. Individual soil gas probes were completed at a depth of either 5 feet or 15 feet. Dual-nested soil gas probes were completed at depths of 5 feet (shallow) and 15 feet (deep). The supplemental soil gas assessment data collected at the Project Site by Padre will be used by McDaniel Lambert to provide an addendum to the sHHRA.

1.2 REPORT ORGANIZATION

This report is organized as follows: Section 2.0 presents background information pertaining to the Project Site; Section 3.0 presents the methodology for the construction and sampling of the soil gas probes; Section 4.0 presents the results of the supplemental soil gas assessment activities; and Section 5.0 provides a summary and Padre's conclusions regarding the subsurface conditions encountered during the course of the subject soil gas assessment activities completed at the Project Site.

This report includes two appendices. Drill Hole/Soil Gas Probe Construction Logs are included as Appendix A. Appendix B is a CD-ROM containing Padre's subject report, with laboratory analytical reports and chain-of-custody (COC) documentation for soil gas samples and soil physical parameters.

2.0 BACKGROUND

Descriptions of the Project Site, the regional geology and hydrogeology, and the site-specific conditions were originally detailed in the document titled *Site Characterization, Unocal Avila Station, Avila Beach, California* (England & Associates 1998), and further expanded upon in the document titled *Final Supplemental Site Characterization, Unocal Avila Pump Station, Avila Beach, California* (England Geosystem, 2002). Provided below is a summary of those descriptions.

2.1 SITE DESCRIPTION

The Project Site consists of approximately 95 acres in San Luis Obispo County, located adjacent to the community of Avila Beach, California (Plate 1). The Project Site is bordered on the north by Avila Beach Drive, on the east by an undeveloped hillside and marine terrace, on the south by the Pacific Ocean, and on the west by the community of Avila Beach (Plate 2).

The original Avila Tank Farm facilities were initially constructed around 1906. At various times, the Project Site had served as an accumulation and transfer point for petroleum from oil fields located in Santa Barbara County, a refinery, and a petroleum storage facility. It was slowly withdrawn from operation during the later decades of the twentieth century, and the last storage tanks were removed from operation by the late 1990s.

2.2 GEOLOGY AND HYDROGEOLOGY

The Project Site is directly underlain by unconsolidated sediments and bedrock. Unconsolidated surficial sediments, consisting of mixtures of gravel, sand, silt, and clay, fill the north-south and east-west drainages in the central part of the Project Site, mantle the terraces bordering the cliffs on the south, and occur in the northeast corner of the Project Site where the floodplain of San Luis Obispo Creek encroaches upon the Project Site.

Bedrock units underlie the Project Site and include (listed from youngest to oldest) the Pliocene Gragg Member of the Pismo Formation and the Miocene Obispo Formation. Much of the central portion of the Project Site is underlain directly, or at shallow depth, by the Gragg Member. The Gragg Member consists of a basal conglomerate, which grades upward into a poorly bedded, locally diatomaceous, fine-grained silty sandstone and siltstone.

The Gragg Member unconformably overlies the Obispo Formation. The Obispo Formation consists of fine- to coarse-grained, friable to hard, rhyolitic to dacitic tuff and lapilli tuff, which outcrops primarily along the south, east, and northwest Project Site margins.

Reportedly, fracturing of the consolidated bedrock units is a function of age and hardness of the units. For instance, in the Obispo Formation, the hard silicified (brittle) units are more pervasively fractured than the friable (softer) units, and in general, the older Obispo Formation is more pervasively fractured than the softer and younger Pismo Formation.

Three hydrostratigraphic units have been identified at the Project Site, which include: 1) unconsolidated sediments (colluvium and alluvium); 2) the Gragg Member of the Pismo Formation; and 3) the Obispo Formation. Groundwater occurs within the Pismo and Obispo Formations in both primary (intergranular) and secondary (fracture) porosity. Groundwater recharge occurs primarily in the higher elevations of the Project Site through vertical fractures in the Pismo Formation and through infiltration into the unconsolidated sediments (colluvium and alluvium) (England Geosystem, 2002).

Based on fluid level measurements recorded within the on-site groundwater monitoring wells, the groundwater flow direction at the Project Site generally follows topography and flows toward: the north to northeast for groundwater monitoring wells completed within the alluvium; southwest for groundwater monitoring wells completed within the colluvium; and north, west, and south, for groundwater monitoring wells completed within the Pismo and Obispo Formations. Groundwater flow within the Pismo and Obispo Formations occurs primarily within fractures with relatively low permeabilities and low storativities (England Geosystem, 2002).

2.3 HISTORICAL SOIL GAS ASSESSMENT ACTIVITIES

CEMC, along with its predecessors, has investigated surface and subsurface conditions at the Project Site in detail over the last decade. The assessment activities have included soil/bedrock sampling, groundwater monitoring, and soil gas sampling throughout the Project Site. In general, those investigations have adequately characterized the nature and distribution of chemicals of potential concern (COPCs) at the Project Site. The discussion below only pertains to historical soil gas assessment activities.

Avocet Environmental Inc. (Avocet) performed preliminary soil gas assessment activities at the Project Site between July and November, 2007 (Avocet, 2008). These soil gas assessment activities consisted of the construction and sampling of 70 semi-permanent, dual-nested soil gas probes (SV-1 through SV-70) located throughout the Project Site (refer to Plate 2). The soil gas probes were constructed using hollow stem auger (HSA) or direct-push drilling methods. Each dual-nested probe generally consisted of 5-foot and 15-foot soil gas probe completions.

The analytical results for total volatile organic compounds (VOCs) from the preliminary soil gas investigation indicated that concentrations of COPCs in soil gas are distributed primarily around the central and southern former operational areas of the Project Site (south of the refinery, south and west of the pump house and fuel loading rack, and surrounding several former tank locations and pipeline corridor areas). In general, the indicated COPCs in soil gas are of greater occurrence and broader distribution within deep (15-foot) soil gas probes than within shallow (5-foot) soil gas probes. The indicated VOCs were subdivided by Avocet into four

categories based on their constituents: Fuel-Related VOCs; Solvent-Related VOCs; Fire Extinguishing Agent VOCs; and Fixed Gases. The following summarizes the indicated compounds categorized, and their basic distribution at the Project Site. Distribution maps of COPCs in soil gas were presented by Avocet (2008) and McDaniel Lambert (2011).

- Fuel-related VOCs include benzene, toluene, ethyl benzene, total xylenes (BTEX), 1,2,4-trimethylbenzene, 1,2-dichloroethane (EDC), 1,2-dichloropropane, 1,3,5-trimethylbenzene, cyclohexane, hexane, naphthalene, propylbenzene, and fuel oxygenates ethyl tert-butyl ether (ETBE), methyl tert-butyl ether (MTBE), tert-amyl methyl ether (TAME), and tert-butyl alcohol (TBA). Within both shallow (5-foot) and deep (15-foot) probes, indicated concentrations of fuel-related VOCs are distributed around the central and southern former operational areas of the Project Site (south of the refinery, south and west of the pump house and fuel loading rack, and surrounding several former tank locations and pipeline corridor areas).

- Solvent-related VOCs include tetrachloroethene (PCE), trichloroethene (TCE), 1,1-dichloroethene, chlorobenzene, chloromethane, chloroethane, methylene chloride, 1,1,2,2,-tetrachloroethane, and 1,1,1-trichloroethane. Within shallow soil gas, solvent-related VOCs were identified at one discrete area of the Project Site, along the southern margin of the property near the cliff area, surrounding former tank No. 201104. Within deep soil gas, solvent-related VOCs are distributed around the central, southern and eastern former operational areas of the Project Site (south of the refinery, south and west of the pump house and fuel loading rack, and surrounding several former tank locations and pipeline corridor areas).

- Fire Extinguishing Agent VOCs include bromodichloromethane, bromoform, carbon tetrachloride, chloroform, and dibromochloromethane. Fire extinguishing agent VOCs in shallow soil gas were identified at one discrete area located at the southern-central portion of the former tank farm (surrounding former tank Nos. 10622, and 14638.) Within deep soil gas, fire extinguishing agent VOCs are located at three separate operational areas of the site associated with former tanks (south of the refinery; surrounding former tank Nos. 10622, 23632, 14638, and 15640; and at the southern portion of former tank No. 80616 and an adjacent pipeline corridor).

- Fixed Gases and Methane. The preliminary soil gas assessment report documented the occurrence of a methane plume at the Project Site concentrated around the former fueling rack and pump house area. Methane production, along with elevated concentrations of carbon dioxide and depressed concentrations of oxygen may be indicators of biological degradation of hydrocarbon compounds within the subsurface of the Project Site.

3.0 METHODS OF ASSESSMENT

Provided below is a description of the supplemental soil gas assessment methodology utilized by Padre. Soil gas probe construction and sample collection activities were performed in accordance to the methods outlined in the Department of Toxic Substances Control / State of California Regional Water Quality Control Board – Los Angeles Region (DTSC/LARWQCB) document titled *Advisory – Active Soil Gas Investigations*, dated January 28, 2003.

3.1 PRE-FIELD ACTIVITIES

3.1.1 Site Health and Safety Plan

Padre revised and implemented the existing site-specific health and safety plan (HASP) for the Project Site. The HASP included procedures, equipment, and materials utilized to protect worker and community health and safety during the course of the subject assessment activities. The HASP also included provisions for daily tailgate safety meetings, safe work permit (SWP) procedures, job safety analysis (JSA), behavior-based safety (BBS) observations, and journey management plans (JMPs).

3.1.2 Permitting

No permits were required to complete the subject scope of work.

3.1.3 Notification

EHS was notified by CEMC at least 48-hours prior to initiating the supplemental soil gas assessment activities.

3.1.4 Underground Service Alert and Private Utility Locator

The areas of the proposed assessment were delineated in white paint, and Underground Service Alert (USA) was contacted at least 48-hours prior to the commencement of field activities. Padre also contracted a private utility locator, Pacific Coast Locators of La Crescenta, California, to evaluate the areas of the proposed assessment.

3.2 SOIL GAS PROBE CONSTRUCTION ACTIVITIES

From June 4 through 7, 2012 Padre observed and documented the advancement of 21 drill holes (SV-71 through SV-91) at the Project Site (refer to Plate 2). Each drill hole was constructed as either an individual, or dual-nested soil gas probe. Individual soil gas probes were completed at a depth of either 5 feet or 15 feet. Dual-nested soil gas probes were completed at depths of 5 feet (shallow) and 15 feet (deep). A direct-push or HSA drilling rig operated by S/G Drilling Company of Lompoc, California was utilized to advance the drill holes at the Project Site depending on their location and site-specific geology. The direct push drilling rig was generally utilized for drilling in unconsolidated sediments (alluvium and colluvium), while

the HSA drilling rig was utilized for drilling in areas underlain by shallow consolidated sediments (bedrock of the Pismo and Obispo Formations).

3.2.1 Drilling and Soil Sampling

Soil gas probes were constructed at the locations of a total of five Development Risk Evaluation Areas at the Project Site (Areas A, K, N, Ma, and Mb). At each Development Risk Evaluation Area assessed, one soil sample was collected from a single drill hole for soil physical parameter analyses. At the locations of both individual and dual-nested soil gas probes the soil samples were collected at the probe completion depths (5-feet or 15-feet for individual probes; 5-feet and 15-feet for dual-nested probes).

Soil samples obtained using direct-push drilling techniques were collected in 5-foot long, 1.5-inch diameter, clear acetate liners contained within a stainless steel Geoprobe® Macro-Core sampler. Soil samples obtained using HSA drilling were collected in 1.5-inch by 6-inch brass sleeves contained within an 18-inch California-modified split-spoon drive sampler. To procure soil samples for laboratory shipment Padre either cut the acetate liner, or divided the brass sleeves containing the appropriate sample volume. Teflon® tape was then placed at each and of the sample sleeve, and plastic end caps were affixed over the tape. After the selected soil samples were retained for chemical analyses, the remaining soil core was exposed and geologically logged by Padre using the Unified Soil Classification System (USCS), and screened for the presence of VOCs using a photoionization detector (PID). Soil samples that were retained for chemical analyses were sealed, labeled, and preserved on ice in the field. COC forms were used to document sample management procedures.

3.2.2 Soil Gas Probe Construction

The soil gas probes consist of individual, polymerized ceramic probe tips set at depths of 5-feet and/or 15-feet within each drill hole. A 1/8-inch outside diameter (OD) Nylon tubing extends from each probe tip to approximately 2.5 feet above grade, where it is sealed with a gas-tight Luer® type valve. The ceramic probe tips (subsurface termination) are gas permeable, but fine enough to exclude fine material that could potentially clog the nylon tubing. Each soil gas probe assembly consisting of the probe tip, nylon tubing, valve, and zip tie connectors was pre-measured and assembled prior to field work to ensure that each drill hole received a soil gas probe with the proper corresponding length. For ease of identification, the above-grade Luer® valve and tubing connections were secured with white zip ties for 5-foot completions, and black zip ties for 15-foot completions.

The soil gas probe tips were placed at the desired down-hole depth, in the center of an approximately 12-inch thick sand pack consisting of No. 2/12 Monterey Sand. A 6-inch layer of sand was placed starting from the base of the hole, then the gas probe tip was installed. The remainder of the sand pack was added to cover the soil gas probe tip and complete the 12-inch sand pack interval. Approximately 1-foot of dry granular bentonite was placed above the sand pack. The remainder of the annular space was backfilled in 1-foot lifts with granular bentonite, and hydrated in-place with the appropriate volume of water. For dual nested probes, a second

6-inch bed of No. 2/12 Monterey Sand was installed beginning at 5.5 feet. The 5-foot soil gas implant was lowered down-hole to an approximate depth of 5 feet, and sand was backfilled to cover the soil gas implant and complete the 12-inch sand pack interval. The sand pack was topped with approximately 1-foot of dry granular bentonite, and the remainder of the annulus was sealed with hydrated granular bentonite to the existing grade. Each drill hole was completed with a 2-foot long segment of 2-inch diameter PVC casing set in concrete to protect the above-ground probe assemblies.

3.3 SOIL GAS SAMPLE COLLECTION

On June 20, 2012 Padre sampled soil gas probes SV-71 through SV-91 in accordance with the methods described in the DTSC/LARWQCB guidelines for active soil gas investigations (January 28, 2003). The soil gas probes were allowed to equilibrate for a minimum of 48-hours prior to performing soil gas sampling activities. Soil gas sampling activities were performed during the dry season for the Project Site, with no recent or forecasted rain events within a minimum of two days of the sampling event. A total of 27 soil gas samples were collected from the 21 soil gas sample probe locations.

3.3.1 Soil Gas Probe Purge and Set-Up

Prior to the collection of the individual soil gas samples, each soil gas probe was purged to remove approximately three times the volume of air contained within the tubing and filter pack pore space. The calculated tubing and filter pack pore space volumes for the nominal 2-inch diameter direct-push drill holes, and the HSA drill holes (drilled with 3-inch solid stem augers) were approximately 200 cubic centimeters (cc), and 350 cc, respectively. Therefore, to remove the necessary three volumes of air, the respective volumes purged from 2-inch diameter, and 3-inch diameter drill holes were approximately 600 cc and 1,000 cc.

Soil gas samples were collected in 100% laboratory-certified “clean” 400 milliliter (mL) SUMMA canisters, which were provided by H&P Mobile Geochemistry, Inc. (H&P) of Carlsbad, California. The flow regulators that were connected to the SUMMA canisters were set in the laboratory by H&P to achieve a flow-rate of approximately 150 milliliters per minute (ml/min).

After each soil gas probe was appropriately purged, the sampling components were connected to the probe assembly with the Luer® type 3-way valves closed. With the tubing valves closed, the SUMMA canister valve was opened and checked for its initial vacuum pressure and connection integrity. The initial SUMMA canister vacuum reading (typically around 30 inches of mercury); canister and regulator serial numbers; soil gas probe ID and depth; sample time; date; weather conditions; PID ambient air reading; and purge volume were recorded prior to opening the valves and beginning sample collection.

3.3.2 Leak Detection Testing and Sample Collection

Padre utilized the leak detection compound 1,1-difluoroethane. At locations away from the soil gas probe sampling locations, Padre applied 1,1-difluoroethane to paper towels that were placed inside a Ziploc bag. At each soil gas probe location, a towel impregnated with 1,1-

difluoroethane was placed at the ground surface in the immediate vicinity of the sampling connections and soil gas probe surface completion. Once the leak detection compound was in place and all initial readings verified, the Luer® valves were opened and the soil gas samples collected. Sampling continued until the vacuum remaining in each SUMMA canister approached 2 inches of mercury. Once the sampling activities were completed, the valves to the canister and the probe were closed; the final vacuum reading was recorded; and the SUMMA canister was sealed, labeled, and secured for transportation.

3.3.3 Field QA/QC

In addition to the soil gas samples collected from the soil gas probes, the following quality assurance / quality control (QA/QC) samples were utilized during the sampling event: two duplicate samples, and two trip blank samples. All SUMMA canisters were shipped by overnight express to H&P for analyses following standard COC procedures.

3.4 LABORATORY ANALYTICAL PROGRAM

3.4.1 Soil Samples

A total of eight soil samples collected at the Project Site were analyzed for physical properties by PTS Laboratories, Inc. (PTS), located in Santa Fe Springs, California. The soil samples were tested for the following physical parameters to support the potential use of the Johnson & Ettinger model for subsurface vapor intrusion:

- Bulk density by method ASTM D2937;
- Grain density by method ASTM D854;
- Soil moisture content by method ASTM D2216;
- Total organic carbon and fraction organic carbon by Walkley-Black method;
- Grain size distribution by method ASTM D422;
- Soil description by USCS; and
- Permeability to air (native moisture, vertical orientation) by API RP40.

3.4.2 Soil Gas Samples

All soil gas samples collected at the Project Site were submitted to H&P for the following chemical analyses:

- Total petroleum hydrocarbons - volatile fraction (TPHv) and VOCs (including fuel oxygenates and naphthalene) by U.S. EPA method TO-15;
- TPHv speciation, including aliphatic (C_5-C_8, C_9-C_{12}) and aromatic (C_6-C_8, C_9-C_{10}) hydrocarbons by Massachusetts method;
- Fixed gases oxygen, nitrogen, and carbon dioxide by method ASTM 1946; and
- Methane by U.S. EPA method 8015M.

3.5 DECONTAMINATION PROCEDURES

Field equipment was cleaned before use, between drill hole locations, and after completion of field work. Cleaning procedures for sampling equipment excluding auger flights consisted of a non-phosphate detergent wash, two rinses with tap water, and a final de-ionized water rinse. Augers were pressure washed before use, between each drill hole location and at the completion of field activities.

3.6 ASSESSMENT-DERIVED WASTES

Limited soil cuttings were temporarily containerized on-site within an appropriately labeled, 20-cubic yard roll-off bin equipped with a lid. Decontamination wash water was transferred into an on-site 500-gallon polyethylene container that is appropriately labeled and equipped with secondary containment. The soil cuttings and decontamination water were appropriately transported and disposed of off-site at a CEMC-approved disposal facility.

3.7 SURVEY

All soil gas probe locations, pertinent site features, and topography were professionally surveyed by a State of California-licensed Professional Land Surveyor provided by Rick Engineering of San Luis Obispo, California (refer to Table 1). The horizontal datum used was the State Plane Coordinate System Zone 5, which references the North American Datum of 1983 (NAD83). The vertical datum used was the North American Vertical Datum of 1988 (NAVD88).

4.0 RESULTS AND DISCUSSION

4.1 FIELD OBSERVATIONS DURING DRILLING ACTIVITIES

Padre visually observed the soil samples collected and soil cuttings generated during the course of drilling and sampling activities. Drill Hole Logs, which include the details of soil gas probe construction, are presented as Appendix B. The maximum depth of drilling was to approximately 15.5 feet. Earth materials encountered during the course of the subject assessment activities consisted of alluvium (silt, clay, and clayey sand), colluvium (silt, and silty sand), the Gragg Member of the Pismo Formation (weathered sandstone), and the Obispo Formation (tuff). Groundwater was not encountered during the course of the drilling activities. However, based on the known occurrence of shallow groundwater at Areas Ma and N, within alluvium of the San Luis Obispo Creek (depth to groundwater within nearby monitoring wells B-146, B-147, B-172, and B-202 was gauged at depths of approximately 1 foot to 7 feet below the ground surface on June 4, 2012), soil gas probes SV-71 through SV-78 were constructed at depths of 5-feet and not 15-feet in order to avoid saturated soil. Suspected TPH-containing soils were not observed within soil samples and/or soil cuttings at the locations of drill holes SV-71 through SV-91.

4.2 LABORATORY ANALYTICAL RESULTS

The laboratory analytical results for soil gas samples collected during the course of the subject assessment activities are described below. Refer to Table 2 for a summary of soil gas analytical results for full-list VOCs; and Table 3 for a summary of soil gas analytical results for TPHv, TPHv speciation, fixed gases, and methane. Refer to Appendix B for the laboratory analytical reports and COC documentation for soil samples and soil gas samples collected during the subject assessment program. Laboratory analytical results for VOCs were compared to Shallow Soil Gas (5 feet) California Human Health Screening Levels for Commercial Land Use (Shallow Soil Gas Commercial CHHSLs) (California EPA, 2005).

4.2.1 Full-List VOCs

Trace concentrations of VOCs were indicated in several soil gas samples, the majority of which are below established Shallow Soil Gas Commercial CHHSLs. Soil gas samples SV-89-15' and SV-90-15' exceeded the Shallow Soil Gas Commercial CHHSL for PCE of 603 micrograms per cubic meter (µg/m^3), with concentrations of 960 µg/m^3 and 1,200 µg/m^3, respectively.

4.2.2 TPHv

TPHv does not have an established Shallow Soil Gas Commercial CHHSL. TPHv in the gasoline carbon range (C_5-C_{11}) was indicated in all of the soil gas samples chemically analyzed at concentrations ranging from 1,300 ug/m^3 (SV-71-5') to 53,000 ug/m^3 (SV-89-15'). Aliphatic TPHv (C_5-C_8) was indicated in all of the soil gas samples chemically analyzed at concentrations

ranging from 710 ug/m^3 (SV-71-5' and SV-79-5') to 75,000 ug/m^3 (SV-89-15'). Aliphatic TPHv (C_9-C_{12}) was indicated 25 of the 27 soil gas samples chemically analyzed at concentrations ranging from 290 ug/m^3 (SV-84-15') to 2,200 ug/m^3 (SV-86-15'). Aromatic TPHv (C_6-C_8) was indicated above the laboratory method reporting limit in three of the 27 soil gas samples chemically analyzed at concentrations ranging from 110 ug/m^3 (SV-85-5') to 340 ug/m^3 (SV-88-15'). Aromatic TPHv (C_9-C_{10}) was indicated above the laboratory method reporting limit in six of the 27 soil gas samples chemically analyzed at concentrations ranging from 100 ug/m^3 (SV-78-5') to 180 ug/m^3 (SV-73-5').

4.2.3 Fixed Gases

Carbon dioxide concentrations ranged from 0.3% (SV-88-15' and SV-90-15') to 14% (SV-79-5'). Oxygen concentrations ranged from 8.4% (SV-89-15') to 20% (SV-71-5', SV-72-5', SV-74-5', SV-75-5', SV-80-5', SV-81-5', SV-82-5', SV-82-15', and SV-85-5'). Nitrogen concentrations ranged from 73% (SV-79-5') to 83% (SV-90-15').

4.2.4 Methane

Methane was indicated in two of the twenty-seven soil gas samples chemically analyzed at relatively low concentrations (<0.01%) of 20 ppmv (SV-90-15') and 53 ppmv (SV-88-15').

4.2.5 Quality Control / Quality Assurance Samples

The two field duplicate samples DUP-1 and DUP-2 (duplicates of samples SV-83-5' and SV-83-15', respectively) had similar results for VOCs, TPHv, fixed gases, and methane as samples SV-83-5' and SV-83-15'. Therefore, the reliability of the analytical process is confirmed.

Detectable concentrations of VOCs were not indicated in either of the two trip blank samples (Trip Blank A, and Trip Blank B), with exception to chloroform. Chloroform was indicated in samples Trip Blank A and Trip Blank B at concentrations of 12 ug/m^3, and 13 ug/m^3, respectively. H&P released the following case narrative statement regarding the indicated chloroform concentrations in the trip blank samples: "The elevated levels of chloroform present in samples SV-89-15' and SV-90-15' are suspected of contaminating the TO-15 system with chloroform. H&P believes that the chloroform concentrations reported in Trip Blank A and Trip Blank B are the result of this system contamination." The lack of indicated VOCs aside from the chloroform within the trip blank samples confirms that cross-contamination did not occur during shipping of the soil gas samples.

4.2.6 Leak Detection Compound

The leak detection compound utilized during sampling activities, 1,1-difluoroethane, was not indicated at detectable concentrations within any of the soil gas samples chemically analyzed, which indicates the soil gas samples were not affected by ambient air entering the sampling system or the drill hole annulus.

4.3 SOIL PHYSICAL TESTING PARAMETERS RESULTS

Eight soil samples (SV-71-5', SV-71-15', SV-77-5', SV-81-5', SV-81-15', SV-83-5', SV-83-15', and SV-86-15') were tested for selected physical parameters to support the possible use of the Johnson & Ettinger model to evaluate the potential of subsurface vapor intrusion. The soil physical testing parameter report and COC documentation are presented within Appendix B.

5.0 SUMMARY AND CONCLUSIONS

At the request of CEMC, Padre conducted supplemental soil gas assessment activities at the Project Site. Based on the results of field assessment activities and the results of chemical analyses conducted on the soil gas samples collected during the course of the supplemental soil gas assessment activities, Padre provides the following summary, and makes the conclusions presented below.

- Padre performed the supplemental soil gas assessment activities to satisfy the request identified in the Action Determination Letter for additional soil gas sampling at Development Risk Evaluation Areas A, K, N, Ma, and Mb at the Project Site (refer to Plate 2). The supplemental soil gas assessment data will be used by McDaniel Lambert to provide an addendum to the sHHRA.
- As part of the supplemental soil gas assessment activities, Padre observed and documented the construction and sampling of 21 soil gas probes (SV-71 through SV-91) (refer to Plate 2). Each drill hole was constructed as either an individual, or dual-nested soil gas probe. Individual soil gas probes were completed at a depth of either 5 feet or 15 feet. Dual-nested soil gas probes were completed at depths of 5 feet (shallow) and 15 feet (deep). A total of 27 soil gas samples collected at the Project Site were analyzed for the presence of TPHv and VOCs (including fuel oxygenates and naphthalene); TPHv aliphatic (C_5-C_8, C_9-C_{12}) and aromatic (C_6-C_8, C_9-C_{10}) hydrocarbons; fixed gases oxygen, nitrogen, and carbon dioxide; and methane. Additionally, eight representative soil samples were analyzed for soil physical parameters.
- Soil gas probes at Development Risk Evaluation Areas Ma and N were constructed at 5 feet instead of the requested 15 feet because groundwater was observed in nearby groundwater monitoring wells (B-146, B-147, B-172, and B-202) in May and June 2012 between approximate depths of 1 foot to 7 feet. Based on a review of historical groundwater monitoring data over the last decade, groundwater occurs at shallow depths at Areas Ma and N. Historical soil gas probes (SV-02, SV-03, and SV-70) constructed at 15 feet at these locations appear to have been constructed beneath the groundwater table, and the soil gas samples are likely not representative of soil gas within the vadose zone.
- Trace concentrations of VOCs were indicated in several soil gas samples, the majority of which are below established Shallow Soil Gas Commercial CHHSLs. It

should be noted that Shallow Soil Gas Commercial CHHSLs were developed for soil gas samples collected in shallow soil (< 5 feet) and the subject samples were collected at an approximate depth of 15 feet, and will therefore be further evaluated (attenuation factor will be applied) by McDaniel Lambert in the addendum to the sHHRA.

- TPHv concentrations were indicated in all soil gas samples, which does not have an established Shallow Soil Gas Commercial CHHSLs. TPHv concentrations will be further evaluated by McDaniel Lambert in the addendum to the sHHRA.
- Methane was indicated in soil gas samples at non-detectable to relatively low concentrations (<0.01%).
- Standard QA/QC field procedures and laboratory procedures were developed and implemented as part of the completed soil gas sampling program. Overall, the data quality is acceptable, and the collected data support the project data quality objectives.

6.0 LIMITATIONS

This report has been prepared for the sole benefit of Chevron Environmental Management Company. No other persons may rely on the findings of this report without the expressed written consent of the client and Padre Associates, Inc.

In performing our professional services, we have attempted to apply present engineering and scientific judgment and use a level of effort consistent with the standard of practice measured on the date of work and in locale of the Project Site for similar type studies. Padre Associates, Inc. makes no warranty, express or implied.

The analyses and interpretations presented in this report have been developed based on the results from the review of existing information pertaining to the site and soil gas sampling at discrete locations at the Project Site, and the result from the laboratory analyses of the subject samples. It should be recognized that contamination can vary between sampling locations and between areas.

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7.0 REFERENCES

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TABLES

Table 1
Summary of Survey Data
Former Unocal Avila Terminal
10 San Rafael Street, Avila Beach, California

Assessment ID	Northing (feet)	Easting (feet)	Elevation (feet AMSL)
SV-71	2263248.65	5748082.87	20.94
SV-72	2263154.16	5748040.90	17.19
SV-73	2263079.46	5748019.59	16.21
SV-74	2263067.93	5748088.86	22.12
SV-75	2262956.32	5748073.02	25.64
SV-76	2262854.76	5748019.85	23.68
SV-77	2262741.36	5747956.76	28.15
SV-78	2262644.19	5747966.46	37.00
SV-79	2262715.40	5747734.94	22.10
SV-80	2262696.92	5748173.68	70.12
SV-81	2262930.61	5748377.95	111.61
SV-82	2263171.53	5748293.06	57.04
SV-83	2262917.28	5746491.59	105.48
SV-84	2262867.28	5746357.73	100.32
SV-85	2262908.96	5746286.03	95.86
SV-86	2261367.43	5747341.51	216.60
SV-87	2261473.90	5747347.83	224.34
SV-88	2261620.81	5747489.07	214.20
SV-89	2261645.50	5747318.92	210.23
SV-90	2261569.09	5747281.48	209.03
SV-91	2261557.20	5747359.25	210.61

Notes:
AMSL = above mean sea level.
Survey performed by Rick Engineering of San Luis Obispo, CA.
Survey Data in California State Coordinate Zone 5 NAD 83.

Table 2
Summary of Soil Gas Sample Results
VOCs
Former Unocal Avila Terminal
10 San Rafael Street, Avila Beach, California

Sample ID	Date	1,1-Difluoroethane (LCC)	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1,2-Trichlorotrifluoroethane (F113)	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane (EDB)	1,2-Dichlorobenzene	1,2-Dichloroethane (EDC)	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Butadiene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	1,4-Dioxane	2,2,4-Trimethylpentane	2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone (MBK)	4-Chlorotoluene	4-Ethyltoluene	4-Methyl-2-pentanone (MIBK)	Acetone	Benzene	Benzyl chloride	Bromobenzene	Bromodichloromethane
SV-71-5'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**4.4 J**	<9.8	<7.8	<12	<4.1	<9.4	**2.0 J**	<4.5	<12	<4.7	<12	**17**	**20**	<4.7	**83**	<11	**2.0 J**	<11	<5	**44**	**48**	**1.8 J**	<10	<6.5	<6.8
SV-72-5'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**7.6**	<9.8	<7.8	<12	<4.1	<9.4	**3.1 J**	<4.5	<12	<4.7	<12	<7.3	**27**	<4.7	**180**	<11	**3.3 J**	<11	**2.6 J**	**100**	**250**	**3.1 J**	<10	<6.5	<6.8
SV-73-5'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**8.3**	<9.8	<7.8	<12	<4.1	<9.4	**2.6 J**	<4.5	<12	<4.7	<12	<7.3	**12**	<4.7	**110**	<11	**2.4 J**	<11	**2.9 J**	**61**	**62**	**9.0**	<10	<6.5	<6.8
SV-74-5'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**6.7**	<9.8	<7.8	<12	<4.1	<9.4	**2.4 J**	<4.5	<12	<4.7	<12	<7.3	**34**	<4.7	**84**	<11	**2.5 J**	<11	**2.3 J**	**47**	**50**	**2.2 J**	<10	<6.5	<6.8
SV-75-5'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**6.4**	<9.8	<7.8	<12	<4.1	<9.4	**3.7 J**	<4.5	<12	<4.7	<12	<7.3	**20**	<4.7	**69**	<11	<8.3	<11	**4.5 J**	**40**	**42**	**15**	<10	<6.5	<6.8
SV-76-5'	6/20/2012	<2.7	**4.5 J**	<5.5	<7	<5.5	**3.6 J**	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**5.5**	<9.8	<7.8	<12	<4.1	<9.4	**2.4 J**	<4.5	<12	<4.7	<12	<7.3	**24**	<4.7	**94**	<11	<8.3	<11	**2.1 J**	**50**	**51**	**4.2**	<10	<6.5	<6.8
SV-77-5'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**5.8**	<9.8	<7.8	<12	<4.1	<9.4	**2.3 J**	<4.5	<12	<4.7	<12	<7.3	**7.2**	<4.7	**77**	<11	**2.4 J**	<11	**2.1 J**	**50**	**45**	**3.2 J**	<10	<6.5	<6.8
SV-78-5'	6/20/2012	<2.7	**2.9 J**	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**5.6**	<9.8	<7.8	<12	<4.1	<9.4	**2.3 J**	<4.5	<12	<4.7	<12	<7.3	**10**	<4.7	**72**	<11	**2.3 J**	<11	**2.1 J**	**54**	**46**	**5.8**	<10	<6.5	<6.8
SV-79-5'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**5.4**	<9.8	<7.8	<12	<4.1	<9.4	**2.0 J**	<4.5	<12	<4.7	<12	<7.3	**3.7 J**	<4.7	**62**	<11	**1.9 J**	<11	<5	**36**	**43**	**2.6 J**	<10	<6.5	<6.8
SV-80-15'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	<5	<9.8	<7.8	<12	<4.1	<9.4	**2.3 J**	<4.5	<12	<4.7	<12	<7.3	**4.6 J**	<4.7	**81**	<11	**2.2 J**	<11	**2.2 J**	**33**	**54**	**3.2 J**	<10	<6.5	<6.8
SV-80-5'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**5.2**	<9.8	<7.8	<12	<4.1	<9.4	**2.1 J**	<4.5	<12	<4.7	<12	<7.3	**5.7**	<4.7	**70**	<11	**2.3 J**	<11	**2.0 J**	**37**	**48**	**2.7 J**	<10	<6.5	<6.8
SV-81-15'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**6.1**	<9.8	<7.8	<12	<4.1	<9.4	**2.3 J**	<4.5	<12	<4.7	<12	<7.3	**4.6 J**	<4.7	**85**	<11	**2.4 J**	<11	**2.6 J**	**34**	**46**	**4.2**	<10	<6.5	<6.8
SV-81-5'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**4.7 J**	<9.8	<7.8	<12	<4.1	<9.4	**2.0 J**	<4.5	<12	<4.7	<12	<7.3	**4.6 J**	<4.7	**50**	<11	**1.8 J**	<11	<5	**30**	**46**	**2.4 J**	<10	<6.5	<6.8
SV-82-15'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**5.7**	<9.8	<7.8	<12	<4.1	<9.4	**2.1 J**	<4.5	<12	<4.7	<12	<7.3	**3.3 J**	<4.7	**100**	<11	**2.6 J**	<11	<5	**43**	**69**	**4.3**	<10	<6.5	<6.8
SV-82-5'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**14**	<9.8	<7.8	<12	<4.1	<9.4	**4.1 J**	<4.5	<12	<4.7	<12	<7.3	**6.2**	<4.7	**78**	<11	**2.6 J**	<11	**3.3 J**	**43**	**49**	**4.5**	<10	<6.5	<6.8
SV-83-15'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**9.3**	<9.8	<7.8	<12	<4.1	<9.4	**4.4 J**	**5.5**	<12	<4.7	<12	<7.3	**67**	<4.7	**200**	<11	**2.4 J**	<11	**3.6 J**	**44**	**79**	**46**	<10	<6.5	<6.8
SV-83-5'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**4.5 J**	<9.8	<7.8	<12	<4.1	<9.4	**2.2 J**	<4.5	<12	<4.7	<12	<7.3	**6.1**	<4.7	**110**	<11	**2.2 J**	<11	<5	**40**	**55**	**2.1 J**	<10	<6.5	<6.8
SV-84-15'	6/20/2012	<2.7	**5.0 J**	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**18**	<9.8	<7.8	<12	<4.1	<9.4	**3.6 J**	<4.5	<12	<4.7	<12	<7.3	**220**	<4.7	**25 J**	<11	<8.3	<11	**3.9 J**	<8.3	**77**	**4.2**	<10	<6.5	<6.8
SV-84-5'	6/20/2012	<2.7	**5.4 J**	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**8.8**	<9.8	<7.8	<12	<4.1	<9.4	**3.7 J**	<4.5	<12	<4.7	<12	<7.3	**17**	<4.7	**12 J**	<11	**1.8 J**	<11	**3.4 J**	<8.3	**53**	**9.1**	<10	<6.5	<6.8
SV-85-15'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	<5	<9.8	<7.8	<12	<4.1	<9.4	**2.2 J**	<4.5	<12	<4.7	<12	<7.3	**6.3**	<4.7	**78**	<11	<8.3	<11	**1.6 J**	**34**	**43**	**1.9 J**	<10	<6.5	<6.8
SV-85-5'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**12**	<9.8	<7.8	<12	<4.1	<9.4	**3.2 J**	<4.5	<12	<4.7	<12	<7.3	**34**	<4.7	**50**	<11	<8.3	<11	**2.5 J**	**27**	**62**	**4.7**	<10	<6.5	<6.8
SV-86-15'	6/20/2012	<2.7	**6.6 J**	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**7.7**	<9.8	<7.8	<12	<4.1	<9.4	<5	<4.5	<12	<4.7	<12	<7.3	**8.1**	<4.7	**100**	<11	**1.9 J**	<11	**1.8 J**	**51**	**84**	**7.7**	<10	<6.5	<6.8
SV-87-15'	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	**1.8 J**	<7.5	**5.3**	<9.8	<7.8	<12	<4.1	<9.4	<5	<4.5	<12	<4.7	<12	<7.3	**7.8**	<4.7	**100**	<11	<8.3	<11	<5	**44**	**61**	**5.8**	<10	<6.5	<6.8
SV-88-15'	6/20/2012	<2.7	<7	<5.5	**2.9 J**	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**14**	<9.8	<7.8	<12	<4.1	<9.4	**2.7 J**	<4.5	<12	<4.7	<12	<7.3	**12**	<4.7	**110**	<11	<8.3	<11	**3.5 J**	**46**	**82**	**20**	<10	<6.5	<6.8
SV-89-15'	6/20/2012	<2.7	<700	<550	<700	<550	<770	<410	<400	<460	<750	<610	<750	<500	<980	<780	<1200	<410	<940	<500	<450	<1200	<470	<1200	<730	<470	<470	<3000	<1100	<830	<1100	<500	<830	<2400	<320	<1000	<650	**810**
SV-90-15'	6/20/2012	<2.7	<700	<550	<700	<550	<770	<410	<400	<460	<750	<610	<750	<500	<980	<780	<1200	<410	<940	<500	<450	<1200	<470	<1200	<730	<470	<470	<3000	<1100	<830	<1100	<500	<830	<2400	<320	<1000	<650	<680
SV-91-15'	6/20/2012	<2.7	<7	**16**	<7	<5.5	<7.7	**2.5 J**	**6.4**	<4.6	<7.5	<6.1	<7.5	**9.7**	<9.8	<7.8	<12	<4.1	<9.4	**2.4 J**	<4.5	<12	<4.7	<12	**3.4 J**	<4.7	<4.7	**110**	<11	**2.2 J**	<11	<5	**30**	**85**	**4.6**	<10	<6.5	<6.8
DUP-1	6/20/2012	<2.7	<7	<5.5	<7	<5.5	**7.1 J**	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**8.9**	<9.8	<7.8	<12	<4.1	<9.4	**2.3 J**	<4.5	<12	<4.7	<12	<7.3	**7.4**	<4.7	**51**	<11	<8.3	<11	<5	**19**	**63**	**4.0**	<10	<6.5	<6.8
DUP-2	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	**2.1 J**	<9.8	<7.8	<12	<4.1	<9.4	**3.2 J**	<4.5	<12	<4.7	<12	<7.3	**7.8**	<4.7	**150**	<11	<8.3	<11	<5	**33**	**52**	**36**	<10	<6.5	<6.8
Trip Blank A	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	<5	<9.8	<7.8	<12	<4.1	<9.4	<5	<4.5	<12	<4.7	<12	<7.3	<4.7	<4.7	<30	<11	<8.3	<11	<5	<8.3	<24	<3.2	<10	<6.5	<6.8
Trip Blank B	6/20/2012	<2.7	<7	<5.5	<7	<5.5	<7.7	<4.1	<4	<4.6	<7.5	<6.1	<7.5	<5	<9.8	<7.8	<12	<4.1	<9.4	<5	<4.5	<12	<4.7	<12	<7.3	<4.7	<4.7	<30	<11	<8.3	<11	<5	<8.3	<24	<3.2	<10	<6.5	<6.8
CHHSLs:		--	--	**2790000**	--	--	--	--	--	--	--	--	--	--	--	--	--	**167**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**122**	--	--	--

padre associates, inc. ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

Table 2
Summary of Soil Gas Sample Results
VOCs
Former Unocal Avila Terminal
10 San Rafael Street, Avila Beach, California

Sample ID	Date	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Cyclohexane	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane (F12)	Dichlorotetrafluoroethane (F114)	Diisopropyl ether (DIPE)	Ethanol	Ethyl acetate	Ethyl tert-butyl ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropyl alcohol	Isopropylbenzene (Cumene)	m,p-Xylene	Methyl tertiary-butyl ether (MTBE)	Methylene chloride (Dichloromethane)	Naphthalene	n-Butylbenzene	n-Heptane	n-Hexane	n-Propylbenzene	o-Xylene	p-Isopropyltoluene	Propene
SV-71-5'	6/20/2012	<10	<16	<6.3	<6.4	<4.7	<8	<4.9	<2.1	<4	<4.6	<17	<8.6	<7.2	**3.8 J**	<7.1	<4.2	**29**	**12 J**	<4.2	**4.9**	<11	**10 J**	**32**	**13**	<3.6	**2.2 J**	<5.3	<5.6	**1.9 J**	<3.6	<5	**4.2 J**	<5.6	**1.2 J**
SV-72-5'	6/20/2012	<10	<16	<6.3	<6.4	<4.7	<8	<4.9	<2.1	<4	<4.6	<17	<8.6	<7.2	**4.0 J**	<7.1	<4.2	**53**	**33**	<4.2	**9.5**	<11	**21 J**	**53**	**29**	<3.6	**4.2**	**4.6 J**	<5.6	**5.2**	**5.8**	**2.1 J**	**8.0**	<5.6	**2.4 J**
SV-73-5'	6/20/2012	<10	<16	**2.1 J**	<6.4	<4.7	<8	**5.4**	<2.1	<4	<4.6	<17	<8.6	<7.2	**3.6 J**	<7.1	<4.2	**45**	**17 J**	<4.2	**31**	<11	**11 J**	**45**	**21**	<3.6	**2.8 J**	**6.7**	**5.1 J**	**3.6 J**	**2.8 J**	**8.5**	**6.2**	<5.6	**1.6 J**
SV-74-5'	6/20/2012	<10	<16	**2.1 J**	<6.4	<4.7	<8	**3.8 J**	**3.4**	<4	<4.6	<17	<8.6	<7.2	**3.5 J**	<7.1	<4.2	**47**	**16 J**	<4.2	**8.0**	<11	**9.6 J**	**36**	**24**	<3.6	**3.3 J**	**5.3 J**	<5.6	**3.9 J**	**5.7**	**2.0 J**	**7.4**	<5.6	**2.1 J**
SV-75-5'	6/20/2012	<10	<16	<6.3	<6.4	<4.7	<8	**2.4 J**	<2.1	<4	<4.6	<17	<8.6	<7.2	**3.6 J**	<7.1	<4.2	**25**	**12 J**	<4.2	**9.5**	<11	**7.8 J**	**35**	**32**	<3.6	**2.4 J**	<5.3	<5.6	**44**	**36**	<5	**7.6**	<5.6	**1.6 J**
SV-76-5'	6/20/2012	<10	<16	**7.0**	<6.4	<4.7	<8	**9.5**	<2.1	<4	<4.6	<17	<8.6	<7.2	**3.9 J**	<7.1	<4.2	**31**	**14 J**	<4.2	**6.2**	<11	**9.9 J**	**38**	**17**	<3.6	**2.9 J**	<5.3	<5.6	**2.0 J**	**4.0**	<5	**5.5**	<5.6	**13**
SV-77-5'	6/20/2012	<10	<16	<6.3	<6.4	<4.7	<8	**5.0**	<2.1	<4	<4.6	<17	<8.6	<7.2	**3.7 J**	<7.1	<4.2	**39**	**13 J**	<4.2	**5.6**	<11	**10 J**	**44**	**16**	<3.6	**3.1 J**	<5.3	<5.6	<4.1	**2.1 J**	<5	**5.3**	<5.6	**2.9 J**
SV-78-5'	6/20/2012	<10	<16	**3.3 J**	<6.4	<4.7	<8	**2.1 J**	<2.1	<4	<4.6	<17	<8.6	<7.2	**3.6 J**	<7.1	<4.2	**29**	**18 J**	<4.2	**5.6**	<11	**8.4 J**	**47**	**16**	<3.6	**2.1 J**	<5.3	<5.6	**1.8 J**	**2.4 J**	<5	**5.4**	<5.6	**4.2 J**
SV-79-5'	6/20/2012	<10	<16	<6.3	<6.4	<4.7	<8	**4.6 J**	<2.1	<4	<4.6	<17	<8.6	<7.2	**2.9 J**	<7.1	<4.2	**99**	**16 J**	<4.2	**4.4 J**	<11	**9.0 J**	**29**	**12**	<3.6	**2.3 J**	<5.3	<5.6	<4.1	<3.6	<5	**4.0 J**	<5.6	**2.1 J**
SV-80-15'	6/20/2012	<10	<16	**2.6 J**	<6.4	<4.7	<8	**7.7**	<2.1	<4	<4.6	<17	<8.6	<7.2	**3.8 J**	<7.1	<4.2	**31**	**12 J**	<4.2	**4.7**	<11	**6.5 J**	**30**	**14**	<3.6	**2.2 J**	<5.3	<5.6	**2.4 J**	**2.0 J**	<5	**4.4**	<5.6	**2.9 J**
SV-80-5'	6/20/2012	<10	<16	**3.5 J**	<6.4	<4.7	<8	**6.2**	<2.1	<4	<4.6	<17	<8.6	<7.2	**3.5 J**	<7.1	<4.2	**30**	**18 J**	<4.2	**4.9**	<11	**8.3 J**	**32**	**14**	<3.6	**2.4 J**	**4.1 J**	<5.6	<4.1	**2.0 J**	<5	**4.4**	<5.6	**2.1 J**
SV-81-15'	6/20/2012	<10	<16	<6.3	<6.4	<4.7	<8	**5.3**	<2.1	<4	<4.6	<17	<8.6	<7.2	**3.6 J**	<7.1	<4.2	**39**	**15 J**	<4.2	**4.9**	<11	**7.3 J**	**30**	**13**	<3.6	**2.4 J**	<5.3	<5.6	<4.1	**2.1 J**	<5	**4.6**	<5.6	**3.0 J**
SV-81-5'	6/20/2012	<10	<16	<6.3	<6.4	<4.7	<8	**2.2 J**	**1.3 J**	<4	<4.6	<17	<8.6	<7.2	**3.8 J**	<7.1	<4.2	**32**	**13 J**	<4.2	**4.0 J**	<11	**8.1 J**	**27**	**11**	<3.6	**1.8 J**	<5.3	<5.6	**1.8 J**	**1.6 J**	<5	**3.8 J**	<5.6	**1.2 J**
SV-82-15'	6/20/2012	<10	<16	<6.3	<6.4	<4.7	<8	<4.9	<2.1	<4	<4.6	<17	<8.6	<7.2	**3.6 J**	<7.1	<4.2	**48**	**19**	<4.2	**5.5**	<11	**9.8 J**	**37**	**15**	<3.6	**2.5 J**	**5.3**	<5.6	<4.1	**2.0 J**	<5	**4.7**	<5.6	**1.8 J**
SV-82-5'	6/20/2012	<10	<16	<6.3	<6.4	<4.7	<8	<4.9	**1.2 J**	<4	<4.6	<17	<8.6	<7.2	**3.7 J**	<7.1	<4.2	**44**	**14 J**	<4.2	**8.6**	<11	**8.9 J**	**37**	**29**	<3.6	**2.6 J**	<5.3	**3.1 J**	**2.4 J**	**2.6 J**	**2.4 J**	**9.5**	<5.6	**1.7 J**
SV-83-15'	6/20/2012	<10	<16	**28**	<6.4	<4.7	<8	**2.6 J**	**1.5 J**	<4	<4.6	<17	<8.6	<7.2	**3.9 J**	<7.1	<4.2	**31**	**23**	<4.2	**13**	<11	**7.4 J**	**32**	**39**	<3.6	**3.3 J**	<5.3	<5.6	**8.4**	**22**	**2.5 J**	**11**	<5.6	**43**
SV-83-5'	6/20/2012	<10	<16	**4.9 J**	<6.4	<4.7	<8	**2.8 J**	<2.1	<4	<4.6	<17	<8.6	<7.2	**3.7 J**	<7.1	<4.2	**26**	**18 J**	<4.2	**5.2**	<11	**7.2 J**	**31**	**13**	<3.6	**2.2 J**	<5.3	<5.6	<4.1	<3.6	<5	**4.3 J**	<5.6	**2.3 J**
SV-84-15'	6/20/2012	<10	<16	<6.3	<6.4	<4.7	<8	**15**	<2.1	<4	<4.6	<17	<8.6	<7.2	**10**	<7.1	<4.2	**52**	<18	<4.2	**11**	<11	<25	**4.5 J**	**42**	**11**	<3.5	<5.3	<5.6	**24**	**22**	**5.1**	**12**	<5.6	**3.1 J**
SV-84-5'	6/20/2012	<10	<16	**23**	<6.4	<4.7	<8	**15**	**0.93 J**	<4	<4.6	<17	<8.6	<7.2	**7.2**	<7.1	<4.2	**26**	**7.8 J**	<4.2	**10**	<11	**2.3 J**	**2.6 J**	**32**	<3.6	**1.8 J**	<5.3	<5.6	**3.2 J**	**5.3**	**2.3 J**	**12**	**2.4 J**	**5.4 J**
SV-85-15'	6/20/2012	<10	<16	**2.7 J**	<6.4	<4.7	<8	**2.4 J**	<2.1	<4	<4.6	<17	<8.6	<7.2	**2.9 J**	<7.1	<4.2	**47**	**10 J**	<4.2	**5.6**	<11	**6.5 J**	**26**	**17**	<3.6	**2.2 J**	<5.3	<5.6	<4.1	<3.6	<5	**6.1**	<5.6	**5.5 J**
SV-85-5'	6/20/2012	<10	<16	<6.3	<6.4	<4.7	<8	**5.1**	<2.1	<4	<4.6	<17	<8.6	<7.2	**2.9 J**	<7.1	<4.2	**150**	<18	<4.2	**11**	<11	**8.4 J**	**19**	**38**	**6.4**	**6.9**	**3.8 J**	<5.6	**4.1 J**	**3.2 J**	<5	**12**	<5.6	**3.3 J**
SV-86-15'	6/20/2012	<10	<16	**14**	<6.4	<4.7	<8	<4.9	<2.1	<4	<4.6	<17	<8.6	<7.2	**2.6 J**	<7.1	<4.2	**42**	**17 J**	<4.2	**7.3**	<11	**11 J**	**40**	**18**	<3.6	**1.9 J**	<5.3	<5.6	<4.1	**2.1 J**	<5	**6.4**	<5.6	**12**
SV-87-15'	6/20/2012	<10	<16	**2.6 J**	<6.4	<4.7	<8	**65**	<2.1	<4	<4.6	<17	<8.6	<7.2	**2.4 J**	<7.1	<4.2	**32**	**15 J**	<4.2	**5.3**	<11	**8.7 J**	**35**	**16**	<3.6	<3.5	<5.3	<5.6	<4.1	<3.6	<5	**4.6**	<5.6	**2.1 J**
SV-88-15'	6/20/2012	<10	<16	**170**	<6.4	<4.7	<8	<4.9	<2.1	<4	<4.6	<17	<8.6	<7.2	**3.2 J**	<7.1	<4.2	**86**	**21**	<4.2	**70**	<11	**10 J**	**47**	**23**	<3.6	**2.2 J**	**18**	**8.9**	**4.1**	**3.9**	**14**	**6.2**	<5.6	**590**
SV-89-15'	6/20/2012	<1000	<1600	**790**	<640	<470	<800	**42000**	<210	<400	<460	<1700	<860	<720	<500	<710	<420	<1900	<1800	<420	<440	<1100	<2500	<500	<880	<360	<350	<530	<560	<410	<360	<500	<440	<560	**720 J**
SV-90-15'	6/20/2012	<1000	<1600	**1000**	<640	<470	<800	**62000**	<210	<400	<460	<1700	<860	<720	<500	<710	<420	<1900	<1800	<420	<440	<1100	<2500	<500	<880	<360	<350	<530	<560	<410	<360	<500	<440	<560	**2300**
SV-91-15'	6/20/2012	<10	<16	**16**	<6.4	<4.7	<8	**1300**	<2.1	**40**	<4.6	<17	<8.6	<7.2	**2.3 J**	<7.1	<4.2	**61**	<18	<4.2	**5.4**	<11	**7.7 J**	**25**	**17**	<3.6	**2.4 J**	**4.0 J**	<5.6	**1.3 J**	<3.6	**1.2 J**	**5.4**	<5.6	<8.7
DUP-1	6/20/2012	<10	<16	**4.4 J**	<6.4	<4.7	<8	**3.5 J**	<2.1	<4	<4.6	<17	<8.6	<7.2	**3.9 J**	<7.1	<4.2	**380**	<18	<4.2	**8.4**	<11	**15 J**	**15**	**28**	<3.6	**9.7**	<5.3	<5.6	**6.2**	**12**	**1.2 J**	**9.8**	<5.6	<8.7
DUP-2	6/20/2012	<10	<16	**31**	<6.4	<4.7	<8	**2.4 J**	<2.1	**1.6 J**	<4.6	<17	<8.6	<7.2	**2.5 J**	<7.1	<4.2	**41**	<18	<4.2	**9.5**	<11	**5.0 J**	**28**	**29**	<3.6	<3.5	<5.3	<5.6	**1.2 J**	**12**	**1.2 J**	**8.9**	**1.6 J**	**34**
Trip Blank A	6/20/2012	<10	<16	<6.3	<6.4	<4.7	<8	**12**	<2.1	<4	<4.6	<17	<8.6	<7.2	<5	<7.1	<4.2	<19	<18	<4.2	<4.4	<11	<25	<5	<8.8	<3.6	<3.5	<5.3	<5.6	<4.1	<3.6	<5	<4.4	<5.6	<8.7
Trip Blank B	6/20/2012	<10	<16	<6.3	<6.4	<4.7	<8	**13**	<2.1	<4	<4.6	<17	<8.6	<7.2	<5	<7.1	<4.2	<19	<18	<4.2	<4.4	<11	<25	<5	<8.8	<3.6	<3.5	<5.3	<5.6	<4.1	<3.6	<5	<4.4	<5.6	<8.7

CHHSLs:	--	--	--	**84.6**	--	--	--	--	**44400**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**887000**	**13400**	--	**106**	--	--	--	--	**879000**	--	--

Table 2
Summary of Soil Gas Sample Results
VOCs
Former Unocal Avila Terminal
10 San Rafael Street, Avila Beach, California

Sample ID	Date	sec-Butylbenzene	Styrene	tert-Butylbenzene	Tertiary-amyl methyl ether (TAME)	Tertiary-butyl alcohol (TBA)	Tetrachloroethene	Tetrahydrofuran	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane (F11)	Vinyl acetate	Vinyl chloride
SV-71-5'	6/20/2012	<5.6	**2.8 J**	<5.6	<4.2	**1.4 J**	**3.0 J**	**22 J**	**20**	<8	<4.6	<5.5	**2.4 J**	<3.6	<2.6
SV-72-5'	6/20/2012	<5.6	**4.3 J**	<5.6	<4.2	**1.8 J**	**3.0 J**	**58**	**43**	<8	<4.6	<5.5	**2.4 J**	<3.6	**1.5 J**
SV-73-5'	6/20/2012	**3.4 J**	**4.1 J**	**2.3 J**	<4.2	<6.1	**3.1 J**	**32**	**28**	<8	<4.6	<5.5	**2.3 J**	<3.6	<2.6
SV-74-5'	6/20/2012	<5.6	**4.1 J**	<5.6	<4.2	**1.3 J**	**3.2 J**	**27 J**	**27**	<8	<4.6	<5.5	**2.5 J**	<3.6	<2.6
SV-75-5'	6/20/2012	<5.6	**3.4 J**	**2.3 J**	<4.2	<6.1	<6.9	**22 J**	**30**	<8	<4.6	<5.5	**2.4 J**	<3.6	<2.6
SV-76-5'	6/20/2012	<5.6	**3.2 J**	<5.6	<4.2	**1.4 J**	**9.0**	**29 J**	**24**	<8	<4.6	<5.5	**3.2 J**	<3.6	<2.6
SV-77-5'	6/20/2012	<5.6	**3.5 J**	<5.6	<4.2	**1.4 J**	<6.9	**24 J**	**22**	<8	<4.6	<5.5	**2.4 J**	<3.6	<2.6
SV-78-5'	6/20/2012	<5.6	**2.7 J**	<5.6	<4.2	**1.3 J**	**4.8 J**	**21 J**	**23**	<8	<4.6	<5.5	**2.7 J**	<3.6	<2.6
SV-79-5'	6/20/2012	<5.6	**2.4 J**	<5.6	<4.2	<6.1	<6.9	**19 J**	**18**	<8	<4.6	<5.5	<5.6	<3.6	<2.6
SV-80-15'	6/20/2012	<5.6	**2.5 J**	<5.6	<4.2	<6.1	<6.9	**15 J**	**17**	<8	<4.6	<5.5	<5.6	<3.6	<2.6
SV-80-5'	6/20/2012	<5.6	**2.5 J**	<5.6	<4.2	**1.5 J**	**21**	**20 J**	**22**	<8	<4.6	<5.5	**2.5 J**	<3.6	<2.6
SV-81-15'	6/20/2012	<5.6	**2.2 J**	<5.6	<4.2	**1.3 J**	**4.4 J**	**19 J**	**19**	<8	<4.6	<5.5	**2.3 J**	<3.6	<2.6
SV-81-5'	6/20/2012	<5.6	**2.1 J**	<5.6	<4.2	<6.1	<6.9	**14 J**	**17**	<8	<4.6	<5.5	<5.6	<3.6	<2.6
SV-82-15'	6/20/2012	<5.6	**2.9 J**	<5.6	<4.2	**1.4 J**	<6.9	**24 J**	**27**	<8	<4.6	<5.5	<5.6	<3.6	<2.6
SV-82-5'	6/20/2012	<5.6	**2.5 J**	**3.1 J**	<4.2	**1.9 J**	<6.9	**22 J**	**28**	<8	<4.6	<5.5	**2.4 J**	<3.6	<2.6
SV-83-15'	6/20/2012	<5.6	**3.8 J**	**2.4 J**	<4.2	**1.3 J**	**9.4**	**100**	**57**	<8	<4.6	<5.5	**2.7 J**	<3.6	<2.6
SV-83-5'	6/20/2012	<5.6	**2.9 J**	<5.6	<4.2	**2.1 J**	**5.1 J**	**50**	**20**	<8	<4.6	<5.5	**2.4 J**	<3.6	<2.6
SV-84-15'	6/20/2012	<5.6	<4.3	**2.3 J**	<4.2	<6.1	<6.9	<30	**17**	<8	<4.6	<5.5	**46**	<3.6	<2.6
SV-84-5'	6/20/2012	<5.6	<4.3	**2.3 J**	<4.2	**1.6 J**	**7.0**	<30	**30**	<8	<4.6	<5.5	**23**	<3.6	<2.6
SV-85-15'	6/20/2012	<5.6	<4.3	<5.6	<4.2	<6.1	<6.9	**21 J**	**22**	<8	<4.6	<5.5	<5.6	<3.6	<2.6
SV-85-5'	6/20/2012	<5.6	<4.3	<5.6	<4.2	**2.3 J**	<6.9	**16 J**	**46**	<8	<4.6	<5.5	<5.6	<3.6	<2.6
SV-86-15'	6/20/2012	<5.6	**2.1 J**	<5.6	<4.2	<6.1	**9.8**	**26 J**	**27**	<8	<4.6	<5.5	<5.6	<3.6	<2.6
SV-87-15'	6/20/2012	<5.6	**2.9 J**	<5.6	<4.2	<6.1	**7.5**	**26 J**	**25**	<8	<4.6	<5.5	<5.6	<3.6	<2.6
SV-88-15'	6/20/2012	**3.8 J**	**2.5 J**	<5.6	<4.2	<6.1	<6.9	**25 J**	**29**	<8	<4.6	<5.5	**2.3 J**	<3.6	<2.6
SV-89-15'	6/20/2012	<560	<430	<560	<420	<610	**960**	<3000	<380	<800	<460	<550	<560	<360	<260
SV-90-15'	6/20/2012	<560	<430	<560	<420	<610	**1200**	<3000	<380	<800	<460	<550	<560	<360	<260
SV-91-15'	6/20/2012	<5.6	**2.1 J**	<5.6	<4.2	**2.0 J**	**120**	**14 J**	**21**	<8	<4.6	**89**	<5.6	<3.6	<2.6
DUP-1	6/20/2012	<5.6	**1.7 J**	<5.6	<4.2	**2.8 J**	**2.7 J**	**15 J**	**55**	<8	<4.6	**3.3 J**	<5.6	<3.6	<2.6
DUP-2	6/20/2012	**1.8 J**	**2.4 J**	<5.6	<4.2	<6.1	**11**	**56**	**47**	<8	<4.6	**6.4**	**1.7 J**	<3.6	<2.6
Trip Blank A	6/20/2012	<5.6	<4.3	<5.6	<4.2	<6.1	<6.9	<30	<3.8	<8	<4.6	<5.5	<5.6	<3.6	<2.6
Trip Blank B	6/20/2012	<5.6	<4.3	<5.6	<4.2	<6.1	<6.9	<30	<3.8	<8	<4.6	<5.5	<5.6	<3.6	<2.6
CHHSLs:		**--**	**--**	**--**	**--**	**--**	**603**	**--**	**378,000**	**88700**	**--**	**1770**	**--**	**--**	**44.8**

Notes:
All results in micrograms per cubic meter
<10 = not indicated at or above the reporting limit
-- = not established
VOCs = volatile organic compounds
CHHSLs = California Human Health Screening Levels, Shallow Soil Gas, Commercial Land Use
50 = Result that exceeds CHSSL
J = result below the method reporting limit but above the method detection limit

Table 3
Summary of Soil Gas Sample Analytical Results
TPHv, TPHv Speciation, Fixed Gases, and Methane
Former Unocal Avila Terminal
10 San Rafael Street, Avila Beach, California

Sample ID	Date Collected	TPHv (C5 - C11) (ug/m3)	TPHv (C5 - C8) aliphatic (ug/m3)	TPHv (C6 - C8) aromatic (ug/m3)	TPHv (C9 - C10) aromatic (ug/m3)	TPHv (C9 - C12) aliphatic (ug/m3)	Methane (ppmv)	Carbon Dioxide (%)	Nitrogen (%)	Oxygen (%)
SV-71-5'	6/20/2012	**1300**	**710**	<100	**72 J**	**930**	<10	**1.5**	**76**	**20**
SV-72-5'	6/20/2012	**2600**	**1700**	**93 J**	**110**	**1500**	<10	**1.7**	**76**	**20**
SV-73-5'	6/20/2012	**2300**	**880**	**96 J**	**180**	**1400**	<10	**2.1**	**76**	**19**
SV-74-5'	6/20/2012	**1800**	**910**	**72 J**	**78 J**	**990**	<10	**0.6**	**76**	**20**
SV-75-5'	6/20/2012	**2300**	**1600**	**94 J**	**87 J**	**1000**	<10	**1.1**	**75**	**20**
SV-76-5'	6/20/2012	**2500**	**1100**	**56 J**	**90 J**	**1500**	<10	**2.9**	**77**	**17**
SV-77-5'	6/20/2012	**2000**	**720**	**52 J**	**86 J**	**1300**	<10	**3.9**	**75**	**18**
SV-78-5'	6/20/2012	**2700**	**820**	**55 J**	**100**	**1700**	<10	**1.7**	**78**	**18**
SV-79-5'	6/20/2012	**1400**	**710**	<100	**68 J**	**820**	<10	**14**	**73**	**12**
SV-80-15'	6/20/2012	**1700**	**1300**	<100	**73 J**	**820**	<10	**3.7**	**76**	**18**
SV-80-5'	6/20/2012	**1500**	**1000**	<100	**65 J**	**710**	<10	**1.4**	**76**	**20**
SV-81-15'	6/20/2012	**2000**	**1600**	<100	**77 J**	**970**	<10	**1.3**	**78**	**19**
SV-81-5'	6/20/2012	**1400**	**740**	<100	**59 J**	**800**	<10	**0.4**	**76**	**20**
SV-82-15'	6/20/2012	**2000**	**1500**	**57 J**	**81 J**	**1000**	<10	**1.5**	**76**	**20**
SV-82-5'	6/20/2012	**1900**	**900**	**79 J**	**110**	**1000**	<10	**1.0**	**76**	**20**
SV-83-15'	6/20/2012	**2200**	**2000**	**170**	**87 J**	**800**	<10	**2.2**	**76**	**19**
SV-83-5'	6/20/2012	**1400**	**870**	<100	**62 J**	**710**	<10	**2.5**	**77**	**19**
SV-84-15'	6/20/2012	**2500**	**3500**	**86 J**	**110**	**290**	<10	**7.1**	**81**	**12**
SV-84-5'	6/20/2012	**1300**	**1100**	**93 J**	**51 J**	**530**	<10	**4.7**	**78**	**16**
SV-85-15'	6/20/2012	**1500**	**1100**	**53 J**	**68 J**	**710**	<10	**5.5**	**77**	**17**
SV-85-5'	6/20/2012	**1400**	**940**	**110**	**88 J**	**740**	<10	**1.1**	**76**	**20**

Table 3
Summary of Soil Gas Sample Analytical Results
TPHv, TPHv Speciation, Fixed Gases, and Methane
Former Unocal Avila Terminal
10 San Rafael Street, Avila Beach, California

Sample ID	Date Collected	TPHv (C5 - C11) (ug/m3)	TPHv (C5 - C8) aliphatic (ug/m3)	TPHv (C6 - C8) aromatic (ug/m3)	TPHv (C9 - C10) aromatic (ug/m3)	TPHv (C9 - C12) aliphatic (ug/m3)	Methane (ppmv)	Carbon Dioxide (%)	Nitrogen (%)	Oxygen (%)
SV-86-15'	6/20/2012	**3600**	**1900**	**66 J**	**88 J**	**2200**	<10	**4.7**	**78**	**17**
SV-87-15'	6/20/2012	**2400**	**1500**	**57 J**	**76 J**	**1300**	<10	**3.2**	**77**	**18**
SV-88-15'	6/20/2012	**2800**	**1700**	**340**	**150**	**1300**	**53**	**0.3**	**82**	**16**
SV-89-15'	6/20/2012	**53000**	**75000**	<10000	<10000	<10000	<10	**11**	**80**	**8.4**
SV-90-15'	6/20/2012	**35000**	**49000**	<10000	<10000	<10000	**20**	**0.3**	**83**	**16**
SV-91-15'	6/20/2012	**2800**	**3100**	**53 J**	**73 J**	**900**	<10	**5.8**	**77**	**16**
DUP-1	6/20/2012	**1000**	**960**	**100**	**59 J**	**460**	<10	**2.0**	**76**	**19**
DUP-2	6/20/2012	**1900**	**1200**	**130**	**69 J**	**1000**	<10	**2.1**	**77**	**19**
Trip Blank A	6/20/2012	<100	<100	<100	<100	<100	NA	NA	NA	NA
Trip Blank B	6/20/2012	<100	<100	<100	<100	<100	NA	NA	NA	NA

Notes:

TPHv = total petroleum hydrocarbons, volatile fraction

<0.10 = not indicated at or above the method reporting limit

J = result below the method reporting limit but above the method detection limit

ug/m^3 = micrograms per cubic meter

ppmv = parts per million by volume

% = percent

NA = not chemically analyzed

PLATES

S:\GIS\1252 Chevron EMC-Avila\1252.008 2011 Remediation Support\ArcMapDocuments\019 1252.008 Site Location Map.mxd\8/16/2011

0 1,000 2,000 4,000

FEET

SCALE

PLATE 1

SITE LOCATION MAP

FORMER AVILA TANK FARM
AVILA BEACH, CALIFORNIA

PREPARED FOR

CHEVRON EMC
SAN LUIS OBISPO, CALIFORNIA

REFERENCE:
7.5 MINUTE U.S.G.S. TOPOGRAPHIC MAP
OF PISMO BEACH, CALIFORNIA
DATED: 1965
PHOTOREVISED: 1975

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

S:\GIS\1273 Avila Development Support\1273.005_2012_Support-BRES\ArcMapDocuments\013_1273.005_Site_Plan_Showing_Soil_Gas_Probe_Locations_all_historical_locs.mxd\7/16/2012

PLATE 2

SITE PLAN SHOWING SOIL GAS PROBE LOCATIONS

FORMER AVILA TANK FARM
AVILA BEACH, CALIFORNIA

PREPARED FOR

CHEVRON, INC.
SAN LUIS OBISPO, CALIFORNIA

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APPENDIX A
DRILL HOLE / SOIL GAS PROBE CONSTRUCTION LOGS

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LOG OF DRILL HOLE SV-71

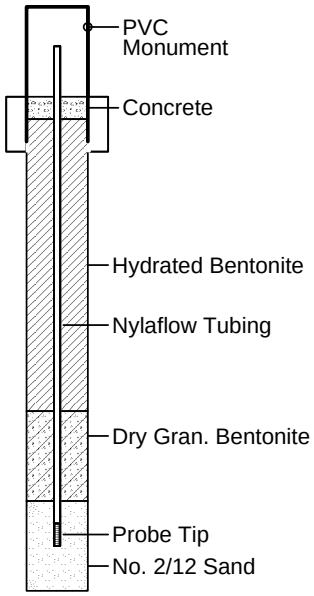
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: Hand Auger / Direct Push
Project Name	: Supplemental Soil Gas Assmt.	Drill Hole Total Depth	: 5.5 feet
Logged By	: Paul G. Lavelle	Drilling Date	: 6/4/12
Checked By	: Louis J. Cappel	Completed With	: Soil Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Samples Collected	PID (ppmv)	DESCRIPTION
0		SC				Clayey SAND (SC): very dark gray (7.5 YR 3/1); fine grained sand with clay; some angular fragments of chert; little silt; loose; damp; no hydrocarbon staining or odor.
5					0.4	Becomes slightly moist; increased volume of rock fragments.
10						
15						

SV-71-5'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 4 feet.

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LOG OF DRILL HOLE SV-72

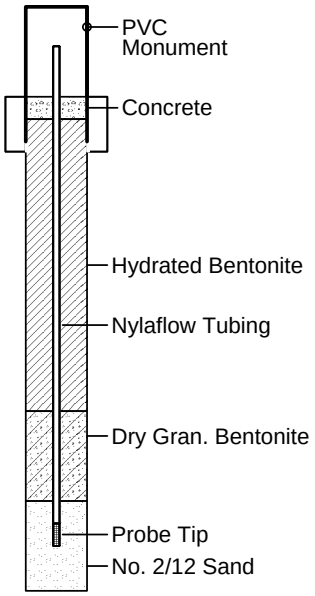
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: Hand Auger / Direct Push
Project Name	: Supplemental Soil Gas Assmt.	Drill Hole Total Depth	: 5.5 feet
Logged By	: Paul G. Lavelle	Drilling Date	: 6/4/12
Checked By	: Louis J. Cappel	Completed With	: Soil Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Samples Collected	PID (ppmv)	DESCRIPTION
0		SC				Clayey SAND (SC): dark brown (7.5 YR 3/2); medium to coarse grained sand with clay; some angular gravel; slightly organic; loose; damp; no hydrocarbon staining or odor.
		ML				SILT (ML): light yellowish brown (2.5 Y 6/4); some fine grained sand; few rounded gravel; friable; soft; damp; no hydrocarbon staining or odor.
5		SC			0.2	Clayey SAND (SC): dark brown (7.5 YR 3/2); some fine angular gravel; slightly moist; medium dense; no hydrocarbon staining or odor.
10						
15						

SV-72-5'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 4 feet.
3. No soil samples collected.

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LOG OF DRILL HOLE SV-73

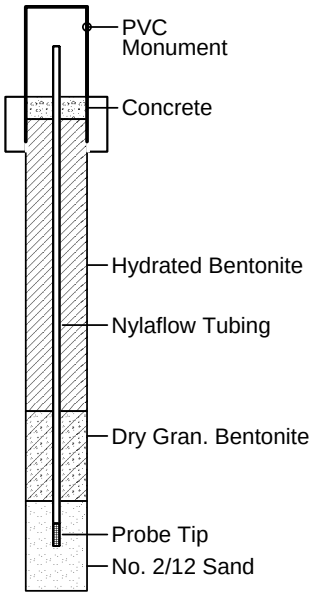
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: Hand Auger / Direct Push
Project Name	: Supplemental Soil Gas Assmt.	Drill Hole Total Depth	: 5.5 feet
Logged By	: Paul G. Lavelle	Drilling Date	: 6/4/12
Checked By	: Louis J. Cappel	Completed With	: Soil Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Samples Collected	PID (ppmv)	DESCRIPTION
0		SC				Clayey SAND (SC): very dark gray (7.5 YR 3/1); medium to coarse grained sand with clay; some angular gravel; slightly organic; loose; damp; no hydrocarbon staining or odor.
		ML				SILT (ML): light yellowish brown (2.5 Y 6/4); some fine grained sand; few subrounded gravel; soft; dry; no hydrocarbon staining or odor.
		CH				CLAY (CH): black (7.5 YR 2.5/1); high plasticity; few rootlets; trace silt; firm; damp.
5					1.1	
10						
15						

SV-73-5'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 4 feet.
3. No soil samples collected.

LOG OF DRILL HOLE SV-74

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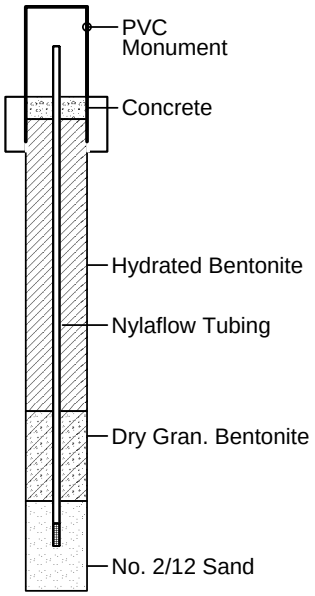
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: Hand Auger / Direct Push
Project Name	: Supplemental Soil Gas Assmt.	Drill Hole Total Depth	: 5.5 feet
Logged By	: Paul G. Lavelle	Drilling Date	: 6/4/12
Checked By	: Louis J. Cappel	Completed With	: Soil Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Samples Collected	PID (ppmv)	DESCRIPTION
0		CH			1.7	CLAY (CH): very dark brown (7.5 YR 2.5/3); high plasticity; few rootlets and fine gravel; trace silt; firm; damp; no hydrocarbon staining or odor. Becomes black (7.5 YR 2.5/1).
5						
10						
15						

SV-74-5'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 4 feet.
3. No soil samples collected.

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LOG OF DRILL HOLE SV-75

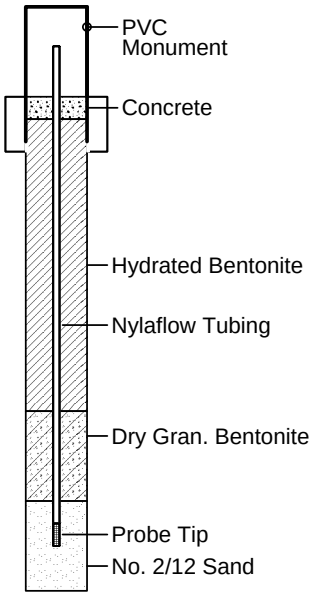
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: Hand Auger / Direct Push
Project Name	: Supplemental Soil Gas Assmt.	Drill Hole Total Depth	: 5.5 feet
Logged By	: Paul G. Lavelle	Drilling Date	: 6/4/12
Checked By	: Louis J. Cappel	Completed With	: Soil Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Samples Collected	PID (ppmv)	DESCRIPTION
0		CH			0.8	CLAY (CH): very dark gray (7.5 YR 3/1); high plasticity; trace silt and rootlets; few fine to medium subrounded gravel; stiff; damp; no hydrocarbon staining or odor. Becomes black (7.5 YR 2.5/1); few fine gravel; very stiff.
5						
10						
15						

SV-75-5'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 3.5 feet.
3. No soil samples collected.

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LOG OF DRILL HOLE SV-76

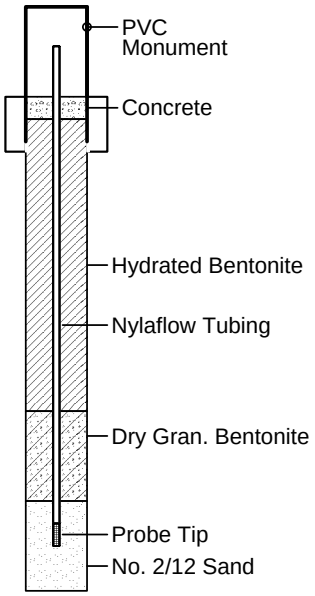
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: Hand Auger / Direct Push
Project Name	: Supplemental Soil Gas Assmt.	Drill Hole Total Depth	: 5.5 feet
Logged By	: Paul G. Lavelle	Drilling Date	: 6/4/12
Checked By	: Louis J. Cappel	Completed With	: Soil Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Samples Collected	PID (ppmv)	DESCRIPTION
0		CH			0.2	CLAY (CH): black (7.5 YR 2.5/1); high plasticity; little silt; trace gravel including fragments of tuff; stiff; damp; no hydrocarbon staining or odor. Becomes very dark grayish brown (7.5 YR 3/2); little silt and fine grained sand; trace gysum in veins; very stiff.
5						
10						
15						

SV-76-5'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 3.5 feet.
3. No soil samples collected.

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LOG OF DRILL HOLE SV-77

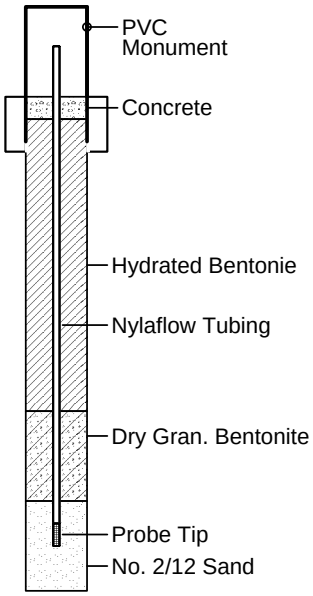
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: Hand Auger / Direct Push
Project Name	: Supplemental Soil Gas Assmt.	Drill Hole Total Depth	: 5.5 feet
Logged By	: Paul G. Lavelle	Drilling Date	: 6/4/12
Checked By	: Louis J. Cappel	Completed With	: Soil Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Samples Collected	PID (ppmv)	DESCRIPTION
0		SM				Silty SAND (SM): light olive brown (2.5 Y 5/6); fine to medium grained; few roots and iron oxide staining in veins; slightly mottled; loose; damp; no hydrocarbon staining or odor.
		CH			4.1	CLAY (CH): very dark gray (7.5 YR 3/1); few very fine gravel fragments; very stiff; damp; no hydrocarbon staining or odor.
5						
10						
15						

SV-77-5'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 4 feet.

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LOG OF DRILL HOLE SV-78

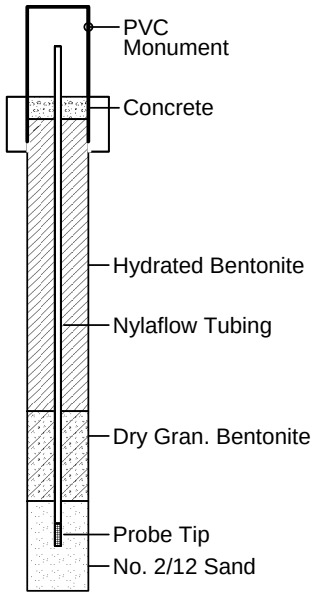
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: Hand Auger / Direct Push
Project Name	: Supplemental Soil Gas Assmt.	Drill Hole Total Depth	: 5.5 feet
Logged By	: Paul G. Lavelle	Drilling Date	: 6/4/12
Checked By	: Louis J. Cappel	Completed With	: Soil Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Samples Collected	PID (ppmv)	DESCRIPTION
0		CH			0.5	CLAY (CH): very dark gray (10 YR 3/1); high plasticity - fat clay; trace fine sand and silt; little iron oxide staining in veins; firm; damp; no hydrocarbon staining or odor. Becomes black (7.5 YR 2.5/1).
5						
10						
15						

SV-78-5'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 4 feet.
3. No soil samples collected.

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LOG OF DRILL HOLE SV-79

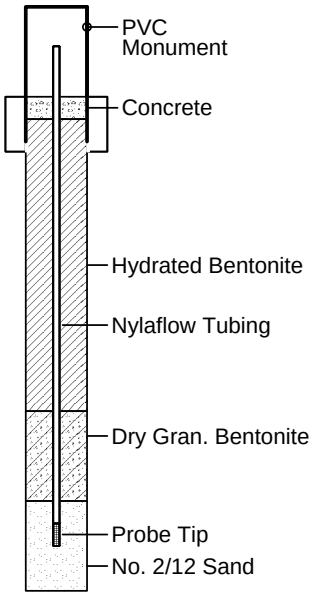
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: Hand Auger / Direct Push
Project Name	: Supplemental Soil Gas Assmt.	Drill Hole Total Depth	: 5.5 feet
Logged By	: Paul G. Lavelle	Drilling Date	: 6/5/12
Checked By	: Louis J. Cappel	Completed With	: Soil Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Samples Collected	PID (ppmv)	DESCRIPTION
0		SC			0.3	Clayey SAND (SC): black (7.5 YR 2.5/1); fine grained sand with clay; some silt; trace coarse angular sand grains; slightly organic; friable; damp; no hydrocarbon staining or odor.
5						
10						
15						

SV-79-5'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 4 feet.
3. No soil samples collected.

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LOG OF DRILL HOLE SV-80

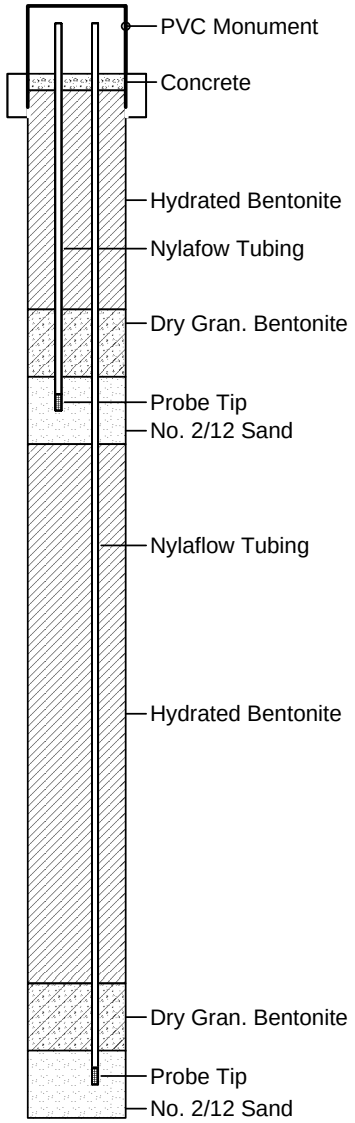
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: Hand Auger / Direct Push
Project Name	: Supplemental Soil Gas Assmt.	Drilling Date	: 6/5/12
Logged By	: Paul G. Lavelle	Drill Hole Total Depth	: 15.5 feet
Checked By	: Louis Cappel	Completed With	: Dual-Nested Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Sample Interval	PID (ppmv)	DESCRIPTION
0						Silty SAND (SM): yellow (10 YR 7/6); fine to medium grained sand with silt; some fragments of subangular fine grained sandstone; loose; dry; no hydrocarbon staining or odor.
5		SM			0.2	Becomes dense.
						Becomes very dense.
10		Tppg				Pismo Formation (Tppg): fine grained sandstone; olive yellow (2.5 Y 6/6); weathered; some fragments are brittle; very fine subangular grains; no hydrocarbon staining or odor.
15					0.8	Same as above with some iron oxide staining; cuttings damp; no hydrocarbon staining or odor.
20						

SV-80-5'
SV-80-15'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 4 feet. Drilled with direct push and met refusal at 9.5 feet. Completed drill hole to total depth with hand auger.
3. No soil samples collected.

LOG OF DRILL HOLE SV-81

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ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

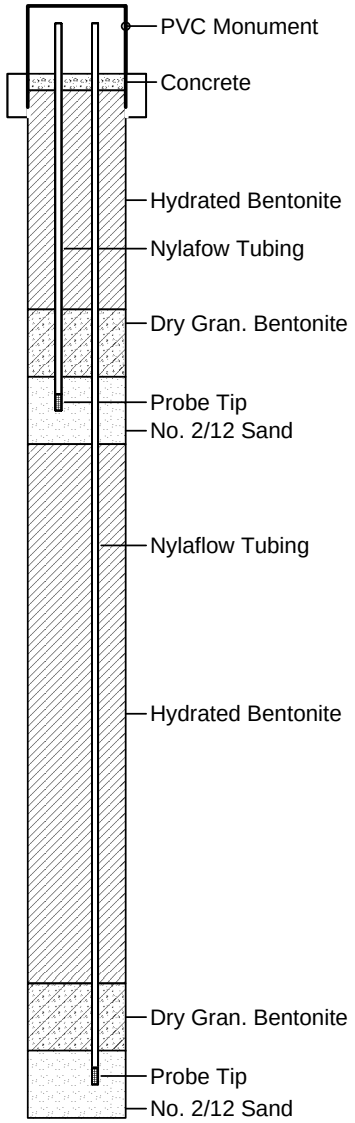
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: Hand Auger / Direct Push
Project Name	: Supplemental Soil Gas Assmt.	Drilling Date	: 6/5/12
Logged By	: Paul G. Lavelle	Drill Hole Total Depth	: 15.5 feet
Checked By	: Louis Cappel	Completed With	: Dual-Nested Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Sample Interval	PID (ppmv)	DESCRIPTION
0		ML				Sandy SILT (ML): pale yellow (5Y 8/4); medium dense; fragments of weathered Tuff; damp; no hydrocarbon staining or odor.
5		Tmo			0.1	Obispo Formation (Tmo): fine grained; slightly mottled; iron oxide staining and organic residue in veins; damp; firm.
10						
15					0.0	Same as above; with fragments of friable ash and harder tuff; moist; firm; no hydrocarbon staining or odor.
20						

SV-81-5'
SV-81-15'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 5 feet. Completed drill hole to total depth with direct push.

LOG OF DRILL HOLE SV-82

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

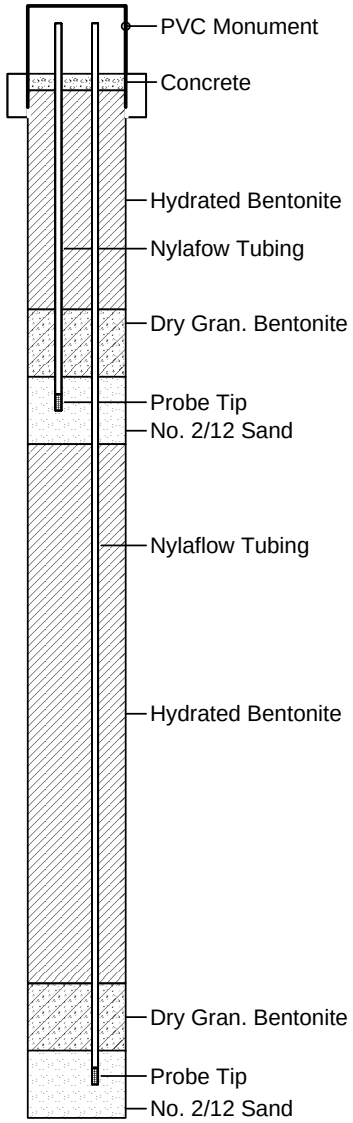
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: Hand Auger / Direct Push
Project Name	: Supplemental Soil Gas Assmt.	Drilling Date	: 6/5/12
Logged By	: Cody Montoya	Drill Hole Total Depth	: 15.5 feet
Checked By	: Louis Cappel	Completed With	: Dual-Nested Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Sample Interval	PID (ppmv)	DESCRIPTION
0						Clayey SAND (SC): black (10YR 2/1); fine grained; trace silt; slightly moist; no hydrocarbon staining or odor.
5		SC			0.2	
10						Becomes dark brown (7.5YR 3/2); moist; no hydrocarbon staining or odor.
15					0.4	Same as above; with fragments of chert; slightly moist.
20						

SV-82-5'
SV-82-15'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 5 feet. Completed drill hole to total depth with direct push.
3. No soil samples collected.

06-27-2012 Z:\Current Projects\0801-0897 CEMC Avila Tank Farm - 2012\Reports\Supplemental Soil Gas Assessment\Drill Hole Logs\SV-82.bor

LOG OF DRILL HOLE SV-83

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

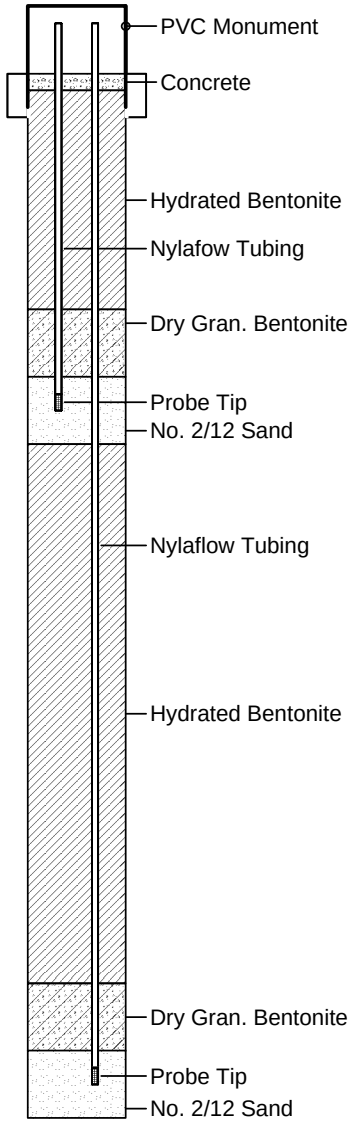
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: HSA
Project Name	: Supplemental Soil Gas Assmt.	Drilling Date	: 6/5/12
Logged By	: Paul G. Lavelle	Drill Hole Total Depth	: 15.5 feet
Checked By	: Louis Cappel	Completed With	: Dual-Nested Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Sample Interval	PID (ppmv)	DESCRIPTION
0		SM				Silty SAND(SM): very dark grayish brown (10YR 3/2); fine grained sand with silt; some fragments of white (10YR 8/1) to light gray fine grained sandstone; dry; no hydrocarbon staining or odor.
5					1.1	Pismo Formation (Tppg): fine grained sandstone; brittle; fractured; slightly weathered; iron oxide staining lines fractures; dry; no hydrocarbon staining or odor.
10		Tppg				Becomes brownish yellow (10YR 6/6); hard drilling.
15					2.9	Becomes reddish yellow (7.5YR 6/6); hard drilling; grinds into silty sand; no hydrocarbon staining or odor.
20						

SV-83-5'
SV-83-15'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 5 feet.
3. HSA = hollow stem auder.

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LOG OF DRILL HOLE SV-84

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

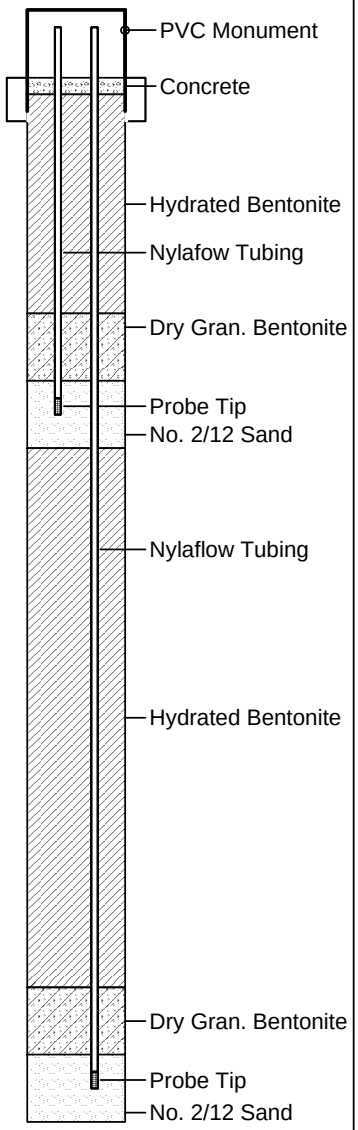
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: HSA
Project Name	: Supplemental Soil Gas Assmt.	Drilling Date	: 6/6/12
Logged By	: Paul G. Lavelle	Drill Hole Total Depth	: 15.5 feet
Checked By	: Louis Cappel	Completed With	: Dual-Nested Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	USCS	Sample Interval	PID (ppmv)	DESCRIPTION
0	SM			Silty SAND (SM): very dark grayish brown (10YR 3/2); fine grained sand with silt; some angular fragments of Pismo Formation- fine grained hard sandstone; medium dense; dry; no hydrocarbon staining or odor.
	SC			Clayey SAND (SC): pale yellow (2.5Y 7/3); fine grained sand with clay; little silt, organic residue in veins; few small fragments of subrounded weathered sandstone, damp; no hydrocarbon staining or odor.
5	Tppg		0.8	Pismo Formation (Tppg): grinds into fine grained sand with silt, very slight mottling; friable; damp; no hydrocarbon staining or odor.
10	Tmo		1.0	Obispo Formation (Tmo): tuff; white to pinkish white (7.5YR 8/2); very fine grained; weathered; soft and crumbly; no hydrocarbon staining or odor.
15				
20				

SV-84-5'
SV-84-15'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 5 feet.
3. No soil samples collected.
4. HSA = hollow stem auger.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

LOG OF DRILL HOLE SV-85

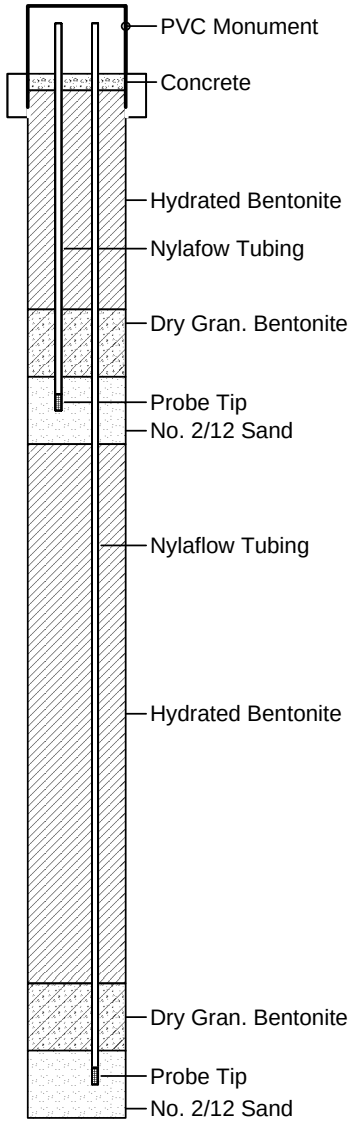
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: Hand Auger / HSA
Project Name	: Supplemental Soil Gas Assmt.	Drilling Date	: 6/6/12
Logged By	: Paul G. Lavelle	Drill Hole Total Depth	: 15.5 feet
Checked By	: Louis Cappel	Completed With	: Dual-Nested Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	USCS	Sample Interval	PID (ppmv)	DESCRIPTION
0				Silty SAND (SM); very dark grayish brown (10YR 3/2) ; fine grained sand with silt, some fragments of fine grained sandstone; loose; dry.
				Same as above, with large angular fragments of sandstone; damp.
5	SM		0.0	
				Becomes dense; trace clay; no hydrocarbon staining or odor.
10				
	Tmo			Obispo Formation (Tmo); tuff; white to pinkish white (7.5YR 8/2); fine grained; indurated but crumbles easily; weathered; soft; damp; no hydrocarbon staining or odor.
15			0.2	
20				

SV-85-5'
SV-85-15'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 5 feet.
3. No soil samples collected.
4. HSA = hollow stem auger.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

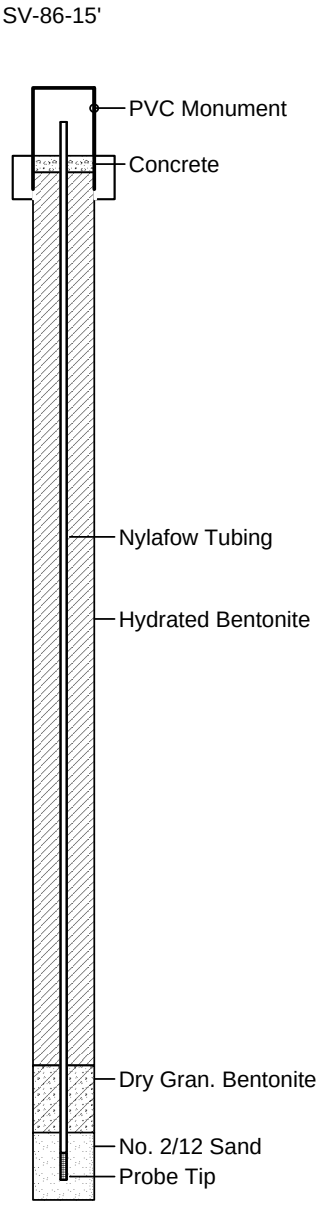
LOG OF DRILL HOLE SV-86

Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: HSA
Project Name	: Supplemental Soil Gas Assmt.	Drilling Date	: 6/6/12
Logged By	: Paul G. Lavelle	Drill Hole Total Depth	: 15.5 feet
Checked By	: Louis Cappel	Completed With	: Soil Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Sample Interval	Blow Count	PID (ppmv)	DESCRIPTION
0		Tppg					Pismo Formation (Tppg): sandstone - siltstone; white to pale yellow (2.5Y 8/2); very fine grained; weathered; dry; no hydrocarbon staining or odor.
5							Becomes slightly darker pale yellow (2.5Y 7/3); soft; grinds into sandy silt; damp; trace iron oxide staining.
10							
15					6-18-21	2.1	Same as above, with fine fractures; slightly less weathered; hard; no hydrocarbon staining or odor.
20							



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 5 feet.
3. HSA = hollow stem auger.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

LOG OF DRILL HOLE SV-87

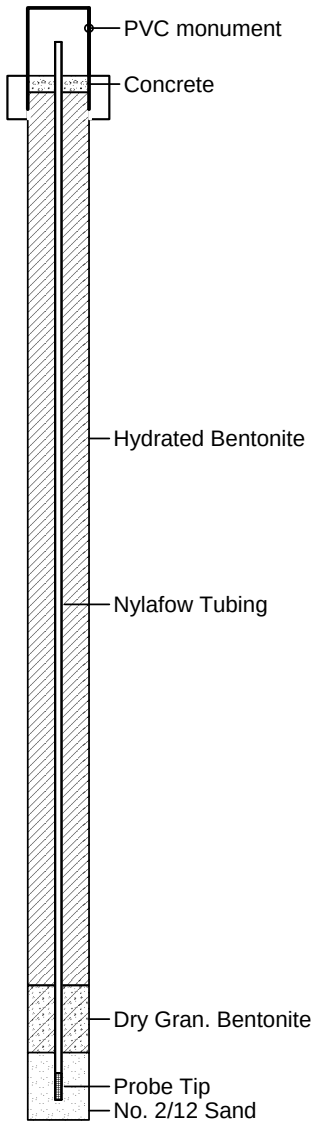
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: HSA
Project Name	: Supplemental Soil Gas Assmt.	Drilling Date	: 6/6/12
Logged By	: Paul G. Lavelle	Drill Hole Total Depth	: 15.5 feet
Checked By	: Louis Cappel	Completed With	: Soil Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Sample Interval	PID (ppmv)	DESCRIPTION
0						Pismo Formation (Tppg): siltstone; white to pale yellow (2.5Y 8/2); very fine grained; some fine sand; weathered; fractured; dry; no hydrocarbon staining or odor.
5		Tppg				Becomes light yellowish brown (2.5Y 6/4); grinds to silt with very fine sand; rounded grains; soft; friable; damp; no hydrocarbon staining or odor.
10						
15					0.3	
20						

SV-87-15'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 5 feet.
3. No soil samples collected.
4. HSA = hollow stem auger.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

LOG OF DRILL HOLE SV-88

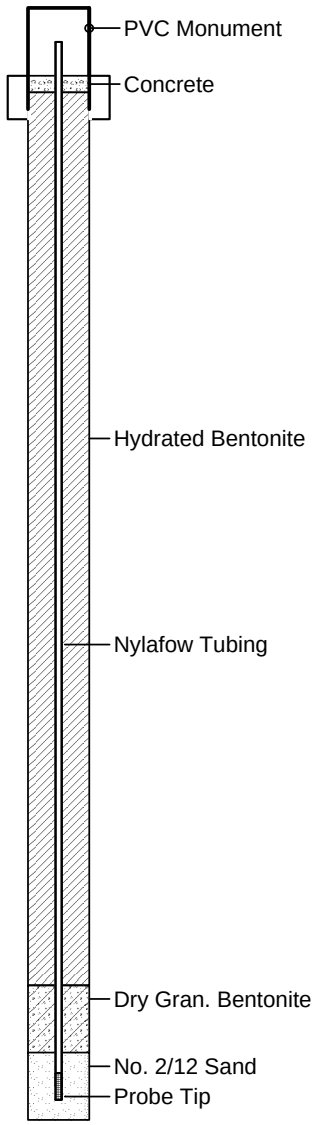
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: HSA
Project Name	: Supplemental Soil Gas Assmt.	Drilling Date	: 6/6/12
Logged By	: Paul G. Lavelle	Drill Hole Total Depth	: 15.5 feet
Checked By	: Louis Cappel	Completed With	: Soil Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Sample Interval	PID (ppmv)	DESCRIPTION
0						Pismo Formation (Tppg): sandstone-siltstone; pale yellow (2.5Y 5/3); very fine grained; massive; friable; fractured; dry; no hydrocarbon staining or odor.
5		Tppg				Becomes light yellowsh brown (10YR 6/4); grinds to silty very fine grained sand; slight iron oxide staining; damp; no hydrocarbon staining or odor.
10						
15					0.7	
20						

SV-88-15'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 5 feet.
3. No soil samples collected.
4. HSA = hollow stem auger.

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ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

LOG OF DRILL HOLE SV-89

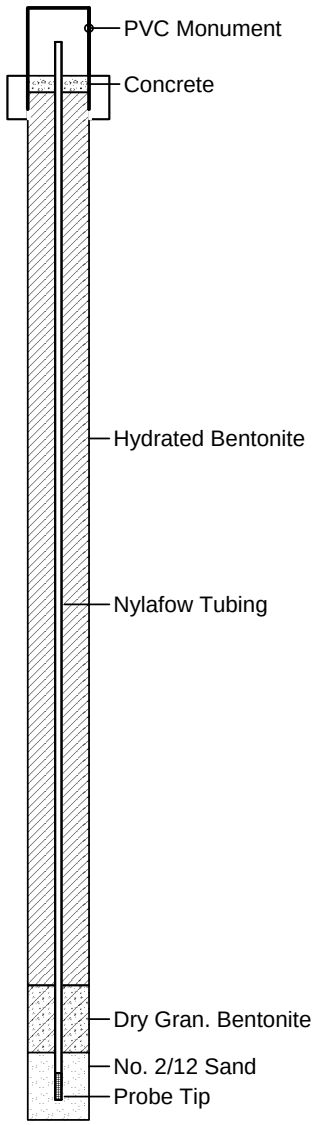
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: HSA
Project Name	: Supplemental Soil Gas Assmt.	Drilling Date	: 6/7/12
Logged By	: Paul G. Lavelle	Drill Hole Total Depth	: 15.5 feet
Checked By	: Louis Cappel	Completed With	: Soil Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Sample Interval	PID (ppmv)	DESCRIPTION
0						Pismo Formation (Tppg): white to pale yellow (2.5Y 5/3); fractured; slightly weathered; fine grained; dry; no hydrocarbon staining or odor.
5		Tppg				Becomes light yellowish brown (2.5Y 6/4); siltstone; grinds to powdery fine sandy silt; soft; dry; no hydrocarbon staining or odor.
10						Becomes damp.
15					2.1	
20						

SV-89-15'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 5 feet.
3. No soil samples collected.
4. HSA = hollow stem auger.

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

LOG OF DRILL HOLE SV-90

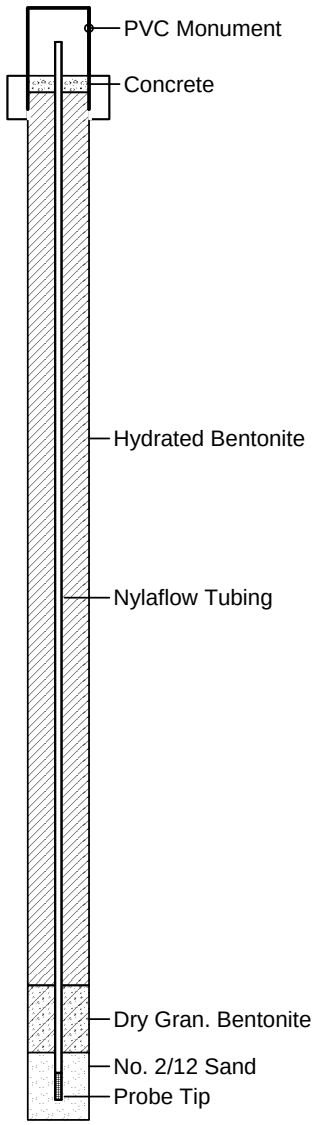
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: HSA
Project Name	: Supplemental Soil Gas Assmt.	Drilling Date	: 6/7/12
Logged By	: Paul G. Lavelle	Drill Hole Total Depth	: 15.5 feet
Checked By	: Louis Cappel	Completed With	: Soil Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Sample Interval	PID (ppmv)	DESCRIPTION
0						Pismo Formation (Tppg): silty sandstone; very fine grained; white to pale yellow (2.5Y 5/3); fractured; weathered; dry; no hydrocarbon staining or odor.
5		Tppg				Becomes yellowish brown (2.5Y 6/4); grinds to silty very fine sand; damp; weathered.
15					2.1	Becomes olive brown (2.5Y 5/4); increased sand content; fine grained; no hydrocarbon staining or odor.
20						

SV-90-15'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 5 feet.
3. No soil samples collected.
4. HSA = hollow stem auger.

LOG OF DRILL HOLE SV-91

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

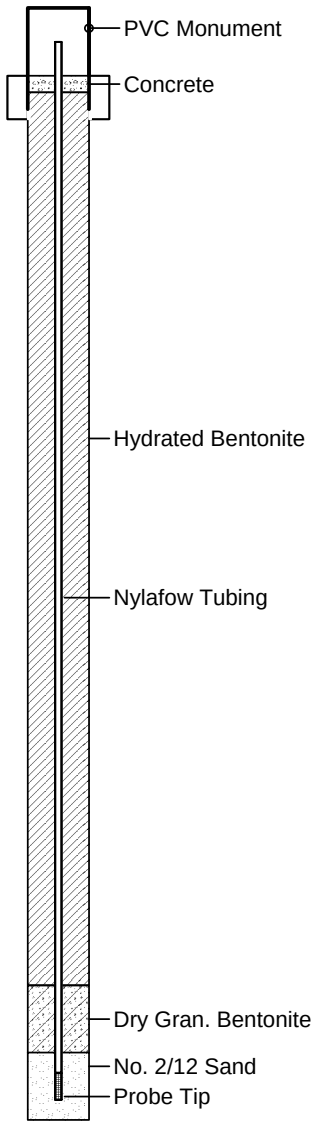
Former Unocal Avila Terminal
10 San Rafael Street
Avila Beach, CA

Chevron EMC

Project Number	: 0801-0897	Drilling Method	: HSA
Project Name	: Supplemental Soil Gas Assmt.	Drilling Date	: 6/7/12
Logged By	: Paul G. Lavelle	Drill Hole Total Depth	: 15.5 feet
Checked By	: Louis Cappel	Completed With	: Soil Vapor Probe
Driller	: S/G Drilling	Depth to Groundwater	: Not Encountered

Depth in Feet	Water Level	USCS	GRAPHIC	Sample Interval	PID (ppmv)	DESCRIPTION
0		AR				Artificial Fill Material (AR-SW): fine to coarse sand; light yellowish brown (10YR 6/6); loose; dry; no hydrocarbon staining or odor.
						Pismo Formation (Tppg): white to pale yellow (2.5Y 5/3); fractured; weathered; fine grained.
5						Becomes yellowish brown (2.5Y 6/4); grinds to silty very fine sand; damp; friable; no hydrocarbon staining or odor.
		Tppg				
10						
15					0.0	Becomes light olive brown (2.5Y 6/4); no hydrocarbon staining or odor.
20						

SV-91-15'



Notes:

1. No suspected hydrocarbon-containing soils observed in drill hole.
2. Drill hole hand augered to approximately 5 feet.
3. No soil samples collected.
4. HSA = hollow stem auger.

APPENDIX B
CD-ROM CONTAINING SUBJECT REPORT WITH LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION FOR SOIL GAS SAMPLES AND SOIL PHYSICAL PARAMETERS

H&P Mobile Geochemistry Inc.

30 July 2012

Mr. Louis Cappel
Padre Associates, Inc.
369 Pacific Street
San Luis Obispo, CA 93401

RE: PAD062212-14 Rev
Client Project: 0801-0897 / Avila Terminal

Dear Mr. Louis Cappel:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 22-Jun-12 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody

Unless otherwise noted, all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry, Inc. operates under CA Environmental Lab Accreditation Program Numbers 2579, 2740, 2741, 2742, 2743, 2745 and 2754. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

2470 Impala Drive, Carlsbad, California 92010 ┌ 760.804.9678 — Fax 760.804.9159
1855 Coronado Avenue, Signal Hill, California 90755
www.HandPmg.com ┌ 1-800-834-9888

Mobile Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SV-71-5'	E206093-01	Vapor	20-Jun-12	22-Jun-12
SV-72-5'	E206093-02	Vapor	20-Jun-12	22-Jun-12
SV-73-5'	E206093-03	Vapor	20-Jun-12	22-Jun-12
SV-74-5'	E206093-04	Vapor	20-Jun-12	22-Jun-12
SV-75-5'	E206093-05	Vapor	20-Jun-12	22-Jun-12
SV-76-5'	E206093-06	Vapor	20-Jun-12	22-Jun-12
SV-77-5'	E206093-07	Vapor	20-Jun-12	22-Jun-12
SV-78-5'	E206093-08	Vapor	20-Jun-12	22-Jun-12
SV-79-5'	E206093-09	Vapor	20-Jun-12	22-Jun-12
SV-80-5'	E206093-10	Vapor	20-Jun-12	22-Jun-12
SV-80-15'	E206093-11	Vapor	20-Jun-12	22-Jun-12
SV-81-5'	E206093-12	Vapor	20-Jun-12	22-Jun-12
SV-81-15'	E206093-13	Vapor	20-Jun-12	22-Jun-12
SV-82-5'	E206093-14	Vapor	20-Jun-12	22-Jun-12
SV-82-15'	E206093-15	Vapor	20-Jun-12	22-Jun-12
SV-83-5'	E206093-16	Vapor	20-Jun-12	22-Jun-12
SV-83-15'	E206093-17	Vapor	20-Jun-12	22-Jun-12
SV-84-5'	E206093-18	Vapor	20-Jun-12	22-Jun-12
SV-84-15'	E206093-19	Vapor	20-Jun-12	22-Jun-12
SV-85-5'	E206093-20	Vapor	20-Jun-12	22-Jun-12
SV-85-15'	E206093-21	Vapor	20-Jun-12	22-Jun-12
SV-86-15'	E206093-22	Vapor	20-Jun-12	22-Jun-12
SV-87-15'	E206093-23	Vapor	20-Jun-12	22-Jun-12
SV-88-15'	E206093-24	Vapor	20-Jun-12	22-Jun-12
SV-89-15'	E206093-25	Vapor	20-Jun-12	22-Jun-12
SV-90-15'	E206093-26	Vapor	20-Jun-12	22-Jun-12
SV-91-15'	E206093-27	Vapor	20-Jun-12	22-Jun-12
DUP-1	E206093-28	Vapor	20-Jun-12	22-Jun-12

Mobile Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DUP-2	E206093-29	Vapor	20-Jun-12	22-Jun-12
Trip Blank A	E206093-30	Vapor	20-Jun-12	22-Jun-12
Trip Blank B	E206093-31	Vapor	20-Jun-12	22-Jun-12

The elevated levels of chloroform present in samples SV-89-15 and SV-90-15 are suspected of contaminating the TO-15 system with chloroform. H&P believes that the chloroform concentrations reported in Trip Blank A and Trip Blank B are the result of this system contamination.

H&P Mobile Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Soil Gas and Vapor Analysis

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-71-5' (E206093-01) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								
Carbon dioxide	**1.5**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**20**		0.2	"	"	"	"	"	"	
Nitrogen	**76**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-72-5' (E206093-02) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								
Carbon dioxide	**1.7**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**20**		0.2	"	"	"	"	"	"	
Nitrogen	**76**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-73-5' (E206093-03) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								
Carbon dioxide	**2.1**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**19**		0.2	"	"	"	"	"	"	
Nitrogen	**76**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-74-5' (E206093-04) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								
Carbon dioxide	**0.6**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**20**		0.2	"	"	"	"	"	"	
Nitrogen	**76**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-75-5' (E206093-05) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								
Carbon dioxide	**1.1**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**20**		0.2	"	"	"	"	"	"	
Nitrogen	**75**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Soil Gas and Vapor Analysis

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-76-5' (E206093-06) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								
Carbon dioxide	**2.9**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**17**		0.2	"	"	"	"	"	"	
Nitrogen	**77**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-77-5' (E206093-07) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								
Carbon dioxide	**3.9**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**18**		0.2	"	"	"	"	"	"	
Nitrogen	**75**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-78-5' (E206093-08) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								
Carbon dioxide	**1.7**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**18**		0.2	"	"	"	"	"	"	
Nitrogen	**78**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-79-5' (E206093-09) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								
Carbon dioxide	**14**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**12**		0.2	"	"	"	"	"	"	
Nitrogen	**73**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-80-5' (E206093-10) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								
Carbon dioxide	**1.4**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**20**		0.2	"	"	"	"	"	"	
Nitrogen	**76**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Soil Gas and Vapor Analysis

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-80-15' (E206093-11) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										
Carbon dioxide	**3.7**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**18**		0.2	"	"	"	"	"	"	
Nitrogen	**76**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-81-5' (E206093-12) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										
Carbon dioxide	**0.4**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**20**		0.2	"	"	"	"	"	"	
Nitrogen	**76**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-81-15' (E206093-13) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										
Carbon dioxide	**1.3**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**19**		0.2	"	"	"	"	"	"	
Nitrogen	**78**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-82-5' (E206093-14) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										
Carbon dioxide	**1.0**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**20**		0.2	"	"	"	"	"	"	
Nitrogen	**76**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-82-15' (E206093-15) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										
Carbon dioxide	**1.5**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**20**		0.2	"	"	"	"	"	"	
Nitrogen	**76**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Soil Gas and Vapor Analysis

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-83-5' (E206093-16) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										
Carbon dioxide	**2.5**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**19**		0.2	"	"	"	"	"	"	
Nitrogen	**77**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-83-15' (E206093-17) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										
Carbon dioxide	**2.2**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**19**		0.2	"	"	"	"	"	"	
Nitrogen	**76**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-84-5' (E206093-18) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										
Carbon dioxide	**4.7**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**16**		0.2	"	"	"	"	"	"	
Nitrogen	**78**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-84-15' (E206093-19) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										
Carbon dioxide	**7.1**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**12**		0.2	"	"	"	"	"	"	
Nitrogen	**81**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-85-5' (E206093-20) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										
Carbon dioxide	**1.1**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**20**		0.2	"	"	"	"	"	"	
Nitrogen	**76**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Soil Gas and Vapor Analysis

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-85-15' (E206093-21) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								
Carbon dioxide	**5.5**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**17**		0.2	"	"	"	"	"	"	
Nitrogen	**77**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-86-15' (E206093-22) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								
Carbon dioxide	**4.7**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**17**		0.2	"	"	"	"	"	"	
Nitrogen	**78**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-87-15' (E206093-23) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								
Carbon dioxide	**3.2**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**18**		0.2	"	"	"	"	"	"	
Nitrogen	**77**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-88-15' (E206093-24) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								
Carbon dioxide	**0.3**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**16**		0.2	"	"	"	"	"	"	
Nitrogen	**82**		0.2	"	"	"	"	"	"	
Methane	**53**		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-89-15' (E206093-25) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								
Carbon dioxide	**11**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**8.4**		0.2	"	"	"	"	"	"	
Nitrogen	**80**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	

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San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Soil Gas and Vapor Analysis

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-90-15' (E206093-26) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										
Carbon dioxide	**0.3**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**16**		0.2	"	"	"	"	"	"	
Nitrogen	**83**		0.2	"	"	"	"	"	"	
Methane	**20**		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
SV-91-15' (E206093-27) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										
Carbon dioxide	**5.8**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**16**		0.2	"	"	"	"	"	"	
Nitrogen	**77**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
DUP-1 (E206093-28) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										
Carbon dioxide	**2.0**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**19**		0.2	"	"	"	"	"	"	
Nitrogen	**76**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	
DUP-2 (E206093-29) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										
Carbon dioxide	**2.1**		0.2	%	1	EF22806	28-Jun-12	28-Jun-12	ASTM 1945-96	
Oxygen	**19**		0.2	"	"	"	"	"	"	
Nitrogen	**77**		0.2	"	"	"	"	"	"	
Methane	ND		10	ppmv	"	EF22805	28-Jun-12	28-Jun-12	EPA 8015M	

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Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-71-5' (E206093-01) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	28-Jun-12	EPA TO-15	
Propene	**1.2**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**3.8**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**29**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**2.4**	1.5	5.6	"	"	"	"	"	"	J
Acetone	**48**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**10**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**1.4**	0.80	6.1	"	"	"	"	"	"	J
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**2.2**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	ND	0.63	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.89	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**83**	2.3	30	"	"	"	"	"	"	
n-Hexane	ND	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**12**	2.0	18	"	"	"	"	"	"	J
Chloroform	ND	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**22**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**1.8**	0.52	3.2	"	"	"	"	"	"	J
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	

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Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-71-5' (E206093-01) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
Dibromomethane	ND	1.4	7.2	ug/m3	1	EF22904	28-Jun-12	28-Jun-12	EPA TO-15	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**20**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	**1.9**	1.2	4.1	"	"	"	"	"	"	J
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	**17**	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**44**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**20**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**2.0**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	**3.0**	2.1	6.9	"	"	"	"	"	"	J
1,2-Dibromoethane (EDB)	ND	1.0	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**4.9**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**13**	2.2	8.8	"	"	"	"	"	"	
Styrene	**2.8**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**4.2**	1.1	4.4	"	"	"	"	"	"	J
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
4-Ethyltoluene	ND	1.1	5.0	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	**32**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.0**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-71-5' (E206093-01) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2,4-Trimethylbenzene	**4.4**	1.2	5.0	ug/m3	1	EF22904	28-Jun-12	28-Jun-12	EPA TO-15	J
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*97.4 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*95.6 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*105 %*	*77-127*		"	"	"	"	
SV-72-5' (E206093-02) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	28-Jun-12	EPA TO-15	
Propene	**2.4**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**4.0**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	**1.5**	0.73	2.6	"	"	"	"	"	"	J
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**53**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**2.4**	1.5	5.6	"	"	"	"	"	"	J
Acetone	**250**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**21**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**1.8**	0.80	6.1	"	"	"	"	"	"	J
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**4.2**	1.4	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	0.63	6.3	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-72-5' (E206093-02) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
trans-1,2-Dichloroethene	ND	0.89	8.0	ug/m3	1	EF22904	28-Jun-12	28-Jun-12	EPA TO-15	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**180**	2.3	30	"	"	"	"	"	"	
n-Hexane	**5.8**	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**33**	2.0	18	"	"	"	"	"	"	
Chloroform	ND	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**58**	0.72	30	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**3.1**	0.52	3.2	"	"	"	"	"	"	J
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**27**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	**5.2**	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**100**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**43**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**3.3**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	**3.0**	2.1	6.9	"	"	"	"	"	"	J

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-72-5' (E206093-02) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
1,2-Dibromoethane (EDB)	ND	1.0	7.8	ug/m3	1	EF22904	28-Jun-12	28-Jun-12	EPA TO-15	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**9.5**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**29**	2.2	8.8	"	"	"	"	"	"	
Styrene	**4.3**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**8.0**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
4-Ethyltoluene	**2.6**	1.1	5.0	"	"	"	"	"	"	J
Isopropylbenzene (Cumene)	**53**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	**2.1**	1.1	5.0	"	"	"	"	"	"	J
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**3.1**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**7.6**	1.2	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	**4.6**	3.6	5.3	"	"	"	"	"	"	J
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*94.5 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*97.0 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*106 %*	*77-127*		"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-73-5' (E206093-03) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	28-Jun-12	EPA TO-15	
Propene	**1.6**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**3.6**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**45**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**2.3**	1.5	5.6	"	"	"	"	"	"	J
Acetone	**62**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**11**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	0.80	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**2.8**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	**2.1**	0.63	6.3	"	"	"	"	"	"	J
trans-1,2-Dichloroethene	ND	0.89	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**110**	2.3	30	"	"	"	"	"	"	
n-Hexane	**2.8**	0.96	3.6	"	"	"	"	"	"	J
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**17**	2.0	18	"	"	"	"	"	"	J
Chloroform	**5.4**	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**32**	0.72	30	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**9.0**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-73-5' (E206093-03) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
Dibromomethane	ND	1.4	7.2	ug/m3	1	EF22904	28-Jun-12	28-Jun-12	EPA TO-15	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**12**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	**3.6**	1.2	4.1	"	"	"	"	"	"	J
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**61**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**28**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**2.4**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	**3.1**	2.1	6.9	"	"	"	"	"	"	J
1,2-Dibromoethane (EDB)	ND	1.0	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**31**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**21**	2.2	8.8	"	"	"	"	"	"	
Styrene	**4.1**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**6.2**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
4-Ethyltoluene	**2.9**	1.1	5.0	"	"	"	"	"	"	J
Isopropylbenzene (Cumene)	**45**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	**8.5**	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.6**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	**2.3**	1.2	5.6	"	"	"	"	"	"	J

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-73-5' (E206093-03) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2,4-Trimethylbenzene	**8.3**	1.2	5.0	ug/m3	1	EF22904	28-Jun-12	28-Jun-12	EPA TO-15	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	**3.4**	0.72	5.6	"	"	"	"	"	"	J
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	**5.1**	1.5	5.6	"	"	"	"	"	"	J
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	**6.7**	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*89.3 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*97.5 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*104 %*	*77-127*		"	"	"	"	
SV-74-5' (E206093-04) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	28-Jun-12	EPA TO-15	
Propene	**2.1**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**3.5**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	**3.4**	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**47**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**2.5**	1.5	5.6	"	"	"	"	"	"	J
Acetone	**50**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**9.6**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**1.3**	0.80	6.1	"	"	"	"	"	"	J
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**3.3**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	**2.1**	0.63	6.3	"	"	"	"	"	"	J

H&P Mobile Geochemistry Inc.

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-74-5' (E206093-04) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
trans-1,2-Dichloroethene	ND	0.89	8.0	ug/m3	1	EF22904	28-Jun-12	28-Jun-12	EPA TO-15	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**84**	2.3	30	"	"	"	"	"	"	
n-Hexane	**5.7**	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**16**	2.0	18	"	"	"	"	"	"	J
Chloroform	**3.8**	1.9	4.9	"	"	"	"	"	"	J
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**27**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**2.2**	0.52	3.2	"	"	"	"	"	"	J
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**34**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	**3.9**	1.2	4.1	"	"	"	"	"	"	J
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**47**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**27**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**2.5**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	**3.2**	2.1	6.9	"	"	"	"	"	"	J

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-74-5' (E206093-04) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
1,2-Dibromoethane (EDB)	ND	1.0	7.8	ug/m3	1	EF22904	28-Jun-12	28-Jun-12	EPA TO-15	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**8.0**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**24**	2.2	8.8	"	"	"	"	"	"	
Styrene	**4.1**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**7.4**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
4-Ethyltoluene	**2.3**	1.1	5.0	"	"	"	"	"	"	J
Isopropylbenzene (Cumene)	**36**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	**2.0**	1.1	5.0	"	"	"	"	"	"	J
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.4**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**6.7**	1.2	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	**5.3**	3.6	5.3	"	"	"	"	"	"	J
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*86.7 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*97.6 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*103 %*	*77-127*		"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-75-5' (E206093-05) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Propene	**1.6**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**3.6**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**25**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**2.4**	1.5	5.6	"	"	"	"	"	"	J
Acetone	**42**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**7.8**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	0.80	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**2.4**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	ND	0.63	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.89	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**69**	2.3	30	"	"	"	"	"	"	
n-Hexane	**36**	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**12**	2.0	18	"	"	"	"	"	"	J
Chloroform	**2.4**	1.9	4.9	"	"	"	"	"	"	J
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**22**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**15**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-75-5' (E206093-05) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
Cyclohexane	ND	0.59	17	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**20**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	**44**	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**40**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**30**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	1.5	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	2.1	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**9.5**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**32**	2.2	8.8	"	"	"	"	"	"	
Styrene	**3.4**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**7.6**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
4-Ethyltoluene	**4.5**	1.1	5.0	"	"	"	"	"	"	J
Isopropylbenzene (Cumene)	**35**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**3.7**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	**2.3**	1.2	5.6	"	"	"	"	"	"	J

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-75-5' (E206093-05) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2,4-Trimethylbenzene	**6.4**	1.2	5.0	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*87.1 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*97.2 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*104 %*	*77-127*		"	"	"	"	
SV-76-5' (E206093-06) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Propene	**13**	0.42	8.7	"	"	"	"	"	"	
Dichlorodifluoromethane (F12)	**3.9**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**31**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**3.2**	1.5	5.6	"	"	"	"	"	"	J
Acetone	**51**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**9.9**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**1.4**	0.80	6.1	"	"	"	"	"	"	J
1,1,2-Trichlorotrifluoroethane (F113)	**3.6**	2.2	7.7	"	"	"	"	"	"	J
Methylene chloride (Dichloromethane)	**2.9**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	**7.0**	0.63	6.3	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-76-5' (E206093-06) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
trans-1,2-Dichloroethene	ND	0.89	8.0	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**94**	2.3	30	"	"	"	"	"	"	
n-Hexane	**4.0**	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**14**	2.0	18	"	"	"	"	"	"	J
Chloroform	**9.5**	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**29**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**4.2**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**24**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	**2.0**	1.2	4.1	"	"	"	"	"	"	J
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**50**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**24**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	1.5	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	**9.0**	2.1	6.9	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-76-5' (E206093-06) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
1,2-Dibromoethane (EDB)	ND	1.0	7.8	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
1,1,1,2-Tetrachloroethane	**4.5**	1.3	7.0	"	"	"	"	"	"	J
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**6.2**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**17**	2.2	8.8	"	"	"	"	"	"	
Styrene	**3.2**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**5.5**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
4-Ethyltoluene	**2.1**	1.1	5.0	"	"	"	"	"	"	J
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	**38**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.4**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**5.5**	1.2	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*88.4 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8			*97.9 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*104 %*		*77-127*	"	"	"	"	

Mobile Geochemistry Inc.

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-77-5' (E206093-07) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Propene	**2.9**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**3.7**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**39**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**2.4**	1.5	5.6	"	"	"	"	"	"	J
Acetone	**45**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**10**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**1.4**	0.80	6.1	"	"	"	"	"	"	J
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**3.1**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	ND	0.63	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.89	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**77**	2.3	30	"	"	"	"	"	"	
n-Hexane	**2.1**	0.96	3.6	"	"	"	"	"	"	J
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**13**	2.0	18	"	"	"	"	"	"	J
Chloroform	**5.0**	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**24**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**3.2**	0.52	3.2	"	"	"	"	"	"	J
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-77-5' (E206093-07) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
Dibromomethane	ND	1.4	7.2	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**7.2**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	ND	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**50**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**22**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**2.4**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	2.1	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**5.6**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**16**	2.2	8.8	"	"	"	"	"	"	
Styrene	**3.5**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**5.3**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
4-Ethyltoluene	**2.1**	1.1	5.0	"	"	"	"	"	"	J
Isopropylbenzene (Cumene)	**44**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.3**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-77-5' (E206093-07) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2,4-Trimethylbenzene	**5.8**	1.2	5.0	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*87.4 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*96.2 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*103 %*	*77-127*		"	"	"	"	
SV-78-5' (E206093-08) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Propene	**4.2**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**3.6**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**29**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**2.7**	1.5	5.6	"	"	"	"	"	"	J
Acetone	**46**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**8.4**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**1.3**	0.80	6.1	"	"	"	"	"	"	J
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**2.1**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	**3.3**	0.63	6.3	"	"	"	"	"	"	J

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-78-5' (E206093-08) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
trans-1,2-Dichloroethene	ND	0.89	8.0	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**72**	2.3	30	"	"	"	"	"	"	
n-Hexane	**2.4**	0.96	3.6	"	"	"	"	"	"	J
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**18**	2.0	18	"	"	"	"	"	"	J
Chloroform	**2.1**	1.9	4.9	"	"	"	"	"	"	J
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**21**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**5.8**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**10**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	**1.8**	1.2	4.1	"	"	"	"	"	"	J
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**54**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**23**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**2.3**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	**4.8**	2.1	6.9	"	"	"	"	"	"	J

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-78-5' (E206093-08) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
1,2-Dibromoethane (EDB)	ND	1.0	7.8	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
1,1,1,2-Tetrachloroethane	**2.9**	1.3	7.0	"	"	"	"	"	"	J
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**5.6**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**16**	2.2	8.8	"	"	"	"	"	"	
Styrene	**2.7**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**5.4**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
4-Ethyltoluene	**2.1**	1.1	5.0	"	"	"	"	"	"	J
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	**47**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.3**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**5.6**	1.2	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*86.7 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*96.3 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*102 %*	*77-127*		"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-79-5' (E206093-09) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Propene	**2.1**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**2.9**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**99**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	1.5	5.6	"	"	"	"	"	"	
Acetone	**43**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**9.0**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	0.80	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**2.3**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	ND	0.63	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.89	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**62**	2.3	30	"	"	"	"	"	"	
n-Hexane	ND	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**16**	2.0	18	"	"	"	"	"	"	J
Chloroform	**4.6**	1.9	4.9	"	"	"	"	"	"	J
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**19**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**2.6**	0.52	3.2	"	"	"	"	"	"	J
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-79-5' (E206093-09) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
Cyclohexane	ND	0.59	17	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**3.7**	0.95	4.7	"	"	"	"	"	"	J
n-Heptane	ND	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**36**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**18**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**1.9**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	2.1	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**4.4**	1.6	4.4	"	"	"	"	"	"	J
m,p-Xylene	**12**	2.2	8.8	"	"	"	"	"	"	
Styrene	**2.4**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**4.0**	1.1	4.4	"	"	"	"	"	"	J
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	1.1	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	**29**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.0**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-79-5' (E206093-09) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2,4-Trimethylbenzene	**5.4**	1.2	5.0	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*85.7 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*96.0 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*103 %*	*77-127*		"	"	"	"	
SV-80-5' (E206093-10) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Propene	**2.1**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**3.5**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**30**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**2.5**	1.5	5.6	"	"	"	"	"	"	J
Acetone	**48**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**8.3**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**1.5**	0.80	6.1	"	"	"	"	"	"	J
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**2.4**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	**3.5**	0.63	6.3	"	"	"	"	"	"	J

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-80-5' (E206093-10) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
trans-1,2-Dichloroethene	ND	0.89	8.0	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**70**	2.3	30	"	"	"	"	"	"	
n-Hexane	**2.0**	0.96	3.6	"	"	"	"	"	"	J
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**18**	2.0	18	"	"	"	"	"	"	J
Chloroform	**6.2**	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**20**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**2.7**	0.52	3.2	"	"	"	"	"	"	J
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**5.7**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	ND	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**37**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**22**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**2.3**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	**21**	2.1	6.9	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-80-5' (E206093-10) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
1,2-Dibromoethane (EDB)	ND	1.0	7.8	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**4.9**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**14**	2.2	8.8	"	"	"	"	"	"	
Styrene	**2.5**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**4.4**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
4-Ethyltoluene	**2.0**	1.1	5.0	"	"	"	"	"	"	J
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	**32**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.1**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**5.2**	1.2	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	**4.1**	3.6	5.3	"	"	"	"	"	"	J
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*86.1 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8			*95.4 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*103 %*		*77-127*	"	"	"	"	

H&P Mobile Geochemistry Inc.

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-80-15' (E206093-11) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Propene	**2.9**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**3.8**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**31**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	1.5	5.6	"	"	"	"	"	"	
Acetone	**54**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**6.5**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	0.80	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**2.2**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	**2.6**	0.63	6.3	"	"	"	"	"	"	J
trans-1,2-Dichloroethene	ND	0.89	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**81**	2.3	30	"	"	"	"	"	"	
n-Hexane	**2.0**	0.96	3.6	"	"	"	"	"	"	J
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**12**	2.0	18	"	"	"	"	"	"	J
Chloroform	**7.7**	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**15**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**3.2**	0.52	3.2	"	"	"	"	"	"	J
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-80-15' (E206093-11) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
Cyclohexane	ND	0.59	17	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**4.6**	0.95	4.7	"	"	"	"	"	"	J
n-Heptane	**2.4**	1.2	4.1	"	"	"	"	"	"	J
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**33**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**17**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**2.2**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	2.1	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**4.7**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**14**	2.2	8.8	"	"	"	"	"	"	
Styrene	**2.5**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**4.4**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
4-Ethyltoluene	**2.2**	1.1	5.0	"	"	"	"	"	"	J
Isopropylbenzene (Cumene)	**30**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.3**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-80-15' (E206093-11) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2,4-Trimethylbenzene	ND	1.2	5.0	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*89.3 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*96.6 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*103 %*	*77-127*		"	"	"	"	
SV-81-5' (E206093-12) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Propene	**1.2**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**3.8**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	**1.3**	0.89	2.1	"	"	"	"	"	"	J
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**32**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	1.5	5.6	"	"	"	"	"	"	
Acetone	**46**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**8.1**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	0.80	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**1.8**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	ND	0.63	6.3	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-81-5' (E206093-12) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
trans-1,2-Dichloroethene	ND	0.89	8.0	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**50**	2.3	30	"	"	"	"	"	"	
n-Hexane	**1.6**	0.96	3.6	"	"	"	"	"	"	J
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**13**	2.0	18	"	"	"	"	"	"	J
Chloroform	**2.2**	1.9	4.9	"	"	"	"	"	"	J
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**14**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**2.4**	0.52	3.2	"	"	"	"	"	"	J
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**4.6**	0.95	4.7	"	"	"	"	"	"	J
n-Heptane	**1.8**	1.2	4.1	"	"	"	"	"	"	J
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**30**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**17**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**1.8**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	2.1	6.9	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-81-5' (E206093-12) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
1,2-Dibromoethane (EDB)	ND	1.0	7.8	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**4.0**	1.6	4.4	"	"	"	"	"	"	J
m,p-Xylene	**11**	2.2	8.8	"	"	"	"	"	"	
Styrene	**2.1**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**3.8**	1.1	4.4	"	"	"	"	"	"	J
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	1.1	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	**27**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.0**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**4.7**	1.2	5.0	"	"	"	"	"	"	J
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*86.0 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8			*97.4 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*101 %*		*77-127*	"	"	"	"	

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-81-15' (E206093-13) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Propene	**3.0**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**3.6**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**39**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**2.3**	1.5	5.6	"	"	"	"	"	"	J
Acetone	**46**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**7.3**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**1.3**	0.80	6.1	"	"	"	"	"	"	J
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**2.4**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	ND	0.63	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.89	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**85**	2.3	30	"	"	"	"	"	"	
n-Hexane	**2.1**	0.96	3.6	"	"	"	"	"	"	J
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**15**	2.0	18	"	"	"	"	"	"	J
Chloroform	**5.3**	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**19**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**4.2**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	

Mobile Geochemistry Inc.

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-81-15' (E206093-13) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
Cyclohexane	ND	0.59	17	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**4.6**	0.95	4.7	"	"	"	"	"	"	J
n-Heptane	ND	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**34**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**19**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**2.4**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	**4.4**	2.1	6.9	"	"	"	"	"	"	J
1,2-Dibromoethane (EDB)	ND	1.0	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**4.9**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**13**	2.2	8.8	"	"	"	"	"	"	
Styrene	**2.2**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**4.6**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
4-Ethyltoluene	**2.6**	1.1	5.0	"	"	"	"	"	"	J
Isopropylbenzene (Cumene)	**30**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.3**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-81-15' (E206093-13) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2,4-Trimethylbenzene	**6.1**	1.2	5.0	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*87.1 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*96.4 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*101 %*	*77-127*		"	"	"	"	
SV-82-5' (E206093-14) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Propene	**1.7**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**3.7**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	**1.2**	0.89	2.1	"	"	"	"	"	"	J
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**44**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**2.4**	1.5	5.6	"	"	"	"	"	"	J
Acetone	**49**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**8.9**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**1.9**	0.80	6.1	"	"	"	"	"	"	J
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**2.6**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	ND	0.63	6.3	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-82-5' (E206093-14) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
trans-1,2-Dichloroethene	ND	0.89	8.0	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**78**	2.3	30	"	"	"	"	"	"	
n-Hexane	**2.6**	0.96	3.6	"	"	"	"	"	"	J
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**14**	2.0	18	"	"	"	"	"	"	J
Chloroform	ND	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**22**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**4.5**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**6.2**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	**2.4**	1.2	4.1	"	"	"	"	"	"	J
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**43**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**28**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**2.6**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	2.1	6.9	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-82-5' (E206093-14) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
1,2-Dibromoethane (EDB)	ND	1.0	7.8	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**8.6**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**29**	2.2	8.8	"	"	"	"	"	"	
Styrene	**2.5**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**9.5**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
4-Ethyltoluene	**3.3**	1.1	5.0	"	"	"	"	"	"	J
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	**37**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	**2.4**	1.1	5.0	"	"	"	"	"	"	J
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**4.1**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	**3.1**	1.2	5.6	"	"	"	"	"	"	J
1,2,4-Trimethylbenzene	**14**	1.2	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	**3.1**	1.5	5.6	"	"	"	"	"	"	J
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*86.5 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*98.0 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*101 %*	*77-127*		"	"	"	"	

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San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-82-15' (E206093-15) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Propene	**1.8**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**3.6**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**48**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	1.5	5.6	"	"	"	"	"	"	
Acetone	**69**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**9.8**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**1.4**	0.80	6.1	"	"	"	"	"	"	J
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**2.5**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	ND	0.63	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.89	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**100**	2.3	30	"	"	"	"	"	"	
n-Hexane	**2.0**	0.96	3.6	"	"	"	"	"	"	J
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**19**	2.0	18	"	"	"	"	"	"	
Chloroform	ND	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**24**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**4.3**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-82-15' (E206093-15) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
Cyclohexane	ND	0.59	17	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**3.3**	0.95	4.7	"	"	"	"	"	"	J
n-Heptane	ND	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**43**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**27**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**2.6**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	2.1	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**5.5**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**15**	2.2	8.8	"	"	"	"	"	"	
Styrene	**2.9**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**4.7**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
4-Ethyltoluene	ND	1.1	5.0	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	**37**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.1**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-82-15' (E206093-15) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2,4-Trimethylbenzene	**5.7**	1.2	5.0	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	**5.3**	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*85.7 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*95.8 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*101 %*	*77-127*		"	"	"	"	
SV-83-5' (E206093-16) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Propene	**2.3**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**3.7**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**26**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**2.4**	1.5	5.6	"	"	"	"	"	"	J
Acetone	**55**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**7.2**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**2.1**	0.80	6.1	"	"	"	"	"	"	J
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**2.2**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	**4.9**	0.63	6.3	"	"	"	"	"	"	J

H&P Mobile Geochemistry Inc.

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-83-5' (E206093-16) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
trans-1,2-Dichloroethene	ND	0.89	8.0	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**110**	2.3	30	"	"	"	"	"	"	
n-Hexane	ND	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**18**	2.0	18	"	"	"	"	"	"	J
Chloroform	**2.8**	1.9	4.9	"	"	"	"	"	"	J
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**50**	0.72	30	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**2.1**	0.52	3.2	"	"	"	"	"	"	J
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**6.1**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	ND	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**40**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**20**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**2.2**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	**5.1**	2.1	6.9	"	"	"	"	"	"	J

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-83-5' (E206093-16) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
1,2-Dibromoethane (EDB)	ND	1.0	7.8	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**5.2**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**13**	2.2	8.8	"	"	"	"	"	"	
Styrene	**2.9**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**4.3**	1.1	4.4	"	"	"	"	"	"	J
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
4-Ethyltoluene	ND	1.1	5.0	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	**31**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.2**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**4.5**	1.2	5.0	"	"	"	"	"	"	J
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*86.4 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8			*96.4 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*103 %*		*77-127*	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-83-15' (E206093-17) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Propene	**43**	0.42	8.7	"	"	"	"	"	"	
Dichlorodifluoromethane (F12)	**3.9**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	**1.5**	0.89	2.1	"	"	"	"	"	"	J
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	**5.5**	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**31**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**2.7**	1.5	5.6	"	"	"	"	"	"	J
Acetone	**79**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**7.4**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**1.3**	0.80	6.1	"	"	"	"	"	"	J
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**3.3**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	**28**	0.63	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.89	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**200**	2.3	30	"	"	"	"	"	"	
n-Hexane	**22**	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**23**	2.0	18	"	"	"	"	"	"	
Chloroform	**2.6**	1.9	4.9	"	"	"	"	"	"	J
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**100**	0.72	30	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**46**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-83-15' (E206093-17) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
Cyclohexane	ND	0.59	17	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**67**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	**8.4**	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**44**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**57**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**2.4**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	**9.4**	2.1	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**13**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**39**	2.2	8.8	"	"	"	"	"	"	
Styrene	**3.8**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**11**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
4-Ethyltoluene	**3.6**	1.1	5.0	"	"	"	"	"	"	J
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	**32**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	**2.5**	1.1	5.0	"	"	"	"	"	"	J
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**4.4**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	**2.4**	1.2	5.6	"	"	"	"	"	"	J

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-83-15' (E206093-17) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2,4-Trimethylbenzene	**9.3**	1.2	5.0	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*89.2 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*96.8 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*104 %*	*77-127*		"	"	"	"	
SV-84-5' (E206093-18) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Propene	**5.4**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**7.2**	1.5	5.0	"	"	"	"	"	"	
Chloromethane	**0.93**	0.89	2.1	"	"	"	"	"	"	J
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**26**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**23**	1.5	5.6	"	"	"	"	"	"	
Acetone	**53**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**2.3**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**1.6**	0.80	6.1	"	"	"	"	"	"	J
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**1.8**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	**23**	0.63	6.3	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-84-5' (E206093-18) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
trans-1,2-Dichloroethene	ND	0.89	8.0	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**12**	2.3	30	"	"	"	"	"	"	J
n-Hexane	**5.3**	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**7.8**	2.0	18	"	"	"	"	"	"	J
Chloroform	**15**	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	ND	0.72	30	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**9.1**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**17**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	**3.2**	1.2	4.1	"	"	"	"	"	"	J
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**30**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**1.8**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	**7.0**	2.1	6.9	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-84-5' (E206093-18) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
1,2-Dibromoethane (EDB)	ND	1.0	7.8	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	EPA TO-15	
1,1,1,2-Tetrachloroethane	**5.4**	1.3	7.0	"	"	"	"	"	"	J
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**10**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**32**	2.2	8.8	"	"	"	"	"	"	
Styrene	ND	1.3	4.3	"	"	"	"	"	"	
o-Xylene	**12**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
4-Ethyltoluene	**3.4**	1.1	5.0	"	"	"	"	"	"	J
Isopropylbenzene (Cumene)	**2.6**	1.9	5.0	"	"	"	"	"	"	J
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	**2.3**	1.1	5.0	"	"	"	"	"	"	J
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**3.7**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	**2.3**	1.2	5.6	"	"	"	"	"	"	J
1,2,4-Trimethylbenzene	**8.8**	1.2	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	**2.4**	1.2	5.6	"	"	"	"	"	"	J
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*84.1 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*98.1 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*103 %*	*77-127*		"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-84-15' (E206093-19) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Propene	**3.1**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**10**	1.5	5.0	"	"	"	"	"	"	
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**52**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**46**	1.5	5.6	"	"	"	"	"	"	
Acetone	**77**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	ND	1.3	25	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	0.80	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	1.4	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	0.63	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.89	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	**11**	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**25**	2.3	30	"	"	"	"	"	"	J
n-Hexane	**22**	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	ND	2.0	18	"	"	"	"	"	"	
Chloroform	**15**	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	ND	0.72	30	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**4.2**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-84-15' (E206093-19) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
Cyclohexane	ND	0.59	17	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**220**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	**24**	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**17**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	1.5	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	2.1	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	**5.0**	1.3	7.0	"	"	"	"	"	"	J
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**11**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**42**	2.2	8.8	"	"	"	"	"	"	
Styrene	ND	1.3	4.3	"	"	"	"	"	"	
o-Xylene	**12**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
4-Ethyltoluene	**3.9**	1.1	5.0	"	"	"	"	"	"	J
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	**4.5**	1.9	5.0	"	"	"	"	"	"	J
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	**5.1**	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**3.6**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	**2.3**	1.2	5.6	"	"	"	"	"	"	J

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-84-15' (E206093-19) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2,4-Trimethylbenzene	**18**	1.2	5.0	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*101 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*100 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*106 %*	*77-127*		"	"	"	"	
SV-85-5' (E206093-20) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Propene	**3.3**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**2.9**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**150**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	1.5	5.6	"	"	"	"	"	"	
Acetone	**62**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**8.4**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**2.3**	0.80	6.1	"	"	"	"	"	"	J
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**6.9**	1.4	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	0.63	6.3	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-85-5' (E206093-20) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
trans-1,2-Dichloroethene	ND	0.89	8.0	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Methyl tertiary-butyl ether (MTBE)	**6.4**	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**50**	2.3	30	"	"	"	"	"	"	
n-Hexane	**3.2**	0.96	3.6	"	"	"	"	"	"	J
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	ND	2.0	18	"	"	"	"	"	"	
Chloroform	**5.1**	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**16**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**4.7**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**34**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	**4.1**	1.2	4.1	"	"	"	"	"	"	J
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**27**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**46**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	1.5	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	2.1	6.9	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-85-5' (E206093-20) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
1,2-Dibromoethane (EDB)	ND	1.0	7.8	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**11**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**38**	2.2	8.8	"	"	"	"	"	"	
Styrene	ND	1.3	4.3	"	"	"	"	"	"	
o-Xylene	**12**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
4-Ethyltoluene	**2.5**	1.1	5.0	"	"	"	"	"	"	J
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	**19**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**3.2**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**12**	1.2	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	**3.8**	3.6	5.3	"	"	"	"	"	"	J
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*102 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8			*96.5 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*108 %*		*77-127*	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-85-15' (E206093-21) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Propene	**5.5**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**2.9**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**47**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	1.5	5.6	"	"	"	"	"	"	
Acetone	**43**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**6.5**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	0.80	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**2.2**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	**2.7**	0.63	6.3	"	"	"	"	"	"	J
trans-1,2-Dichloroethene	ND	0.89	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**78**	2.3	30	"	"	"	"	"	"	
n-Hexane	ND	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**10**	2.0	18	"	"	"	"	"	"	J
Chloroform	**2.4**	1.9	4.9	"	"	"	"	"	"	J
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**21**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**1.9**	0.52	3.2	"	"	"	"	"	"	J
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-85-15' (E206093-21) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
Dibromomethane	ND	1.4	7.2	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**6.3**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	ND	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**34**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**22**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	1.5	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	2.1	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**5.6**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**17**	2.2	8.8	"	"	"	"	"	"	
Styrene	ND	1.3	4.3	"	"	"	"	"	"	
o-Xylene	**6.1**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
4-Ethyltoluene	**1.6**	1.1	5.0	"	"	"	"	"	"	J
Isopropylbenzene (Cumene)	**26**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.2**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-85-15' (E206093-21) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2,4-Trimethylbenzene	ND	1.2	5.0	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*98.0 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*95.3 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*109 %*	*77-127*		"	"	"	"	
SV-86-15' (E206093-22) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Propene	**12**	0.42	8.7	"	"	"	"	"	"	
Dichlorodifluoromethane (F12)	**2.6**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**42**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	1.5	5.6	"	"	"	"	"	"	
Acetone	**84**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**11**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	0.80	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**1.9**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	**14**	0.63	6.3	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-86-15' (E206093-22) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
trans-1,2-Dichloroethene	ND	0.89	8.0	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**100**	2.3	30	"	"	"	"	"	"	
n-Hexane	**2.1**	0.96	3.6	"	"	"	"	"	"	J
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**17**	2.0	18	"	"	"	"	"	"	J
Chloroform	ND	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**26**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**7.7**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**8.1**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	ND	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**51**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**27**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**1.9**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	**9.8**	2.1	6.9	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-86-15' (E206093-22) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
1,2-Dibromoethane (EDB)	ND	1.0	7.8	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
1,1,1,2-Tetrachloroethane	**6.6**	1.3	7.0	"	"	"	"	"	"	J
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**7.3**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**18**	2.2	8.8	"	"	"	"	"	"	
Styrene	**2.1**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**6.4**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
4-Ethyltoluene	**1.8**	1.1	5.0	"	"	"	"	"	"	J
Isopropylbenzene (Cumene)	**40**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.65	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**7.7**	1.2	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*95.2 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8			*97.6 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*107 %*		*77-127*	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-87-15' (E206093-23) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Propene	**2.1**	0.42	8.7	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	**2.4**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**32**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	1.5	5.6	"	"	"	"	"	"	
Acetone	**61**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**8.7**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	0.80	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	1.4	3.5	"	"	"	"	"	"	
Carbon disulfide	**2.6**	0.63	6.3	"	"	"	"	"	"	J
trans-1,2-Dichloroethene	ND	0.89	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**100**	2.3	30	"	"	"	"	"	"	
n-Hexane	ND	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**15**	2.0	18	"	"	"	"	"	"	J
Chloroform	**65**	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**26**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**5.8**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-87-15' (E206093-23) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
Dibromomethane	ND	1.4	7.2	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**7.8**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	ND	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**44**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**25**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	1.5	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	**7.5**	2.1	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**5.3**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**16**	2.2	8.8	"	"	"	"	"	"	
Styrene	**2.9**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**4.6**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	1.1	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	**1.8**	0.61	6.1	"	"	"	"	"	"	J
Isopropylbenzene (Cumene)	**35**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.65	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-87-15' (E206093-23) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2,4-Trimethylbenzene	**5.3**	1.2	5.0	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*86.8 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8			*96.4 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*107 %*		*77-127*	"	"	"	"	
SV-88-15' (E206093-24) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Propene	**590**	0.42	8.7	"	"	"	"	"	"	
Dichlorodifluoromethane (F12)	**3.2**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**86**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**2.3**	1.5	5.6	"	"	"	"	"	"	J
Acetone	**82**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**10**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	0.80	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**2.2**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	**170**	0.63	6.3	"	"	"	"	"	"	

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-88-15' (E206093-24) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
trans-1,2-Dichloroethene	ND	0.89	8.0	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**110**	2.3	30	"	"	"	"	"	"	
n-Hexane	**3.9**	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	**21**	2.0	18	"	"	"	"	"	"	
Chloroform	ND	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**25**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**20**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**12**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	**4.1**	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**46**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**29**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	1.5	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	2.1	6.9	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-88-15' (E206093-24) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
1,2-Dibromoethane (EDB)	ND	1.0	7.8	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**70**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**23**	2.2	8.8	"	"	"	"	"	"	
Styrene	**2.5**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**6.2**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	**2.9**	0.84	7.0	"	"	"	"	"	"	J
4-Ethyltoluene	**3.5**	1.1	5.0	"	"	"	"	"	"	J
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	**47**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	**14**	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.7**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**14**	1.2	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	**3.8**	0.72	5.6	"	"	"	"	"	"	J
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	**8.9**	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	**18**	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*88.0 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*96.0 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*106 %*	*77-127*		"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-89-15' (E206093-25) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	100	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Propene	**720**	42	870	"	"	"	"	"	"	J
Dichlorodifluoromethane (F12)	ND	150	500	"	"	"	"	"	"	
Chloromethane	ND	89	210	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	190	710	"	"	"	"	"	"	
Vinyl chloride	ND	73	260	"	"	"	"	"	"	
1,3-Butadiene	ND	94	450	"	"	"	"	"	"	
Bromomethane	ND	100	1600	"	"	"	"	"	"	
Chloroethane	ND	140	800	"	"	"	"	"	"	
Ethanol	ND	140	1900	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	150	560	"	"	"	"	"	"	
Acetone	ND	360	2400	"	"	"	"	"	"	
Isopropyl alcohol	ND	130	2500	"	"	"	"	"	"	
1,1-Dichloroethene	ND	97	400	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	80	610	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	220	770	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	140	350	"	"	"	"	"	"	
Carbon disulfide	**790**	63	630	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	89	800	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	69	360	"	"	"	"	"	"	
Vinyl acetate	ND	110	360	"	"	"	"	"	"	
1,1-Dichloroethane	ND	120	410	"	"	"	"	"	"	
2-Butanone (MEK)	ND	230	3000	"	"	"	"	"	"	
n-Hexane	ND	96	360	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	89	400	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	130	420	"	"	"	"	"	"	
Ethyl acetate	ND	200	1800	"	"	"	"	"	"	
Chloroform	**42000**	190	490	"	"	"	"	"	"	
2,2-Dichloropropane	ND	160	470	"	"	"	"	"	"	
Tetrahydrofuran	ND	72	3000	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	80	420	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	150	550	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	99	410	"	"	"	"	"	"	
1,1-Dichloropropene	ND	87	460	"	"	"	"	"	"	
Benzene	ND	52	320	"	"	"	"	"	"	
Carbon tetrachloride	ND	240	640	"	"	"	"	"	"	

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-89-15' (E206093-25) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
Cyclohexane	ND	59	1700	ug/m3	100	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Dibromomethane	ND	140	720	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	51	420	"	"	"	"	"	"	
2,2,4-Trimethylpentane	ND	95	470	"	"	"	"	"	"	
n-Heptane	ND	120	410	"	"	"	"	"	"	
Trichloroethene	ND	130	550	"	"	"	"	"	"	
1,2-Dichloropropane	ND	130	940	"	"	"	"	"	"	
1,4-Dioxane	ND	150	730	"	"	"	"	"	"	
Bromodichloromethane	**810**	230	680	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	150	460	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	170	830	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	110	460	"	"	"	"	"	"	
1,3-Dichloropropane	ND	180	470	"	"	"	"	"	"	
Toluene	ND	61	380	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	94	550	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	150	830	"	"	"	"	"	"	
Dibromochloromethane	ND	250	860	"	"	"	"	"	"	
Tetrachloroethene	**960**	210	690	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	100	780	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	130	700	"	"	"	"	"	"	
Chlorobenzene	ND	80	470	"	"	"	"	"	"	
Ethylbenzene	ND	160	440	"	"	"	"	"	"	
m,p-Xylene	ND	220	880	"	"	"	"	"	"	
Styrene	ND	130	430	"	"	"	"	"	"	
o-Xylene	ND	110	440	"	"	"	"	"	"	
Bromoform	ND	200	1000	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	84	700	"	"	"	"	"	"	
4-Ethyltoluene	ND	110	500	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	61	610	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	190	500	"	"	"	"	"	"	
Bromobenzene	ND	190	650	"	"	"	"	"	"	
2-Chlorotoluene	ND	150	1100	"	"	"	"	"	"	
n-Propylbenzene	ND	110	500	"	"	"	"	"	"	
4-Chlorotoluene	ND	120	1100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	65	500	"	"	"	"	"	"	
tert-Butylbenzene	ND	120	560	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-89-15' (E206093-25) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2,4-Trimethylbenzene	ND	120	500	ug/m3	100	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
1,3-Dichlorobenzene	ND	190	1200	"	"	"	"	"	"	
Benzyl chloride	ND	130	1000	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	120	1200	"	"	"	"	"	"	
sec-Butylbenzene	ND	72	560	"	"	"	"	"	"	
p-Isopropyltoluene	ND	120	560	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	130	1200	"	"	"	"	"	"	
n-Butylbenzene	ND	150	560	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	240	980	"	"	"	"	"	"	
Naphthalene	ND	360	530	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	560	750	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	410	750	"	"	"	"	"	"	
Hexachlorobutadiene	ND	210	1100	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*96.4 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*95.0 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*107 %*	*77-127*		"	"	"	"	
SV-90-15' (E206093-26) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	100	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Propene	**2300**	42	870	"	"	"	"	"	"	
Dichlorodifluoromethane (F12)	ND	150	500	"	"	"	"	"	"	
Chloromethane	ND	89	210	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	190	710	"	"	"	"	"	"	
Vinyl chloride	ND	73	260	"	"	"	"	"	"	
1,3-Butadiene	ND	94	450	"	"	"	"	"	"	
Bromomethane	ND	100	1600	"	"	"	"	"	"	
Chloroethane	ND	140	800	"	"	"	"	"	"	
Ethanol	ND	140	1900	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	150	560	"	"	"	"	"	"	
Acetone	ND	360	2400	"	"	"	"	"	"	
Isopropyl alcohol	ND	130	2500	"	"	"	"	"	"	
1,1-Dichloroethene	ND	97	400	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	80	610	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	220	770	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	140	350	"	"	"	"	"	"	
Carbon disulfide	**1000**	63	630	"	"	"	"	"	"	

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Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-90-15' (E206093-26) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
trans-1,2-Dichloroethene	ND	89	800	ug/m3	100	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Methyl tertiary-butyl ether (MTBE)	ND	69	360	"	"	"	"	"	"	
Vinyl acetate	ND	110	360	"	"	"	"	"	"	
1,1-Dichloroethane	ND	120	410	"	"	"	"	"	"	
2-Butanone (MEK)	ND	230	3000	"	"	"	"	"	"	
n-Hexane	ND	96	360	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	89	400	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	130	420	"	"	"	"	"	"	
Ethyl acetate	ND	200	1800	"	"	"	"	"	"	
Chloroform	**62000**	190	490	"	"	"	"	"	"	
2,2-Dichloropropane	ND	160	470	"	"	"	"	"	"	
Tetrahydrofuran	ND	72	3000	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	80	420	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	150	550	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	99	410	"	"	"	"	"	"	
1,1-Dichloropropene	ND	87	460	"	"	"	"	"	"	
Benzene	ND	52	320	"	"	"	"	"	"	
Carbon tetrachloride	ND	240	640	"	"	"	"	"	"	
Dibromomethane	ND	140	720	"	"	"	"	"	"	
Cyclohexane	ND	59	1700	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	51	420	"	"	"	"	"	"	
2,2,4-Trimethylpentane	ND	95	470	"	"	"	"	"	"	
n-Heptane	ND	120	410	"	"	"	"	"	"	
Trichloroethene	ND	130	550	"	"	"	"	"	"	
1,2-Dichloropropane	ND	130	940	"	"	"	"	"	"	
1,4-Dioxane	ND	150	730	"	"	"	"	"	"	
Bromodichloromethane	ND	230	680	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	150	460	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	170	830	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	110	460	"	"	"	"	"	"	
1,3-Dichloropropane	ND	180	470	"	"	"	"	"	"	
Toluene	ND	61	380	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	94	550	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	150	830	"	"	"	"	"	"	
Dibromochloromethane	ND	250	860	"	"	"	"	"	"	
Tetrachloroethene	**1200**	210	690	"	"	"	"	"	"	

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Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-90-15' (E206093-26) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2-Dibromoethane (EDB)	ND	100	780	ug/m3	100	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
1,1,1,2-Tetrachloroethane	ND	130	700	"	"	"	"	"	"	
Chlorobenzene	ND	80	470	"	"	"	"	"	"	
Ethylbenzene	ND	160	440	"	"	"	"	"	"	
m,p-Xylene	ND	220	880	"	"	"	"	"	"	
Styrene	ND	130	430	"	"	"	"	"	"	
o-Xylene	ND	110	440	"	"	"	"	"	"	
Bromoform	ND	200	1000	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	84	700	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	61	610	"	"	"	"	"	"	
4-Ethyltoluene	ND	110	500	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	190	500	"	"	"	"	"	"	
Bromobenzene	ND	190	650	"	"	"	"	"	"	
2-Chlorotoluene	ND	150	1100	"	"	"	"	"	"	
n-Propylbenzene	ND	110	500	"	"	"	"	"	"	
4-Chlorotoluene	ND	120	1100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	65	500	"	"	"	"	"	"	
tert-Butylbenzene	ND	120	560	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	120	500	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	190	1200	"	"	"	"	"	"	
Benzyl chloride	ND	130	1000	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	120	1200	"	"	"	"	"	"	
sec-Butylbenzene	ND	72	560	"	"	"	"	"	"	
p-Isopropyltoluene	ND	120	560	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	130	1200	"	"	"	"	"	"	
n-Butylbenzene	ND	150	560	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	240	980	"	"	"	"	"	"	
Naphthalene	ND	360	530	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	560	750	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	410	750	"	"	"	"	"	"	
Hexachlorobutadiene	ND	210	1100	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*101 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8			*97.2 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*105 %*		*77-127*	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-91-15' (E206093-27) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EG21205	12-Jul-12	12-Jul-12	EPA TO-15	
Propene	ND	0.42	8.7	"	"	"	"	"	"	
Dichlorodifluoromethane (F12)	**2.3**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**61**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	1.5	5.6	"	"	"	"	"	"	
Acetone	**85**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**7.7**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	**6.4**	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**2.0**	0.80	6.1	"	"	"	"	"	"	J
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	**2.4**	1.4	3.5	"	"	"	"	"	"	J
Carbon disulfide	**16**	0.63	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.89	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	**2.5**	1.2	4.1	"	"	"	"	"	"	J
2-Butanone (MEK)	**110**	2.3	30	"	"	"	"	"	"	
n-Hexane	ND	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	**40**	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	ND	2.0	18	"	"	"	"	"	"	
Chloroform	**1300**	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**14**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	**16**	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**4.6**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-91-15' (E206093-27) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
Cyclohexane	ND	0.59	17	ug/m3	1	EG21205	12-Jul-12	12-Jul-12	EPA TO-15	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	ND	0.95	4.7	"	"	"	"	"	"	
n-Heptane	**1.3**	1.2	4.1	"	"	"	"	"	"	J
Trichloroethene	**89**	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	**3.4**	1.5	7.3	"	"	"	"	"	"	J
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**30**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**21**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	**2.2**	1.5	8.3	"	"	"	"	"	"	J
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	**120**	2.1	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**5.4**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**17**	2.2	8.8	"	"	"	"	"	"	
Styrene	**2.1**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**5.4**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	1.1	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	**25**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	**1.2**	1.1	5.0	"	"	"	"	"	"	J
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.4**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-91-15' (E206093-27) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2,4-Trimethylbenzene	**9.7**	1.2	5.0	ug/m3	1	EG21205	12-Jul-12	12-Jul-12	EPA TO-15	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	**4.0**	3.6	5.3	"	"	"	"	"	"	J
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*88.3 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*91.5 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*107 %*	*77-127*		"	"	"	"	
DUP-1 (E206093-28) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EG21205	12-Jul-12	12-Jul-12	EPA TO-15	
Propene	ND	0.42	8.7	"	"	"	"	"	"	
Dichlorodifluoromethane (F12)	**3.9**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**380**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	1.5	5.6	"	"	"	"	"	"	
Acetone	**63**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**15**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	**2.8**	0.80	6.1	"	"	"	"	"	"	J
1,1,2-Trichlorotrifluoroethane (F113)	**7.1**	2.2	7.7	"	"	"	"	"	"	J
Methylene chloride (Dichloromethane)	**9.7**	1.4	3.5	"	"	"	"	"	"	
Carbon disulfide	**4.4**	0.63	6.3	"	"	"	"	"	"	J

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DUP-1 (E206093-28) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
trans-1,2-Dichloroethene	ND	0.89	8.0	ug/m3	1	EG21205	12-Jul-12	12-Jul-12	EPA TO-15	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**51**	2.3	30	"	"	"	"	"	"	
n-Hexane	**12**	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	ND	2.0	18	"	"	"	"	"	"	
Chloroform	**3.5**	1.9	4.9	"	"	"	"	"	"	J
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**15**	0.72	30	"	"	"	"	"	"	J
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**4.0**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**7.4**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	**6.2**	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	**3.3**	1.3	5.5	"	"	"	"	"	"	J
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**19**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**55**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	1.5	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	**2.7**	2.1	6.9	"	"	"	"	"	"	J

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DUP-1 (E206093-28) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2-Dibromoethane (EDB)	ND	1.0	7.8	ug/m3	1	EG21205	12-Jul-12	12-Jul-12	EPA TO-15	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**8.4**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**28**	2.2	8.8	"	"	"	"	"	"	
Styrene	**1.7**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**9.8**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
4-Ethyltoluene	ND	1.1	5.0	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	**15**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	**1.2**	1.1	5.0	"	"	"	"	"	"	J
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**2.3**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**8.9**	1.2	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*102 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8			*93.2 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*108 %*		*77-127*	"	"	"	"	

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DUP-2 (E206093-29) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EG21205	12-Jul-12	12-Jul-12	EPA TO-15	
Propene	**34**	0.42	8.7	"	"	"	"	"	"	
Dichlorodifluoromethane (F12)	**2.5**	1.5	5.0	"	"	"	"	"	"	J
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	**41**	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**1.7**	1.5	5.6	"	"	"	"	"	"	J
Acetone	**52**	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	**5.0**	1.3	25	"	"	"	"	"	"	J
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	0.80	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	1.4	3.5	"	"	"	"	"	"	
Carbon disulfide	**31**	0.63	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.89	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	**150**	2.3	30	"	"	"	"	"	"	
n-Hexane	**12**	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	**1.6**	0.89	4.0	"	"	"	"	"	"	J
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	ND	2.0	18	"	"	"	"	"	"	
Chloroform	**2.4**	1.9	4.9	"	"	"	"	"	"	J
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	**56**	0.72	30	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	**36**	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DUP-2 (E206093-29) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
Cyclohexane	ND	0.59	17	ug/m3	1	EG21205	12-Jul-12	12-Jul-12	EPA TO-15	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	**7.8**	0.95	4.7	"	"	"	"	"	"	
n-Heptane	**1.2**	1.2	4.1	"	"	"	"	"	"	J
Trichloroethene	**6.4**	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	**33**	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	**47**	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	1.5	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	**11**	2.1	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	**9.5**	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	**29**	2.2	8.8	"	"	"	"	"	"	
Styrene	**2.4**	1.3	4.3	"	"	"	"	"	"	J
o-Xylene	**8.9**	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	1.1	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	**28**	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	**1.2**	1.1	5.0	"	"	"	"	"	"	J
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	**3.2**	0.65	5.0	"	"	"	"	"	"	J
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DUP-2 (E206093-29) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,2,4-Trimethylbenzene	**2.1**	1.2	5.0	ug/m3	1	EG21205	12-Jul-12	12-Jul-12	EPA TO-15	J
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	**1.8**	0.72	5.6	"	"	"	"	"	"	J
p-Isopropyltoluene	**1.6**	1.2	5.6	"	"	"	"	"	"	J
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*92.8 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8			*93.6 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*106 %*		*77-127*	"	"	"	"	
Trip Blank A (E206093-30) Vapor Sampled: 20-Jun-12 Received: 22-Jun-12										**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Propene	ND	0.42	8.7	"	"	"	"	"	"	
Dichlorodifluoromethane (F12)	ND	1.5	5.0	"	"	"	"	"	"	
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	ND	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	1.5	5.6	"	"	"	"	"	"	
Acetone	ND	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	ND	1.3	25	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	0.80	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	1.4	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	0.63	6.3	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
Trip Blank A (E206093-30) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
trans-1,2-Dichloroethene	ND	0.89	8.0	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	2.3	30	"	"	"	"	"	"	
n-Hexane	ND	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	ND	2.0	18	"	"	"	"	"	"	
Chloroform	**12**	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	ND	0.72	30	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	ND	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	
Dibromomethane	ND	1.4	7.2	"	"	"	"	"	"	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	ND	0.95	4.7	"	"	"	"	"	"	
n-Heptane	ND	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	ND	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	1.5	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	2.1	6.9	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
Trip Blank A (E206093-30) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
1,2-Dibromoethane (EDB)	ND	1.0	7.8	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	2.2	8.8	"	"	"	"	"	"	
Styrene	ND	1.3	4.3	"	"	"	"	"	"	
o-Xylene	ND	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
4-Ethyltoluene	ND	1.1	5.0	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.65	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.2	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*90.3 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*93.9 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*104 %*	*77-127*		"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
Trip Blank B (E206093-31) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
1,1-Difluoroethane (LCC)	ND		2.7	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Propene	ND	0.42	8.7	"	"	"	"	"	"	
Dichlorodifluoromethane (F12)	ND	1.5	5.0	"	"	"	"	"	"	
Chloromethane	ND	0.89	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	1.9	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	0.73	2.6	"	"	"	"	"	"	
1,3-Butadiene	ND	0.94	4.5	"	"	"	"	"	"	
Bromomethane	ND	1.0	16	"	"	"	"	"	"	
Chloroethane	ND	1.4	8.0	"	"	"	"	"	"	
Ethanol	ND	1.4	19	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	1.5	5.6	"	"	"	"	"	"	
Acetone	ND	3.6	24	"	"	"	"	"	"	
Isopropyl alcohol	ND	1.3	25	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.97	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	0.80	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	2.2	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	1.4	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	0.63	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.89	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.69	3.6	"	"	"	"	"	"	
Vinyl acetate	ND	1.1	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.2	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	2.3	30	"	"	"	"	"	"	
n-Hexane	ND	0.96	3.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.89	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.3	4.2	"	"	"	"	"	"	
Ethyl acetate	ND	2.0	18	"	"	"	"	"	"	
Chloroform	**13**	1.9	4.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.6	4.7	"	"	"	"	"	"	
Tetrahydrofuran	ND	0.72	30	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	0.80	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.5	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.99	4.1	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.87	4.6	"	"	"	"	"	"	
Benzene	ND	0.52	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	2.4	6.4	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
Trip Blank B (E206093-31) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
Dibromomethane	ND	1.4	7.2	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
Cyclohexane	ND	0.59	17	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	0.51	4.2	"	"	"	"	"	"	
2,2,4-Trimethylpentane	ND	0.95	4.7	"	"	"	"	"	"	
n-Heptane	ND	1.2	4.1	"	"	"	"	"	"	
Trichloroethene	ND	1.3	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.3	9.4	"	"	"	"	"	"	
1,4-Dioxane	ND	1.5	7.3	"	"	"	"	"	"	
Bromodichloromethane	ND	2.3	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.5	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	1.7	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.1	4.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.8	4.7	"	"	"	"	"	"	
Toluene	ND	0.61	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.94	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	1.5	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	2.5	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	2.1	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.3	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	0.80	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	1.6	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	2.2	8.8	"	"	"	"	"	"	
Styrene	ND	1.3	4.3	"	"	"	"	"	"	
o-Xylene	ND	1.1	4.4	"	"	"	"	"	"	
Bromoform	ND	2.0	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.84	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	1.1	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.61	6.1	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	1.9	5.0	"	"	"	"	"	"	
Bromobenzene	ND	1.9	6.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.5	11	"	"	"	"	"	"	
n-Propylbenzene	ND	1.1	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.2	11	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.65	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.2	5.6	"	"	"	"	"	"	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
Trip Blank B (E206093-31) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
1,2,4-Trimethylbenzene	ND	1.2	5.0	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	EPA TO-15	
1,3-Dichlorobenzene	ND	1.9	12	"	"	"	"	"	"	
Benzyl chloride	ND	1.3	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.2	12	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.72	5.6	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.2	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.3	12	"	"	"	"	"	"	
n-Butylbenzene	ND	1.5	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.4	9.8	"	"	"	"	"	"	
Naphthalene	ND	3.6	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	7.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.1	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.1	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4			*97.3 %*	*76-134*		"	"	"	"	
Surrogate: Toluene-d8			*94.0 %*	*78-125*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene			*103 %*	*77-127*		"	"	"	"	

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

TPHv / APH on Vapors by EPA Method TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-71-5' (E206093-01) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**710**	50	100	ug/m3	1	EF22904	28-Jun-12	28-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**930**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**72**	50	100	"	"	"	"	"	"	J
TPHv (C6 - C8) aromatic	ND	50	100	"	"	"	"	"	"	
TPHv (C5 - C11)	**1300**	50	100	"	"	"	"	"	EPA TO-15	
SV-72-5' (E206093-02) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**1700**	50	100	ug/m3	1	EF22904	28-Jun-12	28-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**1500**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**110**	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	**93**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**2600**	50	100	"	"	"	"	"	EPA TO-15	
SV-73-5' (E206093-03) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**880**	50	100	ug/m3	1	EF22904	28-Jun-12	28-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**1400**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**180**	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	**96**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**2300**	50	100	"	"	"	"	"	EPA TO-15	
SV-74-5' (E206093-04) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**910**	50	100	ug/m3	1	EF22904	28-Jun-12	28-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**990**	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	**72**	50	100	"	"	"	"	"	"	J
TPHv (C9 - C10) aromatic	**78**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**1800**	50	100	"	"	"	"	"	EPA TO-15	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
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San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

TPHv / APH on Vapors by EPA Method TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-75-5' (E206093-05) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**1600**	50	100	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**1000**	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	**94**	50	100	"	"	"	"	"	"	J
TPHv (C9 - C10) aromatic	**87**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**2300**	50	100	"	"	"	"	"	EPA TO-15	
SV-76-5' (E206093-06) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**1100**	50	100	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**1500**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**90**	50	100	"	"	"	"	"	"	J
TPHv (C6 - C8) aromatic	**56**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**2500**	50	100	"	"	"	"	"	EPA TO-15	
SV-77-5' (E206093-07) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**720**	50	100	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**1300**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**86**	50	100	"	"	"	"	"	"	J
TPHv (C6 - C8) aromatic	**52**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**2000**	50	100	"	"	"	"	"	EPA TO-15	
SV-78-5' (E206093-08) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**820**	50	100	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**1700**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**100**	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	**55**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**2700**	50	100	"	"	"	"	"	EPA TO-15	

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

TPHv / APH on Vapors by EPA Method TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-79-5' (E206093-09) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**710**	50	100	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**820**	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	ND	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**68**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**1400**	50	100	"	"	"	"	"	EPA TO-15	
SV-80-5' (E206093-10) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**1000**	50	100	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**710**	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	ND	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**65**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**1500**	50	100	"	"	"	"	"	EPA TO-15	
SV-80-15' (E206093-11) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**1300**	50	100	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**820**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**73**	50	100	"	"	"	"	"	"	J
TPHv (C6 - C8) aromatic	ND	50	100	"	"	"	"	"	"	
TPHv (C5 - C11)	**1700**	50	100	"	"	"	"	"	EPA TO-15	
SV-81-5' (E206093-12) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**740**	50	100	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**800**	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	ND	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**59**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**1400**	50	100	"	"	"	"	"	EPA TO-15	

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

TPHv / APH on Vapors by EPA Method TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-81-15' (E206093-13) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**1600**	50	100	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**970**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**77**	50	100	"	"	"	"	"	"	J
TPHv (C6 - C8) aromatic	ND	50	100	"	"	"	"	"	"	
TPHv (C5 - C11)	**2000**	50	100	"	"	"	"	"	EPA TO-15	
SV-82-5' (E206093-14) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**900**	50	100	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**1000**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**110**	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	**79**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**1900**	50	100	"	"	"	"	"	EPA TO-15	
SV-82-15' (E206093-15) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**1500**	50	100	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**1000**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**81**	50	100	"	"	"	"	"	"	J
TPHv (C6 - C8) aromatic	**57**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**2000**	50	100	"	"	"	"	"	EPA TO-15	
SV-83-5' (E206093-16) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**870**	50	100	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**710**	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	ND	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**62**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**1400**	50	100	"	"	"	"	"	EPA TO-15	

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TPHv / APH on Vapors by EPA Method TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-83-15' (E206093-17) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**2000**	50	100	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**800**	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	**170**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**87**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**2200**	50	100	"	"	"	"	"	EPA TO-15	
SV-84-5' (E206093-18) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**1100**	50	100	ug/m3	1	EF22904	28-Jun-12	29-Jun-12	MA APHm	
TPHv (C9 - C12) aliphatic	**530**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**51**	50	100	"	"	"	"	"	"	J
TPHv (C6 - C8) aromatic	**93**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**1300**	50	100	"	"	"	"	"	EPA TO-15	
SV-84-15' (E206093-19) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**3500**	50	100	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	MA APHm	
TPHv (C9 - C12) aliphatic	**290**	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	**86**	50	100	"	"	"	"	"	"	J
TPHv (C9 - C10) aromatic	**110**	50	100	"	"	"	"	"	"	
TPHv (C5 - C11)	**2500**	50	100	"	"	"	"	"	EPA TO-15	
SV-85-5' (E206093-20) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**940**	50	100	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	MA APHm	
TPHv (C9 - C12) aliphatic	**740**	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	**110**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**88**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**1400**	50	100	"	"	"	"	"	EPA TO-15	

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

TPHv / APH on Vapors by EPA Method TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-85-15' (E206093-21) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**1100**	50	100	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	MA APHm	
TPHv (C9 - C12) aliphatic	**710**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**68**	50	100	"	"	"	"	"	"	J
TPHv (C6 - C8) aromatic	**53**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**1500**	50	100	"	"	"	"	"	EPA TO-15	
SV-86-15' (E206093-22) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**1900**	50	100	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	MA APHm	
TPHv (C9 - C12) aliphatic	**2200**	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	**66**	50	100	"	"	"	"	"	"	J
TPHv (C9 - C10) aromatic	**88**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**3600**	50	100	"	"	"	"	"	EPA TO-15	
SV-87-15' (E206093-23) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**1500**	50	100	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	MA APHm	
TPHv (C9 - C12) aliphatic	**1300**	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	**57**	50	100	"	"	"	"	"	"	J
TPHv (C9 - C10) aromatic	**76**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**2400**	50	100	"	"	"	"	"	EPA TO-15	
SV-88-15' (E206093-24) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**1700**	50	100	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	MA APHm	
TPHv (C9 - C12) aliphatic	**1300**	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	**340**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**150**	50	100	"	"	"	"	"	"	
TPHv (C5 - C11)	**2800**	50	100	"	"	"	"	"	EPA TO-15	

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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

TPHv / APH on Vapors by EPA Method TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-89-15' (E206093-25) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**75000**	5000	10000	ug/m3	100	EG20304	02-Jul-12	02-Jul-12	MA APHm	
TPHv (C9 - C12) aliphatic	ND	5000	10000	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	ND	5000	10000	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	ND	5000	10000	"	"	"	"	"	"	
TPHv (C5 - C11)	**53000**	5000	10000	"	"	"	"	"	EPA TO-15	
SV-90-15' (E206093-26) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**49000**	5000	10000	ug/m3	100	EG20304	02-Jul-12	02-Jul-12	MA APHm	
TPHv (C9 - C12) aliphatic	ND	5000	10000	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	ND	5000	10000	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	ND	5000	10000	"	"	"	"	"	"	
TPHv (C5 - C11)	**35000**	5000	10000	"	"	"	"	"	EPA TO-15	
SV-91-15' (E206093-27) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**3100**	50	100	ug/m3	1	EG21205	12-Jul-12	12-Jul-12	MA APHm	
TPHv (C9 - C12) aliphatic	**900**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**73**	50	100	"	"	"	"	"	"	J
TPHv (C6 - C8) aromatic	**53**	50	100	"	"	"	"	"	"	J
TPHv (C5 - C11)	**2800**	50	100	"	"	"	"	"	EPA TO-15	
DUP-1 (E206093-28) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**960**	50	100	ug/m3	1	EG21205	12-Jul-12	12-Jul-12	MA APHm	
TPHv (C9 - C12) aliphatic	**460**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**59**	50	100	"	"	"	"	"	"	J
TPHv (C6 - C8) aromatic	**100**	50	100	"	"	"	"	"	"	
TPHv (C5 - C11)	**1000**	50	100	"	"	"	"	"	EPA TO-15	

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San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

TPHv / APH on Vapors by EPA Method TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	MDL	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
DUP-2 (E206093-29) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	**1200**	50	100	ug/m3	1	EG21205	12-Jul-12	12-Jul-12	MA APHm	
TPHv (C9 - C12) aliphatic	**1000**	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	**69**	50	100	"	"	"	"	"	"	J
TPHv (C6 - C8) aromatic	**130**	50	100	"	"	"	"	"	"	
TPHv (C5 - C11)	**1900**	50	100	"	"	"	"	"	EPA TO-15	
Trip Blank A (E206093-30) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	ND	50	100	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	MA APHm	
TPHv (C9 - C12) aliphatic	ND	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	ND	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	ND	50	100	"	"	"	"	"	"	
TPHv (C5 - C11)	ND	50	100	"	"	"	"	"	EPA TO-15	
Trip Blank B (E206093-31) Vapor	**Sampled: 20-Jun-12**	**Received: 22-Jun-12**								**J- Report**
TPHv (C5 - C8) aliphatic	ND	50	100	ug/m3	1	EG20304	02-Jul-12	02-Jul-12	MA APHm	
TPHv (C9 - C12) aliphatic	ND	50	100	"	"	"	"	"	"	
TPHv (C9 - C10) aromatic	ND	50	100	"	"	"	"	"	"	
TPHv (C6 - C8) aromatic	ND	50	100	"	"	"	"	"	"	
TPHv (C5 - C11)	ND	50	100	"	"	"	"	"	EPA TO-15	

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San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Soil Gas and Vapor Analysis - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF22805 - GC										
Blank (EF22805-BLK1)				Prepared & Analyzed: 28-Jun-12						
Methane	ND	10	ppmv							
Blank (EF22805-BLK2)				Prepared & Analyzed: 28-Jun-12						
Methane	ND	10	ppmv							
Batch EF22806 - GC										
Blank (EF22806-BLK1)				Prepared & Analyzed: 28-Jun-12						
Carbon dioxide	ND	0.2	%							
Blank (EF22806-BLK2)				Prepared & Analyzed: 28-Jun-12						
Carbon dioxide	ND	0.2	%							

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Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF22904 - TO-15										
Blank (EF22904-BLK1)				Prepared & Analyzed: 28-Jun-12						
1,1-Difluoroethane (LCC)	ND	2.7	ug/m3							
Propene	ND	8.7	"							
Dichlorodifluoromethane (F12)	ND	5.0	"							
Chloromethane	ND	2.1	"							
Dichlorotetrafluoroethane (F114)	ND	7.1	"							
Vinyl chloride	ND	2.6	"							
1,3-Butadiene	ND	4.5	"							
Bromomethane	ND	16	"							
Chloroethane	ND	8.0	"							
Ethanol	ND	19	"							
Trichlorofluoromethane (F11)	ND	5.6	"							
Acetone	ND	24	"							
Isopropyl alcohol	ND	25	"							
1,1-Dichloroethene	ND	4.0	"							
Tertiary-butyl alcohol (TBA)	ND	6.1	"							
1,1,2-Trichlorotrifluoroethane (F113)	ND	7.7	"							
Methylene chloride (Dichloromethane)	ND	3.5	"							
Carbon disulfide	ND	6.3	"							
trans-1,2-Dichloroethene	ND	8.0	"							
Methyl tertiary-butyl ether (MTBE)	ND	3.6	"							
Vinyl acetate	ND	3.6	"							
1,1-Dichloroethane	ND	4.1	"							
2-Butanone (MEK)	ND	30	"							
n-Hexane	ND	3.6	"							
cis-1,2-Dichloroethene	ND	4.0	"							
Diisopropyl ether (DIPE)	ND	4.2	"							
Ethyl acetate	ND	18	"							
Chloroform	ND	4.9	"							
2,2-Dichloropropane	ND	4.7	"							
Tetrahydrofuran	ND	30	"							
Ethyl tert-butyl ether (ETBE)	ND	4.2	"							
1,1,1-Trichloroethane	ND	5.5	"							
1,2-Dichloroethane (EDC)	ND	4.1	"							
1,1-Dichloropropene	ND	4.6	"							

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Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF22904 - TO-15										
Blank (EF22904-BLK1)				Prepared & Analyzed: 28-Jun-12						
Benzene	ND	3.2	ug/m3							
Carbon tetrachloride	ND	6.4	"							
Dibromomethane	ND	7.2	"							
Cyclohexane	ND	17	"							
Tertiary-amyl methyl ether (TAME)	ND	4.2	"							
2,2,4-Trimethylpentane	ND	4.7	"							
n-Heptane	ND	4.1	"							
Trichloroethene	ND	5.5	"							
1,2-Dichloropropane	ND	9.4	"							
1,4-Dioxane	ND	7.3	"							
Bromodichloromethane	ND	6.8	"							
cis-1,3-Dichloropropene	ND	4.6	"							
4-Methyl-2-pentanone (MIBK)	ND	8.3	"							
trans-1,3-Dichloropropene	ND	4.6	"							
1,3-Dichloropropane	ND	4.7	"							
Toluene	ND	3.8	"							
1,1,2-Trichloroethane	ND	5.5	"							
2-Hexanone (MBK)	ND	8.3	"							
Dibromochloromethane	ND	8.6	"							
Tetrachloroethene	ND	6.9	"							
1,2-Dibromoethane (EDB)	ND	7.8	"							
1,1,1,2-Tetrachloroethane	ND	7.0	"							
Chlorobenzene	ND	4.7	"							
Ethylbenzene	ND	4.4	"							
m,p-Xylene	ND	8.8	"							
Styrene	ND	4.3	"							
o-Xylene	ND	4.4	"							
Bromoform	ND	10	"							
1,1,2,2-Tetrachloroethane	ND	7.0	"							
1,2,3-Trichloropropane	ND	6.1	"							
4-Ethyltoluene	ND	5.0	"							
Isopropylbenzene (Cumene)	ND	5.0	"							
Bromobenzene	ND	6.5	"							
2-Chlorotoluene	ND	11	"							

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Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF22904 - TO-15										
Blank (EF22904-BLK1)				Prepared & Analyzed: 28-Jun-12						
n-Propylbenzene	ND	5.0	ug/m3							
4-Chlorotoluene	ND	11	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.6	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	12	"							
Benzyl chloride	ND	10	"							
1,4-Dichlorobenzene	ND	12	"							
sec-Butylbenzene	ND	5.6	"							
p-Isopropyltoluene	ND	5.6	"							
1,2-Dichlorobenzene	ND	12	"							
n-Butylbenzene	ND	5.6	"							
1,2-Dibromo-3-chloropropane	ND	9.8	"							
Naphthalene	ND	5.3	"							
1,2,4-Trichlorobenzene	ND	7.5	"							
1,2,3-Trichlorobenzene	ND	7.5	"							
Hexachlorobutadiene	ND	11	"							
Surrogate: 1,2-Dichloroethane-d4	*186*		*"*	*214*		*86.6*	*76-134*			
Surrogate: Toluene-d8	*195*		*"*	*207*		*94.1*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*365*		*"*	*364*		*100*	*77-127*			
LCS (EF22904-BS1)				Prepared & Analyzed: 28-Jun-12						
Dichlorodifluoromethane (F12)	96	5.0	ug/m3	101		95.4	65-135			
Vinyl chloride	46	2.6	"	52.0		88.2	65-135			
Chloroethane	56	8.0	"	53.6		104	65-135			
Trichlorofluoromethane (F11)	110	5.6	"	113		96.5	65-135			
1,1-Dichloroethene	69	4.0	"	80.8		85.7	65-135			
1,1,2-Trichlorotrifluoroethane (F113)	140	7.7	"	155		91.6	65-135			
Methylene chloride (Dichloromethane)	61	3.5	"	70.8		86.4	65-135			
trans-1,2-Dichloroethene	63	8.0	"	80.8		77.5	65-135			
1,1-Dichloroethane	67	4.1	"	82.4		81.4	65-135			
cis-1,2-Dichloroethene	64	4.0	"	80.0		79.9	65-135			
Chloroform	89	4.9	"	99.2		90.2	65-135			

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Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF22904 - TO-15										
LCS (EF22904-BS1)				Prepared & Analyzed: 28-Jun-12						
1,1,1-Trichloroethane	95	5.5	ug/m3	111		85.4	65-135			
1,2-Dichloroethane (EDC)	69	4.1	"	82.4		84.2	65-135			
Benzene	53	3.2	"	64.8		82.3	65-135			
Carbon tetrachloride	120	6.4	"	128		91.6	65-135			
Trichloroethene	97	5.5	"	110		88.7	65-135			
Toluene	65	3.8	"	76.8		85.0	65-135			
1,1,2-Trichloroethane	95	5.5	"	111		85.7	65-135			
Tetrachloroethene	130	6.9	"	138		96.4	65-135			
1,1,1,2-Tetrachloroethane	140	7.0	"	140		103	65-135			
Ethylbenzene	79	4.4	"	88.4		89.4	65-135			
m,p-Xylene	160	8.8	"	177		91.7	65-135			
o-Xylene	81	4.4	"	88.4		91.7	65-135			
1,1,2,2-Tetrachloroethane	130	7.0	"	140		90.9	65-135			
Surrogate: 1,2-Dichloroethane-d4	*194*		*"*	*214*		*90.5*	*76-134*			
Surrogate: Toluene-d8	*200*		*"*	*207*		*96.6*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*387*		*"*	*364*		*106*	*77-127*			
Batch EG20304 - TO-15										
Blank (EG20304-BLK1)				Prepared & Analyzed: 02-Jul-12						
1,1-Difluoroethane (LCC)	ND	2.7	ug/m3							
Propene	ND	8.7	"							
Dichlorodifluoromethane (F12)	ND	5.0	"							
Chloromethane	ND	2.1	"							
Dichlorotetrafluoroethane (F114)	ND	7.1	"							
Vinyl chloride	ND	2.6	"							
1,3-Butadiene	ND	4.5	"							
Bromomethane	ND	16	"							
Chloroethane	ND	8.0	"							
Ethanol	ND	19	"							
Trichlorofluoromethane (F11)	ND	5.6	"							
Acetone	ND	24	"							
Isopropyl alcohol	ND	25	"							

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Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG20304 - TO-15										
Blank (EG20304-BLK1)				Prepared & Analyzed: 02-Jul-12						
1,1-Dichloroethene	ND	4.0	ug/m3							
Tertiary-butyl alcohol (TBA)	ND	6.1	"							
1,1,2-Trichlorotrifluoroethane (F113)	ND	7.7	"							
Methylene chloride (Dichloromethane)	ND	3.5	"							
Carbon disulfide	ND	6.3	"							
trans-1,2-Dichloroethene	ND	8.0	"							
Methyl tertiary-butyl ether (MTBE)	ND	3.6	"							
Vinyl acetate	ND	3.6	"							
1,1-Dichloroethane	ND	4.1	"							
2-Butanone (MEK)	ND	30	"							
n-Hexane	ND	3.6	"							
cis-1,2-Dichloroethene	ND	4.0	"							
Diisopropyl ether (DIPE)	ND	4.2	"							
Ethyl acetate	ND	18	"							
Chloroform	ND	4.9	"							
2,2-Dichloropropane	ND	4.7	"							
Tetrahydrofuran	ND	30	"							
Ethyl tert-butyl ether (ETBE)	ND	4.2	"							
1,1,1-Trichloroethane	ND	5.5	"							
1,2-Dichloroethane (EDC)	ND	4.1	"							
1,1-Dichloropropene	ND	4.6	"							
Benzene	ND	3.2	"							
Carbon tetrachloride	ND	6.4	"							
Cyclohexane	ND	17	"							
Dibromomethane	ND	7.2	"							
Tertiary-amyl methyl ether (TAME)	ND	4.2	"							
2,2,4-Trimethylpentane	ND	4.7	"							
n-Heptane	ND	4.1	"							
Trichloroethene	ND	5.5	"							
1,2-Dichloropropane	ND	9.4	"							
1,4-Dioxane	ND	7.3	"							
Bromodichloromethane	ND	6.8	"							
cis-1,3-Dichloropropene	ND	4.6	"							
4-Methyl-2-pentanone (MIBK)	ND	8.3	"							

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Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG20304 - TO-15										
Blank (EG20304-BLK1)				Prepared & Analyzed: 02-Jul-12						
trans-1,3-Dichloropropene	ND	4.6	ug/m3							
1,3-Dichloropropane	ND	4.7	"							
Toluene	ND	3.8	"							
1,1,2-Trichloroethane	ND	5.5	"							
2-Hexanone (MBK)	ND	8.3	"							
Dibromochloromethane	ND	8.6	"							
Tetrachloroethene	ND	6.9	"							
1,2-Dibromoethane (EDB)	ND	7.8	"							
1,1,1,2-Tetrachloroethane	ND	7.0	"							
Chlorobenzene	ND	4.7	"							
Ethylbenzene	ND	4.4	"							
m,p-Xylene	ND	8.8	"							
Styrene	ND	4.3	"							
o-Xylene	ND	4.4	"							
Bromoform	ND	10	"							
1,1,2,2-Tetrachloroethane	ND	7.0	"							
4-Ethyltoluene	ND	5.0	"							
1,2,3-Trichloropropane	ND	6.1	"							
Isopropylbenzene (Cumene)	ND	5.0	"							
Bromobenzene	ND	6.5	"							
2-Chlorotoluene	ND	11	"							
n-Propylbenzene	ND	5.0	"							
4-Chlorotoluene	ND	11	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.6	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	12	"							
Benzyl chloride	ND	10	"							
1,4-Dichlorobenzene	ND	12	"							
sec-Butylbenzene	ND	5.6	"							
p-Isopropyltoluene	ND	5.6	"							
1,2-Dichlorobenzene	ND	12	"							
n-Butylbenzene	ND	5.6	"							
1,2-Dibromo-3-chloropropane	ND	9.8	"							

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG20304 - TO-15										
Blank (EG20304-BLK1)				Prepared & Analyzed: 02-Jul-12						
Naphthalene	ND	5.3	ug/m3							
1,2,4-Trichlorobenzene	ND	7.5	"							
1,2,3-Trichlorobenzene	ND	7.5	"							
Hexachlorobutadiene	ND	11	"							
Surrogate: 1,2-Dichloroethane-d4	*216*		*"*	*214*		*101*	*76-134*			
Surrogate: Toluene-d8	*199*		*"*	*207*		*95.9*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*384*		*"*	*364*		*105*	*77-127*			
LCS (EG20304-BS1)				Prepared & Analyzed: 02-Jul-12						
Dichlorodifluoromethane (F12)	97	5.0	ug/m3	101		96.5	65-135			
Vinyl chloride	50	2.6	"	52.0		95.5	65-135			
Chloroethane	55	8.0	"	53.6		102	65-135			
Trichlorofluoromethane (F11)	120	5.6	"	113		102	65-135			
1,1-Dichloroethene	63	4.0	"	80.8		78.2	65-135			
1,1,2-Trichlorotrifluoroethane (F113)	140	7.7	"	155		88.3	65-135			
Methylene chloride (Dichloromethane)	52	3.5	"	70.8		73.2	65-135			
trans-1,2-Dichloroethene	59	8.0	"	80.8		73.6	65-135			
1,1-Dichloroethane	63	4.1	"	82.4		76.9	65-135			
cis-1,2-Dichloroethene	61	4.0	"	80.0		75.7	65-135			
Chloroform	87	4.9	"	99.2		87.3	65-135			
1,1,1-Trichloroethane	98	5.5	"	111		87.9	65-135			
1,2-Dichloroethane (EDC)	74	4.1	"	82.4		89.5	65-135			
Benzene	47	3.2	"	64.8		72.4	65-135			
Carbon tetrachloride	130	6.4	"	128		98.1	65-135			
Trichloroethene	98	5.5	"	110		89.0	65-135			
Toluene	62	3.8	"	76.8		80.7	65-135			
1,1,2-Trichloroethane	88	5.5	"	111		79.4	65-135			
Tetrachloroethene	130	6.9	"	138		91.9	65-135			
1,1,1,2-Tetrachloroethane	140	7.0	"	140		101	65-135			
Ethylbenzene	75	4.4	"	88.4		84.9	65-135			
m,p-Xylene	160	8.8	"	177		87.8	65-135			
o-Xylene	78	4.4	"	88.4		87.8	65-135			
1,1,2,2-Tetrachloroethane	120	7.0	"	140		84.9	65-135			

H&P Mobile Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
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Padre Associates, Inc.	Project: PAD062212-14 Rev	
369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG20304 - TO-15										
LCS (EG20304-BS1)				Prepared & Analyzed: 02-Jul-12						
Surrogate: 1,2-Dichloroethane-d4	*215*		*ug/m3*	*214*		*100*	*76-134*			
Surrogate: Toluene-d8	*191*		*"*	*207*		*92.1*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*406*		*"*	*364*		*111*	*77-127*			
Batch EG21205 - TO-15										
Blank (EG21205-BLK1)				Prepared & Analyzed: 11-Jul-12						
1,1-Difluoroethane (LCC)	ND	10000	ug/m3							
Propene	ND	8.7	"							
Dichlorodifluoromethane (F12)	ND	5.0	"							
Chloromethane	ND	2.1	"							
Dichlorotetrafluoroethane (F114)	ND	7.1	"							
Vinyl chloride	ND	2.6	"							
1,3-Butadiene	ND	4.5	"							
Bromomethane	ND	16	"							
Chloroethane	ND	8.0	"							
Ethanol	ND	19	"							
Trichlorofluoromethane (F11)	ND	5.6	"							
Acetone	ND	24	"							
Isopropyl alcohol	ND	25	"							
1,1-Dichloroethene	ND	4.0	"							
Tertiary-butyl alcohol (TBA)	ND	6.1	"							
1,1,2-Trichlorotrifluoroethane (F113)	ND	7.7	"							
Methylene chloride (Dichloromethane)	ND	3.5	"							
Carbon disulfide	ND	6.3	"							
trans-1,2-Dichloroethene	ND	8.0	"							
Methyl tertiary-butyl ether (MTBE)	ND	3.6	"							
Vinyl acetate	ND	3.6	"							
1,1-Dichloroethane	ND	4.1	"							
2-Butanone (MEK)	ND	30	"							
n-Hexane	ND	3.6	"							
cis-1,2-Dichloroethene	ND	4.0	"							
Diisopropyl ether (DIPE)	ND	4.2	"							

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG21205 - TO-15										
Blank (EG21205-BLK1)				Prepared & Analyzed: 11-Jul-12						
Ethyl acetate	ND	18	ug/m3							
Chloroform	ND	4.9	"							
2,2-Dichloropropane	ND	4.7	"							
Tetrahydrofuran	ND	30	"							
Ethyl tert-butyl ether (ETBE)	ND	4.2	"							
1,1,1-Trichloroethane	ND	5.5	"							
1,2-Dichloroethane (EDC)	ND	4.1	"							
1,1-Dichloropropene	ND	4.6	"							
Benzene	ND	3.2	"							
Carbon tetrachloride	ND	6.4	"							
Cyclohexane	ND	17	"							
Dibromomethane	ND	7.2	"							
Tertiary-amyl methyl ether (TAME)	ND	4.2	"							
2,2,4-Trimethylpentane	ND	4.7	"							
n-Heptane	ND	4.1	"							
Trichloroethene	ND	5.5	"							
1,2-Dichloropropane	ND	9.4	"							
1,4-Dioxane	ND	7.3	"							
Bromodichloromethane	ND	6.8	"							
cis-1,3-Dichloropropene	ND	4.6	"							
4-Methyl-2-pentanone (MIBK)	ND	8.3	"							
trans-1,3-Dichloropropene	ND	4.6	"							
1,3-Dichloropropane	ND	4.7	"							
Toluene	ND	3.8	"							
1,1,2-Trichloroethane	ND	5.5	"							
2-Hexanone (MBK)	ND	8.3	"							
Dibromochloromethane	ND	8.6	"							
Tetrachloroethene	ND	6.9	"							
1,2-Dibromoethane (EDB)	ND	7.8	"							
1,1,1,2-Tetrachloroethane	ND	7.0	"							
Chlorobenzene	ND	4.7	"							
Ethylbenzene	ND	4.4	"							
m,p-Xylene	ND	8.8	"							
Styrene	ND	4.3	"							

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG21205 - TO-15										
Blank (EG21205-BLK1)				Prepared & Analyzed: 11-Jul-12						
o-Xylene	ND	4.4	ug/m3							
Bromoform	ND	10	"							
1,1,2,2-Tetrachloroethane	ND	7.0	"							
4-Ethyltoluene	ND	5.0	"							
1,2,3-Trichloropropane	ND	6.1	"							
Isopropylbenzene (Cumene)	ND	5.0	"							
Bromobenzene	ND	6.5	"							
2-Chlorotoluene	ND	11	"							
n-Propylbenzene	ND	5.0	"							
4-Chlorotoluene	ND	11	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.6	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	12	"							
Benzyl chloride	ND	10	"							
1,4-Dichlorobenzene	ND	12	"							
sec-Butylbenzene	ND	5.6	"							
p-Isopropyltoluene	ND	5.6	"							
1,2-Dichlorobenzene	ND	12	"							
n-Butylbenzene	ND	5.6	"							
1,2-Dibromo-3-chloropropane	ND	9.8	"							
Naphthalene	ND	5.3	"							
1,2,4-Trichlorobenzene	ND	7.5	"							
1,2,3-Trichlorobenzene	ND	7.5	"							
Hexachlorobutadiene	ND	11	"							
Surrogate: 1,2-Dichloroethane-d4	*191*		"	*214*		*89.3*	*76-134*			
Surrogate: Toluene-d8	*192*		"	*207*		*92.6*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*378*		"	*364*		*104*	*77-127*			

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EG21205 - TO-15										
LCS (EG21205-BS1)				Prepared: 11-Jul-12 Analyzed: 12-Jul-12						
Dichlorodifluoromethane (F12)	91	5.0	ug/m3	101		90.2	65-135			
Vinyl chloride	36	2.6	"	52.0		70.0	65-135			
Chloroethane	41	8.0	"	53.6		75.8	65-135			
Trichlorofluoromethane (F11)	120	5.6	"	113		105	65-135			
1,1-Dichloroethene	68	4.0	"	80.8		84.0	65-135			
1,1,2-Trichlorotrifluoroethane (F113)	150	7.7	"	155		94.5	65-135			
Methylene chloride (Dichloromethane)	57	3.5	"	70.8		80.3	65-135			
trans-1,2-Dichloroethene	64	8.0	"	80.8		79.7	65-135			
1,1-Dichloroethane	72	4.1	"	82.4		87.0	65-135			
cis-1,2-Dichloroethene	67	4.0	"	80.0		83.5	65-135			
Chloroform	89	4.9	"	99.2		89.6	65-135			
1,1,1-Trichloroethane	100	5.5	"	111		91.1	65-135			
1,2-Dichloroethane (EDC)	71	4.1	"	82.4		86.0	65-135			
Benzene	46	3.2	"	64.8		70.8	65-135			
Carbon tetrachloride	130	6.4	"	128		102	65-135			
Trichloroethene	99	5.5	"	110		90.3	65-135			
Toluene	59	3.8	"	76.8		77.3	65-135			
1,1,2-Trichloroethane	91	5.5	"	111		82.0	65-135			
Tetrachloroethene	130	6.9	"	138		96.8	65-135			
1,1,1,2-Tetrachloroethane	160	7.0	"	140		116	65-135			
Ethylbenzene	82	4.4	"	88.4		92.8	65-135			
m,p-Xylene	170	8.8	"	177		94.1	65-135			
o-Xylene	85	4.4	"	88.4		96.1	65-135			
1,1,2,2-Tetrachloroethane	130	7.0	"	140		91.3	65-135			
Surrogate: 1,2-Dichloroethane-d4	*200*		*"*	*214*		*93.3*	*76-134*			
Surrogate: Toluene-d8	*194*		*"*	*207*		*93.5*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*400*		*"*	*364*		*110*	*77-127*			

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

TPHv / APH on Vapors by EPA Method TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF22904 - TO-15										
Blank (EF22904-BLK1)				Prepared & Analyzed: 28-Jun-12						
TPHv (C5 - C8) aliphatic	ND	100	ug/m3							
TPHv (C5 - C11)	ND	100	"							
TPHv (C9 - C12) aliphatic	ND	100	"							
TPHv (C6 - C8) aromatic	ND	100	"							
TPHv (C9 - C10) aromatic	ND	100	"							
Batch EG20304 - TO-15										
Blank (EG20304-BLK1)				Prepared & Analyzed: 02-Jul-12						
TPHv (C5 - C8) aliphatic	ND	100	ug/m3							
TPHv (C9 - C12) aliphatic	ND	100	"							
TPHv (C5 - C11)	ND	100	"							
TPHv (C6 - C8) aromatic	ND	100	"							
TPHv (C9 - C10) aromatic	ND	100	"							
Batch EG21205 - TO-15										
Blank (EG21205-BLK1)				Prepared & Analyzed: 11-Jul-12						
TPHv (C5 - C8) aliphatic	ND	100	ug/m3							
TPHv (C9 - C12) aliphatic	ND	100	"							
TPHv (C5 - C11)	ND	100	"							
TPHv (C9 - C10) aromatic	ND	100	"							
TPHv (C6 - C8) aromatic	ND	100	"							

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369 Pacific Street	Project Number: 0801-0897 / Avila Terminal	Reported:
San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Notes and Definitions

J- Report	This sample is reported to the standard MDL determined for this method. All confirmed hits above the reported MDL value and below the RL, will be flagged with a "J" result.
J	Detected but below the RL; therefore, result is an estimated concentration.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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San Luis Obispo, CA 93401	Project Manager: Mr. Louis Cappel	30-Jul-12 13:35

Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the Environmental Laboratory Accreditation Program (CA) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste for the following methods:

Certificate# 2741, 2743, 2579, 2754 & 2740 approved for EPA 8260 and LUFT GC/MS
Certificate# 2742, 2745, & 2741 approved for LUFT
Certificate# 2745 & 2742 approved for EPA 418.1

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the National Environmental Accreditation Conference Standards for the category Environmental Analysis Air and Emissions for the following analytes and methods:

1,2,4-Trichlorobenzene by EPA TO-15 & TO-14A
Hexachlorobutadiene by EPA TO-15 & TO-14A
1,2,4-Trimethylbenzene by EPA TO -14A
1,2-Dichlorobenzene by EPA TO-15 & TO-14A
1,3,5-Trimethylbenzene by EPA TO -14A
1,4-Dichlorobenzene by EPA TO-15 & TO-14A
Benzene by EPA TO-15 & TO-14A
Chlorobenzene by EPA TO-15 & TO-14A
Ethyl benzene by EPA TO-15 & TO-14A
Styrene by EPA TO-15 & TO-14A
Toluene by EPA TO-15 & TO-14A
Total Xylenes by EPA TO-15 & TO-14A
1,1,1-Trichloroethane by EPA TO-15 & TO-14A
1,1,2,2-Tetrachloroethane by EPA TO-15 & TO-14A
1,1,2-Trichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethene by EPA TO-15 & TO-14A
1,2-Dichloroethane by EPA TO-15 & TO-14A
1,2-Dichloropropane by EPA TO-15 & TO-14A
Benzyl Chloride by EPA TO-15 & TO-14A
Bromoform by EPA TO-15
Bromomethane by EPA TO-15 & TO-14A
Carbon tetrachloride by EPA TO-15 & TO-14A
Chloroethane by EPA TO-15
Chloroform by EPA TO-15 & TO-14A
Chloromethane by EPA TO-15 & TO-14A
cis-1,2-Dichloroethene by EPA TO-15
cis-1,2-Dichloropropene by EPA TO-15 & TO-14A
Methylene chloride by EPA TO -15 & TO-14A
Tetrachloroethane by EPA TO-15 & TO-14A
trans-1,2-Dichloroethene by EPA TO-15
trans-1,2-Dichloropropene by EPA TO-15 & TO-14A
Trichloroethene by EPA TO-15 & TO-14A
Vinyl chloride by EPA TO -15 & TO-14A
2-Butanone by EPA TO-15
4-Methyl-2-Pentanone by EPA TO-15
Hexane by EPA TO-15
Methyl tert-butyl ether by EPA TO-15
Vinyl acetate by EPA TO-15
Dibromochloromethane by EPA TO-15
Dichlorodifluoromethane by EPA TO-15 & TO-14A
Trichlorofluoromethane by EPA TO-15 & TO-14A
Naphthalene by EPA TO-15 & TO-14A
m&p Xylenes by EPA TO-15
o-Xylene by EPA TO-15
1,3-Butadiene by EPA TO-15
1,1,2-Trichlorotrifluoroethane by EPA TO-15 & TO-14A
Carbon disulfide by EPA TO-15
1,4-Dioxane by EPA TO-15
Cyclohexane by EPA TO-15
tert-Butyl Alcohol by EPA TO-15
1,3-Dichlorobenzene by EPA TO-15 & TO-14A
Heptane by EPA TO-15
Bromodichloromethane by EPA TO-15 & TO-14A

This certification applies to samples analyzed in summa canisters.

H&P Mobile Geochemistry Inc.

Chain of Custody Record

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☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 6-21-12
H&P Project #: PAD062212-14
Outside Lab:

Client: Padre Associates, Inc.
Address: 369 Pacific St.
S.L.O., CA 93401
Email: Lcappel@padreinc.com

Collector: Paul Lavelle / Cody Montoya
Page: 1 of 4
Client Project #: 0801-0897
Project Contact: Louis Cappel
Location: Avila Terminal
Phone: 805-786-2650
Fax: 805-786-2651
Turn around time: Normal

Geotracker EDF: Yes ☐ No ☐
Global ID:
Excel EDD: Yes ☒ No ☐

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☐ Yes ☐ No ☒ N/A
Temperature:

Special Instructions: ANALYZE PER ATTACHED QUOTE (REPORT IN ug/m3, WITH J-FLAGS TO MDL)
UPS TRACK: 1Z93TT6184484O6508 and 1Z93TT6184467342 92

Lab Work Order #: E206093

Analyses: SOIL/GW: 8260B Full List; 8260B ☐ BTEX/OXY ☐ TPH gas; 8015M TPH ☐ g ☐ d ☐ ext; 418.1 TRPH. SOIL VAPOR/AIR ANALYSIS: VOC's: Full List ☐ 8260B ☒ TO-15; VOC's: Short List/DTSC ☐ 8260B ☐ TO-15; VOC's: SAM, 8260B ☐ SAM A ☐ SAM B; Naphthalene ☐ 8260B ☒ TO-15; Oxygenates ☐ 8260B ☒ TO-15; TPHv gas + APH ☐ 8260B ☒ TO-15; Ketones ☐ 8260B ☐ TO-15; Other ☐ 8260B ☐ TO-15; Leak Check Compound ☒ 1,1 DFA ☐ OTHER; Methane; Fixed Gases ☒ CO2 ☒ O2 ☒ N2

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B	8015M TPH	418.1 TRPH	VOC's: Full List	VOC's: Short List/DTSC	VOC's: SAM, 8260B	Naphthalene	Oxygenates	TPHv gas +APH	Ketones	Other	Leak Check Compound	Methane	Fixed Gases	CAN#	VAC
SV-71-5'	/	600cc	1105	6/20/12	gas	400 mL Summa	1					X			X	X	X			X	X	X	136	-1.1
SV-72-5'	/	↓	1140	↓	↓	↓	↓					↓			↓	↓	↓			↓	↓	↓	201	-7.2
SV-73-5'	/	↓	1155	↓	↓	↓	↓					↓			↓	↓	↓			↓	↓	↓	376	-.9
SV-74-5'	/	↓	1210	↓	↓	↓	↓					↓			↓	↓	↓			↓	↓	↓	316	-1.4
SV-75-5'	/	↓	1225	↓	↓	↓	↓					↓			↓	↓	↓			↓	↓	↓	144	-.3
SV-76-5'	/	↓	1240	↓	↓	↓	↓					↓			↓	↓	↓			↓	↓	↓	170	-1.2
SV-77-5'	/	↓	1255	↓	↓	↓	↓					↓			↓	↓	↓			↓	↓	↓	059	-2.1
SV-78-5'	/	↓	1330	↓	↓	↓	↓					↓			↓	↓	↓			↓	↓	↓	313	-.6
SV-79-5'	/	↓	1347	↓	↓	↓	↓					↓			↓	↓	↓			↓	↓	↓	147	-1.4
SV-80-5'	/	↓	1405	↓	↓	↓	↓					↓			↓	↓	↓			↓	↓	↓	041	-2.2

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time
[signature]	PADRE	[signature]	H&P	6/22/12	1315

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ Disposal ☐ Return to client ☐ Pickup

Chain of Custody Record

Mobile Geochemistry Inc.

☐ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 6-21-12
H&P Project #: ~~PAD062012-MC~~
~~Outside Lab:~~ PAD062212-14

Client: Padre Associates, Inc.
Address: 369 Pacific St.
S.L.O, CA 93401
Email: L cuppel @ padre inc.com

Collector: Paul Lavelle / Cody Montoya
Client Project #: 0801-0897
Location: Avila Terminal
Phone: 805-786-2650 Fax: 805-786-2651

Page: 2 of 4
Project Contact: Louis Cuppel
Turn around time: Normal

Geotracker EDF: Yes ☐ No ☐
Global ID:
Excel EDD: Yes ☒ No ☐

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☐ Yes ☐ No ☒ N/A
Temperature: RT

Special Instructions:

Lab Work Order # E206093

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B ☐ BTEX/OXY ☐ TPH gas	8015M TPH ☐ g ☐ d ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☒ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☒ TO-15	Oxygenates ☐ 8260B ☒ TO-15	TPHv gas ☒ 8260B ☒ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ____ ☐ 8260B ☐ TO-15	Leak Check Compound ☒ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☒ CO_2 ☒ O_2 ☒ N_2	CAN #	VAC
								SOIL/GW				SOIL VAPOR/AIR ANALYSIS												
SV-80-15'		600cc	1407	6/20/12	gas	400mL Summa	1					X			X	X	X			X	X	X	210	-2.1
SV-81-5'			1430																				040	-1.2
SV-81-15'			1435																				042	-1.8
SV-82-5'			1455																				007	-.3
SV-82-15'			1500																				094	-1.4
SV-83-5'		700cc	1000																				380	-.6
SV-83-15'			1002																				124	-1.0
SV-84-5'			0933																				015	-2.1
SV-84-15'			0935																				350	-1.2
SV-85-5'			1041																				006	-2.2

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time
[signature]	PADRE	[signature]	H&P	6/22/12	1315
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ Disposal ☐ Return to client ☐ Pickup

Chain of Custody Record

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☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 6-21-12
H&P Project # ~~PAD062212-MC~~
Outside Lab: PAD062212-14

Client: Padre Associates, Inc.
Collector: Paul Lavelle / Cody Montoya
Page: 3 of 4
Address: 369 Pacific St.
S.L.O., CA 93401
Client Project # 0801-0897
Project Contact: Louis Cappel
Location: Avila Terminal
Email: Lcappel@padreinc.com
Phone: 805-786-2650
Fax: 805-786-2651
Turn around time: Normal

Geotracker EDF: Yes ☐ No ☐
Global ID:
Excel EDD: Yes ☒ No ☐

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☐ Yes ☐ No ☒ N/A
Temperature: RT

Special Instructions:

Lab Work Order # E206093

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B ☐ BTEX/OXY ☐ TPH gas	8015M TPH ☐ g ☐ d ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☒ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B ☐ TO-15	Naphthalene ☐ 8260B ☒ TO-15	Oxygenates ☐ 8260B ☒ TO-15	TPHv gas+TAPH ☐ 8260B ☒ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ____ ☐ 8260B ☐ TO-15	Leak Check Compound ☒ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☒ CO_2 ☒ O_2 ☒ N_2	CAN #	VAC
								SOIL/GW				SOIL VAPOR/AIR ANALYSIS												
SV-85-15'		700cc	1040	6/20/12	gas	400 mL Summa	1					X			X	X	X			X	X	X	233	-2.4
SV-86-15'			1550																				029	-1.8
SV-87-15'			1605																				353	-1.8
SV-88-15'			1525																				340	-7.5
SV-89-15'			1640																				003	-1.3
SV-90-15'			1620																				257	-3.2
SV-91-15'			1630																				026	-.1
DUP-1			1100																				323	-.4
DUP-2			1200																				207	-1.1
Trip Blank A		—	—	—																			091	—

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time
	PADRE		H&P	6/22/12	1315
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ Disposal ☐ Return to client ☐ Pickup

H&P Mobile Geochemistry Inc.

Chain of Custody Record

☐ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 6-21-12
H&P Project # ~~PAD012212-MC~~
Outside Lab: PAD062212-14

Client: Padre Associates, Inc.
Address: 369 Pacific St.
S.L.O., CA 93401
Email: Lcappel@padreinc.com

Collector: Paul Lavelle / Cody Montoya
Page: 4 of 4
Client Project # 0801-0897
Project Contact: Louis Cappel
Location: Avila Terminal
Phone: 805-786-2650 Fax: 805-786-2651 Turn around time: Normal

Geotracker EDF: Yes ☐ No ☐
Global ID:
Excel EDD: Yes ☒ No ☐

Sample Receipt
Intact: ☒ Yes ☐ No
Seal Intact: ☐ Yes ☐ No ☒ N/A
Cold: ☐ Yes ☐ No ☒ N/A
Temperature: [illegible]

Special Instructions:

Lab Work Order # E206093

Analyses — SOIL/GW: 8260B Full List; 8260B ☐ BTEX/OXY ☐ TPH gas; 8015M TPH ☐ g ☐ d ☐ ext; 418.1 TRPH.
SOIL VAPOR/AIR ANALYSIS: VOC's: Full List ☐ 8260B ☒ TO-15; VOC's: Short List/DTSC ☐ 8260B ☐ TO-15; VOC's: SAM, 8260B ☐ SAM A ☐ SAM B; Naphthalene ☐ 8260B ☒ TO-15; Oxygenates ☐ 8260B ☒ TO-15; TPHv gas ~~APH~~ ☐ 8260B ☒ TO-15; Ketones ☐ 8260B ☐ TO-15; Other ____ ☐ 8260B ☐ TO-15; Leak Check Compound ☒ 1,1 DFA ☐ OTHER; Methane; Fixed Gases ☒ CO2 ☒ O2 ☒ N2.
Additional handwritten columns: CAN #; VAC.

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B BTEX/OXY/TPH gas	8015M TPH	418.1 TRPH	VOC's: Full List	VOC's: Short List/DTSC	VOC's: SAM	Naphthalene	Oxygenates	TPHv gas	Ketones	Other	Leak Check Compound	Methane	Fixed Gases	CAN #	VAC
Trip Blank B	—	—	—	—	gas	400 mL Summa	1					X			X	X	X			X		~~X~~ (LC)	319	—

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date	Time
[signature]	Padre	[signature]	H&P	6/22/12	1315

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back

Sample disposal instruction: ☐ Disposal ☐ Return to client ☐ Pickup

PAD062212-14 (PG1/2)

H&P

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LA Field Office: 1855 Coronado Avenue, Signal Hill, CA 90755
Ph: 800-834-9888 www.handpmg.com

EPA Method TO-15
Project Specific VOCs + CH4/CO2/O2/N2

★REPORT IN µg/m³ W/ d-FLAGS

Compound	400mL RLs Vapor (ppbv)	400mL MDL Vapor (ppbv)	400mL RLs Vapor (µg/m³)	400mL MDL Vapor (µg/m³)
1,1,1,2-Tetrachloroethane	1.0	0.17	7.0	1.19
1,1,1-Trichloroethane	1.0	0.23	5.5	1.27
1,1,2,2-Tetrachloroethane	1.0	0.11	7.0	0.77
1,1,2-Trichloroethane	1.0	0.27	5.5	1.49
1,1,2-Trichlorotrifluoroethane (F113)	1.0	0.09	7.7	0.70
1,1-Dichloroethane	1.0	0.18	4.1	0.74
1,1-Dichloroethene	1.0	0.41	4.0	1.65
1,2,4-Trichlorobenzene	1.0	0.18	7.5	1.35
1,2,4-Trimethylbenzene	1.0	0.23	5.0	1.15
1,2-Dibromoethane (EDB)	1.0	0.11	7.8	0.86
1,2-Dichlorobenzene	2.0	0.34	12.2	2.08
1,2-Dichloroethane (EDC)	1.0	0.22	4.1	0.91
1,2-Dichloropropane	2.0	0.37	9.4	1.74
1,3,5-Trimethylbenzene	1.0	0.26	5.0	1.30
1,3-Dichlorobenzene	2.0	0.35	12.2	2.14
1,4-Dichlorobenzene	2.0	0.38	12.2	2.32
2-Butanone (MEK)	10.0	1.2	29.9	3.59
2-Hexanone (MBK)	2.0	0.35	8.3	1.46
4-Ethyltoluene	1.0	0.26	5.0	1.30
4-Methyl-2-pentanone (MIBK)	2.0	0.11	8.4	0.46
Acetone	10.0	3.43	24.1	8.27
Benzene	1.0	0.22	3.2	0.71
Bromodichloromethane	1.0	0.14	6.8	0.95
Bromoform	1.0	0.5	10.5	5.26
Bromomethane	4.0	1.16	15.8	4.58
Carbon disulfide	2.0	0.31	6.3	0.98
Carbon tetrachloride	1.0	0.2	6.4	1.28
Chlorobenzene	1.0	0.12	4.7	0.56
Chloroethane	3.0	0.85	8.1	2.28
Chloroform	1.0	0.13	5.0	0.64
Chloromethane	1.0	0.15	2.1	0.31
cis-1,2-Dichloroethene	1.0	0.31	4.0	1.25
cis-1,3-Dichloropropene	1.0	0.19	4.6	0.88
Dibromochloromethane	1.0	0.09	8.7	0.78
Dichlorodifluoromethane (F12)	1.0	0.13	5.0	0.65
Dichlorotetrafluoroethane (F114)	1.0	0.16	7.1	1.13
Ethylbenzene	1.0	0.21	4.4	0.93
Hexachlorobutadiene	1.0	0.15	10.7	1.61

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m,p-Xylene	2.0	0.15	8.8	0.66
Methylene chloride (Dichloromethane)	1.0	0.23	3.5	0.81
o-Xylene	1.0	0.23	4.4	1.01
Styrene	1.0	0.2	4.3	0.86
Tetrachloroethene	1.0	0.13	6.9	0.90
Toluene	1.0	0.16	3.8	0.61
trans-1,2-Dichloroethene	2.0	0.41	8.1	1.65
trans-1,3-Dichloropropene	1.0	0.33	4.6	1.52
Trichloroethene	1.0	0.14	5.5	0.76
Trichlorofluoromethane (F11)	1.0	0.19	5.7	1.07
Vinyl chloride	1.0	0.18	2.6	0.47

Additional Compounds by TO-15	***400mL RLs*** *Vapor (ppbv)*	***400mL MDL*** *Vapor (ppbv)*	***400mL RLs*** *Vapor (µg/m³)*	***400mL MDL*** *Vapor (µg/m³)*
1,1-Dichloropropene	1.0	0.25	4.6	1.15
1,2,3-Trichlorobenzene	1.0	0.18	7.5	1.36
1,2,3-Trichloropropane	1.0	0.19	6.1	1.16
1,2-Dibromo-3-chloropropane	1.0	0.26	9.8	2.55
1,3-Butadiene	2.0	0.14	4.5	0.31
1,3-Dichloropropane	1.0	0.25	4.7	1.17
1,4-Dioxane	2.0	0.33	7.3	1.21
2,2,4-Trimethylpentane	1.0	0.23	4.7	1.09
2,2-Dichloropropane	1.0	0.16	4.7	0.75
2-Chlorotoluene	2.0	0.31	10.5	1.63
4-Chlorotoluene	2.0	0.38	10.5	2.00
Benzyl chloride	2.0	0.38	10.5	1.99
Bromobenzene	1.0	0.23	6.5	1.50
Cyclohexane	5.0	0.16	17.5	0.56
Dibromomethane	1.0	0.32	7.2	2.31
Ethyl acetate	5.0	3.07	18.3	11.23
Isopropylbenzene (Cumene)	1.0	0.15	5.0	0.75
n-Butylbenzene	1.0	0.17	5.6	0.95
n-Heptane	1.0	0.31	4.2	1.29
n-Hexane	1.0	0.42	3.6	1.50
n-Propylbenzene	1.0	0.17	5.0	0.85
p-Isopropyltoluene	1.0	0.21	5.6	1.17
Propene	5.0	0.24	8.7	0.42
sec-Butylbenzene	1.0	0.25	5.6	1.40
tert-Butylbenzene	1.0	0.23	5.6	1.28
Tetrahydrofuran	10.0	1.8	29.9	5.39
Vinyl acetate	1.0	0.35	3.6	1.25
TPH gas (C5-C11)			100	

PAD062212-14 (Pg 2/2)

H&P

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LA Field Office: 1855 Coronado Avenue, Signal Hill, CA 90755
Ph: 800-834-9888 www.handpmg.com

	400mL RLs	400mL MDL	400mL RLs	400mL MDL
Oxygenates	*Vapor (ppbv)*		*Vapor (µg/m³)*	
Diisopropyl ether (DIPE)	1.0	0.17	4.2	0.72
Ethyl tertiary-butyl ether (ETBE)	1.0	0.22	4.2	0.93
Methyl tertiary-butyl ether (MTBE)	1.0	0.29	3.7	1.06
Tertiary-amyl methyl ether (TAME)	1.0	0.22	4.2	0.93
Tertiary-butyl alcohol (TBA)	2.0	0.48	6.2	1.48
Additional Compounds by TO-15				
Naphthalene	1	0.15	5.3	0.80
Isopropyl Alcohol	10	0.77	25	1.92
Ethanol	10	2.2	19	4.21
Leak Check Compound				
1,1-Difluoroethane (LCC)	1		2.7	

Luft/8015M	
Methane	10 ppmv
ASTM 1945-96	
CO_2	0.2%
O_2	0.2%
N_2	0.2%

OPTIONAL: APH by Massachusetts method	
(C5-C8) Aliphatics	100
(C9-C12) Aliphatics	100
(C6-C8) Aromatics	100
(C9-C10) Aromatics	100

YES, INCLUDE APH

PTS Laboratories, Inc.

8100 Secura Way • Santa Fe Springs, CA 90670
Telephone (562) 347-2500 • Fax (562) 907-3610

June 28, 2012

Louis J. Cappel
Padre Associates, Inc.
369 Pacific Street
San Luis Obispo, CA 93401

Re: PTS File No: 42435
Physical Properties Data
Former Avila Terminal - Supplemental Soil Gas Assessment; 0801-0897

Dear Mr. Cappel:

Please find enclosed report for Physical Properties analyses conducted upon samples received from your Former Avila Terminal - Supplemental Soil Gas Assessment; 0801-0897 project. All analyses were performed by applicable ASTM, EPA, or API methodologies. An electronic version of the report has previously been sent to your attention via the internet. The samples are currently in storage and will be retained for thirty days past completion of testing at no charge. Please note that the samples will be disposed of at that time. You may contact me regarding storage, disposal, or return of the samples.

PTS Laboratories appreciates the opportunity to be of service. If you have any questions or require additional information, please contact Rachel Spitz at (562) 347-2504.

Sincerely,
PTS Laboratories

for Rachel Spitz

Michael Mark Brady, P.G.
District Manager

Encl.

PTS Laboratories

Project Name: Former Avila Terminal - Supplemental Soil Gas Assessment
Project Number: 0801-0897

PTS File No: 42435
Client: Padre Associates, Inc.

TEST PROGRAM - 20120612

CORE ID	Depth ft.	Core Recovery ft.	Vapor Transport Package					Notes
		Plugs:	Various					
Date Received: 20120612								
SV-71-5'	5	0.80	X					
SV-71-15'	15	0.90	X					
SV-77-5'	5	0.80	X					
SV-81-5'	5	0.90	X					
SV-81-15'	15	0.90	X					
SV-83-5'	5	1.00	X					
SV-83-15'	15	0.50	X					
SV-86-15'	15	0.50	X					
TOTALS:	9 cores	6.30	8					9

Laboratory Test Program Notes

Contaminant identification: _____

Standard TAT for basic analysis is 10 business days.

Vapor Transport Package (Johnson-Ettinger): Input parameters for Johnson-Ettinger Model; Air permeability (native + specific); porosity (total, effective, air-filled, water-filled), volumetric air and water, moisture content, intrinsic permeability/hydraulic conductivity, grain density, dry bulk density, TOC/foc, soil classification USDA/USCS (grain size + Atterberg limits).

PTS File No: 42435
Client: Padre Associates, Inc.

PTS Laboratories

PHYSICAL PROPERTIES DATA - VAPOR TRANSPORT PACKAGE

PROJECT NAME: Former Avila Terminal - Supplemental Soil Gas Assessment
PROJECT NO: 0801-0897

			METHODS: API RP40/ASTM D2216			API RP40		API RP40	API RP40		Mod. ASTM D425	API RP40
								POROSITY (2)				TOTAL
SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	ANALYSIS DATE	MOISTURE CONTENT, % weight	MOISTURE CONTENT, cm^3/cm^3	DENSITY DRY BULK, g/cm^3	DENSITY GRAIN, g/cm^3	TOTAL, cm^3/cm^3	AIR FILLED, cm^3/cm^3	WATER FILLED, cm^3/cm^3	EFFECTIVE, cm^3/cm^3	PORE FLUID (3) SATURATIONS, % Pv
SV-71-5'	5	V	20120621	25.2	0.239	0.95	2.29	0.586	0.347	0.239	0.204	40.8
SV-71-15'	15	V	20120621	36.2	0.338	0.93	2.29	0.592	0.254	0.338	0.191	57.1
SV-77-5'	5.0	V	20120621	49.8	0.504	1.01	2.49	0.593	0.089	0.504	0.046	85.0
SV-81-5'	5.0	V	20120621	51.8	0.403	0.78	2.45	0.683	0.279	0.403	0.206	59.1
SV-81-15'	15.0	V	20120621	48.1	0.479	0.99	2.52	0.606	0.127	0.479	0.157	79.0
SV-83-5'	5.0	V	20120621	7.9	0.107	1.35	2.30	0.412	0.305	0.107	0.198	25.9
SV-83-15'	15	V	20120621	13.1	0.160	1.22	2.25	0.458	0.297	0.160	0.235	35.0
SV-86-15'	15	V	20120621	20.9	0.284	1.36	2.58	0.474	0.190	0.284	0.196	60.0

(1) Sample Orientation: H = horizontal; V = vertical; R = remold
(2) Total Porosity = no pore fluids in place; all interconnected pore channels; Air Filled = pore channels not occupied by pore fluids, native sample; Effective = drainage porosity
(3) Water = 0.9996 g/cc; Pv = Pore Volume; ND = Not Detected

PTS File No: 42435
Client: Padre Associates, Inc.

PERMEABILITY DATA - VAPOR TRANSPORT PACKAGE

PROJECT NAME: Former Avila Terminal - Supplemental Soil Gas Assessment
PROJECT NO: 0801-0897

		METHODOLOGY:	API RP40		API RP40 / EPA 9100		
			25 PSI CONFINING PRESSURE		25 PSI CONFINING PRESSURE		
SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	EFFECTIVE PERMEABILITY TO AIR (2), millidarcy	SPECIFIC PERMEABILITY TO AIR (3), millidarcy	SPECIFIC PERMEABILITY TO WATER (4), millidarcy	HYDRAULIC CONDUCTIVITY (4), cm/s	INTRINSIC PERMEABILITY TO WATER (4), cm^2
SV-71-5'	5	V	16200	21300	1170	1.18E-03	1.15E-08
SV-71-15'	15	V	124	1680	20.1	2.03E-05	1.99E-10
SV-77-5'	5.0	V	0.92	34000	4.17	4.24E-06	4.11E-11
SV-81-5'	5.0	V	5770	16900	98.7	9.80E-05	9.75E-10
SV-81-15'	15.0	V	111	7410	23.7	2.36E-05	2.34E-10
SV-83-5'	5.0	V	713	1110	104	1.03E-04	1.03E-09
SV-83-15'	15	V	3380	3860	646	6.39E-04	6.38E-09
SV-86-15'	15	V	50.7	569	11.3	1.11E-05	1.11E-10

(1) Sample Orientation: H = horizontal, V = vertical, R = remold
(2) Native State = As received with pore fluids in place
(3) Specific = without moisture
(4) Permeability to water and conductivity measured at saturated conditions
Air = Nitrogen gas.

PTS File No: 42435
Client: Padre Associates, Inc.

PTS Laboratories

SOIL CLASSIFICATION DATA - VAPOR TRANSPORT PACKAGE

PROJECT NAME: Former Avila Terminal - Supplemental Soil Gas Assessment
PROJECT NO: 0801-0897

METHODS:		ASTM D4318			ASTM D4318	ASTM D2487	USDA
		ATTERBERG LIMITS (1)			USCS / PLASTICITY	USCS	USDA/SCS (2)
SAMPLE ID.	DEPTH, ft.	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	CHART SYMBOL (Fines: <#40 Sieve)	CLASSIFICATION, Group Symbol: Name	SOIL TEXTURE SCHEME
SV-71-5'	5	57.5	34.6	22.9	MH	SW-SM: Well-graded sand with silt and gravel	Sand
SV-71-15'	15	50.4	32.5	17.9	MH	SW-SM: Well-graded sand with silt and gravel	Sand
SV-77-5'	5	119.8	33.8	86.0	CH	CH: Fat clay	Silty clay loam
SV-81-5'	5	51.8	50.3	1.5	MH	SW-SM: Well-graded sand with silt	Sand
SV-81-15'	15	58.1	47.5	10.6	MH	SW-SM: Well-graded sand with silt	Sand
SV-83-5'	5	24.6	18.5	6.1	CL-ML	SC-SM: Silty, clayey sand with gravel	Loamy sand
SV-83-15'	15	19.8	N/A	NON-PLASTIC	NP	SW-SM: Well-graded sand with silt and gravel	Sand
SV-86-15'	15	46.3	30.3	16.0	ML	ML: Sandy silt	Sandy clay

USCS: Unified Soil Classification System
USDA: US Department of Agriculture
SCS: Soil Conservation Service

(1) Silt assumed as fine fraction for NON-PLASTIC (NP) samples. (2) Sand considered to be >No. 200 sieve for USDA SOIL TEXTURE SCHEME.

PTS File No: 42435
Client: Padre Associates, Inc.

ORGANIC CARBON DATA - TOC (foc)

(METHODOLOGY: WALKLEY-BLACK)

PROJECT NAME: Former Avila Terminal - Supplemental Soil Gas Assessment
PROJECT NO: 0801-0897

SAMPLE ID.	DEPTH, ft.	ANALYSIS DATE	ANALYSIS TIME	SAMPLE MATRIX	TOTAL ORGANIC CARBON, mg/kg	FRACTION ORGANIC CARBON, g/g
SV-71-5'	5	20120627	1320	SOIL	13900	1.39E-02
SV-71-15'	15	20120627	1320	SOIL	3850	3.85E-03
SV-77-5'	5	20120627	1320	SOIL	10200	1.02E-02
SV-81-5'	5	20120627	1320	SOIL	600	6.00E-04
SV-81-15'	15	20120627	1320	SOIL	400	4.00E-04
SV-83-5'	5	20120627	1320	SOIL	1250	1.25E-03
SV-83-15'	15	20120627	1320	SOIL	1550	1.55E-03
SV-86-15'	15	20120627	1320	SOIL	790	7.90E-04
Blank	N/A	20120627	1320	BLANK	ND	ND
SRM D076-542	N/A	20120627	1320	SRM	2830	2.83E-03
				Reporting Limit:	100	1.00E-04

QC DATA

SRM ID/Lot No.	REC (%)	Control Limits	Certified Concentration mg/kg	QC Performance Acceptance Limits, mg/kg Lower	Upper
D076-542	103	75-125	2750	2063	3438

ND = Not Detected

PTS Laboratories, Inc.

Padre Associates, Inc.
PTS File No: 42435

PARTICLE SIZE SUMMARY

(METHODOLOGY: ASTM D422/D4464M)

PROJECT NAME: Former Avila Terminal - Supplemental Soil Gas Assessment
PROJECT NO: 0801-0897

Sample ID	Depth, ft.	Mean Grain Size Description (1)	Median Grain Size mm	Particle Size Distribution, wt. percent						Silt & Clay
				Gravel	Sand Size			Silt	Clay	
					Coarse	Medium	Fine			
SV-71-5'	5	Coarse sand	1.453	26.99	15.32	35.29	17.11	(2)	(2)	5.28
SV-71-15'	15	Coarse sand	1.588	27.76	16.09	34.27	15.85	(2)	(2)	6.04
SV-77-5'	5	Silt	0.012	0.00	0.00	0.00	13.29	58.70	28.01	86.71
SV-81-5'	5	Medium sand	0.586	4.02	10.51	44.32	32.57	(2)	(2)	8.58
SV-81-15'	15	Medium sand	0.405	0.00	3.96	44.92	39.20	(2)	(2)	11.92
SV-83-5'	5	Coarse sand	2.239	36.30	15.40	17.45	17.74	(2)	(2)	13.10
SV-83-15'	15	Medium sand	0.864	18.74	16.02	26.62	30.26	(2)	(2)	8.35
SV-86-15'	15	Silt	0.058	0.00	0.00	0.00	46.05	39.92	14.04	53.95

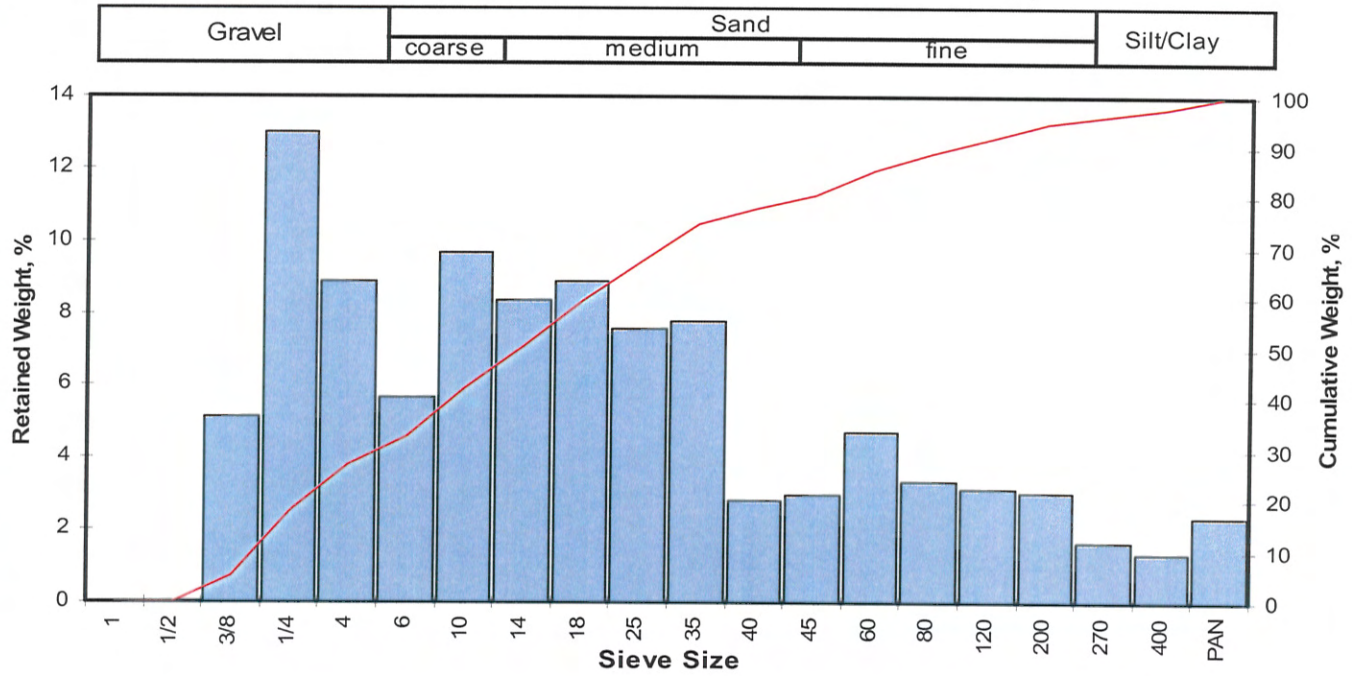
(1) Based on Mean from Trask
(2) Mechanical sieve does not differentiate silt/clay fractions

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D422M

Client: Padre Associates, Inc.
Project: Former Avila Terminal - Supplemental Soil Gas Assessment
Project No: 0801-0897

PTS File No: 42435
Sample ID: SV-71-5'
Depth, ft: 5



Opening		Phi of	U.S. Sieve	Sample Weight	Incremental Weight,	Cumulative Weight,
Inches	Millimeters	Screen	No.	grams	percent	percent
0.9844	25.002	-4.64	1	0.00	0.00	0.00
0.4922	12.501	-3.64	1/2	0.00	0.00	0.00
0.3740	9.500	-3.25	3/8	1.29	5.12	5.12
0.2500	6.351	-2.67	1/4	3.27	12.98	18.10
0.1873	4.757	-2.25	4	2.24	8.89	26.99
0.1324	3.364	-1.75	6	1.43	5.68	32.67
0.0787	2.000	-1.00	10	2.43	9.65	42.32
0.0557	1.414	-0.50	14	2.10	8.34	50.66
0.0394	1.000	0.00	18	2.23	8.85	59.51
0.0278	0.707	0.50	25	1.90	7.54	67.05
0.0197	0.500	1.00	35	1.95	7.74	74.79
0.0166	0.420	1.25	40	0.71	2.82	77.61
0.0139	0.354	1.50	45	0.74	2.94	80.55
0.0098	0.250	2.00	60	1.19	4.72	85.27
0.0070	0.177	2.50	80	0.84	3.33	88.61
0.0049	0.125	3.00	120	0.78	3.10	91.70
0.0029	0.074	3.75	200	0.76	3.02	94.72
0.0021	0.053	4.25	270	0.41	1.63	96.35
0.0015	0.037	4.75	400	0.33	1.31	97.66
			PAN	0.59	2.34	100.00
TOTALS				25.19	100.00	100.00

Cumulative Weight Percent greater than			
Weight	Phi	Particle Size	
percent	Value	Inches	Millimeters
5	-3.26	0.3765	9.562
10	-3.03	0.3215	8.166
16	-2.76	0.2669	6.779
25	-2.34	0.1998	5.075
40	-1.18	0.0892	2.266
50	-0.54	0.0572	1.453
60	0.03	0.0385	0.978
75	1.02	0.0194	0.494
84	1.87	0.0108	0.274
90	2.73	0.0060	0.151
95	3.84	0.0028	0.070

Measure	Trask	Inman	Folk-Ward
Median, phi	-0.54	-0.54	-0.54
Median, in.	0.0572	0.0572	0.0572
Median, mm	1.453	1.453	1.453
Mean, phi	-1.48	-0.45	-0.48
Mean, in.	0.1096	0.0537	0.0548
Mean, mm	2.785	1.364	1.393
Sorting	3.207	2.313	2.231
Skewness	1.089	0.040	0.137
Kurtosis	0.286	0.533	0.865

Grain Size Description (ASTM-USCS Scale)	Coarse sand (based on Mean from Trask)

Description	Retained on Sieve #	Weight Percent
Gravel	4	26.99
Coarse Sand	10	15.32
Medium Sand	40	35.29
Fine Sand	200	17.11
Silt/Clay	<200	5.28
	Total	100

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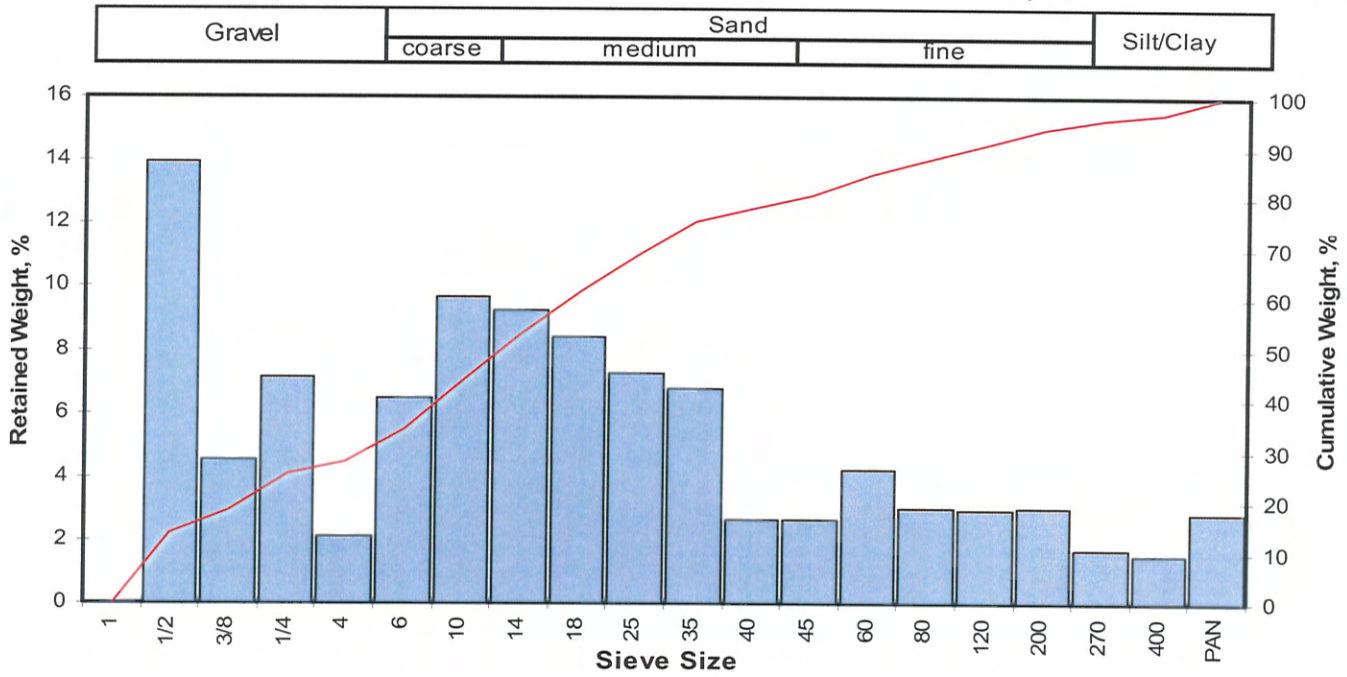
Fax: (562) 907-3610

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D422M

Client: Padre Associates, Inc.
Project: Former Avila Terminal - Supplemental Soil Gas Assessment
Project No: 0801-0897

PTS File No: 42435
Sample ID: SV-71-15'
Depth, ft: 15



Opening		Phi of	U.S. Sieve	Sample Weight	Incremental Weight,	Cumulative Weight,
Inches	Millimeters	Screen	No.	grams	percent	percent
0.9844	25.002	-4.64	1	0.00	0.00	0.00
0.4922	12.501	-3.64	1/2	4.14	13.96	13.96
0.3740	9.500	-3.25	3/8	1.35	4.55	18.52
0.2500	6.351	-2.67	1/4	2.11	7.12	25.63
0.1873	4.757	-2.25	4	0.63	2.12	27.76
0.1324	3.364	-1.75	6	1.91	6.44	34.20
0.0787	2.000	-1.00	10	2.86	9.65	43.84
0.0557	1.414	-0.50	14	2.74	9.24	53.09
0.0394	1.000	0.00	18	2.48	8.36	61.45
0.0278	0.707	0.50	25	2.14	7.22	68.67
0.0197	0.500	1.00	35	2.01	6.78	75.45
0.0166	0.420	1.25	40	0.79	2.66	78.11
0.0139	0.354	1.50	45	0.78	2.63	80.74
0.0098	0.250	2.00	60	1.25	4.22	84.96
0.0070	0.177	2.50	80	0.90	3.04	87.99
0.0049	0.125	3.00	120	0.87	2.93	90.93
0.0029	0.074	3.75	200	0.90	3.04	93.96
0.0021	0.053	4.25	270	0.51	1.72	95.68
0.0015	0.037	4.75	400	0.44	1.48	97.17
			PAN	0.84	2.83	100.00
TOTALS				29.65	100.00	100.00

Cumulative Weight Percent greater than			
Weight	Phi	Particle Size	
percent	Value	Inches	Millimeters
5	-4.29	0.7680	19.507
10	-3.93	0.5992	15.219
16	-3.47	0.4353	11.057
25	-2.72	0.2592	6.582
40	-1.30	0.0969	2.460
50	-0.67	0.0625	1.588
60	-0.09	0.0418	1.062
75	0.97	0.0201	0.512
84	1.89	0.0106	0.270
90	2.84	0.0055	0.139
95	4.05	0.0024	0.060

Measure	Trask	Inman	Folk-Ward
Median, phi	-0.67	-0.67	-0.67
Median, in.	0.0625	0.0625	0.0625
Median, mm	1.588	1.588	1.588
Mean, phi	-1.83	-0.79	-0.75
Mean, in.	0.1396	0.0681	0.0662
Mean, mm	3.547	1.729	1.681
Sorting	3.587	2.677	2.602
Skewness	1.156	-0.046	0.043
Kurtosis	0.201	0.557	0.927

Grain Size Description (ASTM-USCS Scale)	Coarse sand (based on Mean from Trask)

Description	Retained on Sieve #	Weight Percent
Gravel	4	27.76
Coarse Sand	10	16.09
Medium Sand	40	34.27
Fine Sand	200	15.85
Silt/Clay	<200	6.04
	Total	100

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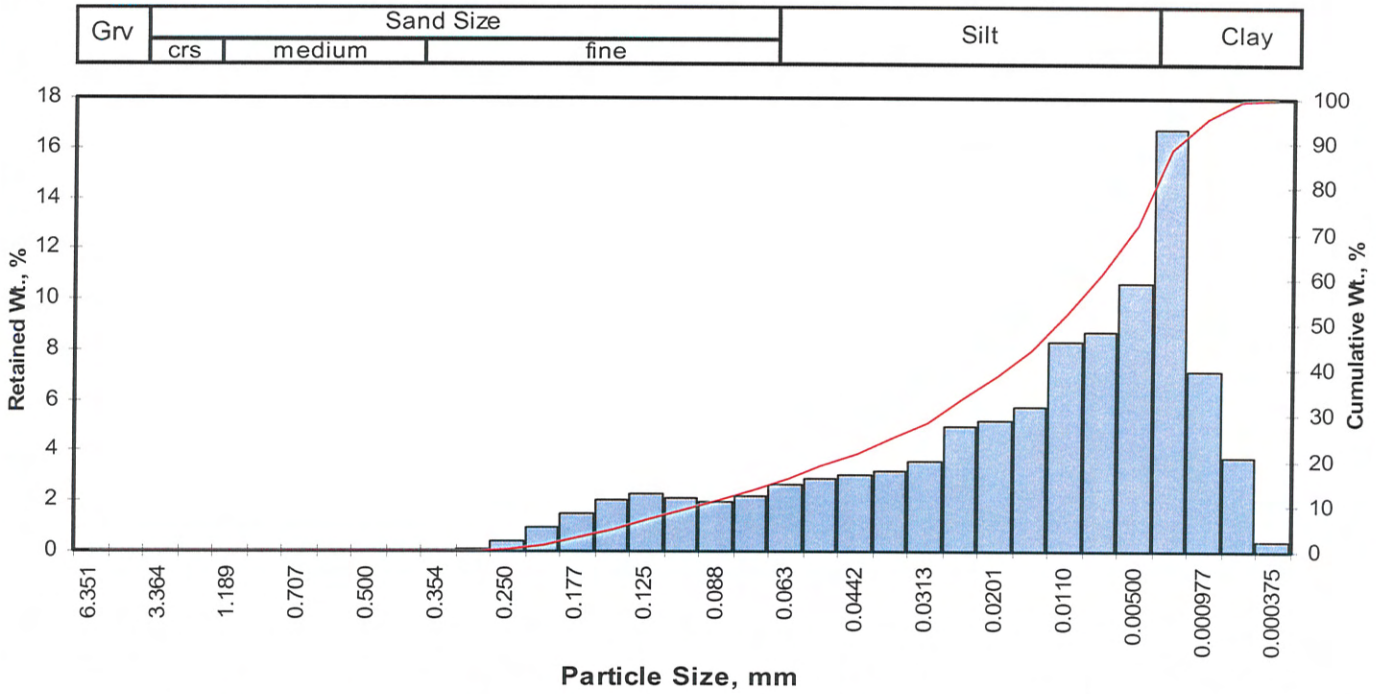
PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client: Padre Associates, Inc.
Project: Former Avila Terminal - Supplemental Soil Gas Assessment
Project No: 0801-0897

PTS File No: 42435
Sample ID: SV-77-5'
Depth, ft: 5



Opening		Phi of	U.S.	Sample Weight,	Increment Weight,	Cumulative Weight,
Inches	Millimeters	Screen	No.	grams	percent	percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.05	0.05	0.05
0.0098	0.250	2.00	60	0.37	0.37	0.42
0.0083	0.210	2.25	70	0.92	0.92	1.34
0.0070	0.177	2.50	80	1.48	1.48	2.82
0.0059	0.149	2.75	100	2.01	2.01	4.83
0.0049	0.125	3.00	120	2.22	2.22	7.05
0.0041	0.105	3.25	140	2.07	2.07	9.12
0.0035	0.088	3.50	170	1.97	1.97	11.09
0.0029	0.074	3.75	200	2.20	2.20	13.29
0.0025	0.063	4.00	230	2.60	2.60	15.89
0.0021	0.053	4.25	270	2.87	2.87	18.76
0.00174	0.0442	4.50	325	2.99	2.99	21.75
0.00146	0.0372	4.75	400	3.18	3.18	24.93
0.00123	0.0313	5.00	450	3.54	3.54	28.47
0.000986	0.0250	5.32	500	5.00	5.00	33.47
0.000790	0.0201	5.64	635	5.21	5.21	38.67
0.000615	0.0156	6.00		5.73	5.73	44.40
0.000435	0.0110	6.50		8.30	8.30	52.70
0.000308	0.00781	7.00		8.69	8.69	61.39
0.000197	0.00500	7.65		10.60	10.60	71.99
0.000077	0.00195	9.00		16.80	16.80	88.78
0.000038	0.000977	10.00		7.11	7.11	95.89
0.000019	0.000488	11.00		3.72	3.72	99.61
0.000015	0.000375	11.38		0.39	0.39	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight	Phi	Particle Size	
percent	Value	Inches	Millimeters
5	2.77	0.0058	0.147
10	3.36	0.0038	0.097
16	4.01	0.0024	0.062
25	4.76	0.0015	0.037
40	5.72	0.0007	0.019
50	6.34	0.0005	0.012
60	6.92	0.0003	0.008
75	7.89	0.0002	0.004
84	8.61	0.0001	0.003
90	9.17	0.0001	0.002
95	9.87	0.0000	0.001

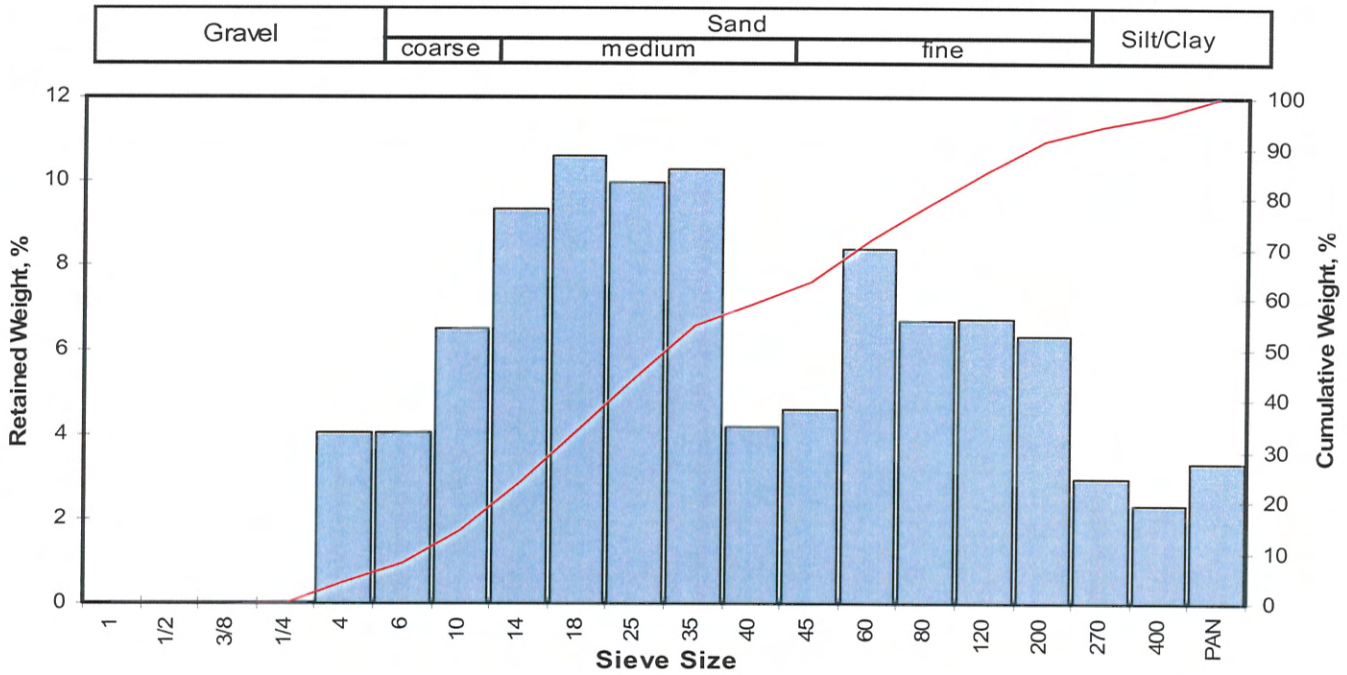
Measure	Trask	Inman	Folk-Ward
Median, phi	6.34	6.34	6.34
Median, in.	0.0005	0.0005	0.0005
Median, mm	0.012	0.012	0.012
Mean, phi	5.60	6.31	6.32
Mean, in.	0.0008	0.0005	0.0005
Mean, mm	0.021	0.013	0.013
Sorting	2.962	2.302	2.228
Skewness	1.011	-0.011	-0.008
Kurtosis	0.172	0.543	0.930
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	13.29
Silt	>0.005 mm	58.70
Clay	<0.005 mm	28.01
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D422M

Client:	Padre Associates, Inc.	**PTS File No:**	42435
Project:	Former Avila Terminal - Supplemental Soil Gas Assessment	**Sample ID:**	SV-81-5'
Project No:	0801-0897	**Depth, ft:**	5



Opening		Phi of	U.S. Sieve	Sample Weight	Incremental Weight,	Cumulative Weight,
Inches	Millimeters	Screen	No.	grams	percent	percent
0.9844	25.002	-4.64	1	0.00	0.00	0.00
0.4922	12.501	-3.64	1/2	0.00	0.00	0.00
0.3740	9.500	-3.25	3/8	0.00	0.00	0.00
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.81	4.02	4.02
0.1324	3.364	-1.75	6	0.81	4.02	8.03
0.0787	2.000	-1.00	10	1.31	6.49	14.53
0.0557	1.414	-0.50	14	1.88	9.32	23.85
0.0394	1.000	0.00	18	2.14	10.61	34.46
0.0278	0.707	0.50	25	2.01	9.97	44.42
0.0197	0.500	1.00	35	2.07	10.26	54.69
0.0166	0.420	1.25	40	0.84	4.16	58.85
0.0139	0.354	1.50	45	0.92	4.56	63.41
0.0098	0.250	2.00	60	1.69	8.38	71.79
0.0070	0.177	2.50	80	1.34	6.64	78.43
0.0049	0.125	3.00	120	1.35	6.69	85.13
0.0029	0.074	3.75	200	1.27	6.30	91.42
0.0021	0.053	4.25	270	0.59	2.93	94.35
0.0015	0.037	4.75	400	0.47	2.33	96.68
			PAN	0.67	3.32	100.00
TOTALS				20.17	100.00	100.00

Cumulative Weight Percent greater than			
Weight	Phi	Particle Size	
percent	Value	Inches	Millimeters
5	-2.13	0.1720	4.370
10	-1.52	0.1131	2.873
16	-0.92	0.0745	1.893
25	-0.45	0.0536	1.362
40	0.28	0.0325	0.825
50	0.77	0.0231	0.586
60	1.31	0.0158	0.402
75	2.24	0.0083	0.211
84	2.92	0.0052	0.133
90	3.58	0.0033	0.084
95	4.39	0.0019	0.048

Measure	Trask	Inman	Folk-Ward
Median, phi	0.77	0.77	0.77
Median, in.	0.0231	0.0231	0.0231
Median, mm	0.586	0.586	0.586
Mean, phi	0.35	1.00	0.92
Mean, in.	0.0310	0.0197	0.0208
Mean, mm	0.787	0.501	0.528
Sorting	2.538	1.918	1.947
Skewness	0.916	0.118	0.114
Kurtosis	0.206	0.699	0.994

Grain Size Description (ASTM-USCS Scale)	Medium sand (based on Mean from Trask)

Description	Retained on Sieve #	Weight Percent
Gravel	4	4.02
Coarse Sand	10	10.51
Medium Sand	40	44.32
Fine Sand	200	32.57
Silt/Clay	<200	8.58
	Total	100

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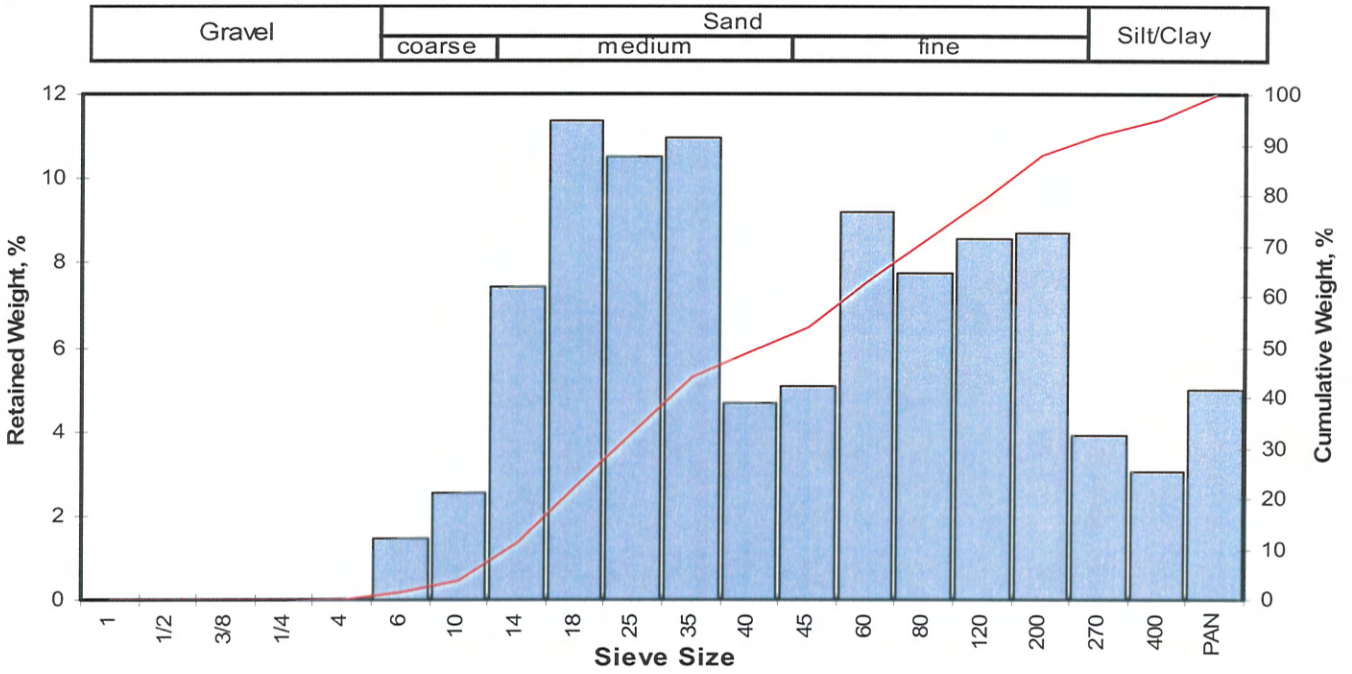
PTS Laboratories, Inc.

Particle Size Analysis - ASTM D422M

Client:	Padre Associates, Inc.	**PTS File No:**	42435
Project:	Former Avila Terminal - Supplemental Soil Gas Assessment	**Sample ID:**	SV-81-15'
Project No:	0801-0897	**Depth, ft:**	15



Opening		Phi of	U.S. Sieve	Sample Weight	Incremental Weight,	Cumulative Weight,
Inches	Millimeters	Screen	No.	grams	percent	percent
0.9844	25.002	-4.64	1	0.00	0.00	0.00
0.4922	12.501	-3.64	1/2	0.00	0.00	0.00
0.3740	9.500	-3.25	3/8	0.00	0.00	0.00
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.30	1.43	1.43
0.0787	2.000	-1.00	10	0.53	2.53	3.96
0.0557	1.414	-0.50	14	1.56	7.44	11.40
0.0394	1.000	0.00	18	2.38	11.35	22.75
0.0278	0.707	0.50	25	2.20	10.49	33.24
0.0197	0.500	1.00	35	2.30	10.97	44.21
0.0166	0.420	1.25	40	0.98	4.67	48.88
0.0139	0.354	1.50	45	1.06	5.05	53.93
0.0098	0.250	2.00	60	1.93	9.20	63.14
0.0070	0.177	2.50	80	1.62	7.73	70.86
0.0049	0.125	3.00	120	1.79	8.54	79.40
0.0029	0.074	3.75	200	1.82	8.68	88.08
0.0021	0.053	4.25	270	0.82	3.91	91.99
0.0015	0.037	4.75	400	0.64	3.05	95.04
			PAN	1.04	4.96	100.00
TOTALS				20.97	100.00	100.00

Cumulative Weight Percent greater than			
Weight	Phi	Particle Size	
percent	Value	Inches	Millimeters
5	-0.93	0.0750	1.905
10	-0.59	0.0594	1.509
16	-0.30	0.0484	1.229
25	0.11	0.0365	0.928
40	0.81	0.0225	0.571
50	1.31	0.0159	0.405
60	1.83	0.0111	0.281
75	2.74	0.0059	0.149
84	3.40	0.0037	0.095
90	4.00	0.0025	0.063
95	4.74	0.0015	0.037

Measure	Trask	Inman	Folk-Ward
Median, phi	1.31	1.31	1.31
Median, in.	0.0159	0.0159	0.0159
Median, mm	0.405	0.405	0.405
Mean, phi	0.89	1.55	1.47
Mean, in.	0.0212	0.0134	0.0142
Mean, mm	0.539	0.341	0.361
Sorting	2.492	1.847	1.783
Skewness	0.921	0.132	0.172
Kurtosis	0.269	0.535	0.882

Grain Size Description (ASTM-USCS Scale)	Medium sand (based on Mean from Trask)

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	3.96
Medium Sand	40	44.92
Fine Sand	200	39.20
Silt/Clay	<200	11.92
	Total	100

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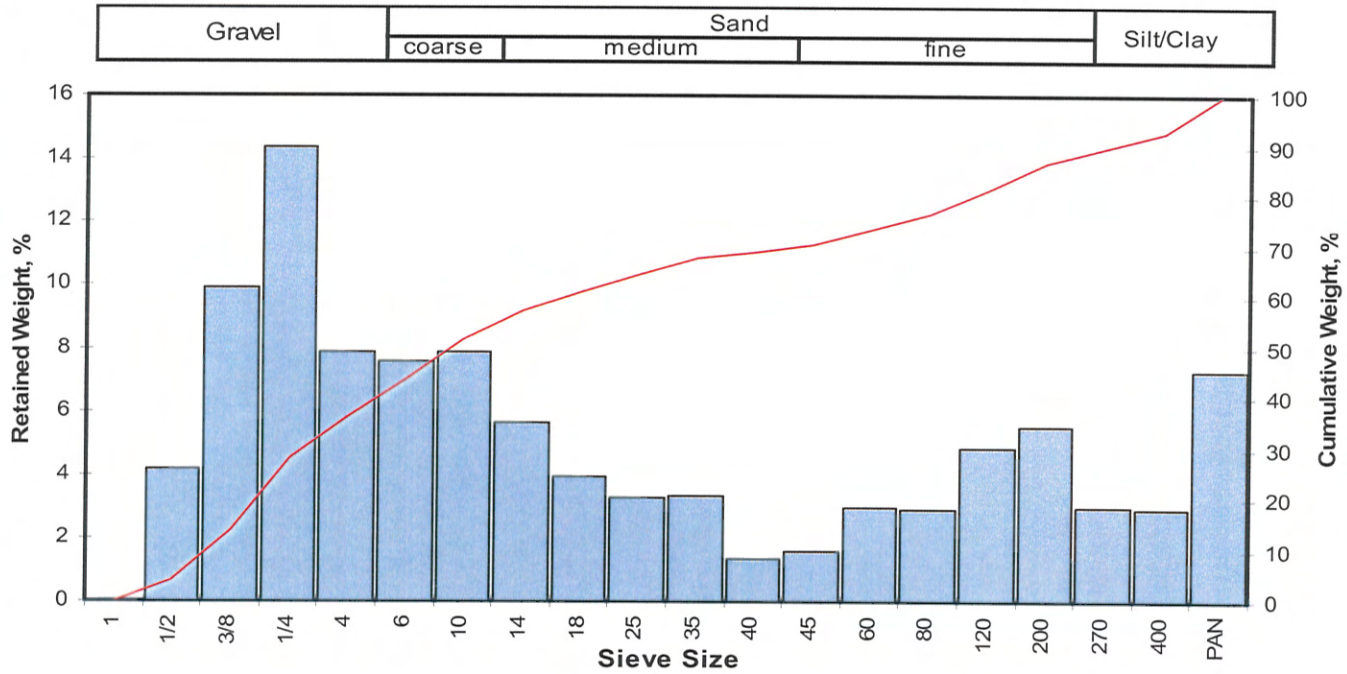
PTS Laboratories, Inc.

Particle Size Analysis - ASTM D422M

Client:	Padre Associates, Inc.	**PTS File No:**	42435
Project:	Former Avila Terminal - Supplemental Soil Gas Assessment	**Sample ID:**	SV-83-5'
Project No:	0801-0897	**Depth, ft:**	5



Opening		Phi of	U.S. Sieve	Sample Weight	Incremental Weight,	Cumulative Weight,
Inches	Millimeters	Screen	No.	grams	percent	percent
0.9844	25.002	-4.64	1	0.00	0.00	0.00
0.4922	12.501	-3.64	1/2	2.42	4.16	4.16
0.3740	9.500	-3.25	3/8	5.78	9.93	14.08
0.2500	6.351	-2.67	1/4	8.38	14.39	28.47
0.1873	4.757	-2.25	4	4.56	7.83	36.30
0.1324	3.364	-1.75	6	4.39	7.54	43.84
0.0787	2.000	-1.00	10	4.58	7.87	51.71
0.0557	1.414	-0.50	14	3.28	5.63	57.34
0.0394	1.000	0.00	18	2.27	3.90	61.24
0.0278	0.707	0.50	25	1.90	3.26	64.50
0.0197	0.500	1.00	35	1.92	3.30	67.80
0.0166	0.420	1.25	40	0.79	1.36	69.16
0.0139	0.354	1.50	45	0.91	1.56	70.72
0.0098	0.250	2.00	60	1.71	2.94	73.66
0.0070	0.177	2.50	80	1.68	2.89	76.54
0.0049	0.125	3.00	120	2.82	4.84	81.38
0.0029	0.074	3.75	200	3.21	5.51	86.90
0.0021	0.053	4.25	270	1.72	2.95	89.85
0.0015	0.037	4.75	400	1.68	2.89	92.74
			PAN	4.23	7.26	100.00
TOTALS				58.23	100.00	100.00

Cumulative Weight Percent greater than			
Weight	Phi	Particle Size	
percent	Value	Inches	Millimeters
5	-3.61	0.4808	12.213
10	-3.41	0.4187	10.636
16	-3.17	0.3545	9.004
25	-2.81	0.2756	6.999
40	-2.00	0.1580	4.014
50	-1.16	0.0882	2.239
60	-0.16	0.0440	1.117
75	2.23	0.0084	0.213
84	3.36	0.0038	0.098
90	4.28	0.0020	0.052
95			

Measure	Trask	Inman	Folk-Ward
Median, phi	-1.16	-1.16	-1.16
Median, in.	0.0882	0.0882	0.0882
Median, mm	2.239	2.239	2.239
Mean, phi	-1.85	0.09	-0.33
Mean, in.	0.1420	0.0369	0.0493
Mean, mm	3.606	0.938	1.253
Sorting	5.736	3.263	2.674
Skewness	0.545	0.385	0.337
Kurtosis	0.321	0.054	0.559

Grain Size Description (ASTM-USCS Scale)	Coarse sand (based on Mean from Trask)

Description	Retained on Sieve #	Weight Percent
Gravel	4	36.30
Coarse Sand	10	15.40
Medium Sand	40	17.45
Fine Sand	200	17.74
Silt/Clay	<200	13.10
	Total	100

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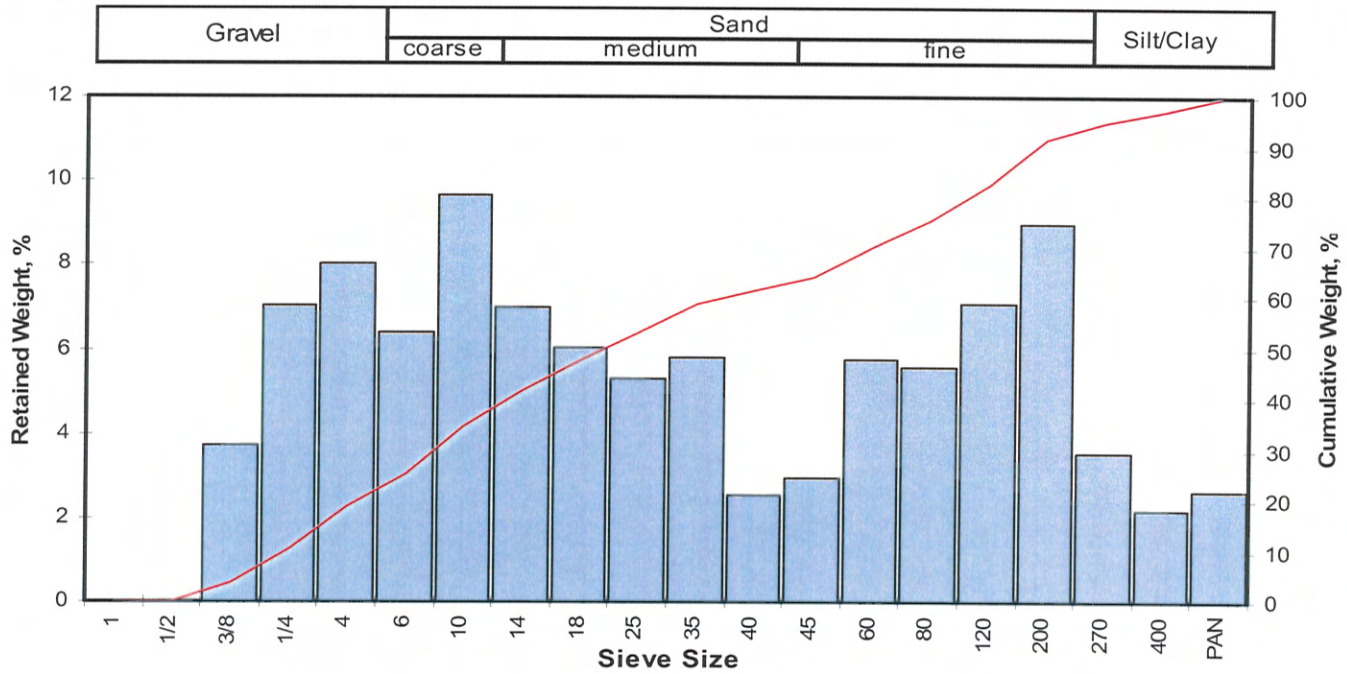
PTS Laboratories, Inc.

Particle Size Analysis - ASTM D422M

Client: Padre Associates, Inc.
Project: Former Avila Terminal - Supplemental Soil Gas Assessment
Project No: 0801-0897

PTS File No: 42435
Sample ID: SV-83-15'
Depth, ft: 15



Opening		Phi of	U.S. Sieve	Sample Weight	Incremental Weight,	Cumulative Weight,
Inches	Millimeters	Screen	No.	grams	percent	percent
0.9844	25.002	-4.64	1	0.00	0.00	0.00
0.4922	12.501	-3.64	1/2	0.00	0.00	0.00
0.3740	9.500	-3.25	3/8	1.25	3.70	3.70
0.2500	6.351	-2.67	1/4	2.37	7.02	10.72
0.1873	4.757	-2.25	4	2.71	8.02	18.74
0.1324	3.364	-1.75	6	2.16	6.40	25.14
0.0787	2.000	-1.00	10	3.25	9.62	34.76
0.0557	1.414	-0.50	14	2.35	6.96	41.72
0.0394	1.000	0.00	18	2.04	6.04	47.76
0.0278	0.707	0.50	25	1.79	5.30	53.06
0.0197	0.500	1.00	35	1.95	5.77	58.84
0.0166	0.420	1.25	40	0.86	2.55	61.39
0.0139	0.354	1.50	45	0.99	2.93	64.32
0.0098	0.250	2.00	60	1.94	5.74	70.06
0.0070	0.177	2.50	80	1.88	5.57	75.63
0.0049	0.125	3.00	120	2.38	7.05	82.68
0.0029	0.074	3.75	200	3.03	8.97	91.65
0.0021	0.053	4.25	270	1.19	3.52	95.17
0.0015	0.037	4.75	400	0.74	2.19	97.36
			PAN	0.89	2.64	100.00
TOTALS				33.77	100.00	100.00

Cumulative Weight Percent greater than			
Weight	Phi	Particle Size	
percent	Value	Inches	Millimeters
5	-3.14	0.3472	8.818
10	-2.73	0.2606	6.619
16	-2.39	0.2067	5.251
25	-1.76	0.1334	3.389
40	-0.62	0.0607	1.541
50	0.21	0.0340	0.864
60	1.11	0.0182	0.462
75	2.44	0.0072	0.184
84	3.11	0.0046	0.116
90	3.61	0.0032	0.082
95	4.23	0.0021	0.053

Measure	Trask	Inman	Folk-Ward
Median, phi	0.21	0.21	0.21
Median, in.	0.0340	0.0340	0.0340
Median, mm	0.864	0.864	0.864
Mean, phi	-0.84	0.36	0.31
Mean, in.	0.0703	0.0307	0.0318
Mean, mm	1.787	0.780	0.807
Sorting	4.294	2.752	2.492
Skewness	0.914	0.054	0.072
Kurtosis	0.245	0.338	0.718

Grain Size Description (ASTM-USCS Scale)	Medium sand (based on Mean from Trask)

Description	Retained on Sieve #	Weight Percent
Gravel	4	18.74
Coarse Sand	10	16.02
Medium Sand	40	26.62
Fine Sand	200	30.26
Silt/Clay	<200	8.35
	Total	100

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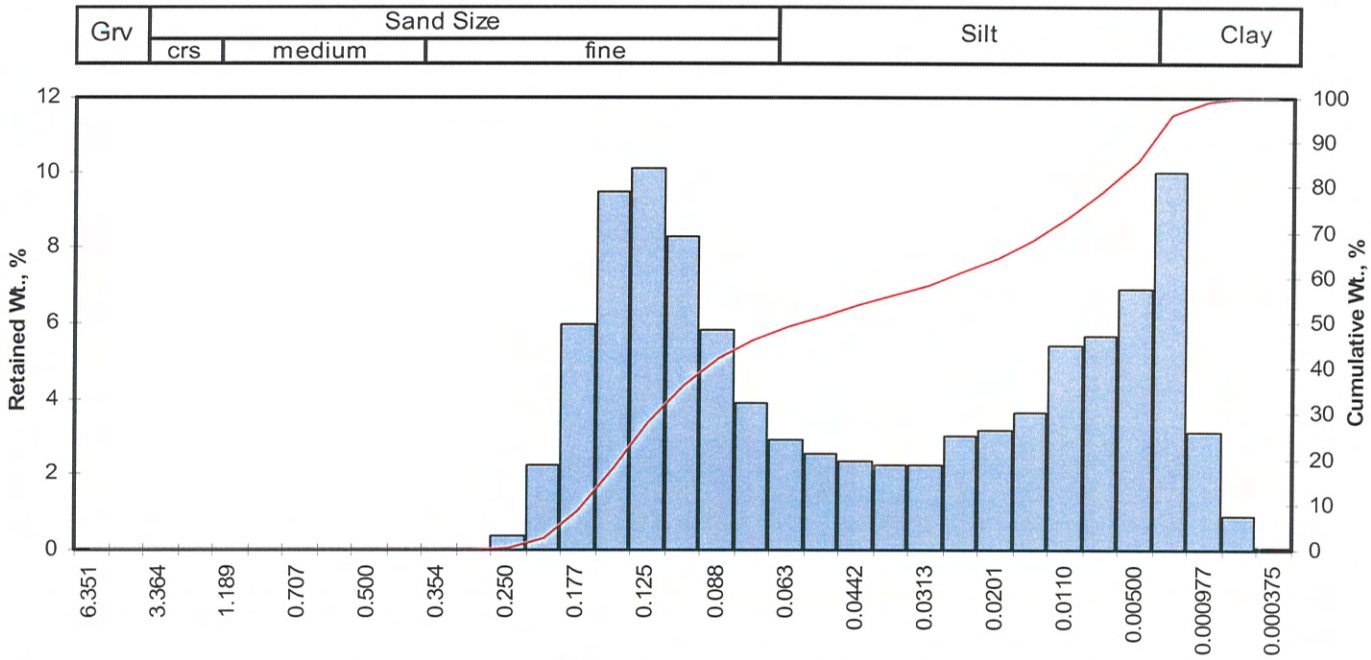
PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client: Padre Associates, Inc.
Project: Former Avila Terminal - Supplemental Soil Gas Assessment
Project No: 0801-0897

PTS File No: 42435
Sample ID: SV-86-15'
Depth, ft: 15



Opening		Phi of	U.S.	Sample Weight,	Increment Weight,	Cumulative Weight,
Inches	Millimeters	Screen	No.	grams	percent	percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.01	0.01	0.01
0.0098	0.250	2.00	60	0.34	0.34	0.35
0.0083	0.210	2.25	70	2.24	2.24	2.59
0.0070	0.177	2.50	80	5.95	5.95	8.54
0.0059	0.149	2.75	100	9.45	9.45	17.99
0.0049	0.125	3.00	120	10.10	10.10	28.09
0.0041	0.105	3.25	140	8.29	8.29	36.39
0.0035	0.088	3.50	170	5.77	5.77	42.16
0.0029	0.074	3.75	200	3.89	3.89	46.05
0.0025	0.063	4.00	230	2.92	2.92	48.97
0.0021	0.053	4.25	270	2.51	2.51	51.48
0.00174	0.0442	4.50	325	2.33	2.33	53.81
0.00146	0.0372	4.75	400	2.22	2.22	56.03
0.00123	0.0313	5.00	450	2.24	2.24	58.27
0.000986	0.0250	5.32	500	2.99	2.99	61.26
0.000790	0.0201	5.64	635	3.16	3.16	64.42
0.000615	0.0156	6.00		3.63	3.63	68.05
0.000435	0.0110	6.50		5.38	5.38	73.43
0.000308	0.00781	7.00		5.66	5.66	79.09
0.000197	0.00500	7.65		6.87	6.87	85.96
0.000077	0.00195	9.00		9.98	9.98	95.95
0.000038	0.000977	10.00		3.10	3.10	99.05
0.000019	0.000488	11.00		0.89	0.89	99.94
0.000015	0.000375	11.38		0.06	0.06	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight	Phi	Particle Size	
percent	Value	Inches	Millimeters
5	2.35	0.0077	0.196
10	2.54	0.0068	0.172
16	2.70	0.0061	0.154
25	2.92	0.0052	0.132
40	3.41	0.0037	0.094
50	4.10	0.0023	0.058
60	5.19	0.0011	0.027
75	6.64	0.0004	0.010
84	7.46	0.0002	0.006
90	8.19	0.0001	0.003
95	8.87	0.0001	0.002

Measure	Trask	Inman	Folk-Ward
Median, phi	4.10	4.10	4.10
Median, in.	0.0023	0.0023	0.0023
Median, mm	0.058	0.058	0.058
Mean, phi	3.82	5.08	4.75
Mean, in.	0.0028	0.0012	0.0015
Mean, mm	0.071	0.030	0.037
Sorting	3.624	2.382	2.179
Skewness	0.625	0.410	0.436
Kurtosis	0.361	0.369	0.719
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	46.05
Silt	>0.005 mm	39.92
Clay	<0.005 mm	14.04
	Total	**100**

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padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

CHAIN OF CUSTODY RECORD

42435

Client Name/Account #: Padre Associates, Inc.
Address: 369 Pacific Street
City/State/Zip: San Luis Obispo, California 93401
Telephone Number: 805.786.2650 Fax No.: 805.786.2651
Project No. / Name: 0801-0897 / Former Avila Terminal - Supplemental Soil Gas Assessment

Report To: Louis Cappel (lcappel@padreinc.com)
Sampler: Louis Cappel / Paul Lavelle

Invoice To: Louis Cappel
Padre Associates, Inc.
AFE/WBS#: NA
D7I#: NA

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers	Sample Matrix	Preservative	Container Type	ANALYSIS REQUIRED: Vapor Transport Package								NOTES
SV-71-5'	6/4/12	1055	1	Soil / solid	None	Acetate sleeve	X								
SV-71-15'	↓	1110	↓	↓	↓	↓	↓								
SV-77-5'	↓	1500	↓	↓	↓	↓	↓								
SV-81-5'	6/5/12	1150	↓	↓	↓	↓	↓								
SV-81-15'	↓	1200	↓	↓	↓	↓	↓								
SV-83-5'	↓	1530	2	↓	↓	Brass sleeves	↓								
SV-83-15'	↓	1545	↓	↓	↓	↓	↓								
SV-86-15'	6/6/12	1245	↓	↓	↓	↓	↓								

Special Instructions:

Laboratory Comments:
Temperature Upon Receipt: 37°F
VOCs Free of Headspace? N/A Y N

Relinquished by:	Date	Time	Received by:	Date	Time
Paul Lavelle	6/11/12	0926	Joel R PTS Labs Inc	6/12/12	1432
Relinquished by:	Date	Time	Received by:	Date	Time

Turn Around Time (Check)
same day ☐ 72 hours ☐
24 hours ☐ 5 days ☐
48 hours ☐ normal ☒