## NORTH TRUCKEE DRAIN REALIGNMENT

Soil and Groundwater Management Plan

February 2013







2365 IRON POINT ROAD, SUITE 300 FOLSOM, CA 95630

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## Acronyms and Abbreviations

amsl	above mean sea level
AST	above ground storage tank
bgs	below ground surface
BMPs	best management practices
City	The City of Sparks
CFR	Code of Federal Regulations
Су	cubic yards
DTW	depth to water
EPA	US Environmental protection Agency
FEMA	Federal Emergency Management Agency
HDR	HDR Environmental, Operations and Construction, Inc.
HDPE	high density polyethylene
I-80	Interstate 80
NDEP	Nevada Department of Environmental Protection
NAC	Nevada Administrative Code
NPDES	National Pollution Discharge Elimination System
NRS	Nevada Revised Statutes
NTD	North Truckee Drain
O&M	Operation and Maintenance
RCRA	Resource Conservation Recovery Act
Soil RCs	Soil Reportable Concentrations
SVOCs	semivolatile organic compounds
TPH-d	total petroleum hydrocarbons as diesel
TPH-g	total petroleum hydrocarbons as gasoline
TPH-o	total petroleum hydrocarbons as oil
TPH	total petroleum hydrocarbons
UPRR	Union Pacific Rail Road
USGS	United States Geological Survey
UST	underground storage tank
VOCs	volatile organic compounds
WQS	water quality standard

## **1.0 INTRODUCTION**

The City of Sparks (City) is planning to realign the existing drainage of the North Truckee Drain (NTD) by installing approximately one mile of concrete box culverts from immediately south of Interstate 80 (I-80) east of Sparks Boulevard to the Truckee River (Figure 1). The purpose of the NTD realignment project is to reduce flooding in the industrial park area adjacent to the NTD south of I-80 and along the Truckee River upstream of the waste water treatment plant.

This Soil and Groundwater Management Plan (Plan) was prepared by HDR Environmental, Operations and Construction, Inc. (HDR), on behalf of the City, to document the type/volume of contaminated soil and groundwater in the proposed NTD cut area and to identify management procedures and present options for the disposal of contaminated soil and groundwater generated during this project.

### 1.1 Site Description

The subject site consists of a 6,000 foot long proposed NTD realignment and associated construction easement, referred to in this report as "Site". The Site extends from approximately Sparks Boulevard and I-80, through east Greg Street and terminates into the Truckee River east of Larkin Circle (Figure 1). Facilities on-site or adjacent to the Site include warehouses, a current service station, commercial vehicle repair facilities, construction yards, transportation facilities, and a chemical distribution facility.

The Site is located on portions of 13 individual parcels; seven additional parcels are affected by the construction easements or have a potential impact to the Site. The proposed improvement also includes crossings of I-80 and the Union Pacific Rail Road (UPRR) Right of Way. While no significant disturbance is proposed, property edges will be traversed by the alignment and drains from the named properties will be tied into.

#### **1.2 Purpose and Objectives**

The purpose of this Plan is to present procedures for the disposition of contaminated soil and groundwater in the NTD realignment which is anticipated to be encountered during construction and present options for the management, disposal and reuse of this material. This Plan integrates the following key objectives:

- Identify the various scenarios under which large volumes of soil generated during construction can be safely reused,
- Identify sampling and analysis, stockpiling, transportation, and other procedures by which soil and groundwater must be managed in order to meet safety, regulatory, and other standards,
- Define how groundwater encountered during construction will be characterized, properly treated, and discharged.

#### **1.3** Plan Organization

**Section 2.0 – Background:** Summarizes the results from soil and groundwater sampling events.

**Section 3.0 – Soil Management Measures:** Proposes methods where soil can be reused within the Site, areas where contaminated soil can be properly disposed, and areas where clean soil can be disposed.

**Section 4.0 – Groundwater Management Measures:** Presents methods for the disposal of groundwater encountered during construction activities.

**Section 5.0 – Project Oversight and Reporting:** Presents the project oversight and minimum reporting requirements for the contractor.

Section 6.0 – References: Lists reference documents used to prepare this Plan.

## 2.0 BACKGROUND

This section summarizes the subsurface characteristics of the Site with respect to soil lithology encountered during previous investigations, chemical concentrations in soil and groundwater, and presents construction dewatering estimates.

#### 2.1 Subsurface Conditions

The following description of subsurface conditions at the Site are based on results from the soil, sediment, and groundwater investigation activities conducted in May 2010, and documented in the *Report of Sampling and Analysis* (Phase II) (HDR, 2010a).

Soil types encountered during the Phase II investigation were generally sands and silts. Shallow soil consists primarily of sandy silty gravel (fill) to approximately 4 feet below ground surface (bgs). This is underlain with low plasticity silt and sandy silt to approximately 17 feet bgs, generally consistent with the alluvial flood plain soils expected to be present in this area. Heaving sands were encountered at approximately 10 feet bgs at boring SB-3 and extended to approximately 17.5 feet bgs. Fill soil was encountered in all borings except SB-3. Where encountered, the fill soil generally extended to a maximum depth of approximately 6 feet bgs. Laboratory analysis of soil samples collected during the Phase II indicates the presence of arsenic, boron, barium, cadmium, cyanide, chromium, copper, iron, manganese, sodium, nickel, lead, selenium, zinc, total petroleum hydrocarbons as diesel (TPH-d), and total petroleum hydrocarbons as oil (TPH-o). Soil contamination is described in more detail later in Section 2.3.2 of this Plan.

Groundwater was encountered at approximately 8 feet bgs in borings advanced in the western portion of the Site. In the eastern portion of the Site, groundwater in soil borings was encountered at approximately 10 feet bgs. During the NTD realignment construction, the box culverts will be installed approximately 10 to 20 feet bgs (varying on surface topography) with excavation depths ranging from 4,375 to 4,379 feet above mean sea level (amsl). Review of quarterly groundwater monitoring reports prepared by Broadbent and Associates (BAI, 2008) for the Washoe County School District site located at 1850 Kleppe Lane indicated a maximum groundwater elevation of 4,386.57 feet amsl in January 2008 and minimum groundwater elevation of 4,379.37 feet amsl in November 2003. The table below presents the depth to water (DTW) and groundwater surface elevation over one hydrogeologic cycle as observed in well MW-4 at the Washoe County School District site.

Decem	ber 2006	Marc	h 2007	June 2007		Septem	ber 2007	January 2008		
DTW	Elev.	DTW	Elev.	DTW	Elev.	DTW	Elev.	DTW	Elev.	
9.68	4,380.51	10.31	4,379.88	9.59	4,380.60	9.02	4,381.17	2.25	4,387.94	

Notes: DTW = depth to water in feet, Elev. = groundwater surface elevation in feet above mean sea level

Based on local groundwater elevation and the proposed excavation depth, dewatering will likely be necessary to facilitate construction (HDR, 2011). A discussion of analytes detected in groundwater is presented Section 2.3.3 of this Plan.

#### 2.2 **Previous Investigations**

In May 2010, HDR prepared a *Phase 1 Environmental Site Assessment* (Phase 1) (HDR, 2010b) which reviewed current and historical land uses to identify practices which may have contributed to soil and groundwater contamination at the Site. Phase I findings included documented releases of petroleum hydrocarbons from underground storage tanks (USTs) and aboveground storage tanks (ASTs). To evaluate their impact on soil and groundwater along the Site an investigation was performed which

included soil and groundwater sampling from nine borings advanced along the excavation area. Results from this field investigation were documented in HDR's Phase II report (HDR, 2010a).

#### 2.3 Summary of Current Environmental Contamination

#### 2.3.1 Contaminated Soil Definitions

The following two categories are used herein to describe the nature and extent of contamination in Site soils: (1) Contaminated Materials and (2) non-Contaminated Materials. Contaminated Materials contained chemicals and elements at concentrations greater than were posted in January 28, 2009 version of the Nevada Division of Environmental Protection NDEP Draft Guidelines for Discovery Events (Soil Reportable Concentrations [Soil RCs]) (Appendix A). Non-Contaminated Materials contained chemical or elemental concentrations less than the concentrations presented in the Soil RCs. Soil RC values are presented on Table 1 and Table 2.

Contaminated materials are subdivided into two categories which include: (1) Regulated Materials and (2) Hazardous Waste. Regulated Materials consist of materials that are either regulated by the local or state government. Hazardous Waste consists of material that is regulated by the federal government. These two subcategories are further described below.

<u>Regulated Materials</u> are subject to local and state guidelines if they exceed the requirements for non-Contaminated Materials (Soil RCs) and do not exceed the Hazardous Waste limits in 40 CFR 261. While soils within this category do not meet the regulatory definition of Hazardous Waste, they still may require special handling and disposal at a state-regulated landfill.

A <u>Hazardous Waste</u> is a solid waste that must be managed (treated, stored, transported, and disposed) in accordance with the federal requirements of subtitle C of the Resource Conservation and Recovery Act (RCRA) and Chapter 459 of the Nevada Revised Statutes (NRS). The regulations implementing RCRA (40 CFR 261) identify four characteristics of hazardous waste: ignitable, corrosive, reactive, or toxic. Although no Hazardous Waste was identified during the Phase II or is suspected to be encountered during construction of the NTD realignment; soil characterized as Hazardous Waste must be transported with a hazardous waste manifest and disposed of in a Class I Hazardous Waste Landfill.

#### 2.3.2 Nature and Extent of Soil Contamination

Laboratory analysis of soil samples collected during the Phase II indicates the presence of arsenic, boron, barium, cadmium, cyanide, chromium, copper, iron, manganese, sodium, nickel, lead, selenium, zinc, TPH-d, and TPH-o. Due to Site access limitations soil between Station 45+00 and 52+50 could not be characterized.

#### 2.3.2.1 Metals in Soil

As listed on Table 1, metals were detected in all soil samples collected at the Site. In many of the soil samples collected during the Phase II, arsenic was detected above the Soil RCs. However, according to the US Geological Survey (USGS) estimates in the *Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States* (USGS, 1984) and *the Geochemical Landscapes of the Conterminous United States*. New Map Presentations for 22 Elements (USGS, 2001) it is likely that the arsenic in this area is naturally occurring. As illustrated on Figure 3, the USGS estimates a background arsenic concentration of approximately 10 mg/Kg; therefore, it is the opinion of HDR that arsenic detected in soil samples collected from soil borings along the proposed NTD alignment is naturally occurring as the Phase I did not indicate an anthropogenic source. The table below presents the minimum, maximum, and mean arsenic concentrations from the soil samples collected during the Phase II investigation.

Arsenic Concen	tration (mg/Kg)
Maximum	12
Mean	7.4
Minimum	2.8

#### 2.3.2.2 Petroleum Hydrocarbons in Soil

TPH-d and TPH-o were the only petroleum hydrocarbons detected in soil samples. With the exception of boring SB-3, all soil borings yielded TPH-d and/or TPH-o above the 100 mg/Kg concentration (Action Level) listed in the Soil RCs. The greatest detected concentrations were reported in the shallowest samples collected from 2 feet bgs. The greatest concentration of TPH-d was 340 mg/Kg (2 feet bgs at SB-01). The greatest concentration of TPH-o was 4,200 mg/Kg (2 feet bgs at SB-08). Soil sample analytical results and the Soil RCs are presented on Table 1 and Table 2 as well as in the laboratory analytical reports provided in Appendix B.

#### 2.3.3 Nature and Extent of Groundwater Contamination

Laboratory analysis of groundwater samples from borings within the project corridor indicated the presence of nitrogen, sulfate, chloride, ammonia, fluoride, phosphorous, total dissolved solids, alkalinity, and many metals above the laboratory reporting limits. These analytical results are summarized in Tables 3 and 4 as well as in the laboratory analytical reports provided in Appendix B.

Groundwater samples were collected from four soil borings as part of the Phase II investigation and from three existing groundwater monitoring wells. Groundwater samples collected were analyzed for the constituents listed in the NAC 445A.1688 (Truckee Region: Truckee River at Lockwood Bridge). These Water Quality Standards (WQS) are established to protect the Truckee River. Groundwater samples collected from the soil borings and groundwater monitoring wells exceeded the WQS limits for many of the analytes as indicated on Table 3 and Table 4.

#### 2.3.4 Nature and Extent of Sediment Contamination

On May 25, 2010, sediment samples were collected from the NTD channel bottom by HDR. Sampling activities are described in more detail in HDR's *Report of Sampling and Analysis*, (Phase II) July 2010. TPH-o and arsenic were the only analytes detected above the Action Level and background concentration for naturally occurring metals. However, as presented on Figure 3, HDR assumes that arsenic at or less than 10 mg/Kg is naturally occurring as the Phase I did not indicate an anthropogenic source. The laboratory results from the sediment sample analysis are presented on Table 5 and the laboratory analytical reports are presented in Appendix B.

## 3.0 SOIL MANAGEMENT MEASURES

This section presents methods to characterize, manage, dispose, and reuse soil excavated during construction. During earth disturbing activities excavated soil will be managed and characterized through sampling. The purpose of the characterization is to evaluate chemical and elemental concentrations of the soil so that it can be profiled for disposal or reuse. Details on these measures are provided below.

#### 3.1 Soil Characterization

As discussed in the Background section of this document, a number of soil samples have been collected which may be used by the contractor for a general understanding of the type and volume of Regulated Material likely to be encountered during construction. Due to the age of the samples it is possible that soil requiring off-site disposal may require re-characterization (sampling and chemical analysis) for the purpose of landfill profiling. It is possible that the landfill may accept existing sample analytical results if the City can demonstrate that the chemical concentrations in the soil have not increased, for example, land

use in the area has not changed since the samples have been collected and the NDEP is not aware of any new releases of chemicals. Should additional sampling be required, samples will be collected in-situ prior to construction activities or ex-situ from soil stockpiles. Field characterization work will be completed in accordance with appropriate health and safety standards, including Title 29 Code of Federal Regulations (CFR) 1910.120, Hazardous Waste Operations and Emergency Response. A sampling strategy is detailed in the following sections.

#### 3.1.1 Waste Disposal Characterization

Excavated soil intended for off-site disposal, which has not been previously characterized to the satisfaction of the disposal facility, will be characterized through sampling. Soil characterization should be performed in accordance with receiving facility requirements. General receiving facility requirements are presented below with specific receiving facility requirements identified in disposal facility letters presented in Appendix C.

- In-situ reconnaissance testing of soil by sampling within the proposed construction area at the minimum frequency required by the disposal facility, often one boring advanced per 1,000 linear feet. Sampling will occur at depths within specific stratigraphic intervals such that representative samples are collected throughout the construction depth interval; or
- Collection of four-point composite samples from excavated and stockpiled soil. Samples will be collected at the minimum frequency required by the disposal facility, which is typically one four-point composite sample for every 1,000 to 1,500 cubic yards (cy) of stockpiled material.

Waste disposal characterization will include additional chemical analyses, with the specific analyses and frequencies dependent on the requirements of the off-site disposal facilities under consideration. Should soil contain elemental or chemical concentrations above the Soil RCs, the NDEP has requested that the contractor present the NDEP and Washoe County Health Department with plans for soil disposition for their review and approval.

#### 3.1.2 Discovery of Unknown Impact

Care will be taken during construction activities to note any stained, discolored, or odorous soils. If such soils are encountered, work will be stopped and the on-site Environmental Specialist will be consulted. In the case of discolored soils, if the Environmental Specialist decides that there is significant cause, the soil will be sampled for TPH-d (or any other suspected contaminant) and RCRA 8 metals. In the case of strong odors or visual indications, the soil will be sampled for TPH-d, TPH-o, metals, volatile organic compounds (VOCs), and/or semi-volatile organic compounds (SVOCs). No further work will be conducted with the impacted soil until analytical results have been received and reviewed, and either the soil has been found not to contain hazardous substances or engineering controls have been implemented to minimize exposure to potential hazardous substances.

Hazardous Waste was not identified during the Phase II nor is Hazardous Waste expected to be encountered during construction of the NTD realignment. However, if unexpected Hazardous Waste is encountered during construction, the soil characterized as Hazardous Waste must be transported with a hazardous waste manifest and disposed of in a Class I Hazardous Waste Landfill in accordance with Chapter 459 of the NRS. Hazardous waste is defined in Section 2.3.1 of this report.

#### 3.1.3 Chemical Analysis Methods

Soil samples will be submitted to a Nevada state-certified analytical laboratory for chemical analysis. Based on the historical land use, the laboratory analysis for the following constituents shall be performed at a minimum:

• RCRA 8 metals (including lead and arsenic) using US EPA Method 6000/7000;

- VOCs using US EPA Method 8260B;
- TPH-g using US EPA Method 8260B; and
- TPH-d and TPH-o using EPA Method 8015.

#### 3.2 Soil Transportation Modes

Both on-site transportation and off-site transportation may be performed using either trucks or railcars. Material to be transported by truck will be loaded into end-dump trucks or transfer trailer trucks with a capacity up to 16 cy (combined). Material to be delivered by rail will be loaded into UPRR railcars with a 100-ton capacity. All loads will be covered and contained on all sides.

#### 3.2.1 On-Site Transportation

Some of the soil excavated during NTD project construction may be reused on-site. On-site transportation is defined as the shipment of material from one portion of the project Site to another, without crossing the borders of the property, or by only crossing a road dividing property owned by the City and/or temporary construction easements for the project. The transportation of excavated material along public streets, highways, or freeways is prohibited unless the material has been properly characterized.

#### 3.2.2 Off-Site Transportation

Off-site transportation is defined as the shipment of material in a manner which requires travel along a public or private right-of-way. Off-site transportation will occur when a material is being properly shipped for off-site disposal. In some cases, off-site transportation may also be used to transfer material from one discontinuous portion of the project area to another, if the material has been characterized sufficiently for waste classification purposes and determined not to be a hazardous waste.

Whatever the purpose, off-site transportation of waste materials will be conducted in accordance with all federal, state, and local statutes, regulations, and ordinances, including the following: 40 CFR Parts 261 to 265; 29 CFR Part 1910.120; 49 CFR Parts 100 to 199.

#### **3.2.3** Potential Destinations

Current estimates indicate that approximately 44,000 cubic yards of soil exceed the Soil RCs and therefore must be transported off-site to a Class II landfill for disposal or treated to reduce TPH below the Action Level. Due to site access limitations, a portion of the alignment from approximately Station 45+00 to 52+50 was not characterized and therefore an estimate of the volume of contaminated material in this area was not provided. Current estimates indicate that approximately 31,000 cubic yards of soil do not contain chemical concentrations above the Soil RCs or arsenic above the background concentration and can therefore be reused on-site or disposed of at a landfill. Based on available soil analytical data collected during the Phase II investigation the Regulated Soil has been tentatively approved for disposal at the following facilities:

Lockwood Landfill 2401 Canyon Way Sparks, NV 89434

Ostrom Road Landfill 5900 Ostrom Road Wheatland, CA 95692 Altamont Landfill 10840 Altamont Pass Road Livermore CA, 94551 Anderson Landfill 18703 Cambridge Road Anderson, CA 96007

The contractor will be responsible for final approval of the waste intended for landfill disposal. Tentative acceptance letters are presented in Appendix C. The Lockwood Landfill bioremediation cells are limited

to 11,000 cubic yards per year of soil with total petroleum hydrocarbon concentrations greater than 600 mg/Kg. This available volume is subject to change. Due to the age of the data, Recology Environmental Solutions, Inc. which operates Ostrom Road Landfill, would require additional testing to validate the data which has exceeded the age restrictions.

In the event that Lockwood landfill can not accept TPH impacted soil due to capacity of the bioremediation cells, thermal treatment of the soil could be performed to reduce TPH to below Action Levels making the soil applicable for unrestricted reuse or direct burry at Lockwood Landfill. The following thermal treatment facility is located approximately 10 miles away from the Site and has the ability to treat TPH impacted soil at their facility:

Nevada Thermal Services, LLC 2600 Mustang Road Sparks, NV 89434

#### 3.2.4 Transportation Record Keeping

Daily field notes will be kept by the contractor's project manager or designee. For each shipment of impacted material, documentation in the daily log will include:

- Source location of the soil;
- Date and time of loading for each truck or railcar;
- Transport company and unique truck/railcar identifier (e.g., truck license plate number or railcar number);
- Approximate volume of each truck or railcar load; and
- Destination of the soil.

For each shipment to another on-site location, documentation in the daily log will also include:

• Date of unloading.

For each shipment to an off-site location, documentation retained by the contractor will also include:

• Load-specific shipping papers (e.g., bill of lading, non-hazardous waste manifest or hazardous waste manifest).

For each shipment of hazardous waste to an off-site facility, documentation retained by the contractor will include:

• Uniform Hazardous Waste Manifest (U.S. EPA Form 8700-22 DHS 8022A), completed in full in accordance with the hazardous waste classification assigned to the material on the disposal facility's waste profile. Prior to shipment, the Uniform Hazardous Waste Manifest will be signed by a City representative (as the Generator) or the Cities' designee and the driver for the licensed transporter. Upon arrival at the disposal facility, the manifest for the load will be signed by a representative of the disposal facility.

#### 3.3 Soil Stockpiling

Due to physical space limitations, the sequencing of work, and/or the net balance of the fill/cut of a given area, material from the project area may be removed from and transported to a stockpile location within the project boundary while awaiting either reuse or off-site disposal. It is the responsibility of the

contractor to identify and propose soil stockpile locations for approval by the City prior to their use. However, consistent with Federal Emergency Management Agency (FEMA) requirements the temporary or permanent stockpiling of material within the FEMA floodway is not authorized. If the material has not been adequately characterized, or has been shown to contain chemicals of concern such that it is not suitable for reuse, the material will be handled using the procedures in this section.

Limitations on stockpiling are discussed in the following subsections. These limitations are not intended to apply in the following circumstances:

- Material which has been adequately characterized and found suitable for unrestricted on-site or off-site reuse, which may be placed in any portion of the project site acceptable to the City.
- Smaller volumes of soil approved for reuse which are temporarily placed beside their reuse location. Note that this is considered part of the fill process, instead of stockpiling.
- Small, temporary windrows associated with grading or utility work within the immediate vicinity of an excavation or work area. Note that these are considered part of the grading or trenching activity, instead of stockpiling.
- Imported clean fill material.

#### 3.3.1 Soil Stockpile Location

Contaminated material may be temporarily stockpiled at Horseman's Park with written permission by the City. After completion of the NTD project all material must be removed from Horseman's Park and be properly disposed of to the satisfaction of the City. Horseman's Park is located off of Loop Road in Sparks Nevada (Figure 1).

#### 3.3.2 Stockpile Location Security

The soil stockpiling locations will be fenced to discourage public access. Chain link fencing will be used along the portions of the Site facing public streets, while either chain link fencing or plastic snow fencing will be used as needed along the currently open Site boundaries adjacent to private properties. Signs prohibiting trespassing will be posted at public entrance points. The signs will contain the name and number to contact in the event of an emergency, a representative of the construction contractor firm.

#### 3.3.3 Stockpiling Procedures

One key procedure during stockpiling is that material from separate data populations not be mixed unless the material has been fully characterized and shown to be equivalent for the purposes of reuse or disposal.

A second key procedure is that a stockpile record keeping system will be used for all stockpiled material. The stockpile record keeping system will include:

- The approximate quantity (volume) of the material;
- Documentation of where the material was excavated from (by Station and elevation) and the laboratory analytical results used to profile the excavated material;
- Any possible previous temporary stockpile locations for the material; and
- The ultimate reuse or disposal location, based on the characterization results.

For stockpiled material intended for off-site disposal the stockpile record keeping system will also include the analytical results for samples used to profile the material for off-site disposal.

Additional stockpiling procedures include the following:

- Stockpile erosion and run-on/runoff will be managed using standard best management practices (BMPs) to avoid migration of sediment into the storm drains or surface waters.
- The soil will be stockpiled in a manner that facilitates the segregation of 1,000 cy subsections.
- A silt fence will be constructed around the perimeter of the stockpile area to mitigate migration of sediment into the storm drains or surface waters.
- The stockpiled soil will not contain free liquids.
- The soil will be placed on 10-mil high-density polyethylene (HDPE).
- A commercial, non-petroleum-based dust palliative or hydroseeding will be applied to stockpiles within 30 days of placement to minimize the migration of airborne dust.
- After receipt of sample results, separate stockpiles may be consolidated into larger piles consistent with potential reuse criteria and space constraints.
- The dimensions of any single soil stockpile will be not greater than 1,000 feet long by 50 feet wide and 15 feet high.
- The stockpile Site will be inspected weekly and after storms to ensure that the controls for windblown dispersion and precipitation runoff and run-on are functioning properly.

Uncharacterized waste may be temporarily stockpiled on-site in a lined bin while waiting for laboratory analytical results or disposal. Soil stockpiling procedures will conducted in accordance with the methods presented above and in accordance with Chapter 459 of the NAC and/or FEMA regulations where applicable.

#### 3.4 Soil Reuse

As depicted on Figure 2, some soil segments contain chemical or elemental concentrations less than the Soil RCs or naturally occurring background concentrations; therefore this material can be reused on-site. Opportunities for reuse may include backfilling of the existing North Truckee Drain, as backfill adjacent to and on top of box culverts, or reused as needed off-site by the contractor for unrelated construction projects. It should be noted however, that although soil segments have been identified for reuse, the reuse of this material must meet Project geotechnical requirements.

	Soils Manage	ment Plan – Re-Use/Disp	oosal Matrix	
			<b>Description of Work</b>	
Soil Classification	Soil Management Unit	Re-Use	Solid Waste Disposal	Hazardous Waste Disposal
Non-contaminated	<b>Unregulated Material</b>	(e.g., Unrestricted Re-	(e.g., Lockwood	
Material	(Below NDEP Soil RCs	Use On- or Off-Site)	Facility as	
	or Within Normal		Construction Waste)	
	Background Range)			
Contaminated	Regulated Material		(e.g., Lockwood	
Material	(Above NDEP Soil		Facility as Non-	
	RCs)		RCRA Special	
			Waste)	
	Hazardous Waste			Unknown Quantity
				(Not Anticipated to
				be Encountered)

## 4.0 GROUNDWATER MANAGEMENT MEASURES

In general, if groundwater is encountered during construction the recommended groundwater mitigation measure is to dewater, treat, and discharge to the Truckee River under the authority of the Division of Environmental Protection Bureau of Water Pollution Control, under a National Pollutant Discharge Elimination System (NPDES) general permit. HDR estimates that 12 extraction wells operating at flow rate of approximately 250,000 gallons per well per day would be required to lower the groundwater surface to below the proposed excavation depth (HDR, 2011) (Appendix D).

Groundwater encountered during excavation activities will contain contaminants that will require remediation prior to discharge in order to meet requirements of the NPDES permit. Laboratory analysis of water samples collected from monitoring wells installed adjacent to and in the proposed alignment indicate the presence of nitrate, nitrite, sulfite, chloride, ammonia, phosphorous, sodium, total dissolved solids, and total suspended solids. The detected analytes are presented in the *Dewatering Estimates* Technical Memorandum presented in Appendix D.

#### 4.1 Groundwater Characterization

The mobility and lateral variation of groundwater contamination will not allow the anticipated dewatering mechanisms to adequately segregate clean groundwater from contaminated groundwater. Therefore, all extracted groundwater should be considered as potentially impacted and thus will require characterization to determine the appropriate treatment requirements for discharge/disposal. Groundwater characterization will be performed in accordance with the NPDES discharge permit requirements or off-site facility acceptance requirements, depending on the method selected for discharge (see Section 4.2 below). The City is currently preparing a NPDES permit application to permit the discharge of extracted groundwater to the Truckee River. After contract award, the contractor will be responsible for coordinating with the City, and the NDEP, to transfer the NPDES permit to the contractor. The NDEP has indicated that before the NPDES permit can be transferred from the City to the contractor, the contractor will be required to specify the treatment technology and provide a treatment system operations and maintenance (O&M) manual report for review by the NDEP to verify that the treatment technology is sufficient to meet NPDES discharge requirements. Groundwater analytical results collected from soil borings along the proposed alignment in 2010 are presented in Tables 3 and 4. Sediment sample analytical results collected from the existing North Truckee Drain are presented on Table 5.

#### 4.2 Groundwater Treatment and Discharge

Generally, large volumes of groundwater extracted by the dewatering system will be treated by an aboveground on-site treatment system, such as by gravity sedimentation followed by granulated activated carbon adsorption, and ion exchange prior to discharge to the Truckee River. Small volumes of groundwater, or as an alternative to meeting the NPDES discharge requirements of the Truckee River, may be transported to an off-site permitted disposal facility. In this case, a licensed contractor will be used to transport the groundwater off-site with proper transportation permits and documentation, such as bill of lading and nonhazardous waste manifest, depending on the extracted groundwater characterization. Groundwater generated during the construction activities will be disposed using one of the following methods:

- Discharge to the Truckee River under NPDES permit; and/or
- Contain and dispose at an appropriately permitted off-site facility.

Discharge of groundwater to the Truckee Meadows Water Reclamation Facility is not authorized. Discharge of treated dewatering groundwater to the storm drain system is regulated by the NDEP, under a NPDES general permit; however discharge to the storm drains during storm events may not be available due to capacity limitations. The contractor will also meet the substantive requirements for discharge of storm water runoff associated with construction activity. This includes the preparation of a Storm Water Pollution Prevention Plan with associated BMPs, in compliance with US EPA regulations at 40 CFR Section 122.226(b) (14). Solids and spent carbon generated from the dewatering system must be handled and disposed of in accordance with appropriate and relevant state and federal regulations. The contractor will be responsible for system design, construction, operation, maintenance, sampling and reporting as required by the NPDES permit.

The contractor will be responsible for preparing all the reports related to dewatering system operations in compliance with permit requirements. The reports include, but are not limited to, dewatering system O&M manual, startup report, and self monitoring reports for the treatment system(s).

The NDEP has agreed to issue a NPDES permit to the City which will identify discharge and monitoring requirements for the Project. Prior to discharge, the contractor will be responsible for preparing a document, to include a treatment system O&M report, which proposes a treatment method capable of meeting the Project needs while adhering to the NPDES permit requirements. This document will be submitted to the NDEP for review and approval. Once approved, the NDEP will transfer the NPDES permit from the City to the contractor and authorize the discharge.

#### 4.3 Groundwater Reuse

Reuse of extracted groundwater may be performed to mitigate dust generation, to aid in soil compaction, or in concrete manufacturing. Should the contractor intend to reuse extracted groundwater, the groundwater must not contain chemicals or elements at concentrations greater than the limits posted in Profile 1 Analysis List and the Toxic Materials list referenced in the NDEP Groundwater Discharge Permits on the NDEP Permits Forms and Fee Schedules webpage.

## 5.0 PROJECT OVERSIGHT AND REPORTING REQUIREMENTS

Proper recordkeeping, reporting, and oversight will be used to document and ensure that soil and groundwater removed from the project area is transported, disposed, or reused in accordance with local, State, and Federal laws. The following are required to meet the reporting and oversight requirements of this project.

#### 5.1 Environmental Specialist

The contractor shall employ or otherwise engage the services of an Environmental Specialist (Certified Environmental Manager) to implement this Plan. The Environmental Specialist is responsible for being knowledgeable of the environmental conditions within the construction areas and for all reporting and documentation aspects of this Plan. The Environmental Specialist is responsible for producing a final report which documents the methods used to characterize waste for disposal, the disposition of excavated material and extracted groundwater. The duties of the Environmental Specialist include but are not limited to:

- Conduct in-situ characterization of all excavated material if identified for immediate disposal after excavation,
- Ensure compliance with requirements of this Plan and all applicable regulations and permits,
- Verify or conduct soil sampling where necessary, to support in-situ characterization or comply with landfill disposal requirements,
- Verify or conduct sampling and analysis of excavated soils,
- Verify or conduct sampling and analysis of extracted groundwater, and

• Oversee loading, prepare manifests, and implement waste tracking procedures for wastes taken to permitted landfills or other disposal facilities.

The Environmental Specialist is responsible for preparing monthly reports for submittal to the City. These reports are intended to document the disposition of contaminated material and the sampling, analysis and management of previously undiscovered contamination. These monthly reports should contain the following, at a minimum:

- Nonhazardous disposal manifests,
- The station location of any samples collected,
- Laboratory analytical results,
- A table summarizing the laboratory analytical results, and
- A summary of the volume of contaminated material excavated and the disposition of this material.

#### 5.2 Contaminant Management Reporting

Upon completion of the project the Environmental Specialist is required to prepare and submit a Contaminant Management Report to the City. The purpose of the Contaminant Management Report is to document the characterization of excavated material, the location of any previously undiscovered waste, and the disposition of all material disturbed as part of this Project. The Contaminant Management Report shall contain the following, at a minimum:

- Daily field logs,
- All laboratory results with sample locations,
- Waste disposal manifests and tracking information, and
- Location of all excavated soil by station number.

The City or the City's agent will review the Contaminant Management Report within a reasonable amount of time to ensure that excavated material reached the intended destination. Should the City determine that contaminated material did not reach the intended destination it is the responsibility of the Contractor to remove and/or remediate the misplaced material to the satisfaction of the City. The City reserves the right to withhold final payment from the Contractor until it has been demonstrated that all material has been disposed of properly and legally.

### 6.0 **REFERENCES**

40 CFR 261. Identification and listing of Hazardous Waste, September 21, 1984.

- HDR, 2010a. Report of Sampling and Analysis, HDR, July 2010.
- HDR, 2010b. Phase I Environmental Site Assessment for the North Truckee Drain Realignment, Sparks Nevada, HDR, May 2010.
- HDR, 2011. "Discharge Approval for North Truckee Drain Realignment Dewatering". Letter to Mr. Toby Ebens, The City of Sparks, January 6, 2011.
- NAC 445A.1688. Truckee River at Lockwood Bridge, Standards of Water Quality, Nevada Administrative Code.

Title 13 § 36.090. Limitations on Wastewater Strength, Nevada State Municipal Code.

- USEPA, 2010. Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites, United States Environmental Protection Agency, May 2010.
- USGS, 1984. Shacklette, Hansford T., Boerngen, Josephine G. Element Concentrations in Soil and Other Surficial Materials of the Conterminous United States, United States Geophysical Survey. P. 1270, p. 105
- USGS, 2001. Gustavsson N., Bolviken B., Smith D.B., Severson R.C. Geochemical Landscapes of the Conterminous United States-New Map Presentations for 22 Elements, United States Geophysical Survey, P 1648, p. 38.
- NDEP, 2009. Bureau of Corrective Actions Notification Requirements Guidance for Soil Excavation During Initial Abatement or Workplan Changes in Scope, Nevada Division of Environmental Protection January 2009.

#### Table 1 Soil Analytical Results - Total Metals North Truckee Drain Realignment Sparks, Nevada

Boring ID	Sample Date	Sample Depth (fbgs)	Ag	As	Ba	Cd	Cr	Hg	Pb	Se
		Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
SB-01	05/26/10	2	<1.0	4.8	110	<1.0	13	< 0.20	7.0	<1.0
SB-01	05/26/10	8	<1.0	5.5	240	<1.0	17	< 0.20	11	<1.0
SB-01	05/26/10	13	<1.0	2.8	150	<1.0	15	< 0.20	8.8	<1.0
SB-02	05/26/10	2	<1.0	10.0	170	<1.0	16	< 0.20	7.3	<1.0
SB-02	05/26/10	8	<1.0	7.4	150	<1.0	15	< 0.20	8.2	<1.0
SB-02	05/26/10	15	<1.0	7.3	170	<1.0	13	< 0.20	8.6	<1.0
SB-03	05/25/10	2	<1.0	12	270	<1.0	19	< 0.20	9.0	<1.0
SB-03	05/25/10	13	<1.0	5.4	190	<1.0	18	< 0.20	13	<1.0
SB-03	05/25/10	17	<1.0	7.3	52	<1.0	21	< 0.20	4.5	<1.0
SB-04	05/26/10	1	<1.0	12	140	<1.0	19	< 0.20	8.5	<1.0
SB-04	05/26/10	10	<1.0	8.9	140	<1.0	20	< 0.20	11	<1.0
SB-04	05/26/10	17	<1.0	7.0	260	<1.0	23	< 0.20	36	<1.0
SB-05	05/26/10	2	<1.0	9.6	180	<1.0	17	< 0.20	9.9	1.1
SB-05	05/26/10	10	<1.0	8.7	190	<1.0	24	< 0.20	9.0	<1.0
SB-05	05/26/10	17	<1.0	7.2	160	<1.0	19	< 0.20	7.4	<1.0
SB-07	05/26/10	2	<1.0	11	390	<1.0	18	< 0.20	6.2	6.2
SB-07	05/26/10	10	<1.0	3.0	86	<1.0	11	< 0.20	4.7	<1.0
SB-07	05/26/10	17	<1.0	5.5	120	<1.0	15	< 0.20	5.2	<1.0
SB-08	05/27/10	10	<1.0	11	47	<1.0	7.8	< 0.20	2.8	<1.0
SB-09	05/27/10	10	<1.0	3.6	160	<1.0	15	< 0.20	4.7	<1.0
SB-10	05/27/10	10	<1.0	5.4	140	<1.0	17	< 0.20	4.5	<1.0
NDEP	Soil RCs		340	0.39	NE	8	38	6.7	400	5
RSL (Re	RSL (Residential)			0.39	15,000	70	NE	5.6	400	390
RSL (Ir	ndustrial)		5,100	1.6	190,000	800	NE	34	800	5,100
Back	ground		NE	10	580	NE	41	0.046	17	0.23

NE = Not Established

#### Notes:

mg/Kg = micrograms per kilogramfbgs = feet below ground surfaceSamples analyzed by EPA Method SW6020/SW6020AAs=ArsenicCr = ChromiumAg=SilverHg=MercuryBa=BariumPb=LeadCd=CadmiumRSL = Regional Screening Levels, EPA Region 9, May 2010Background concentrations based on Element Concentrations inSoils and Other Surficial Materials of the Conterminous United States, USGS, 1984

< = Less than reporting limit

# Table 2Soil Analytical Results - Petroleum Hydrocarbons, VOCs, and pHNorth Truckee Drain RealignmentSparks, Nevada

Sample ID	Sample Date	Sample Depth (fbgs)	TPH-d	ТРН-о	TPH-g	VOCs	рН
		Units	mg/Kg	mg/Kg	mg/Kg	µg/Kg	SU
SB-01	05/26/10	2	340 L	2,800	<10	ND	NT
SB-01	05/26/10	8	290 L	2,000	<10	ND	8.0
SB-01	05/26/10	13	<10	<10	<10	ND	NT
SB-02	05/26/10	2	<10	<10	<10	ND	NT
SB-02	05/26/10	8	49 L	180	<10	ND	NT
SB-02	05/26/10	15	<10	<10	<10	ND	NT
SB-03	05/25/10	2	<10	31	<10	ND	NT
SB-03	05/25/10	13	<10	15	<10	ND	8.4
SB-03	05/25/10	17	<10	20	<10	ND	NT
SB-04	05/26/10	1	220 L	1,800	<10	ND	NT
SB-04	05/26/10	10	49 L	240	<10	ND	NT
SB-04	05/26/10	17	130 L	850	<10	ND	NT
SB-05	05/26/10	2	42 L	130	<10	ND	NT
SB-05	05/26/10	10	<10	<10	<10	ND	8.0
SB-05	05/26/10	17	<10	<10	<10	ND	NT
SB-07	05/26/10	2	260 L	2,200	<10	ND	NT
SB-07	05/26/10	10	<10	<10	<10	ND	7.8
SB-07	05/26/10	17	<10	<10	<10	ND	NT
SB-08	05/27/10	2	250 L	4,200	<10	ND	8.3
SB-08	05/27/10	8	<10	<10	<10	ND	8.7
SB-08	05/27/10	10	<10	<10	<10	ND	8.6
SB-08	05/27/10	17	<10	<10	<10	ND	8.1
SB-09	05/27/10	2	150 L	1,900	<10	ND	8.6
SB-09	05/27/10	10	32 L	450	<10	ND	8.0
SB-09	05/27/10	17	<25	<50	<10	ND	7.5
SB-10	05/27/10	2	37 L	520	<10	ND	8.5
SB-10	05/27/10	10	<10	<10	<10	ND	7.4
SB-10	05/27/10	17	<10	<10	<10	ND	8.4
NDEP	' Soil RCs		100	100	100		

#### Notes:

- mg/Kg = Milligrams per kilogram
- NT = Not Tested
- fbgs = feet below ground surface
- SU = Standard units
- < = Less than reporting limit
- L = The DRO concentration may include contributions from heavier-end hydrocarbons that elute in the DRO range.
- TPH-d = total petroleum hydrocarbons as diesel
- TPH-o = total petroleum hydrocarbons as oil
- TPH-g = total petroleum hydrocarbons as gasoline

# Table 3 Groundwater Analytical Results - Petroleum Hydrocarbons, General Chemistry, VOCs, and SVOCs North Truckee Drain Realignment Sparks, Nevada

Sample ID	Sample Date	TPH-d	TPH- O&G	TPH-0	TPH-g	рН	Total N	Nitrate	Nitrite	Sulfate	Chloride	Ammonia as N	Fluoride	Phosphorus	TDS	Alkalinity	Total Phenolics	Phenol	VOCs	SVOCs
Units		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	μg/L	μg/L
SB-02	05/26/10	< 0.5	<5.0	< 0.50	< 0.50	7.7	7.6	< 0.25	< 0.25	130	58	2.3	< 0.25	50	670	370	< 0.005	<10	ND	ND
SB-03	05/25/10	< 0.5	<5.0	< 0.50	< 0.50	7.7	0.99	< 0.25	< 0.25	160	80	0.26	< 0.25	1.2	830	440	< 0.005	<10	ND	ND
SB-07	05/26/10	< 0.5	<5.0	< 0.50	< 0.50	7.1	1.4	< 0.25	< 0.25	810	88	0.39	0.66	2.0	1,900	610	< 0.005	<10	ND	ND
SB-10	05/27/10	< 0.5	<5.0	< 0.50	< 0.50	7.7	63	< 0.25	< 0.25	41	40	8.0	2.6	56	1,600	590	< 0.005	<10	ND	ND
WQS - A-Av	g.	NE	NE	NE	NE	NE	0.76	NE	NE	≤ 39	$\leq 26$	+	NE	$\leq 0.05$	$\leq 210$	¥	NE	NE	NE	NE
WQS - SV		NE	NE	NE	NE	7.1-8.5	1.3 B	2.1	0.5	$\leq 46$	$\leq 30$	+	NE	NE	$\leq 260$	NE	NE	NE	NE	NE
TMWRF Lin	nits	100	100	100	100	5.5-10	NE	NE	NE	240	110	NE	4	NE	NE	430	0.005	2.5	NE	NE

Notes:

#### NE not established

SU Standard units

mg/L milligrams per liter

< Less than reporting limit

Bold Bold values indicate and exceedance of the WQS or TMWRF Limits

TPH-d total petroleum hydrocarbons as diesel

TPH-o total petroleum hydrocarbons as oil

Total N Total Nitrogen

TDS Total dissolved solids

VOCs Volatile organic compounds

ND Analyte not detected above laboratory reporting limit

SVOCs Semivolatile organic compounds

TMWRF Limits Truckee Meadows Water Reclamation Facility Limitations on Wastewater Strength SMC Title 13 Section 36

#### WQS Notes:

SV Single Value

A-Avg. Annual Average

WQS NAC 445A.187 Truckee River at Lockwood Bridge (NRS 445A.425, 445A.520) Water Quality Standards + See NAC 445A.118

+ See NAC 445A.118

¥ Less than 25% change from natural conditions. Current natural conditions are unknown and likely vary over time.

B Total nitrogen also can not exceed the A.-Avg. of 0.75

#### Table 4 Groundwater Analytical Results - Total Metals North Truckee Drain Realignment Sparks, Nevada

Sample ID	Sample Date	Ag	As	В	Ba	Cd	Cn	Cr	Cu	Fe	Hg	Mn	Na	Ni	Pb	Se	Zn
Units		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
SB-02	05/26/10	< 0.005	0.39	1.0	14	0.0087	< 0.005	0.61	1.6	1100	< 0.001	27	150	0.70	0.36	0.025	3.0
SB-03	05/25/10	< 0.005	0.11	0.82	1.0	< 0.005	< 0.005	0.17	0.22	140	< 0.001	2.8	210	0.082	0.10	< 0.005	0.44
SB-07	05/26/10	< 0.005	0.45	1.5	2.4	< 0.005	< 0.005	0.13	0.24	230	< 0.001	5.5	430	0.095	0.15	< 0.005	0.51
SB-10	05/27/10	< 0.005	0.23	1.9	6.4	< 0.005	0.009	0.10	0.21	400	< 0.001	20	590	0.13	0.059	< 0.005	0.48
WQS - A-A	vg.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	1.5	NE	NE	NE	NE
WQS - S	V	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	2.0	NE	NE	NE	NE
TMWRF Li	imits	0.05	2.00	1	14.0	0.02	0.23	0.5	0.50	90	0.010	1.10	NE	1.8	0.300	0.06	1.00

#### Notes:

NE not established

mg/L milligrams per liter

WQS NAC 445A.187 Truckee River at Lockwood Bridge (NRS 445A.425, 445A.520) Water Quality Standards

< Less than reporting limit

TMWRF Limits Truckee Meadows Water Reclamation Facility Limitations on Wastewater Strength SMC Title 13 Section 36

Ag Silver

- As Arsenic Hg Mercury
- B Boron Mn Manganese

Fe Iron

Ba Barium Na Sodium

- Cd Cadmium Ni Nickel
- Cn Cyanide Pb Lead
- Cr Chromium Se Selenium
- Zn Zinc
- Cu Copper

#### WQS Notes:

SV Single Value

Annual Average A-Avg.

\* Secondary MCL

Action Level

#### Table 5 Sediment Analytical Results North Truckee Drain Realignment Sparks, Nevada

Sample ID	Sample Date	TPH-d	TPH-0	VOCs	Pesticides	Herbicides	PCBs	SVOCs	Ag	As	Ba	Cd	Cr	Hg	Pb	Se
	Units	mg/Kg	mg/Kg	µg/Kg	µg/Kg	mg/Kg	µg/Kg	µg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
SS-01	05/25/10	22	170	ND	ND	ND	ND	ND	<1.0	5.2	63	<1.0	12	< 0.20	5.0	<1.0
SS-02	05/25/10	<10	<17	ND	ND	ND	ND	ND	<1.0	8.0	160	<1.0	16	< 0.20	8.7	<1.0
RSL (Resident	tial)	NE	NE	Varies	Varies	Varies	Varies	Varies	390	0.39	15,000	70	120,000	5.6	400	390
RSL (Industri	ial)	NE	NE	Varies	Varies	Varies	Varies	Varies	5,100	1.6	190,000	800	1,500,000	34	800	5,100
Background	ł	NE	NE	NE	NE	NE	NE	NE	NE	10	580	NE	41	0.046	17	0.23

Notes:

mg/kg = milligram per kilogram

 $\mu g/Kg = microgram per kilogram$ 

Ag=Silver Cr = Chromium

As=Arsenic Hg=Mercury

Ba=Barium Pb=Lead

Cd=Cadmium Se=Selenium

TPH-d = total petroleum hydrocarbons as diesel

TPH-o = total petroleum hydrocarbons as oil

Pesticides = Organochlorine pesticides

Herbicides = Chlorinated Herbicides

PCBs = Polychlorinated biphenols

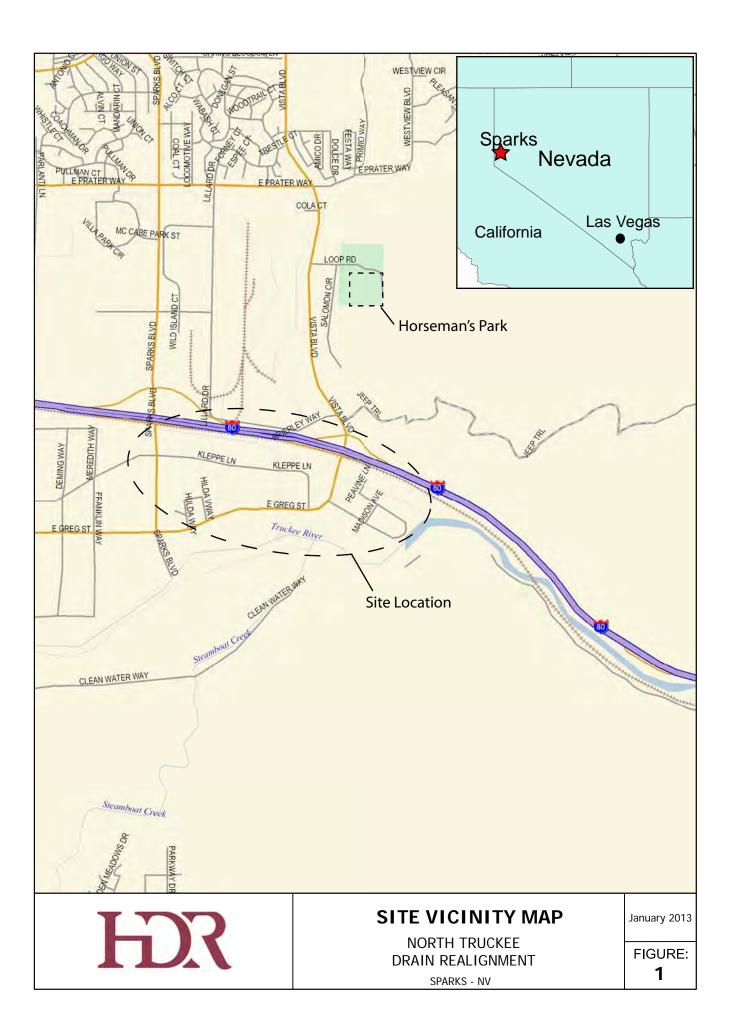
SVOCs = Semivolatile organic compounds

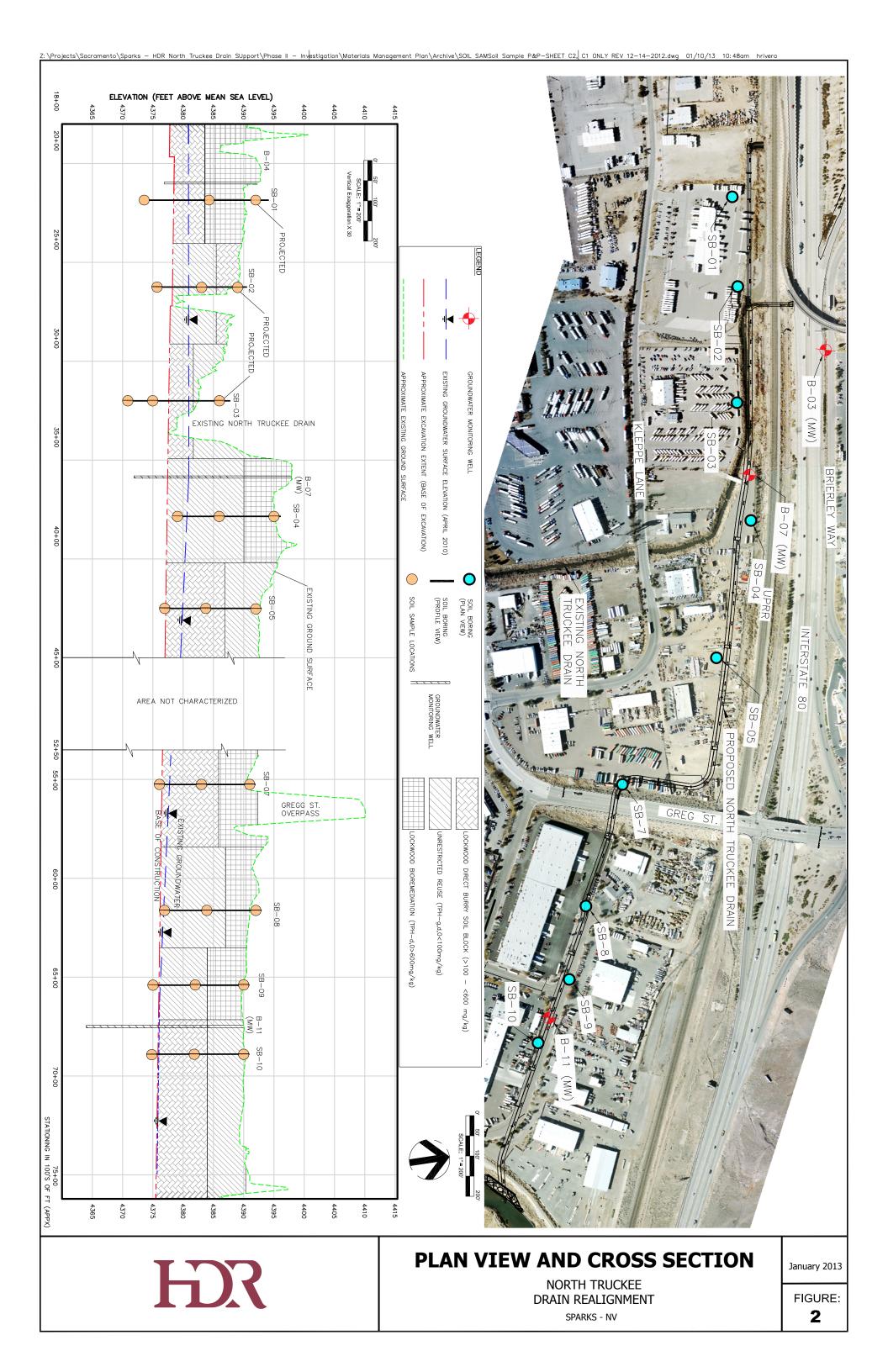
ND = Analyte(s) not detected above laboratory reporting limit

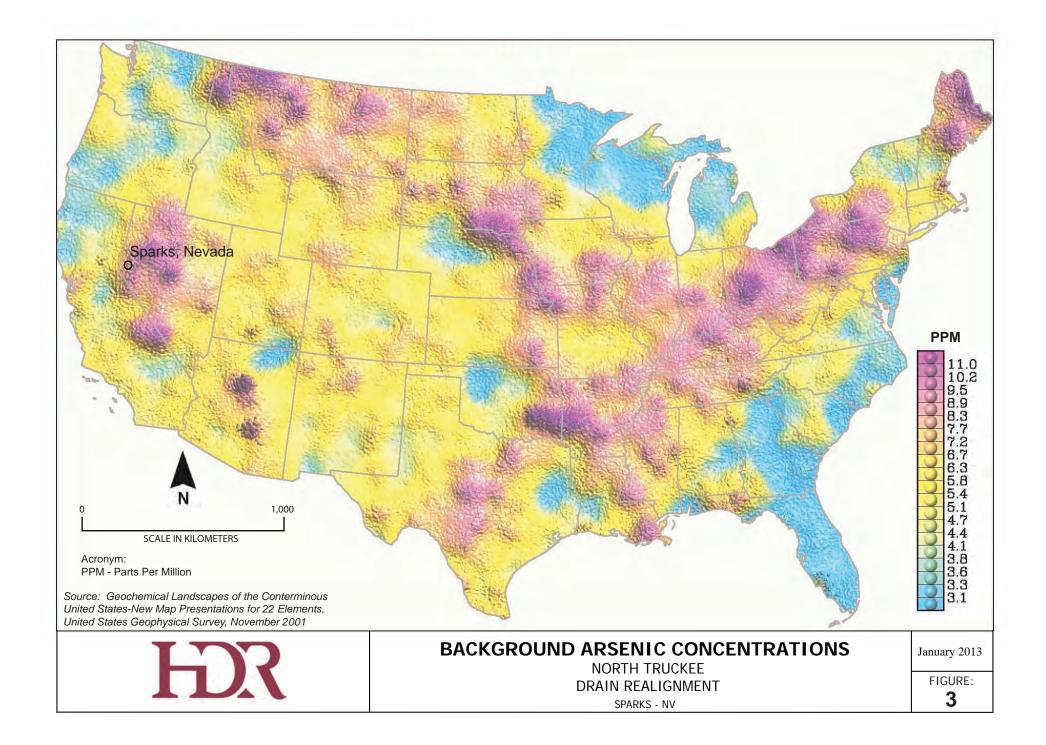
NE = Not Established

RSL = Regional Screening Levels, EPA Region 9, May 2010

Background concentrations based on Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States, USGS, 1984







## **APPENDIX A**

NDEP Draft Guidelines for Discovery Events

Appendix A2--Full list of Reportable Concentrations in soil

		Reportable	
		Concentration	-
Analyte	CAS No.	(mg/kg)	Source
Acephate	30560-19-1	5.6E+01	EPA Regional Screening Level, Residential Soil
Acetaldehyde	75-07-0	1.1E+01	EPA Regional Screening Level, Residential Soil
Acetochlor	34256-82-1	1.2E+03	EPA Regional Screening Level, Residential Soil
Acetone	67-64-1	1.6E+01	Soil Screening Level, DAF 20
Acetone Cyanohydrin	75-86-5	2.0E+02	EPA Regional Screening Level, Residential Soil
Acetonitrile	75-05-8	8.7E+02	EPA Regional Screening Level, Residential Soil
Acetophenone	98-86-2	7.8E+03	EPA Regional Screening Level, Residential Soil
Acrolein	107-02-8	1.6E-01	EPA Regional Screening Level, Residential Soil
Acrylamide	79-06-1	1.1E-01	EPA Regional Screening Level, Residential Soil
Acrylic Acid	79-10-7	3.0E+04	EPA Regional Screening Level, Residential Soil
Acrylonitrile	107-13-1	2.4E-01	EPA Regional Screening Level, Residential Soil
Adiponitrile	111-69-3	8.5E+06	EPA Regional Screening Level, Residential Soil
Alachlor	15972-60-8	8.7E+00	EPA Regional Screening Level, Residential Soil
ALAR	1596-84-5	9.2E+03	EPA Regional Screening Level, Residential Soil
Aldicarb	116-06-3	6.1E+01	EPA Regional Screening Level, Residential Soil
Aldicarb Sulfone	1646-88-4	6.1E+01	EPA Regional Screening Level, Residential Soil
Aldrin	309-00-2 74223-64-6	2.9E-02	EPA Regional Screening Level, Residential Soil
Ally Ally Alashal		1.5E+04	EPA Regional Screening Level, Residential Soil
Allyl Alcohol	107-18-6	3.1E+02	EPA Regional Screening Level, Residential Soil
Allyl Chloride	107-05-1	1.8E+00	EPA Regional Screening Level, Residential Soil
Aluminum	7429-90-5 20859-73-8	7.7E+04	EPA Regional Screening Level, Residential Soil
Aluminum Phosphide		3.1E+01	EPA Regional Screening Level, Residential Soil
Amdro Ametryn	67485-29-4 834-12-8	1.8E+01 5.5E+02	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil
	591-27-5	4.9E+02	EPA Regional Screening Level, Residential Sol
Aminophenol, m- Aminophenol, p-	123-30-8	4.9E+03 1.2E+03	EPA Regional Screening Level, Residential Sol
Aminophenoi, p-	33089-61-1	1.5E+02	EPA Regional Screening Level, Residential Soll
Ammonia	7664-41-7	1.4E+08	EPA Regional Screening Level, Residential Soil
Ammonia Ammonium Perchlorate	7790-98-9	5.5E+01	EPA Regional Screening Level, Residential Soli
Ammonium Sulfamate	7773-06-0	1.6E+04	EPA Regional Screening Level, Residential Soli
Aniline	62-53-3	8.5E+01	EPA Regional Screening Level, Residential Soil
Antimony (metallic)	7440-36-0	5.0E+00	Soil Screening Level, DAF 20
Antimony Pentoxide	1314-60-9	3.9E+01	EPA Regional Screening Level, Residential Soil
Antimony Potassium Tartrate	11071-15-1	7.0E+01	EPA Regional Screening Level, Residential Soil
Antimony Tetroxide	1332-81-6	3.1E+01	EPA Regional Screening Level, Residential Soil
Antimony Trioxide	1309-64-4	3.1E+01	EPA Regional Screening Level, Residential Soil
Apollo	74115-24-5	7.9E+02	EPA Regional Screening Level, Residential Soil
Aramite	140-57-8	1.9E+01	EPA Regional Screening Level, Residential Soil
Arsenic, Inorganic	7440-38-2	3.9E-01	EPA Regional Screening Level, Residential Soil
Arsine	7784-42-1	7.1E+04	EPA Regional Screening Level, Residential Soil
Assure	76578-14-8	5.5E+02	EPA Regional Screening Level, Residential Soil
Asulam	3337-71-1	3.1E+03	EPA Regional Screening Level, Residential Soil
Atrazine	1912-24-9	2.1E+00	EPA Regional Screening Level, Residential Soil
Avermectin B1	65195-55-3	2.4E+01	EPA Regional Screening Level, Residential Soil
Azobenzene	103-33-3	4.9E+00	EPA Regional Screening Level, Residential Soil
Barium	7440-39-3	1.6E+03	Soil Screening Level, DAF 20
Baygon	114-26-1	2.4E+02	EPA Regional Screening Level, Residential Soil
Bayleton	43121-43-3	1.8E+03	EPA Regional Screening Level, Residential Soil
Baythroid	68359-37-5	1.5E+03	EPA Regional Screening Level, Residential Soil
Benefin	1861-40-1	1.8E+04	EPA Regional Screening Level, Residential Soil
Benomyl	17804-35-2	3.1E+03	EPA Regional Screening Level, Residential Soil
Bentazon	25057-89-0	1.8E+03	EPA Regional Screening Level, Residential Soil
Benzaldehyde	100-52-7	7.8E+03	EPA Regional Screening Level, Residential Soil
Benzene	71-43-2	3.0E-02	Soil Screening Level, DAF 20
Benzenethiol	108-98-5	7.8E-01	EPA Regional Screening Level, Residential Soil
Benzidine	92-87-5	5.0E-04	EPA Regional Screening Level, Residential Soil
Benzoic Acid	65-85-0	4.0E+02	Soil Screening Level, DAF 20
Benzotrichloride	98-07-7	4.9E-02	EPA Regional Screening Level, Residential Soil
Benzyl Alcohol Benzyl Chloride	100-51-6 100-44-7	3.1E+04	EPA Regional Screening Level, Residential Soil
		3.8E+00	EPA Regional Screening Level, Residential Soil

Appendix A2--Full list of Reportable Concentrations in soil

		Reportable	
Amelia		Concentration	0
Analyte	CAS No.	(mg/kg)	Source
Beryllium and compounds	7440-41-7	6.3E+01	Soil Screening Level, DAF 20
Bidrin	141-66-2	6.1E+00	EPA Regional Screening Level, Residential Soil
Bifenox	42576-02-3	5.5E+02	EPA Regional Screening Level, Residential Soil
Biphenthrin	82657-04-3	9.2E+02	EPA Regional Screening Level, Residential Soil
Biphenyl, 1,1'-	92-52-4	3.9E+03	EPA Regional Screening Level, Residential Soil
Bis(2-chloroethoxy)methane	111-91-1	1.8E+02	EPA Regional Screening Level, Residential Soil
Bis(2-chloroethyl)ether	111-44-4	4.0E-04	Soil Screening Level, DAF 20
Bis(2-chloro-1-methylethyl) ether	108-60-1 117-81-7	3.5E+00	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil
Bis(2-ethylhexyl)phthalate	-	3.5E+01	,
Bis(chloromethyl)ether Bisphenol A	542-88-1 80-05-7	2.7E-04	EPA Regional Screening Level, Residential Soil
Bisphenol A Boron And Borates Only	7440-42-8	3.1E+03 1.6E+04	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil
Boron Trifluoride	7637-07-2 15541-45-4	9.9E+05 9.1E-01	EPA Regional Screening Level, Residential Soil
Bromate	108-86-1	9.4E+01	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil
Bromobenzene			
Bromodichloromethane	75-27-4	6.0E-01	Soil Screening Level, DAF 20
Bromoform Bromomethane	75-25-2 74-83-9	8.0E-01 2.0E-01	Soil Screening Level, DAF 20 Soil Screening Level, DAF 20
			EPA Regional Screening Level, Residential Soil
Bromophos Bromoxynil	2104-96-3 1689-84-5	3.1E+02 1.2E+03	EPA Regional Screening Level, Residential Soll EPA Regional Screening Level, Residential Soll
Bromoxynil Octanoate	1689-99-2	1.2E+03	EPA Regional Screening Level, Residential Soil
Biomoxymi Octanoale Butadiene, 1,3-	106-99-0	7.7E-02	EPA Regional Screening Level, Residential Soil
Butanol, N-	71-36-3	1.7E+01	Soil Screening Level, DAF 20
Butyl Benzyl Phthlate	85-68-7	2.6E+02	EPA Regional Screening Level, Residential Soil
Butylate	2008-41-5	3.1E+03	EPA Regional Screening Level, Residential Soil
Butylphthalyl Butylolycolate	85-70-1	6.1E+04	EPA Regional Screening Level, Residential Soil
Cacodylic Acid	75-60-5	1.2E+03	EPA Regional Screening Level, Residential Soli
Cadmium (Diet)	73-00-5	8.0E+00	Soil Screening Level, DAF 20
Caprolactam	105-60-2	3.1E+04	EPA Regional Screening Level, Residential Soil
Captafol	2425-06-1	3.2E+04 3.2E+00	EPA Regional Screening Level, Residential Soil
Captan	133-06-2	2.1E+02	EPA Regional Screening Level, Residential Soil
Carbaryl	63-25-2	6.1E+02	EPA Regional Screening Level, Residential Soil
Carbofuran	1563-66-2	3.1E+02	EPA Regional Screening Level, Residential Soil
Carbon Disulfide	75-15-0	3.2E+01	Soil Screening Level, DAF 20
Carbon Tetrachloride	56-23-5	7.0E-02	Soil Screening Level, DAF 20
Carbosulfan	55285-14-8	6.1E+02	EPA Regional Screening Level, Residential Soil
Carboxin	5234-68-4	6.1E+02	EPA Regional Screening Level, Residential Soil
Chloral Hydrate	302-17-0	6.1E+03	EPA Regional Screening Level, Residential Soil
Chloramben	133-90-4	9.2E+02	EPA Regional Screening Level, Residential Soil
Chloranil	118-75-2	1.2E+00	EPA Regional Screening Level, Residential Soil
Chlordane	12789-03-6	1.6E+00	EPA Regional Screening Level, Residential Soil
Chlordecone (Kepone)	143-50-0	3.0E-02	EPA Regional Screening Level, Residential Soil
Chlorimuron, Ethyl-	90982-32-4	1.2E+03	EPA Regional Screening Level, Residential Soil
Chlorine	7782-50-5	7.5E+03	EPA Regional Screening Level, Residential Soil
Chlorine Dioxide	10049-04-4	2.3E+03	EPA Regional Screening Level, Residential Soil
Chlorite (Sodium Salt)	7758-19-2	2.3E+03	EPA Regional Screening Level, Residential Soil
Chloro-1,1-difluoroethane, 1-	75-68-3	5.9E+04	EPA Regional Screening Level, Residential Soil
Chloro-1,3-butadiene, 2-	126-99-8	8.6E+00	EPA Regional Screening Level, Residential Soil
Chloro-2-methylaniline HCl, 4-	3165-93-3	1.1E+00	EPA Regional Screening Level, Residential Soil
Chloro-2-methylaniline, 4-	95-69-2	1.8E+00	EPA Regional Screening Level, Residential Soil
Chloroacetic Acid	79-11-8	1.2E+02	EPA Regional Screening Level, Residential Soil
Chloroacetophenone, 2-	532-27-4	4.3E+04	EPA Regional Screening Level, Residential Soil
Chloroaniline, p-	106-47-8	7.0E-01	Soil Screening Level, DAF 20
Chlorobenzene	108-90-7	1.0E+00	Soil Screening Level, DAF 20
Chlorobenzilate	510-15-6	4.4E+00	EPA Regional Screening Level, Residential Soil
Chlorobenzotrifluoride, 4-	98-56-6	2.1E+02	EPA Regional Screening Level, Residential Soil
		3.1E+03	EPA Regional Screening Level, Residential Soil
Chlorobutane, 1-	109-69-3	3.IE+03	
Chlorobutane, 1- Chlorodifluoromethane Chloroform	109-69-3 75-45-6 67-66-3	5.3E+04 3.0E-01	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil

Appendix A2--Full list of Reportable Concentrations in soil

		Reportable		
Analyte	CAS No.	Concentration (mg/kg)	Source	
•	91-58-7			
Chloronaphthalene, Beta- Chloronitrobenzene, o-	91-58-7 88-73-3	6.3E+03 5.0E+01	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil	
Chloronitrobenzene, p-	100-00-5	6.1E+01	EPA Regional Screening Level, Residential Soil	
Chlorophenol, 2-	95-57-8	4.0E+00	Soil Screening Level, DAF 20	
Chlorothalonil	1897-45-6	1.6E+02	EPA Regional Screening Level, Residential Soil	
Chlorotoluene, o-	95-49-8	1.6E+02	EPA Regional Screening Level, Residential Soll	
Chlorotoluene, p-	106-43-4	5.5E+03	EPA Regional Screening Level, Residential Soil	
Chlorpropham	101-21-3	1.2E+04	EPA Regional Screening Level, Residential Soil	
Chlorpyrifos	2921-88-2	1.8E+02	EPA Regional Screening Level, Residential Soil	
Chlorpyrifos Methyl	5598-13-0	6.1E+02	EPA Regional Screening Level, Residential Soil	
Chlorsulfuron	64902-72-3	3.1E+03	EPA Regional Screening Level, Residential Soil	
Chlorthiophos	60238-56-4	4.9E+01	EPA Regional Screening Level, Residential Soil	
Chromium (III) (Insoluble Salts)	16065-83-1	1.2E+05	EPA Regional Screening Level, Residential Soil	
Chromium VI (particulates)	18540-29-9	3.8E+01	Soil Screening Level, DAF 20	
Chromium, Total (1:6 ratio Cr VI : Cr III)	7440-47-3	3.8E+01	Soil Screening Level, DAF 20	
Cobalt	7440-48-4	2.3E+01	EPA Regional Screening Level, Residential Soil	
Coke Oven Emissions	8007-45-2		EPA Regional Screening Level, Residential Soil	
Copper	7440-50-8	3.1E+03	EPA Regional Screening Level, Residential Soil	
Cresol, m-	108-39-4	3.1E+03	EPA Regional Screening Level, Residential Soil	
Cresol, o-	95-48-7	3.1E+03	EPA Regional Screening Level, Residential Soil	
Cresol, p-	106-44-5	3.1E+02	EPA Regional Screening Level, Residential Soil	
Crotonaldehyde, trans-	123-73-9	3.4E-01	EPA Regional Screening Level, Residential Soil	
Cumene	98-82-8	2.2E+03	EPA Regional Screening Level, Residential Soil	
Cyanazine	21725-46-2	5.8E-01	EPA Regional Screening Level, Residential Soil	
Cyclohexane	110-82-7	7.2E+03	EPA Regional Screening Level, Residential Soil	
Cyclohexane, 1,2,3,4,5-pentabromo-6-chloro-	87-84-3	2.1E+01	EPA Regional Screening Level, Residential Soil	
Cyclohexanone	108-94-1	3.1E+05	EPA Regional Screening Level, Residential Soil	
Cyclohexylamine	108-91-8	1.2E+04	EPA Regional Screening Level, Residential Soil	
Cyhalothrin/karate	68085-85-8	3.1E+02	EPA Regional Screening Level, Residential Soil	
Cypermethrin	52315-07-8	6.1E+02	EPA Regional Screening Level, Residential Soil	
Cyromazine	66215-27-8	4.6E+02	EPA Regional Screening Level, Residential Soil	
Cyanides				
Calcium Cyanide	592-01-8	3.1E+03	EPA Regional Screening Level, Residential Soil	
Copper Cyanide	544-92-3	3.9E+02	EPA Regional Screening Level, Residential Soil	
Cyanide (CN-)	57-12-5	1.6E+03	EPA Regional Screening Level, Residential Soil	
Cyanogen	460-19-5	3.1E+03	EPA Regional Screening Level, Residential Soil	
Cyanogen Bromide	506-68-3	7.0E+03	EPA Regional Screening Level, Residential Soil	
Cyanogen Chloride	506-77-4	3.9E+03	EPA Regional Screening Level, Residential Soil	
Hydrogen Cyanide	74-90-8	1.6E+03	EPA Regional Screening Level, Residential Soil	
Potassium Cyanide	151-50-8	3.9E+03	EPA Regional Screening Level, Residential Soil	
Potassium Silver Cyanide	506-61-6	1.6E+04	EPA Regional Screening Level, Residential Soil	
Silver Cyanide	506-64-9	7.8E+03	EPA Regional Screening Level, Residential Soil	
Sodium Cyanide	143-33-9	3.1E+03	EPA Regional Screening Level, Residential Soil	
Thiocyanate	463-56-9	1.6E+01	EPA Regional Screening Level, Residential Soil	
Zinc Cyanide	557-21-1	3.9E+03	EPA Regional Screening Level, Residential Soil	
Dacthal	1861-32-1	6.1E+02	EPA Regional Screening Level, Residential Soil	
Dalapon	75-99-0	1.8E+03	EPA Regional Screening Level, Residential Soil	
DDD DDE, p,p'-	72-54-8 72-55-9	2.0E+00 1.4E+00	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil	
DDE, p,p-	50-29-3	1.7E+00	EPA Regional Screening Level, Residential Soli	
DDT Decabromodiphenyl ether, 2,2',3,3',4,4',5,5',6,6'- (BDE-209)	1163-19-5	4.3E+02	EPA Regional Screening Level, Residential Soli	
Decabromodiphenyl ether, 2,2,3,3,4,4,5,5,6,6- (BDE-209)	8065-48-3	2.4E+02	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil	
	103-23-1	4.0E+02	EPA Regional Screening Level, Residential Soil	
Di(2-ethylhexyl)adipate Diallate	2303-16-4	4.0E+02 8.0E+00	EPA Regional Screening Level, Residential Soli EPA Regional Screening Level, Residential Soli	
Dialiate	333-41-5	8.0E+00 5.5E+01	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil	
	96-12-8		EPA Regional Screening Level, Residential Soil	
Dibromo-3-chloropropane, 1,2- Dibromobenzene, 1,4-	106-37-6	5.6E-03 6.1E+02	EPA Regional Screening Level, Residential Soli EPA Regional Screening Level, Residential Soli	
Dibromochloromethane	124-48-1	4.0E-01	Soil Screening Level, DAF 20	
	124-40-1	4.06-01	OUI OUICEIIIIY LEVEI, DAF 20	
Dibromoethane, 1,2- (EDB)	106-93-4	3.4E-02	EPA Regional Screening Level, Residential Soil	

Appendix A2--Full list of Reportable Concentrations in soil

Analyte	CAS No.	Reportable Concentration (mg/kg)	Source
Dibutyl Phthalate	84-74-2	2.3E+03	Soil Screening Level, DAF 20
Dibutyl Finnalate	NA	1.8E+01	EPA Regional Screening Level, Residential Soil
Dicamba	1918-00-9	1.8E+01 1.8E+03	EPA Regional Screening Level, Residential Soil
Dichloro-2-butene, 1,4-	764-41-0	3.2E-03	EPA Regional Screening Level, Residential Soil
Dichloroacetic Acid	79-43-6	9.7E+00	EPA Regional Screening Level, Residential Soli
Dichlorobenzene, 1,2-	95-50-1	1.7E+00	Soil Screening Level, DAF 20
Dichlorobenzene, 1,4-	106-46-7	2.0E+00	Soil Screening Level, DAF 20
Dichlorobenzidine, 3,3'-	91-94-1	7.0E-03	Soil Screening Level, DAF 20
Dichlorodifluoromethane	75-71-8	1.9E+02	EPA Regional Screening Level, Residential Soil
Dichloroethane. 1.1-	75-34-3	3.4E+00	EPA Regional Screening Level, Residential Soil
Dichloroethane, 1,2- (EDC)	107-06-2	2.0E-02	Soil Screening Level, DAF 20
Dichloroethylene, 1,1-	75-35-4	6.0E-02	Soil Screening Level, DAF 20
Dichloroethylene, 1,2- (Mixed Isomers)	540-59-0	7.0E+02	EPA Regional Screening Level, Residential Soil
Dichloroethylene, 1,2-cis-	156-59-2	4.0E-01	Soil Screening Level, DAF 20
Dichloroethylene, 1,2-trans-	156-60-5	7.0E-01	Soil Screening Level, DAF 20
Dichlorophenol, 2,4-	120-83-2	1.0E+00	Soil Screening Level, DAF 20
Dichlorophenoxy Acetic Acid, 2,4-	94-75-7	6.9E+02	EPA Regional Screening Level, Residential Soil
Dichlorophenoxy)butyric Acid, 2,4-	94-75-7	4.9E+02	EPA Regional Screening Level, Residential Soil
Dichloropropane, 1,2-	78-87-5	4.9E+02 3.0E-02	Soil Screening Level, DAF 20
Dichloropropane, 1,3-	142-28-9	1.6E+03	EPA Regional Screening Level, Residential Soil
Dichloropropanol, 2,3-	616-23-9	1.8E+02	EPA Regional Screening Level, Residential Soil
Dichloropropene, 1,3-	542-75-6	4.0E-03	Soil Screening Level, DAF 20
Dichlorvos	62-73-7	1.7E+00	EPA Regional Screening Level, Residential Soil
Dicyclopentadiene	77-73-6	2.9E+01	EPA Regional Screening Level, Residential Soil
Dieldrin	60-57-1	4.0E-03	Soil Screening Level, DAF 20
Diethyl Phthalate	84-66-2	4.9E+04	EPA Regional Screening Level, Residential Soil
Diethylene Glycol Monobutyl Ether	112-34-5	6.1E+02	EPA Regional Screening Level, Residential Soil
Diethylene Glycol Monoethyl Ether	111-90-0	3.7E+03	EPA Regional Screening Level, Residential Soil
Diethylformamide	617-84-5	6.1E+01	EPA Regional Screening Level, Residential Soil
Diethylstilbestrol	56-53-1	1.4E-03	EPA Regional Screening Level, Residential Sol
Difenzoquat	43222-48-6	4.9E+03	EPA Regional Screening Level, Residential Soil
Diflubenzuron	35367-38-5	1.2E+03	EPA Regional Screening Level, Residential Soil
Difluoroethane, 1,1-	75-37-6	5.3E+04	EPA Regional Screening Level, Residential Soil
Diisopropyl Ether (DIPE)	108-20-3	1.2E+03	EPA Regional Screening Level, Residential Soil
Disopropyl Methylphosphonate	1445-75-6	6.3E+03	EPA Regional Screening Level, Residential Soil
Dimethipin	55290-64-7	1.2E+03	EPA Regional Screening Level, Residential Soil
Dimethoate	60-51-5	1.2E+01	EPA Regional Screening Level, Residential Soil
Dimethoxybenzidine, 3.3'-	119-90-4	3.5E+01	EPA Regional Screening Level, Residential Soil
Dimethyl methylphosphonate	756-79-6	2.9E+02	EPA Regional Screening Level, Residential Soil
Dimethylaniline HCI, 2,4-	21436-96-4	8.4E-01	EPA Regional Screening Level, Residential Soil
Dimethylaniline. 2.4-	95-68-1	6.5E-01	EPA Regional Screening Level, Residential Soil
Dimethylaniline, N,N-	121-69-7	1.6E+02	EPA Regional Screening Level, Residential Soil
Dimethylbenzidine, 3,3'-	119-93-7	4.4E-02	EPA Regional Screening Level, Residential Soil
Dimethylformamide	68-12-2	6.1E+03	EPA Regional Screening Level, Residential Soil
Dimethylphenol, 2,4-	105-67-9	9.0E+00	Soil Screening Level, DAF 20
Dimethylphenol, 2,6-	576-26-1	3.7E+01	EPA Regional Screening Level, Residential Soil
Dimethylphenol, 3,4-	95-65-8	6.1E+01	EPA Regional Screening Level, Residential Soil
Dimethylterephthalate	120-61-6	7.8E+03	EPA Regional Screening Level, Residential Soil
Dinitro-o-cresol, 4,6-	534-52-1	6.1E+00	EPA Regional Screening Level, Residential Soil
Dinitro-o-cyclohexyl Phenol, 4,6-	131-89-5	1.2E+02	EPA Regional Screening Level, Residential Soil
Dinitrobenzene, 1,2-	528-29-0	6.1E+00	EPA Regional Screening Level, Residential Soil
Dinitrobenzene, 1,3-	99-65-0	6.1E+00	EPA Regional Screening Level, Residential Soil
Dinitrobenzene, 1,4-	100-25-4	6.1E+00	EPA Regional Screening Level, Residential Soil
Dinitrophenol, 2,4-	51-28-5	3.0E-01	Soil Screening Level, DAF 20
Dinitrotoluene Mixture, 2,4/2,6-	25321-14-6	8.0E-04	Soil Screening Level, DAF 20
Dinitrotoluene, 2,4-	121-14-2	8.0E-04	Soil Screening Level, DAF 20
Dinitrotoluene, 2,6-	606-20-2	7.0E-04	Soil Screening Level, DAF 20
Dinitrotoluene, 2-Amino-4,6-	35572-78-2	1.5E+02	EPA Regional Screening Level, Residential Soil
Dinitrotoluene, 4-Amino-2,6-	19406-51-0	1.5E+02	EPA Regional Screening Level, Residential Soil
Dinoseb	88-85-7	6.1E+01	EPA Regional Screening Level, Residential Soil
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Appendix A2--Full list of Reportable Concentrations in soil

		Reportable		
Analyte	CAS No.	Concentration (mg/kg)	Source	
Dioxane. 1.4-	123-91-1	4.4E+01	EPA Regional Screening Level, Residential Soil	
Dioxane, 1,4- Diphenamid	957-51-7		EPA Regional Screening Level, Residential Soll	
Diphenanid Diphenyl Sulfone	127-63-9	1.8E+03 1.8E+02	EPA Regional Screening Level, Residential Sol	
Diphenylamine	127-63-9	1.5E+02	EPA Regional Screening Level, Residential Sol	
Diphenylhydrazine, 1,2-	122-66-7	6.1E-01	EPA Regional Screening Level, Residential Soil	
Dipitenyinyurazine, 1,2- Diquat	85-00-7	1.3E+02	EPA Regional Screening Level, Residential Sol	
Direct Black 38	1937-37-7	6.6E-02	EPA Regional Screening Level, Residential Soli	
Direct Blue 6	2602-46-2	6.6E-02	EPA Regional Screening Level, Residential Soli	
Direct Brown 95	16071-86-6	7.2E-02	EPA Regional Screening Level, Residential Soli	
Disulfoton	298-04-4	2.4E+00	EPA Regional Screening Level, Residential Soil	
Dithiane, 1,4-	505-29-3	6.1E+02	EPA Regional Screening Level, Residential Soil	
Diuron	330-54-1	1.2E+02	EPA Regional Screening Level, Residential Soil	
Dodine	2439-10-3	2.4E+02	EPA Regional Screening Level, Residential Soil	
Dioxins				
Hexachlorodibenzo-p-dioxin	34465-46-8	4.5E-05	EPA Regional Screening Level, Residential Soil	
Hexachlorodibenzo-p-dioxin, Mixture	19408-74-3	9.4E-05	EPA Regional Screening Level, Residential Soil	
HpCDD, 2,3,7,8-	37871-00-4	4.5E-04	EPA Regional Screening Level, Residential Soil	
OCDD	3268-87-9	1.5E-02	EPA Regional Screening Level, Residential Soil	
PeCDD, 2,3,7,8-	36088-22-9	4.5E-06	EPA Regional Screening Level, Residential Soil	
TCDD, 2,3,7,8-	1746-01-6	4.5E-06	EPA Regional Screening Level, Residential Soil	
Endosulfan	115-29-7	1.8E+01	Soil Screening Level, DAF 20	
Endothall	145-73-3	1.2E+03	EPA Regional Screening Level, Residential Soil	
Endrin	72-20-8	1.0E+00	Soil Screening Level, DAF 20	
Epichlorohydrin	106-89-8	1.8E+01	EPA Regional Screening Level, Residential Soil	
Epoxybutane, 1,2-	106-88-7	1.5E+02	EPA Regional Screening Level, Residential Soil	
EPTC	759-94-4	2.0E+03	EPA Regional Screening Level, Residential Soil	
Ethephon	16672-87-0	3.1E+02	EPA Regional Screening Level, Residential Soil	
Ethion	563-12-2	3.1E+01	EPA Regional Screening Level, Residential Soil	
Ethoxyethanol Acetate, 2-	111-15-9	1.8E+04	EPA Regional Screening Level, Residential Soil	
Ethoxyethanol, 2-	110-80-5	2.4E+04	EPA Regional Screening Level, Residential Soil	
Ethyl Acetate	141-78-6	7.0E+04	EPA Regional Screening Level, Residential Soil	
Ethyl Acrylate	140-88-5	1.3E+01	EPA Regional Screening Level, Residential Soil	
Ethyl Chloride	75-00-3	1.5E+04	EPA Regional Screening Level, Residential Soil	
Ethyl Ether	60-29-7	1.6E+04	EPA Regional Screening Level, Residential Soil	
Ethyl Methacrylate	97-63-2	7.0E+03	EPA Regional Screening Level, Residential Soil	
Ethyl-p-nitrophenyl Phosphonate	2104-64-5	6.1E-01	EPA Regional Screening Level, Residential Soil	
Ethylbenzene	100-41-4	5.7E+00	EPA Regional Screening Level, Residential Soil	
Ethylene Cyanohydrin	109-78-4	1.8E+03	EPA Regional Screening Level, Residential Soil	
Ethylene Diamine	107-15-3	5.5E+03	EPA Regional Screening Level, Residential Soil	
Ethylene Glycol	107-21-1	1.2E+05	EPA Regional Screening Level, Residential Soil	
Ethylene Glycol Monobutyl Ether	111-76-2	3.1E+04	EPA Regional Screening Level, Residential Soil	
Ethylene Oxide	75-21-8	1.6E-01	EPA Regional Screening Level, Residential Soil	
Ethylene Thiourea	96-45-7	4.9E+00	EPA Regional Screening Level, Residential Soil	
Ethylphthalyl Ethyl Glycolate	84-72-0	1.8E+05	EPA Regional Screening Level, Residential Soil	
Express	101200-48-0	4.9E+02	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil	
Fenamiphos	22224-92-6	1.5E+01		
Fenpropathrin	39515-41-8	1.5E+03	EPA Regional Screening Level, Residential Soil	
Fluometuron	2164-17-2	7.9E+02	EPA Regional Screening Level, Residential Soil	
Fluorine (Soluble Fluoride) Fluridone	7782-41-4 59756-60-4	4.7E+03	EPA Regional Screening Level, Residential Soil	
Flurprimidol	59756-60-4	4.9E+03 1.2E+03	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil	
Flutolanil	66332-96-5	3.7E+03	EPA Regional Screening Level, Residential Soll EPA Regional Screening Level, Residential Soll	
Fluvalinate	69409-94-5	6.1E+02	EPA Regional Screening Level, Residential Soll	
Fluvalinate	133-07-3	6.1E+02 1.4E+02	EPA Regional Screening Level, Residential Soll EPA Regional Screening Level, Residential Soll	
Follpet	72178-02-0	2.6E+00	EPA Regional Screening Level, Residential Sol	
	12110-02-0		EPA Regional Screening Level, Residential Soil	
	044 00 0			
Fonofos	944-22-9	1.2E+02		
Fonofos Formaldehyde	50-00-0	1.2E+04	EPA Regional Screening Level, Residential Soil	
Fonofos				

Appendix A2--Full list of Reportable Concentrations in soil

		Reportable Concentration	
Analyte	CAS No.	(mg/kg)	Source
•			
Furfural	98-01-1	1.8E+02	EPA Regional Screening Level, Residential Soil
Furium	531-82-8	3.2E-01	EPA Regional Screening Level, Residential Soil
	60568-05-0	1.6E+01	EPA Regional Screening Level, Residential Soil
urans	110.00.0		
Furan	110-00-9	7.8E+01	EPA Regional Screening Level, Residential Soil
HpCDF, 2,3,7,8- HxCDF, 2,3,7,8-	38998-75-3	3.7E-04	EPA Regional Screening Level, Residential Soil
	55684-94-1	3.7E-05	EPA Regional Screening Level, Residential Soil
OCDF	39001-02-0 57117-41-6	1.2E-02 1.2E-04	EPA Regional Screening Level, Residential Soil
PeCDF, 1,2,3,7,8-	57117-41-6	1.2E-04 1.2E-05	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil
PeCDF, 2,3,4,7,8-			°
TCDF, 2,3,7,8-	51207-31-9 77182-82-2	3.7E-05	EPA Regional Screening Level, Residential Soil
Glufosinate, Ammonium	765-34-4	2.4E+01 2.4E+01	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil
Glyphosate	1071-83-6	6.1E+03	EPA Regional Screening Level, Residential Soil
Goal	42874-03-3	1.8E+02	EPA Regional Screening Level, Residential Soil
Haloxyfop, Methyl	69806-40-2	3.1E+00	EPA Regional Screening Level, Residential Soil
Harmony	79277-27-3	7.9E+02	EPA Regional Screening Level, Residential Soil
leptachlor leptachlor Epoxide	76-44-8 1024-57-3	1.1E-01 5.3E-02	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil
epiachior Epoxide lexabromobenzene	87-82-1	5.3E-02 1.2E+02	EPA Regional Screening Level, Residential Sol
lexachlorobenzene	118-74-1	3.0E-01	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil
lexachlorobutadiene	87-68-3	2.0E+00	Soil Screening Level, DAF 20
		5.0E-04	
lexachlorocyclohexane, Alpha- lexachlorocyclohexane, Beta-	319-84-6 319-85-7	3.0E-04 3.0E-03	Soil Screening Level, DAF 20 Soil Screening Level, DAF 20
lexachlorocyclohexane, Gamma- (Lindane)	58-89-9	9.0E-03	Soil Screening Level, DAF 20
lexachlorocyclohexane, Gamma- (Lindane)	608-73-1	3.0E-03	Soil Screening Level, DAF 20
lexachlorocyclonexarie, rechnical	77-47-4	3.7E+02	EPA Regional Screening Level, Residential Soil
lexachloroethane	67-72-1	5.0E-01	Soil Screening Level, DAF 20
lexachlorophene	70-30-4	1.8E+01	EPA Regional Screening Level, Residential Soil
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	5.5E+00	EPA Regional Screening Level, Residential Sol
Hexamethylene Diisocyanate, 1,6-	822-06-0	3.7E+00	EPA Regional Screening Level, Residential Soli
Hexane, N-	110-54-3	5.7E+00	EPA Regional Screening Level, Residential Soil
Iexanedioic Acid	124-04-9	1.2E+02	EPA Regional Screening Level, Residential Sol
lexazinone	51235-04-2	2.0E+03	EPA Regional Screening Level, Residential Soil
lydrazine	302-01-2	2.1E-01	EPA Regional Screening Level, Residential Sol
Hydrazine Sulfate	10034-93-2	2.1E-01 2.1E-01	EPA Regional Screening Level, Residential Soil
Hydrogen Chloride	7647-01-0	2.8E+07	EPA Regional Screening Level, Residential Soil
Hydrogen Sulfide	7783-06-4	2.8E+06	EPA Regional Screening Level, Residential Soil
lydroquinone	123-31-9	8.7E+00	EPA Regional Screening Level, Residential Soil
lexabromodiphenyl ether, 2,2',4,4',5,5'- (BDE-153)	68631-49-2	1.6E+01	EPA Regional Screening Level, Residential Soil
mazalil	35554-44-0	7.9E+02	EPA Regional Screening Level, Residential Soil
mazaguin	81335-37-7	1.5E+04	EPA Regional Screening Level, Residential Soil
prodione	36734-19-7	2.4E+03	EPA Regional Screening Level, Residential Soil
ron	7439-89-6	5.5E+04	EPA Regional Screening Level, Residential Soil
sobutyl Alcohol	78-83-1	2.3E+04	EPA Regional Screening Level, Residential Sol
sophorone	78-59-1	5.0E-01	Soil Screening Level, DAF 20
sopropalin	33820-53-0	9.2E+02	EPA Regional Screening Level, Residential Soil
sopropyl Methyl Phosphonic Acid	1832-54-8	6.1E+03	EPA Regional Screening Level, Residential Soli
soxaben	82558-50-7	3.1E+03	EPA Regional Screening Level, Residential Soil
lerb	23950-58-5	4.6E+03	EPA Regional Screening Level, Residential Sol
actofen	77501-63-4	1.2E+02	EPA Regional Screening Level, Residential Sol
inuron	330-55-2	1.2E+02 1.2E+02	EPA Regional Screening Level, Residential Soil
ithium	7439-93-2	1.6E+02	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil
ithium Perchlorate	7791-03-9	5.5E+02	EPA Regional Screening Level, Residential Sol
ondax	83055-99-6	1.2E+04	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil
	02022-88-0	1.20+04	LE A REGIONAL SCIERING LEVEL, RESIDENTIAL SOIL
Lead Compounds	7420.00.1		EDA Dogional Sereening Lovel Desidentic O-
Lead and Compounds	7439-92-1	4.0E+02	EPA Regional Screening Level, Residential Soil
Totraothyl Load	70 00 0		
Tetraethyl Lead Aalathion	78-00-2 121-75-5	6.1E-03 1.2E+03	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil

Appendix A2--Full list of Reportable Concentrations in soil

Analyte	CAS No.	Reportable Concentration (mg/kg)	Source
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Aaleic Hydrazide Aalononitrile	123-33-1 109-77-3	3.1E+04 6.1E+00	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil
Mancozeb	8018-01-7	1.8E+03	EPA Regional Screening Level, Residential Sol
Maneb	12427-38-2	3.1E+02	EPA Regional Screening Level, Residential Sol
Manganese (Water)	7439-96-5	1.8E+03	EPA Regional Screening Level, Residential Soil
MCPA	94-74-6	3.1E+01	EPA Regional Screening Level, Residential Soil
ИСРВ	94-81-5	6.1E+02	EPA Regional Screening Level, Residential Soil
MCPP	93-65-2	6.1E+01	EPA Regional Screening Level, Residential Soil
Vephosfolan	950-10-7	5.5E+00	EPA Regional Screening Level, Residential Soil
Mepiloual Chloride	24307-26-4	1.8E+03	EPA Regional Screening Level, Residential Soil
Verphos	150-50-5	1.8E+00	EPA Regional Screening Level, Residential Soil
Merphos Oxide	78-48-8	1.8E+00	EPA Regional Screening Level, Residential Soil
Metalaxyl	57837-19-1	3.7E+03	EPA Regional Screening Level, Residential Soil
Methacrylonitrile	126-98-7	3.2E+00	EPA Regional Screening Level, Residential Soil
Vethamidophos	10265-92-6	3.1E+00	EPA Regional Screening Level, Residential Soil
Vethanol	67-56-1	3.1E+04	EPA Regional Screening Level, Residential Soil
Vethidathion	950-37-8	6.1E+04	EPA Regional Screening Level, Residential Soil
Vethomyl	16752-77-5	1.5E+03	EPA Regional Screening Level, Residential Soil
Methoxy-5-nitroaniline, 2-	99-59-2	9.9E+00	EPA Regional Screening Level, Residential Sol
Methoxychlor	72-43-5	1.6E+02	Soil Screening Level, DAF 20
Methoxyethanol Acetate, 2-	110-49-6	1.2E+02	EPA Regional Screening Level, Residential Soil
Methoxyethanol, 2-	109-86-4	1.8E+02	EPA Regional Screening Level, Residential Soil
Methyl Acetate	79-20-9	7.8E+04	EPA Regional Screening Level, Residential Soil
Methyl Acrylate	96-33-3	2.3E+03	EPA Regional Screening Level, Residential Soil
Methyl Ethyl Ketone (2-Butanone)	78-93-3	2.8E+04	EPA Regional Screening Level, Residential Soil
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	5.3E+03	EPA Regional Screening Level, Residential Soil
Methyl Methacrylate	80-62-6	4.7E+03	EPA Regional Screening Level, Residential Soil
Methyl Parathion	298-00-0	1.5E+01	EPA Regional Screening Level, Residential Soil
Methyl Styrene (Mixed Isomers)	25013-15-4	1.9E+02	EPA Regional Screening Level, Residential Soil
Methyl tert-Butyl Ether (MTBE)	1634-04-4	3.9E+01	NDEP calculated SSL, DAF 20
Methyl-5-Nitroaniline, 2-	99-55-8	1.5E+01	EPA Regional Screening Level, Residential Soil
Methylaniline Hydrochloride, 2-	636-21-5	3.7E+00	EPA Regional Screening Level, Residential Soil
Methylarsonic acid	124-58-3	6.1E+02	EPA Regional Screening Level, Residential Soil
Methylene Chloride	75-09-2	2.0E-02	Soil Screening Level, DAF 20
Methylene-bis(2-chloroaniline), 4,4'-	101-14-4	1.2E+00	EPA Regional Screening Level, Residential Soil
Methylene-bis(N,N-dimethyl) Aniline, 4,4'-	101-61-1	1.1E+01	EPA Regional Screening Level, Residential Soil
Methylenebisbenzenamine, 4,4'-	101-77-9	3.0E-01	EPA Regional Screening Level, Residential Soil
Methylenediphenyl Diisocyanate	101-68-8	8.5E+05	EPA Regional Screening Level, Residential Soil
Methylstyrene, Alpha-	98-83-9	5.5E+03	EPA Regional Screening Level, Residential Soil
Metolachlor	51218-45-2	9.2E+03	EPA Regional Screening Level, Residential Soil
Metribuzin	21087-64-9	1.5E+03	EPA Regional Screening Level, Residential Soil
Virex	2385-85-5	2.7E-02	EPA Regional Screening Level, Residential Soil
Molinate	2212-67-1	1.2E+02	EPA Regional Screening Level, Residential Soil
Molybdenum	7439-98-7	3.9E+02	EPA Regional Screening Level, Residential Soil
Monochloramine	10599-90-3	7.8E+03	EPA Regional Screening Level, Residential Soil
Monomethylaniline	100-61-8	1.2E+02	EPA Regional Screening Level, Residential Soil
Mercury Compounds			
Mercuric Chloride	7487-94-7	2.3E+01	EPA Regional Screening Level, Residential Soil
Mercuric Sulfide	1344-48-5	2.3E+01	EPA Regional Screening Level, Residential Soil
Mercury (elemental)	7439-97-6	6.7E+00	EPA Regional Screening Level, Residential Soil
Mercury, Inorganic Salts	NA	2.3E+01	EPA Regional Screening Level, Residential Soil
Methyl Mercury	22967-92-6	7.8E+00	EPA Regional Screening Level, Residential Soil
Phenylmercuric Acetate	62-38-4	4.9E+00	EPA Regional Screening Level, Residential Soil
N,N'-Diphenyl-1,4-benzenediamine	74-31-7	1.8E+01	EPA Regional Screening Level, Residential Soil
Naled	300-76-5	1.2E+02	EPA Regional Screening Level, Residential Soil
Napropamide	15299-99-7	6.1E+03	EPA Regional Screening Level, Residential Soil
Nickel Refinery Dust	NA	1.4E+04	EPA Regional Screening Level, Residential Soil
Nickel Soluble Salts	7440-02-0	1.3E+02	Soil Screening Level, DAF 20
Nickel Subsulfide	12035-72-2	6.9E+03	EPA Regional Screening Level, Residential Soil
Nitrate	14797-55-8	1.3E+05	EPA Regional Screening Level, Residential Soil

Appendix A2--Full list of Reportable Concentrations in soil

		Reportable Concentration (mg/kg)		
Analyte	CAS No.		Source	
Nitrite	14797-65-0	7.8E+03	EPA Regional Screening Level, Residential Soil	
Nitroaniline, 3-	99-09-2	1.8E+01	EPA Regional Screening Level, Residential Soli	
Nitroaniline, 4-	100-01-6	2.3E+01	EPA Regional Screening Level, Residential Soli	
Nitrobenzene	98-95-3	1.0E-01	Soil Screening Level, DAF 20	
Nitrofurantoin	67-20-9	4.3E+03	EPA Regional Screening Level, Residential Soil	
Nitrofurazone	59-87-0	3.7E-01	EPA Regional Screening Level, Residential Soil	
Nitroglycerin	55-63-0	6.1E+00	EPA Regional Screening Level, Residential Soil	
Nitroguanidine	556-88-7	6.1E+03	EPA Regional Screening Level, Residential Soil	
Nitromethane	75-52-5	4.7E+00	EPA Regional Screening Level, Residential Soil	
Nitropropane, 2-	79-46-9	1.2E-02	EPA Regional Screening Level, Residential Soil	
Nitroso-di-N-butylamine, N-	924-16-3	9.3E-02	EPA Regional Screening Level, Residential Soil	
Nitroso-di-N-propylamine, N-	621-64-7	5.0E-05	Soil Screening Level, DAF 20	
Nitroso-N-ethylurea, N-	759-73-9	4.3E-03	EPA Regional Screening Level, Residential Soil	
Nitrosodiethanolamine, N-	1116-54-7	1.7E-01	EPA Regional Screening Level, Residential Soil	
Nitrosodiethylamine, N-	55-18-5	7.7E-04	EPA Regional Screening Level, Residential Soil	
Nitrosodimethylamine, N-	62-75-9	2.3E-03	EPA Regional Screening Level, Residential Soil	
Nitrosodiphenylamine, N-	86-30-6	1.0E+00	Soil Screening Level, DAF 20	
Nitrosomethylethylamine, N-	10595-95-6	2.2E-02	EPA Regional Screening Level, Residential Soil	
Nitrosopyrrolidine, N-	930-55-2	2.3E-01	EPA Regional Screening Level, Residential Soil	
Nitrotoluene, m-	99-08-1	1.2E+03	EPA Regional Screening Level, Residential Soil	
Nitrotoluene, o-	88-72-2	2.9E+00	EPA Regional Screening Level, Residential Soil	
Nitrotoluene, p-	99-99-0	3.0E+01	EPA Regional Screening Level, Residential Soil	
Norflurazon	27314-13-2	2.4E+03	EPA Regional Screening Level, Residential Soil	
Nustar	85509-19-9	4.3E+01	EPA Regional Screening Level, Residential Soil	
Octabromodiphenyl Ether	32536-52-0	1.8E+02	EPA Regional Screening Level, Residential Soil	
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetra (HMX)	2691-41-0	3.8E+03	EPA Regional Screening Level, Residential Soil	
Octamethylpyrophosphoramide	152-16-9	1.2E+02	EPA Regional Screening Level, Residential Soil	
Oryzalin	19044-88-3	3.1E+03	EPA Regional Screening Level, Residential Soil	
Oxadiazon	19666-30-9	3.1E+02	EPA Regional Screening Level, Residential Soil	
Oxamyl	23135-22-0	1.5E+03	EPA Regional Screening Level, Residential Soil	
Paclobutrazol	76738-62-0	7.9E+02	EPA Regional Screening Level, Residential Soil	
Paraquat Dichloride	1910-42-5	2.7E+02	EPA Regional Screening Level, Residential Soil	
Parathion	56-38-2	3.7E+02	EPA Regional Screening Level, Residential Soil	
Pebulate	1114-71-2	3.1E+03	EPA Regional Screening Level, Residential Soil	
Pendimethalin	40487-42-1	2.4E+03	EPA Regional Screening Level, Residential Soil	
Pentabromodiphenyl Ether	32534-81-9	1.2E+02	EPA Regional Screening Level, Residential Soil	
Pentabromodiphenyl ether, 2,2',4,4',5- (BDE-99)	60348-60-9	7.8E+00	EPA Regional Screening Level, Residential Soil	
Pentachlorobenzene	608-93-5	4.9E+01	EPA Regional Screening Level, Residential Soil	
Pentachloroethane	76-01-7	5.4E+00	EPA Regional Screening Level, Residential Soil	
Pentachloronitrobenzene	82-68-8	1.9E+00	EPA Regional Screening Level, Residential Soil	
Pentachlorophenol	87-86-5	3.0E-02	Soil Screening Level, DAF 20	
Perchlorate and Perchlorate Salts	14797-73-0	5.5E+01	EPA Regional Screening Level, Residential Soil	
Permethrin	52645-53-1	3.1E+03	EPA Regional Screening Level, Residential Soil	
Phenmedipham	13684-63-4	1.5E+04	EPA Regional Screening Level, Residential Soil	
Phenol	108-95-2	1.0E+02	Soil Screening Level, DAF 20	
Phenylenediamine, m-	108-45-2	3.7E+02	EPA Regional Screening Level, Residential Soil	
Phenylenediamine, o-	95-54-5	1.0E+01	EPA Regional Screening Level, Residential Soil	
Phenylenediamine, p-	106-50-3	1.2E+04	EPA Regional Screening Level, Residential Soil	
Phenylphenol, 2-	90-43-7	2.5E+02	EPA Regional Screening Level, Residential Soil	
Phorate	298-02-2	1.2E+01	EPA Regional Screening Level, Residential Soil	
Phosgene	75-44-5	4.0E-01	EPA Regional Screening Level, Residential Soil	
Phosmet	732-11-6	1.2E+03	EPA Regional Screening Level, Residential Soil	
Phosphine	7803-51-2	2.3E+01	EPA Regional Screening Level, Residential Soil	
Phosphoric Acid	7664-38-2	1.4E+07	EPA Regional Screening Level, Residential Soil	
Phosphorus, White	7723-14-0	1.6E+00	EPA Regional Screening Level, Residential Soil	
Phthalic Acid, P-	100-21-0	6.1E+04	EPA Regional Screening Level, Residential Soil	
Phthalic Anhydride	85-44-9	1.2E+05	EPA Regional Screening Level, Residential Soil	
Picloram	1918-02-1	4.3E+03	EPA Regional Screening Level, Residential Soil	
Picramic Acid (2-Amino-4,6-dinitrophenol)	96-91-3	1.2E+02	EPA Regional Screening Level, Residential Soil	
Pirimiphos, Methyl	29232-93-7	6.1E+02	EPA Regional Screening Level, Residential Soil	

### NDEP Draft Guidelines for Discovery Events (Soil RCs)

### Appendix A2--Full list of Reportable Concentrations in soil

Version: 01/28/2009

Analyte	CAS No.	Reportable Concentration (mg/kg)	Source
Polybrominated Biphenyls	59536-65-1	1.6E-02	EPA Regional Screening Level, Residential Soil
Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	8.5E+05	EPA Regional Screening Level, Residential Soil
Potassium Perchlorate	7778-74-7	5.5E+01	EPA Regional Screening Level, Residential Soil
Prochloraz	67747-09-5	3.2E+00	EPA Regional Screening Level, Residential Soil
Profluralin	26399-36-0	3.7E+02	EPA Regional Screening Level, Residential Soil
Prometon	1610-18-0	9.2E+02	EPA Regional Screening Level, Residential Soil
Prometryn	7287-19-6	2.4E+02	EPA Regional Screening Level, Residential Soil
Propachlor	1918-16-7	7.9E+02	EPA Regional Screening Level, Residential Soil
Propanil	709-98-8	3.1E+02	EPA Regional Screening Level, Residential Soil
Propargite	2312-35-8	1.2E+03	EPA Regional Screening Level, Residential Soil
Propargyl Alcohol	107-19-7	1.2E+02	EPA Regional Screening Level, Residential Soil
Propazine	139-40-2	1.2E+03	EPA Regional Screening Level, Residential Soil
Propham	122-42-9	1.2E+03	EPA Regional Screening Level, Residential Soil
Propiconazole	60207-90-1	7.9E+02	EPA Regional Screening Level, Residential Soil
Propylene Glycol	57-55-6	1.2E+06	EPA Regional Screening Level, Residential Soil
Propylene Glycol Dinitrate	6423-43-4	6.0E+01	EPA Regional Screening Level, Residential Soil
Propylene Glycol Monoethyl Ether	1569-02-4	4.3E+04	EPA Regional Screening Level, Residential Soil
Propylene Glycol Monomethyl Ether	107-98-2	4.3E+04	EPA Regional Screening Level, Residential Soil
Propylene Oxide	75-56-9	1.9E+00	EPA Regional Screening Level, Residential Soil
Pursuit	81335-77-5	1.5E+04	EPA Regional Screening Level, Residential Soil
Pydrin	51630-58-1	1.5E+03	EPA Regional Screening Level, Residential Soil
Pyridine	110-86-1	7.8E+01	EPA Regional Screening Level, Residential Soil
Polychlorinated Biphenyls (PCBs)			
Aroclor 1016	12674-11-2	3.9E+00	EPA Regional Screening Level, Residential Soil
Aroclor 1221	11104-28-2	1.7E-01	EPA Regional Screening Level, Residential Soil
Aroclor 1232	11141-16-5	1.7E-01	EPA Regional Screening Level, Residential Soil
Aroclor 1242	53469-21-9	2.2E-01	EPA Regional Screening Level, Residential Soil
Aroclor 1248	12672-29-6	2.2E-01	EPA Regional Screening Level, Residential Soil
Aroclor 1254	11097-69-1	2.2E-01	EPA Regional Screening Level, Residential Soil
Aroclor 1260	11096-82-5	2.2E-01	EPA Regional Screening Level, Residential Soil
Heptachlorobiphenyl, 2,2',3,3',4,4',5- (PCB 170)	35065-30-6	3.4E-02	EPA Regional Screening Level, Residential Soil
Heptachlorobiphenyl, 2,2',3,4,4',5,5'- (PCB 180)	35065-29-3	3.4E-01	EPA Regional Screening Level, Residential Soil
Heptachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 189)	39635-31-9	1.1E-01	EPA Regional Screening Level, Residential Soil
Hexachlorobiphenyl, 2,3',4,4',5,5'- (PCB 167)	52663-72-6	1.1E-01	EPA Regional Screening Level, Residential Soil
Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)	69782-90-7	1.1E-01	EPA Regional Screening Level, Residential Soil
Hexachlorobiphenyl, 2,3,3',4,4',5- (PCB 156)	38380-08-4	1.1E-01	EPA Regional Screening Level, Residential Soil
Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)	32774-16-6	1.1E-04	EPA Regional Screening Level, Residential Soil
Pentachlorobiphenyl, 2',3,4,4',5- (PCB 123)	65510-44-3	1.1E-01	EPA Regional Screening Level, Residential Soil
Pentachlorobiphenyl, 2,3',4,4',5- (PCB 118)	31508-00-6	1.1E-01	EPA Regional Screening Level, Residential Soil
Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)	32598-14-4	1.1E-01	EPA Regional Screening Level, Residential Soil
Pentachlorobiphenyl, 2,3,4,4',5- (PCB 114)	74472-37-0	1.1E-01	EPA Regional Screening Level, Residential Soil
Pentachlorobiphenyl, 3,3',4,4',5- (PCB 126) Polychlorinated Biphenyls (high risk)	57465-28-8 1336-36-3	3.4E-05 2.4E-01	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil
	32598-13-3	3.4E-01	EPA Regional Screening Level, Residential Soil
Tetrachlorobiphenyl, 3,3',4,4'- (PCB 77) Tetrachlorobiphenyl, 3,4,4',5- (PCB 81)	70362-50-4		EPA Regional Screening Level, Residential Soll EPA Regional Screening Level, Residential Soll
Polynuclear Aromatic Hydrocarbons (PAHs)	70362-50-4	1.1E-02	EPA Regional Screening Level, Residential Soli
Acenaphthene	83-32-9	5.7E+02	Soil Screening Level, DAF 20
Athracene	120-12-7	1.2E+02	Soil Screening Level, DAF 20
Benz[a]anthracene	56-55-3	1.5E-01	EPA Regional Screening Level, Residential Soil
Benzo(a)pyrene	50-32-8	1.5E-01	EPA Regional Screening Level, Residential Soil
Benzo[b]fluoranthene	205-99-2	1.5E-02	EPA Regional Screening Level, Residential Soil
Benzo[k]fluoranthene	205-99-2	1.5E+00	EPA Regional Screening Level, Residential Soil
Chrysene	218-01-9	1.5E+00	EPA Regional Screening Level, Residential Sol
Dibenz[a,h]anthracene	53-70-3	1.5E+01 1.5E-02	EPA Regional Screening Level, Residential Soil
Fluoranthene	206-44-0	2.3E+03	EPA Regional Screening Level, Residential Soil
Fluorene	86-73-7	5.6E+02	Soil Screening Level, DAF 20
Indeno[1,2,3-cd]pyrene	193-39-5	1.5E-01	EPA Regional Screening Level, Residential Soil
Methylnaphthalene, 1-	90-12-0	2.2E+01	EPA Regional Screening Level, Residential Soil
Methylnaphthalene, 2-	91-57-6	3.1E+02	EPA Regional Screening Level, Residential Soil
	31-37-0	3.9E+02	EPA Regional Screening Level, Residential Sol

### NDEP Draft Guidelines for Discovery Events (Soil RCs)

Appendix A2--Full list of Reportable Concentrations in soil

Version: 01/28/2009

		Reportable	
Analyta	CAS No.	Concentration	Sourco
Analyte		(mg/kg)	Source
Pyrene	129-00-0	1.7E+03	EPA Regional Screening Level, Residential Soil
Quinalphos	13593-03-8	3.1E+01	EPA Regional Screening Level, Residential Soil
Quinoline	91-22-5	1.6E-01	EPA Regional Screening Level, Residential Soil
Refractory Ceramic Fibers	NA	4.3E+07	EPA Regional Screening Level, Residential Soil
Resmethrin	10453-86-8	1.8E+03	EPA Regional Screening Level, Residential Soil
Ronnel	299-84-3 83-79-4	3.1E+03	EPA Regional Screening Level, Residential Soil
Rotenone		2.4E+02	EPA Regional Screening Level, Residential Soil
Savey	78587-05-0	1.5E+03	EPA Regional Screening Level, Residential Soil
Selenious Acid Selenium	7783-00-8 7782-49-2	3.9E+02 5.0E+00	EPA Regional Screening Level, Residential Soil Soil Screening Level, DAF 20
		3.1E+02	EPA Regional Screening Level, Residential Soil
Selenourea Sethoxydim	630-10-4 74051-80-2	5.5E+02	EPA Regional Screening Level, Residential Soli
Selfloxydiini Silver	74051-60-2	3.4E+01	Soil Screening Level, DAF 20
Sinvei	122-34-9	4.0E+00	EPA Regional Screening Level, Residential Soil
Sodium Acifluorfen	62476-59-9	7.9E+02	EPA Regional Screening Level, Residential Soli
Sodium Azide	26628-22-8	3.1E+02	
Sodium Azide Sodium Diethyldithiocarbamate	148-18-5	1.8E+02	EPA Regional Screening Level, Residential Soil EPA Regional Screening Level, Residential Soil
Sodium Dietnyiditniocarbamate	62-74-8		EPA Regional Screening Level, Residential Soli
Sodium Fluoroacetate	13718-26-8	1.2E+00 7.8E+01	EPA Regional Screening Level, Residential Soli
Sodium Netavanadate	7601-89-0	5.5E+01	EPA Regional Screening Level, Residential Soil
Sodum Perchlorate Stirofos (Tetrachlorovinphos)	961-11-5	2.0E+01	EPA Regional Screening Level, Residential Soli
Strontium, Stable	7440-24-6	4.7E+04	EPA Regional Screening Level, Residential Soli
Strychnine	57-24-9	1.8E+01	EPA Regional Screening Level, Residential Soil
Strychnine	100-42-5	4.0E+00	Soil Screening Level, DAF 20
Sulfonylbis(4-chlorobenzene), 1,1'-	80-07-9	3.1E+02	EPA Regional Screening Level, Residential Soil
Systhane	88671-89-0	1.5E+03	EPA Regional Screening Level, Residential Soil
TCMTB	21564-17-0	1.8E+03	EPA Regional Screening Level, Residential Soil
Tebuthiuron	34014-18-1	4.3E+03	EPA Regional Screening Level, Residential Soil
Temephos	3383-96-8	1.2E+03	EPA Regional Screening Level, Residential Soil
Terbacil	5902-51-2	7.9E+02	EPA Regional Screening Level, Residential Soil
Terbufos	13071-79-9	1.5E+00	EPA Regional Screening Level, Residential Soil
Terbutryn	886-50-0	6.1E+01	EPA Regional Screening Level, Residential Soil
Tetrachlorobenzene, 1,2,4,5-	95-94-3	1.8E+01	EPA Regional Screening Level, Residential Soil
Tetrachloroethane, 1,1,1,2-	630-20-6	2.0E+00	EPA Regional Screening Level, Residential Soil
Tetrachloroethane, 1,1,2,2-	79-34-5	3.0E-03	Soil Screening Level, DAF 20
Tetrachloroethylene (PCE)	127-18-4	6.0E-02	Soil Screening Level, DAF 20
Tetrachlorophenol, 2,3,4,6-	58-90-2	1.8E+03	EPA Regional Screening Level, Residential Soil
Tetrachlorotoluene, p- alpha, alpha, alpha-	5216-25-1	2.4E-02	EPA Regional Screening Level, Residential Soil
Tetraethyl Dithiopyrophosphate	3689-24-5	3.1E+01	EPA Regional Screening Level, Residential Soil
Tetrafluoroethane, 1,1,1,2-	811-97-2	1.1E+05	EPA Regional Screening Level, Residential Soil
Tetryl (Trinitrophenylmethylnitramine)	479-45-8	2.4E+02	EPA Regional Screening Level, Residential Soil
Thallium (I) Nitrate	10102-45-1	7.0E+00	EPA Regional Screening Level, Residential Soil
Thallium (Soluble Salts)	7440-28-0	5.1E+00	EPA Regional Screening Level, Residential Soil
Thallium Acetate	563-68-8	7.0E+00	EPA Regional Screening Level, Residential Soil
Thallium Carbonate	6533-73-9	6.3E+00	EPA Regional Screening Level, Residential Soil
Thallium Chloride	7791-12-0	6.3E+00	EPA Regional Screening Level, Residential Soil
Thallium Sulfate	7446-18-6	6.3E+00	EPA Regional Screening Level, Residential Soil
Thiobencarb	28249-77-6	6.1E+02	EPA Regional Screening Level, Residential Soil
Thiofanox	39196-18-4	1.8E+01	EPA Regional Screening Level, Residential Soil
Thiophanate, Methyl	23564-05-8	4.9E+03	EPA Regional Screening Level, Residential Soil
Thiram	137-26-8	3.1E+02	EPA Regional Screening Level, Residential Soil
Tin	7440-31-5	4.7E+04	EPA Regional Screening Level, Residential Soil
Toluene	108-88-3	1.2E+01	Soil Screening Level, DAF 20
Toluene diisocyanate mixture (TDI)	26471-62-5	5.4E+01	EPA Regional Screening Level, Residential Soil
Toluene-2,4-diamine	95-80-7	1.3E-01	EPA Regional Screening Level, Residential Soil
Toluene-2,5-diamine	95-70-5	3.7E+04	EPA Regional Screening Level, Residential Soil
Toluene-2,6-diamine	823-40-5	1.8E+03	EPA Regional Screening Level, Residential Soil
Toluidine, o- (Methylaniline, 2-)	95-53-4	2.7E+00	EPA Regional Screening Level, Residential Soil
Toluidine, p-	106-49-0	2.6E+00	EPA Regional Screening Level, Residential Soil
Total Petroleum Hydrocarbons		1.0E+02	NDEP derived concentration

### NDEP Draft Guidelines for Discovery Events (Soil RCs)

Appendix A2--Full list of Reportable Concentrations in soil

Version: 01/28/2009

		Reportable	
Analista	CAS No.	Concentration (mg/kg)	Source
Analyte			Source
oxaphene	8001-35-2	4.4E-01	EPA Regional Screening Level, Residential Soil
ralomethrin	66841-25-6	4.6E+02	EPA Regional Screening Level, Residential Soil
riallate	2303-17-5	7.9E+02	EPA Regional Screening Level, Residential Soil
riasulfuron	82097-50-5	6.1E+02	EPA Regional Screening Level, Residential Soil
Fribromobenzene, 1,2,4-	615-54-3	3.1E+02	EPA Regional Screening Level, Residential Soil
Fributyl Phosphate	126-73-8	5.3E+01	EPA Regional Screening Level, Residential Soil
Fributyltin Compounds	NA	1.8E+01	EPA Regional Screening Level, Residential Soil
Fributyltin Oxide	56-35-9	1.8E+01	EPA Regional Screening Level, Residential Soil
Frichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	4.3E+04	EPA Regional Screening Level, Residential Soil
Frichloroaniline HCI, 2,4,6-	33663-50-2	1.7E+01	EPA Regional Screening Level, Residential Soil
Frichloroaniline, 2,4,6-	634-93-5	1.4E+01	EPA Regional Screening Level, Residential Soil
Frichlorobenzene, 1,2,4-	120-82-1	5.0E+00	Soil Screening Level, DAF 20
richloroethane, 1,1,1-	71-55-6	2.0E+00	Soil Screening Level, DAF 20
richloroethane, 1,1,2-	79-00-5	2.0E-02	Soil Screening Level, DAF 20
richloroethylene (TCE)	79-01-6	6.0E-02	Soil Screening Level, DAF 20
richlorofluoromethane	75-69-4	8.0E+02	EPA Regional Screening Level, Residential Soil
richlorophenol, 2,4,5-	95-95-4	2.7E+02	Soil Screening Level, DAF 20
richlorophenol, 2,4,6-	88-06-2	2.0E-01	Soil Screening Level, DAF 20
richlorophenoxy) Propionic Acid, 2(2,4,5-	93-72-1	4.9E+02	EPA Regional Screening Level, Residential Soil
richlorophenoxyacetic Acid, 2,4,5-	93-76-5	6.1E+02	EPA Regional Screening Level, Residential Soil
richloropropane, 1,1,2-	598-77-6	3.9E+02	EPA Regional Screening Level, Residential Soil
richloropropane, 1,2,3-	96-18-4	9.1E-02	EPA Regional Screening Level, Residential Soil
richloropropene, 1,2,3-	96-19-5	2.7E+00	EPA Regional Screening Level, Residential Soil
ridiphane	58138-08-2	1.8E+02	EPA Regional Screening Level, Residential Soil
riethylamine	121-44-8	1.7E+02	EPA Regional Screening Level, Residential Soil
rifluralin	1582-09-8	6.3E+01	EPA Regional Screening Level, Residential Soil
rimethyl Phosphate	512-56-1	1.3E+01	EPA Regional Screening Level, Residential Soil
rimethylbenzene, 1,2,4-	95-63-6	6.7E+01	EPA Regional Screening Level, Residential Soi
rimethylbenzene, 1,3,5-	108-67-8	4.7E+01	EPA Regional Screening Level, Residential Soil
rinitrobenzene, 1,3,5-	99-35-4	2.2E+03	EPA Regional Screening Level, Residential Soil
Trinitrotoluene, 2,4,6-	118-96-7	1.9E+01	EPA Regional Screening Level, Residential Soil
riphenylphosphine Oxide	791-28-6	1.2E+03	EPA Regional Screening Level, Residential Soi
ris(2-chloroethyl)phosphate	115-96-8	3.5E+01	EPA Regional Screening Level, Residential Soi
ris(2-ethylhexyl)phosphate	78-42-2	1.5E+02	EPA Regional Screening Level, Residential Soil
Tetrabromodiphenyl ether, 2,2',4,4'- (BDE-47)	5436-43-1	7.8E+00	EPA Regional Screening Level, Residential Sci
ri-n-butyltin	688-73-3	1.8E+01	EPA Regional Screening Level, Residential Soil
Jranium (Soluble Salts)	NA	2.3E+02	EPA Regional Screening Level, Residential Soil
/anadium Pentoxide	1314-62-1	4.0E+02	EPA Regional Screening Level, Residential Sol
/anadium Sulfate	36907-42-3	1.6E+03	EPA Regional Screening Level, Residential Soil
anadium and Compounds	NA	3.9E+02	EPA Regional Screening Level, Residential Soil
anadium, Metallic	7440-62-2	5.5E+02	EPA Regional Screening Level, Residential Sol
/ernolate	1929-77-7	6.1E+01	EPA Regional Screening Level, Residential Sol
/inclozolin	50471-44-8	1.5E+03	EPA Regional Screening Level, Residential Sol EPA Regional Screening Level, Residential Sol
/inclozoffit	108-05-4		
/inyl Bromide	593-60-2	1.7E+02	Soil Screening Level, DAF 20 EPA Regional Screening Level, Residential Soi
, ,		1.1E-01	Soil Screening Level, DAF 20
/inyl Chloride	75-01-4	1.0E-02	
Varfarin	81-81-2	1.8E+01	EPA Regional Screening Level, Residential Soil
Kylene, Mixture	1330-20-7	2.1E+02	Soil Screening Level, DAF 20
(ylene, P-	106-42-3	2.1E+02	Soil Screening Level, DAF 20
Kylene, m-	108-38-3	2.1E+02	Soil Screening Level, DAF 20
(ylene, o-	95-47-6	2.1E+02	Soil Screening Level, DAF 20
Zinc (Metallic)	7440-66-6	1.2E+04	Soil Screening Level, DAF 20
Zinc Phosphide	1314-84-7	2.3E+01	EPA Regional Screening Level, Residential Soil
Zineb	12122-67-7	3.1E+03	EPA Regional Screening Level, Residential Soi

### **APPENDIX B**

Laboratory Analytical Reports



Job:

2365 Iron Point Road

NTD

Folsom, CA 95630

# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052742-11A Client I.D. Number: SB10GW20052710

Method Reference : Analyte	EPA Method 300.0	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Analyte		Result	Reporting Limit	Quai		Date Extracted	Date Analyzeu
Fluoride		2.6	0.25		mg/L	05/27/10 11:18	05/27/10 19:41
Chloride		40	0.50		mg/L	05/27/10 11:18	05/27/10 19:41
Nitrite (NO2) - N		ND	0.25		mg/L	05/27/10 11:18	05/27/10 19:41
Nitrate (NO3) - N		ND	0.25		mg/L	05/27/10 11:18	05/27/10 19:41
Sulfate (SO4)		41	0.50		mg/L	05/27/10 11:18	05/27/10 19:41
Method Reference :	SM4500NORGC / SM45	00-NH3D					
Analyte		Result	<b>Reporting Limit</b>	Qual	Units	Date Extracted	Date Analyzed
Nitrogen, Kjeldahl, Tota	1	63	2.5		mg/L	06/01/10	06/01/10
Method Reference :	Total by Calculation						
Analyte	•	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Total Nitrogen as N		63	2.5	<u> </u>	mg/L	06/01/10	06/01/10

ND = Not Detected

Roger Scholl

Kandy Sandner

Dalter Hindman

Sampled: 05/27/10

Received: 05/27/10

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical. Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

**Report Date** 



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 Attn: Clayton Mokri Phone: (916) 852-7792 Fax: (916) 852-7836 Date Received : 05/27/10

Job: NTD

· · · · · · · · · · · · · · · · · · ·		Alkalinity SM2320B			
	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: <b>SB10GW20052710</b> Lab ID: E2M10052742-11A Date Sampled 05/27/10 08:20	Alkalinity, Total (As CaCO3 at pH 4.5)	590	10 mg/L	06/02/10	06/02/10

Roger Scholl

Kandy Saulmer

Dalter Acrilmon

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

**Report Date** 



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### **ANALYTICAL REPORT**

HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Job: NTD

Attn:Clayton MokriPhone:(916) 852-7792Fax:(916) 852-7836Date Received : 05/27/10

	Ammonia as Nitrogen SM4500-NH3D			
Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: <b>SB10GW20052710</b> Lab ID : E2M10052742-11A Nitrogen, Ammonia (As N) Date Sampled 05/27/10 08:20	8.0	1.0 mg/L	05/28/10	05/28/10

Roger Scholl

Dalter Hiridman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

**Report Date** 

NTD



Job:

2365 Iron Point Road

NTD

Folsom, CA 95630

## Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### **ANALYTICAL REPORT**

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052742-11A Client I.D. Number: SB10GW20052710 Sampled: 05/27/10 08:20 Received: 05/27/10 Extracted: 06/01/10 12:00 Analyzed: 06/03/10

Semivolatile Organics by GC/MS EPA Method SW8270C

	Compound	Concentration	Reporting Limit	
1	Phenol	ND	10 µg/L	
2	2-Chlorophenol	ND	10 µg/L	
3	2-Nitrophenol	ND	10 µg/L	
4	2,4-Dimethylphenol	ND	10 µg/L	
5	2,4-Dichlorophenol	ND	10 µg/L	
6	4-Chloro-3-methylphenol	ND	20 µg/L	
7	2,4,6-Trichlorophenol	ND	10 µg/L	
8	2,4-Dinitrophenol	ND	100 µg/L	
9	4-Nitrophenol	ND	50 µg/L	
10	4,6-Dinitro-2-methylphenol	ND	100 µg/L	
11	Pentachlorophenol	ND	50 µg/L	
12	Surr: 2-Fluorophenol	51	(41-130) %REC	
13	Surr: Phenol-d5	36	(25-130) %REC	
14	Surr: 2,4,6-Tribromophenol	84	(61-138)%REC	

ND = Not Detected

Roger Scholl

Walter Alm ilm

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

**Report Date** 

Page 1 of 1



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### **ANALYTICAL REPORT**

HDR   E2M
2365 Iron Point Road
Folsom, CA 95630

Attn: Clayton Mokri Phone: (916) 852-7792 Fax: (916) 852-7836 Date Received : 05/27/10

Job: NTD

Metals by ICPMS EPA Method SW6020 / SW6020A					
	Parameter	Concentration	Reporting	Date	Date
			Limit	Extracted	Analyzed
Client ID: SB0810SO052710					
Lab ID : E2M10052742-03A	Chromium (Cr)	7.8	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/27/10 11:25	Arsenic (As)	11	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Selenium (Se)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
-	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Barium (Ba)	47	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/10
	Lead (Pb)	2.8	1.0 mg/Kg	05/27/10 14:51	05/28/1
Client ID: SB0910SO052710					
Lab ID : E2M10052742-06A	Chromium (Cr)	15	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/27/10 10:20	Arsenic (As)	3.6	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Selenium (Se)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/1
	Barium (Ba)	160	1.0 mg/Kg	05/27/10 14:51	05/28/1
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/1
	Lead (Pb)	4.7	1.0 mg/Kg	05/27/10 14:51	05/28/10
Client ID: SB1010SO052710					
Lab ID : E2M10052742-09A	Chromium (Cr)	17	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/27/10 07:50	Arsenic (As)	5.4	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Selenium (Se)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/1
	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/1
	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/1
	Barium (Ba)	140	1.0 mg/Kg	05/27/10 14:51	05/28/1
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/1
	Lead (Pb)	4.5	1.0 mg/Kg	05/27/10 14:51	05/28/1
Client ID: SB10GW20052710					
Lab ID : E2M10052742-11A	Boron (B)	1.9	0.10 mg/L	05/28/10 11:35	05/28/1
Date Sampled 05/27/10 08:20	Sodium (Na)	590	0.50 mg/L	05/28/10 11:35	05/28/1
200 Sumpice 00/27/10 00/20	Chromium (Cr)	0.10	0.0050 mg/L	05/28/10 11:35	05/28/1
	Manganese (Mn)	20	0.050 mg/L	05/28/10 11:35	06/04/1
	Iron (Fe)	400	0.30 mg/L	05/28/10 11:35	05/28/1
	Nickel (Ni)	0.13	0.010 mg/L	05/28/10 11:35	05/28/1
	Copper (Cu)	0.21	0.010 mg/L	05/28/10 11:35	05/28/1
	Zinc (Zn)	0.48	0.10 mg/L	05/28/10 11:35	05/28/1
	Arsenic (As)	0.23	0.0050 mg/L	05/28/10 11:35	05/28/1
	Selenium (Se)	ND	0.0050 mg/L	05/28/10 11:35	05/28/1
	Silver (Ag)	ND	0.0050 mg/L	05/28/10 11:35	05/28/1
	Cadmium (Cd)	ND	0.0050 mg/L	05/28/10 11:35	05/28/1
	Barium (Ba)	6.4	0.0050 mg/L	05/28/10 11:35	05/28/1
	Mercury (Hg)	ND	0.0010 mg/L	05/28/10 11:35	05/28/10
	Lead (Pb)	0.059	0.0010 mg/L	05/28/10 11.35	05/28/10

0.059

0.0050 mg/L

Lead (Pb)

05/28/10 11:35



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#### Client ID: EB01GWNA052710

Lab ID : E2M10052742-12A	Chromium (Cr)	0.42	0.0050 mg/L	05/28/10 11:35	05/28/10
Date Sampled 05/27/10 00:00	Arsenic (As)	0.042	0.0050 mg/L	05/28/10 11:35	05/28/10
	Selenium (Se)	ND	0.0050 mg/L	05/28/10 11:35	05/28/10
	Silver (Ag)	ND	0.0050 mg/L	05/28/10 11:35	05/28/10
	Cadmium (Cd)	ND	0.0050 mg/L	05/28/10 11:35	05/28/10
	Barium (Ba)	1.1	0.0050 mg/L	05/28/10 11:35	05/28/10
	Mercury (Hg)	ND	0.0010 mg/L	05/28/10 11:35	05/28/10
	Lead (Pb)	0.60	0.0050 mg/L	05/28/10 11:35	05/28/10

Sample results were calculated on a wet weight basis. ND = Not Detected

Roger Scholl

Walter Hirihum

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Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

**Report Date** 



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### **ANALYTICAL REPORT**

HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Job: NTD

 Attn:
 Clayton Mokri

 Phone:
 (916) 852-7792

 Fax:
 (916) 852-7836

 Date Received : 05/27/10

		Oil and Grease, HEM EPA Method 1664A			
	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: <b>SB10GW20052710</b> Lab ID : E2M10052742-11A Date Sampled 05/27/10 08:20	Oil & Grease, HEM	ND	5.0 mg/L	06/02/10	06/02/10

HEM = Hexane Extractable Material

ND = Not Detected

Roger Scholl

Kandy Saulner

Walter Arre

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

Report Date



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### **ANALYTICAL REPORT**

HDR   E2M	
2365 Iron Point Road	
Folsom, CA 95630	

Job: NTD

Attn:Clayton MokriPhone:(916) 852-7792Fax:(916) 852-7836Date Received : 05/27/10

	pH (Soil) EPA Method SW9045D			
Parameter	Concentration	Reporting	Date	Date
		Limit	Extracted	Analyzed
Client ID: SB0802SO052710				
Lab ID : E2M10052742-01A pH	8.3	1.7 pH Units	06/01/10 11:32	06/01/10 16:0
Date Sampled 05/27/10 11:05 pH - Temperature	20	1.0 °C	06/01/10 11:32	06/01/10 16:0
Client ID: SB0808SO052710				
Lab ID : E2M10052742-02A pH	8.7	1.7 pH Units	06/01/10 11:32	06/01/10 16:0
Date Sampled 05/27/10 11:20 pH - Temperature	20	1.0 °C	06/01/10 11:32	06/01/10 16:0
Client ID: SB0810SO052710				
Lab ID : E2M10052742-03A pH	8.6	1.7 pH Units	06/01/10 11:32	06/01/10 16:0
Date Sampled 05/27/10 11:25 pH - Temperature	20	1.0 °C	06/01/10 11:32	06/01/10 16:0
Client ID: SB0817SO052710				
Lab ID : E2M10052742-04A pH	8.1	1.7 pH Units	06/01/10 11:32	06/01/10 16:1
Date Sampled 05/27/10 11:35 pH - Temperature	20	1.0 °C	06/01/10 11:32	06/01/10 16:10
Client ID: SB0902SO052710				
Lab ID : E2M10052742-05A pH	8.6	1.7 pH Units	06/01/10 11:32	06/01/10 16:1
Date Sampled 05/27/10 10:05 pH - Temperature	20	1.0 °C	06/01/10 11:32	06/01/10 16:14
Client ID: SB0910SO052710				
Lab ID : E2M10052742-06A pH	8.0	1.7 pH Units	06/01/10 11:32	06/01/10 16:2
Date Sampled 05/27/10 10:20 pH - Temperature	20	1.0 °C	06/01/10 11:32	06/01/10 16:2
Client 1D: SB0917SO052710				
Lab ID : E2M10052742-07A pH	7.5	1.7 pH Units	06/01/10 11:32	06/01/10 16:2
Date Sampled 05/27/10 10:40 pH - Temperature	20	1.0 °C	06/01/10 11:32	06/01/10 16:2:
Client ID: SB1002SO052710				
Lab ID : E2M10052742-08A pH	8.5	1.7 pH Units	06/01/10 11:32	06/01/10 16:2
Date Sampled 05/27/10 07:40 pH - Temperature	20	1.0 °C	06/01/10 11:32	06/01/10 16:2:
Client ID: SB1010SO052710			·	
Lab ID : E2M10052742-09A pH	7.4	1.7 pH Units	06/01/10 11:32	06/01/10 16:2
Date Sampled 05/27/10 07:50 pH - Temperature	20	1.0 °C	06/01/10 11:32	06/01/10 16:2
Client ID: SB1017SO052710				
Lab ID : E2M10052742-10A pH	8.4	1.7 pH Units	06/01/10 11:32	
Date Sampled 05/27/10 08:05 pH - Temperature	20	1.0 °C	06/01/10 11:32	06/01/10 16:3



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### HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Job: NTD

### ANALYTICAL REPORT

Clayton Mokri Attn: (916) 852-7792 Phone: (916) 852-7836 Fax: Date Received : 05/27/10

### pH (Range 1.7 to 12.4) EPA Method 150.2 / SM4500HB / SW9040C

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: SB10GW20052710				
Lab ID : E2M10052742-11A pH	7.7	1.7 pH Units	05/27/10 14:34	05/27/10 14:34
Date Sampled 05/27/10 08:20 pH - Temperature	19	1.0 °C	05/27/10 14:34	05/27/10 14:34

The EPA has established an analytical holding time of 15 minutes for this method as documented in the Methods Update Rule, Federal Register, Vol 72, No 47, March 2007. This holding time will always be exceeded, unless samples are analyzed in the field.

The laboratory performed this analysis in the shortest practical holding time after sample receipt.

Roger Scholl

Kandy Sandner

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**Report Date** 



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### HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Job: NTD

### ANALYTICAL REPORT

Attn: Clayton Mokri Phone: (916) 852-7792 Fax: (916) 852-7836 Date Received : 05/27/10

		Phosphorus EPA Method 365.3 / SM4500PE			
	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: <b>SB10GW20052710</b> Lab ID : E2M10052742-11A Date Sampled 05/27/10 08:20	Phosphorus, Total (As P)	56	5.0 mg/L	06/02/10	06/02/10

Roger Scholl

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**Report Date** 



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### **ANALYTICAL REPORT**

HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Job: NTD

Attn:Clayton MokriPhone:(916) 852-7792Fax:(916) 852-7836Date Received : 05/27/10

Total Dissolved Solids (TDS) SM2540C						
Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed		
Client ID: SB10GW20052710 Lab ID: E2M10052742-11A Solids, Total Dissolved (TD Date Sampled 05/27/10 08:20	S) 1,600	25 mg/L	06/02/10	06/02/10		

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V 6/4/10

**Report Date** 

NTD



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### ANALYTICAL REPORT

HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Attn:Clayton MokriPhone:(916) 852-7792Fax:(916) 852-7836Date Received : 05/27/10

### Job: NTD

### Total Petroleum Hydrocarbons - Extractable (TPH-E) EPA Method SW8015B Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B

					Reporting	Date	Date
		Parameter	Concentrat	ion	Limit	Extracted	Analyzed
Client ID :	SB0802SO052710						
Lab ID :	E2M10052742-01A	TPH-E (DRO)	250	L	200 mg/Kg	05/28/10 15:05	05/31/10
Date Sampled	05/27/10 11:05	TPH-E (ORO)	4,200		200 mg/Kg	05/28/10 15:05	05/31/10
		Surr: Nonane	0	S50	(67-156) %REC	05/28/10 15:05	05/31/10
		TPH-P (GRO)	ND		10 mg/Kg	06/02/10	06/02/10
		Surr: 1,2-Dichloroethane-d4	122		(70-130) %REC	06/02/10	06/02/10
		Surr: Toluene-d8	92		(70-130) %REC	06/02/10	06/02/10
		Surr: 4-Bromofluorobenzene	103		(70-130) %REC	06/02/10	06/02/10
Client ID :	SB0808SO052710						
Lab ID :	E2M10052742-02A	TPH-E (DRO)	ND		10 mg/Kg	05/28/10 15:05	05/30/10
Date Sampled	05/27/10 11:20	TPH-E (ORO)	ND		10 mg/Kg	05/28/10 15:05	05/30/10
-		Surr: Nonane	107		(67-156) %REC	05/28/10 15:05	05/30/10
		TPH-P (GRO)	ND		10 mg/Kg	06/02/10	06/02/10
		Surr: 1,2-Dichloroethane-d4	123		(70-130) %REC	06/02/10	06/02/10
		Surr: Toluene-d8	91		(70-130) %REC	06/02/10	06/02/10
		Surr: 4-Bromofluorobenzene	99		(70-130) %REC	06/02/10	06/02/10
Client ID :	SB0810SO052710						
Lab ID :	E2M10052742-03A	TPH-E (DRO)	ND		10 mg/Kg	05/28/10 15:05	05/30/10
Date Sampled	05/27/10 11:25	TPH-E (ORO)	ND		10 mg/Kg	05/28/10 15:05	05/30/10
		Surr: Nonane	105		(67-156) %REC	05/28/10 15:05	05/30/10
		TPH-P (GRO)	ND		10 mg/Kg	06/02/10	06/02/10
		Surr: 1,2-Dichloroethane-d4	126		(70-130) %REC	06/02/10	06/02/10
		Surr: Toluene-d8	94		(70-130) %REC	06/02/10	06/02/10
		Surr: 4-Bromofluorobenzene	102		(70-130) %REC	06/02/10	06/02/10
Client ID :	SB0817SO052710						
Lab ID :	E2M10052742-04A	TPH-E (DRO)	ND		10 mg/Kg	05/28/10 15:05	05/30/10
Date Sampled	05/27/10 11:35	TPH-E (ORO)	ND		10 mg/Kg	05/28/10 15:05	05/30/10
		Surr: Nonane	112		(67-156) %REC	05/28/10 15:05	05/30/10
		TPH-P (GRO)	ND		10 mg/Kg	06/02/10	06/02/10
		Surr: 1,2-Dichloroethane-d4	125		(70-130) %REC	06/02/10	06/02/10
		Surr: Toluene-d8	94		(70-130) %REC	06/02/10	06/02/10
		Surr: 4-Bromofluorobenzene	105		(70-130) %REC	06/02/10	06/02/10
Client ID :	SB0902SO052710						
Lab ID :	E2M10052742-05A	TPH-E (DRO)	150	L	100 mg/Kg	05/28/10 15:05	05/31/10
Date Sampled	05/27/10 10:05	TPH-E (ORO)	1,900		100 mg/Kg	05/28/10 15:05	05/31/10
		Surr: Nonane	115		(67-156) %REC	05/28/10 15:05	05/31/10
		TPH-P (GRO)	ND		10 mg/Kg	06/02/10	06/02/10
		Surr: 1,2-Dichloroethane-d4	131	S55	(70-130) %REC	06/02/10	06/02/10
		Surr: Toluene-d8	93		(70-130) %REC	06/02/10	06/02/10
		Surr: 4-Bromofluorobenzene	103		(70-130) %REC	06/02/10	06/02/10



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Client ID :	SB0910SO052710						
Lab ID :	E2M10052742-06A	TPH-E (DRO)	32	L	25 mg/Kg	05/28/10 15:05	05/31/10
Date Sampled	05/27/10 10:20	TPH-E (ORO)	450		50 mg/Kg	05/28/10 15:05	05/31/10
		Surr: Nonane	0	S50	(67-156) %REC	05/28/10 15:05	05/31/10
		TPH-P (GRO)	ND		10 mg/Kg	06/02/10	06/02/10
		Surr: 1,2-Dichloroethane-d4	127		(70-130) %REC	06/02/10	06/02/10
		Surr: Toluene-d8	93		(70-130) %REC	06/02/10	06/02/10
		Surr: 4-Bromofluorobenzene	102		(70-130) %REC	06/02/10	06/02/10
Client ID :	SB0917SO052710						
Lab ID :	E2M10052742-07A	TPH-E (DRO)	ND		25 mg/Kg	05/28/10 15:05	05/30/10
Date Sampled	05/27/10 10:40	TPH-E (ORO)	ND		50 mg/Kg	05/28/10 15:05	05/30/10
-		Surr: Nonane	119		(67-156) %REC	05/28/10 15:05	05/30/10
		TPH-P (GRO)	ND		10 mg/Kg	06/02/10	06/02/10
		Surr: 1,2-Dichloroethane-d4	130		(70-130) %REC	06/02/10	06/02/10
		Surr: Toluene-d8	94		(70-130) %REC	06/02/10	06/02/10
		Surr: 4-Bromofluorobenzene	103		(70-130) %REC	06/02/10	06/02/10
Client ID :	SB1002SO052710						
Lab ID :	E2M10052742-08A	TPH-E (DRO)	37	L	25 mg/Kg	05/28/10 15:05	05/31/10
Date Sampled	05/27/10 07:40	TPH-E (ORO)	520	5	50 mg/Kg	05/28/10 15:05	05/31/10
		Surr: Nonane	0	S50	(67-156) %REC	05/28/10 15:05	05/31/10
		TPH-P (GRO)	ND		10 mg/Kg	06/02/10	06/02/10
		Surr: 1,2-Dichloroethane-d4	132	S55	(70-130) %REC	06/02/10	06/02/10
		Surr: Toluene-d8	95		(70-130) %REC	06/02/10	06/02/10
		Surr: 4-Bromofluorobenzene	109		(70-130) %REC	06/02/10	06/02/10
Client ID :	SB1010SO052710		,		(,	••••	
Lab ID :	E2M10052742-09A	TPH-E (DRO)	ND		10 mg/Kg	05/28/10 15:05	05/30/10
	05/27/10 07:50	TPH-E (ORO)	ND		10 mg/Kg	05/28/10 15:05	05/30/10
Dute Sumpled	05/21/10 07:50	Surr: Nonane	104		(67-156) %REC	05/28/10 15:05	05/30/10
		TPH-P (GRO)	ND		10 mg/Kg	06/02/10	06/02/10
		Surr: 1,2-Dichloroethane-d4	132	S55	(70-130) %REC	06/02/10	06/02/10
		Surr: Toluene-d8	96	555	(70-130) %REC	06/02/10	06/02/10
		Surr: 4-Bromofluorobenzene	108		(70-130) %REC	06/02/10	06/02/10
Client ID :	SB1017SO052710		100		(70-150) /0(000	00/02/10	00/02/10
Lab ID :	E2M10052742-10A	TPH-E (DRO)	ND		10 mg/Kg	05/28/10 15:05	05/30/10
	05/27/10 08:05	TPH-E (ORO)	ND		10 mg/Kg	05/28/10 15:05	05/30/10
Date Sampled	03/27/10 08.03	Surr: Nonane	121		(67-156) %REC	05/28/10 15:05	05/30/10
		TPH-P (GRO)	ND		10 mg/Kg	06/02/10	06/02/10
		Surr: 1,2-Dichloroethane-d4	126		(70-130) %REC	06/02/10	06/02/10
		Surr: Toluene-d8	95		(70-130) %REC	06/02/10	06/02/10
		Surr: 4-Bromofluorobenzene	108		(70-130) %REC	06/02/10	06/02/10
Client ID :	SB10GW20052710	Sun 4-Diomonuorooenzene	108		(70-150) /01(10)	00/02/10	00/02/10
Lab ID :	E2M10052742-11A	TPH-E (DRO)	ND		0.50	05/29/10 12.42	05/29/10
		· · · ·	ND		0.50 mg/L	05/28/10 13:43	05/29/10
Date Sampled	05/27/10 08:20	TPH-E (ORO)	ND		0.50 mg/L	05/28/10 13:43	
		Surr: Nonane	104		(57-147) %REC	05/28/10 13:43	05/29/10
		TPH-P (GRO)	ND		0.50 mg/L	05/28/10	05/28/10
		Surr: 1,2-Dichloroethane-d4	116		(70-130) %REC	05/28/10	05/28/10
		Surr: Toluene-d8	94		(70-130) %REC	05/28/10	05/28/10
Client ID :		Surr: 4-Bromofluorobenzene	104		(70-130) %REC	05/28/10	05/28/10
	EB01GWNA052710				0.50 /7	05/00/10 10 15	05/00/10
Lab ID :	E2M10052742-12A	TPH-E (DRO)	ND		0.50 mg/L	05/28/10 13:43	05/29/10
Date Sampled	05/27/10 00:00	TPH-E (ORO)	ND		0.50 mg/L	05/28/10 13:43	05/29/10
		Surr: Nonane	105		(57-147) %REC	05/28/10 13:43	05/29/10



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Diesel Range Organics (DRO) C13-C22

Gasoline Range Organics (GRO) C4-C13

L = DRO concentration may include contributions from heavier-end hydrocarbons that elute in the DRO range.

Oil Range Organics (ORO) C22-C40+

S50 = The analysis of the sample required a dilution such that the surrogate concentration was diluted below the laboratory acceptance criteria. The laboratory control sample was acceptable.

S55 = Surrogate recovery was above laboratory acceptance limits.

Sample results were calculated on a wet weight basis. ND = Not Detected

Rogen Scholl Kandy Sandner

Dalter Hinihum

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

**Report Date** 



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

## Alpha Analytical, Inc.

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### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052742-01A Client I.D. Number: SB0802SO052710

Sampled: 05/27/10 11:05 Received: 05/27/10 Extracted: 06/02/10 Analyzed: 06/02/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	80	µg/Kg	36	Bromoform	ND	80	µg/Kg
2	Chloromethane	ND	320	µg/Kg	37	Styrene	ND	80	µg/Kg
3	Vinyl chloride	ND	80	µg/Kg	38	o-Xvlene	ND	40	µg/Kg
4	Chloroethane	ND	80	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	80	µg/Kg
5	Bromomethane	ND	320	µg/Kg	40	1,2,3-Trichloropropane	ND	320	µg/Kg
6	Trichlorofluoromethane	ND	80	µg/Kg	41	Isopropylbenzene	ND	80	µg/Kg
7	1,1-Dichloroethene	ND	80	µg/Kg	42	Bromobenzene	ND	80	µg/Kg
8	Dichloromethane	ND	320	µg/Kg	43	n-Propylbenzene	ND	80	µg/Kg
9	trans-1,2-Dichloroethene	ND	80	µg/Kg	44	4-Chlorotoluene	ND	80	µg/Kg
10	1,1-Dichloroethane	ND	80	µg/Kg	45	2-Chlorotoluene	ND	80	µg/Kg
11	cis-1,2-Dichloroethene	ND	80	µg/Kg	46	1,3,5-Trimethylbenzene	ND	80	µg/Kg
12	Bromochloromethane	ND	80	µg/Kg	47	tert-Butylbenzene	ND	80	µg/Kg
13	Chloroform	ND	80	µg/Kg	48	1,2,4-Trimethylbenzene	ND	80	µg/Kg
14	2,2-Dichloropropane	ND	80	µg/Kg	49	sec-Butylbenzene	ND	80	µg/Kg
15	1,2-Dichloroethane	ND	80	µg/Kg	50	1.3-Dichlorobenzene	ND	80	µg/Kg
16	1,1,1-Trichloroethane	ND	80	µg/Kg	51	1,4-Dichlorobenzene	ND	80	µg/Kg
17	1,1-Dichloropropene	ND	80	µg/Kg	52	4-isopropyitoluene	ND	80	µg/Kg
18	Carbon tetrachloride	ND	80	µg/Kg	53	1,2-Dichlorobenzene	ND	80	µg/Kg
19	Benzene	ND	40	µg/Kg	54	n-Butylbenzene	ND	80	µg/Kg
20	Dibromomethane	ND	80	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBCI	P) ND	480	µg/Kg
21	1,2-Dichloropropane	ND	80	µg/Kg	56	1,2,4-Trichlorobenzene	, ND	320	µg/Kg
22	Trichloroethene	ND	80	µg/Kg	57	Naphthalene	ND	320	µg/Kg
23	Bromodichloromethane	ND	80	µg/Kg	58	Hexachlorobutadiene	ND	320	µg/Kg
24	cis-1,3-Dichloropropene	ND	80	µg/Kg	59	1.2.3-Trichlorobenzene	ND	320	µg/Kg
25	trans-1,3-Dichloropropene	ND	80	µg/Kg	60	Surr: 1.2-Dichloroethane-d4	122	(70-130)	%REC
26	1,1,2-Trichloroethane	ND	80	µg/Kg	61	Surr: Toluene-d8	92	(70-130)	%REC
27	Toluene	ND	40	µg/Kg	62	Surr: 4-Bromofluorobenzene	103	(70-130)	%REC
28	1,3-Dichloropropane	ND	80	µg/Kg				( )	
29	Dibromochloromethane	ND	80	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	320	µg/Kg					
31	Tetrachloroethene	ND	80	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	80	µg/Kg					
33	Chlorobenzene	ND	80	µg/Kg					
34	Ethylbenzene	ND	40	µg/Kg					

Reporting Limits were increased due to sample foaming.

Sample results were calculated on a wet weight basis. ND = Not Detected

35 m,p-Xylene

Roger Scholl

ND

Kandg Saulner

40 µg/Kg

Dalter Acrihan

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**Report Date** Page 1 of 1



Job:

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## Alpha Analytical, Inc.

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### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052742-02A Client I.D. Number: SB0808SO052710

Sampled:	05/27/10 11:20
Received:	05/27/10
Extracted:	06/02/10
Analyzed:	06/02/10

#### Volatile Organics by GC/MS EPA Method SW8260B

Compound Co		Compound Concentration Reporting Limit			Compound	Concentration	Reporting Li	Reporting Limit	
1	Dichlorodifluoromethane	ND	40	µg/Kg	36	Bromoform	ND	40	µg/Kg
2	Chloromethane	ND	160	µg/Kg	37	Styrene	ND	40	µg/Kg
3	Vinyl chloride	ND	40	µg/Kg	38	o-Xvlene	ND	20	µg/Kg
4	Chloroethane	ND	40	µg/Kg	39	1.1.2.2-Tetrachloroethane	ND	40	µg/Kg
5	Bromomethane	ND	160	µg/Kg	40	1,2,3-Trichloropropane	ND	160	µg/Kg
6	Trichlorofluoromethane	ND	40	µg/Kg	41	Isopropylbenzene	ND	40	µg/Kg
7	1,1-Dichloroethene	ND	40	µg/Kg	42	Bromobenzene	ND	40	µg/Kg
8	Dichloromethane	ND	160	µg/Kg	43	n-Propylbenzene	ND	40	µg/Kg
9	trans-1,2-Dichloroethene	ND	40	µg/Kg	44	4-Chlorotoluene	ND	40	µg/Kg
10	1,1-Dichloroethane	ND	40	µg/Kg	45	2-Chlorotoluene	ND	40	µg/Kg
11	cis-1,2-Dichloroethene	ND	40	µg/Kg	46	1,3,5-Trimethylbenzene	ND	40	µg/Kg
12	Bromochloromethane	ND	40	µg/Kg	47	tert-Butylbenzene	ND	40	µg/Kg
13	Chloroform	ND	40	µg/Kg	48	1,2,4-Trimethylbenzene	ND	40	µg/Kg
14	2,2-Dichloropropane	ND	40	µg/Kg	49	sec-Butylbenzene	ND	40	µg/Kg
15	1,2-Dichloroethane	ND	40	µg/Kg	50	1,3-Dichlorobenzene	ND	40	µg/Kg
16	1,1,1-Trichloroethane	ND	40	µg/Kg	51	1,4-Dichlorobenzene	ND	40	µg/Kg
17	1,1-Dichloropropene	ND	40	µg/Kg	52	4-isopropyitoluene	ND	40	µg/Kg
18	Carbon tetrachloride	ND	40	µg/Kg	53	1,2-Dichlorobenzene	ND	40	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	40	µg/Kg
20	Dibromomethane	ND	40	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBCI	P) ND	240	µg/Kg
21	1,2-Dichloropropane	ND	40	µg/Kg	56	1,2,4-Trichlorobenzene	ND	160	µg/Kg
22	Trichloroethene	ND	40	µg/Kg	57	Naphthalene	ND	160	µg/Kg
23	Bromodichloromethane	ND	40	µg/Kg	58	Hexachlorobutadiene	ND	160	µg/Kg
24	cis-1,3-Dichloropropene	ND	40	µg/Kg	59	1,2,3-Trichlorobenzene	ND	160	µg/Kg
25	trans-1,3-Dichloropropene	ND	40	µg/Kg	60	Surr: 1,2-Dichloroethane-d4	123	(70-130)	%REC
26	1,1,2-Trichloroethane	ND	40	µg/Kg	61	Surr: Toluene-d8	91	(70-130)	%REC
27	Toluene	ND	20	µg/Kg	62	Surr: 4-Bromofluorobenzene	99	(70-130)	%REC
28	1,3-Dichloropropane	ND	40	µg/Kg			1	· · · ·	
29	Dibromochloromethane	ND	40	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	160	µg/Kg					
31	Tetrachioroethene	ND	40	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	40	µg/Kg					
33	Chlorobenzene	ND	40	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg					
25	m n Vulana								

Reporting Limits were increased due to sample foaming.

Sample results were calculated on a wet weight basis. ND = Not Detected

35 m,p-Xylene

Roger Scholl

ND

Kandy Sandmer

20 µg/Kg

Walter Hiridmon

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Report Date Page 1 of 1



Job:

2365 Iron Point Road

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## Alpha Analytical, Inc.

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### ANALYTICAL REPORT

Clayton Mokri

(916) 852-7792

Attn:
Phone:
Fax:

Alpha Analytical Number: E2M10052742-03A Client I.D. Number: SB0810SO052710

	Sampleo
(916) 852-783	6

Sampled: 05/27/10 11:25 Received: 05/27/10 Extracted: 06/02/10 Analyzed: 06/02/10

### Volatile Organics by GC/MS EPA Method SW8260B

Compound		Concentration	Reporting	Limit		Compound	Concentration	Reporting L	mit
1	Dichlorodifluoromethane	ND	40	µg/Kg	36	Bromoform	ND	40	µg/Kg
2	Chloromethane	ND	160	µg/Kg	37	Styrene	ND	40	µg/Kg
3	Vinyl chloride	ND	40	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	40	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	40	µg/Kg
5	Bromomethane	ND	160	µg/Kg	40	1,2,3-Trichloropropane	ND	160	µg/Kg
6	Trichlorofluoromethane	ND	40	µg/Kg	41	Isopropylbenzene	ND	40	µg/Kg
7	1,1-Dichloroethene	ND	40	µg/Kg	42	Bromobenzene	ND ·	40	µg/Kg
8	Dichloromethane	ND	160	µg/Kg	43	n-Propylbenzene	ND	40	µg/Kg
9	trans-1,2-Dichloroethene	ND	40	µg/Kg	44	4-Chlorotoluene	ND	40	µg/Kg
10	1,1-Dichloroethane	ND	40	µg/Kg	45	2-Chlorotoluene	ND	40	µg/Kg
11	cis-1,2-Dichloroethene	ND	40	µg/Kg	46	1,3,5-Trimethylbenzene	ND	40	µg/Kg
12	Bromochloromethane	ND	40	µg/Kg	47	tert-Butylbenzene	ND	40	µg/Kg
13	Chloroform	ND	40	µg/Kg	48	1,2,4-Trimethylbenzene	ND	40	µg/Kg
14	2,2-Dichioropropane	ND	40	µg/Kg	49	sec-Butylbenzene	ND	40	µg/Kg
15	1,2-Dichloroethane	ND	40	µg/Kg	50	1,3-Dichlorobenzene	ND	40	µg/Kg
16	1,1,1-Trichloroethane	ND	40	µg/Kg	51	1,4-Dichlorobenzene	ND	40	µg/Kg
17	1,1-Dichloropropene	ND	40	µg/Kg	52	4-Isopropyltoluene	ND	40	µg/Kg
18	Carbon tetrachloride	ND	40	µg/Kg	53	1,2-Dichlorobenzene	ND	40	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	40	µg/Kg
20	Dibromomethane	ND	40	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBCI	P) ND	240	µg/Kg
21	1,2-Dichloropropane	ND	40	µg/Kg	56	1,2,4-Trichlorobenzene	ND	160	µg/Kg
22	Trichloroethene	ND	40	µg/Kg	57	Naphthalene	ND	160	µg/Kg
23	Bromodichloromethane	ND	40	µg/Kg	58	Hexachlorobutadiene	ND	160	µg/Kg
24	cis-1,3-Dichloropropene	ND	40	µg/Kg	59	1,2,3-Trichlorobenzene	ND	160	µg/Kg
25	trans-1,3-Dichloropropene	ND	40	µg/Kg	60	Surr: 1,2-Dichloroethane-d4	126	(70-130)	%REC
26	1,1,2-Trichloroethane	ND	40	µg/Kg	61	Surr: Toluene-d8	94	(70-130)	%REC
27	Toluene	ND	20	µg/Kg	62	Surr: 4-Bromofluorobenzene	102	(70-130)	%REC
28	1,3-Dichloropropane	ND	40	ug/Kg					
29	Dibromochloromethane	ND	40	µg/Kg					
- 30	1,2-Dibromoethane (EDB)	ND	160	µg/Kg					
31	Tetrachloroethene	ND	40	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	40	µg/Kg					
33	Chlorobenzene	ND	40	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg					
35	m n Yulono								

Reporting Limits were increased due to sample foaming.

35 m,p-Xylene

Sample results were calculated on a wet weight basis. ND = Not Detected

Roger Scholl

ND

Kandy Sandmer

20

µg/Kg

Walter Arridm

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

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**Report Date** Page 1 of 1



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### **ANALYTICAL REPORT**

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 Job: NTD

Alpha Analytical Number: E2M10052742-04A Client I.D. Number: SB0817SO052710

Sampled:	05/27/10 11:35
Received:	05/27/10
Extracted:	06/02/10
Analyzed:	06/02/10

### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit	imit Compound		Concentration	Reporting Limit				
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND	20	µg/Kg			
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/Kg			
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND	20	µg/Kg			
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	µg/Kg			
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	µg/Kg			
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	µg/Kg			
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND	20	µg/Kg			
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/Kg			
9	trans-1,2-Dichioroethene	ND	20	µg/Kg	44	4-Chlorotoluene	ND	20	µg/Kg			
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/Kg			
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/Kg			
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	µg/Kg			
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND	20	µg/Kg			
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butylbenzene	ND	20	µg/Kg			
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND	20	µg/Kg			
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND	20	µg/Kg			
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-Isopropyltoluene	ND	20	µg/Kg			
18	Carbon tetrachloride	ND	20	µg/Kg	53	1,2-Dichlorobenzene	ND	20	µg/Kg			
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	20	µg/Kg			
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	120	µg/Kg			
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND	80	µg/Kg			
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND	80	µg/Kg			
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND	80	µg/Kg			
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND	80	µg/Kg			
25	trans-1,3-Dichloropropene	ND	20	µg/Kg	60	Surr: 1,2-Dichloroethane-d4	125	(70-130)	%REC			
26	1,1,2-Trichloroethane	ND	20	µg/Kg	61	Surr: Toluene-d8	94	(70-130)	%REC			
27	Toluene	ND	20	µg/Kg	62	Surr: 4-Bromofluorobenzene	105	(70-130)	%REC			
28	1,3-Dichloropropane	ND	20	µg/Kg			1					
29	Dibromochloromethane	ND	20	µg/Kg								
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg								
31	Tetrachloroethene	ND	20	µg/Kg								
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg								
33	Chlorobenzene	ND	20	µg/Kg								
34	Ethylbenzene	ND	20	µg/Kg								
35	m,p-Xylene	ND	20	µg/Kg								

Sample results were calculated on a wet weight basis. ND = Not Detected

Rogen Scholl

man

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

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Report Date Page 1 of 1



Job:

2365 Iron Point Road

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Folsom, CA 95630

## Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052742-05A Client I.D. Number: SB0902S0052710 Sampled: 05/27/10 10:05 Received: 05/27/10 Extracted: 06/02/10

Analyzed: 06/02/10

#### Volatile Organics by GC/MS EPA Method SW8260B

Compound		Concentration	Reporting	Limit		Compound	Concentration	Re	Reporting Limit	
1	Dichlorodifluoromethane	ND	40	µg/Kg	36	Bromoform	ND		40	µg/Kg
2	Chloromethane	ND	160	µg/Kg	37	Styrene	ND		40	µg/Kg
3	Vinyl chloride	ND	40	µg/Kg	38	o-Xylene	ND		20	µg/Kg
4	Chloroethane	ND	40	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND		40	µg/Kg
5	Bromomethane	ND	160	µg/Kg	40	1,2,3-Trichloropropane	ND		160	µg/Kg
6	Trichlorofluoromethane	ND	40	µg/Kg	41	Isopropylbenzene	ND		40	µg/Kg
7	1,1-Dichloroethene	ND	40	µg/Kg	42	Bromobenzene	ND		40	µg/Kg
8	Dichloromethane	ND	160	µg/Kg	43	n-Propylbenzene	ND		40	µg/Kg
9	trans-1,2-Dichloroethene	ND	40	µg/Kg	44	4-Chlorotoluene	ND		40	µg/Kg
10	1,1-Dichloroethane	ND	40	µg/Kg	45	2-Chlorotoluene	ND		40	µg/Kg
11	cis-1,2-Dichloroethene	ND	40	µg/Kg	46	1,3,5-Trimethylbenzene	ND		40	µg/Kg
12	Bromochloromethane	ND	40	µg/Kg	47	tert-Butylbenzene	ND		40	µg/Kg
13	Chloroform	ND	40	µg/Kg	48	1,2,4-Trimethylbenzene	ND		40	µg/Kg
14	2,2-Dichloropropane	ND	40	µg/Kg	49	sec-Butylbenzene	ND		40	µg/Kg
15	1,2-Dichloroethane	ND	40	µg/Kg	50	1,3-Dichlorobenzene	ND		40	µg/Kg
16	1,1,1-Trichloroethane	ND	40	µg/Kg	51	1,4-Dichlorobenzene	ND		40	µg/Kg
17	1,1-Dichloropropene	ND	40	µg/Kg	52	4-Isopropyltoluene	ND		40	µg/Kg
18	Carbon tetrachloride	ND	40	µg/Kg	53	1,2-Dichlorobenzene	ND		40	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND		40	µg/Kg
20	Dibromomethane	ND	40	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBCI	P) ND		240	µg/Kg
21	1,2-Dichloropropane	ND	40	µg/Kg	56	1,2,4-Trichlorobenzene	ND		160	µg/Kg
22	Trichloroethene	ND	40	µg/Kg	57	Naphthalene	ND		160	µg/Kg
23	Bromodichloromethane	ND	40	µg/Kg	58	Hexachlorobutadiene	ND		160	µg/Kg
24	cis-1,3-Dichloropropene	ND	40	µg/Kg	59	1,2,3-Trichlorobenzene	ND		160	µg/Kg
25	trans-1,3-Dichloropropene	ND	40	µg/Kg	60	Surr: 1,2-Dichloroethane-d4	132	S55	(70-130)	%REC
26	1,1,2-Trichloroethane	ND	40	µg/Kg	61	Surr: Toluene-d8	93		(70-130)	%REC
27	Toluene	ND	20	µg/Kg	62	Surr: 4-Bromofluorobenzene	103		(70-130)	%REC
28	1,3-Dichloropropane	ND	40	µg/Kg						
29	Dibromochloromethane	ND	40	µg/Kg						
30	1,2-Dibromoethane (EDB)	ND	160	µg/Kg						
31	Tetrachloroethene	ND	40	µg/Kg						
32	1,1,1,2-Tetrachloroethane	ND	40	µg/Kg						
33	Chlorobenzene	ND	40	µg/Kg						
34	Ethylbenzene	ND	20	µg/Kg						
35	m n-Yvlene	ND	00							

Reporting Limits were increased due to sample foaming.

35 m,p-Xylene

S55 = Surrogate recovery was above laboratory acceptance limits.

ND

Sample results were calculated on a wet weight basis. ND = Not Detected

Roger Scholl

tauluur.

20 µg/Kg

Dalter Arinhman

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6/4/10

Report Date



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### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Job: NTD Alpha Analytical Number: E2M10

HDR | E2M

2365 Iron Point Road

Folsom, CA 95630

Alpha Analytical Number: E2M10052742-06A Client I.D. Number: SB0910SO052710

Sampled:	05/27/10 10:20
Received:	05/27/10
Extracted:	06/02/10
Analyzed:	06/02/10

### Volatile Organics by GC/MS EPA Method SW8260B

		Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit	
1	Dichlorodifluoromethane	ND	40	µg/Kg	36	Bromoform	ND	40	µg/Kg	
2	Chloromethane	ND	160	µg/Kg	37	Styrene	ND	40	µg/Kg	
3	Vinyl chloride	ND	40	µg/Kg	38	o-Xylene	ND	20	µg/Kg	
4	Chloroethane	• ND	40	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	40	µg/Kg	
5	Bromomethane	ND	160	µg/Kg	40	1,2,3-Trichloropropane	ND	160	µg/Kg	
6	Trichlorofluoromethane	ND	40	µg/Kg	41	Isopropylbenzene	ND	40	µg/Kg	
7	1,1-Dichloroethene	ND	40	µg/Kg	42	Bromobenzene	ND	40	µg/Kg	
8	Dichloromethane	ND	160	µg/Kg	43	n-Propylbenzene	ND	40	µg/Kg	
9	trans-1,2-Dichloroethene	ND	40	µg/Kg	44	4-Chiorotoluene	ND	40	µg/Kg	
10	1,1-Dichloroethane	ND	40	µg/Kg	45	2-Chlorotoluene	ND	40	µg/Kg	
11	cis-1,2-Dichloroethene	ND	40	µg/Kg	46	1,3,5-Trimethylbenzene	ND	40	µg/Kg	
12	Bromochloromethane	ND	40	µg/Kg	47	tert-Butylbenzene	ND	40	µg/Kg	
13	Chloroform	ND	40	µg/Kg	48	1,2,4-Trimethylbenzene	ND	40	µg/Kg	
14	2,2-Dichloropropane	ND	40	µg/Kg	49	sec-Butylbenzene	ND	40	µg/Kg	
15	1,2-Dichloroethane	ND	40	µg/Kg	50	1,3-Dichlorobenzene	ND	40	µg/Kg	
16	1,1,1-Trichloroethane	ND	40	µg/Kg	51	1,4-Dichlorobenzene	ND	40	µg/Kg	
17	1,1-Dichloropropene	ND	40	µg/Kg	52	4-Isopropyltoiuene	ND	40	µg/Kg	
18	Carbon tetrachloride	ND	40	µg/Kg	53	1,2-Dichlorobenzene	ND	40	µg/Kg	
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	40	µg/Kg	
20	Dibromomethane	ND	40	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBCI	P) ND	240	µg/Kg	
21	1,2-Dichloropropane	ND	40	µg/Kg	56	1,2,4-Trichlorobenzene	ND	160	µg/Kg	
22	Trichloroethene	ND	40	µg/Kg	57	Naphthalene	ND	160	µg/Kg	
23	Bromodichloromethane	ND	40	µg/Kg	58	Hexachlorobutadiene	ND	160	µg/Kg	
24	cis-1,3-Dichloropropene	ND	40	µg/Kg	59	1,2,3-Trichlorobenzene	ND	160	µg/Kg	
25	trans-1,3-Dichloropropene	ND	40	µg/Kg	60	Surr: 1,2-Dichloroethane-d4	127	(70-130)	%REC	
26	1,1,2-Trichloroethane	ND	40	µg/Kg	61	Surr: Toluene-d8	93	(70-130)	%REC	
27	Toluene	ND	20	µg/Kg	62	Surr: 4-Bromofluorobenzene	102	(70-130)	%REC	
28	1,3-Dichloropropane	ND	40	µg/Kg			'			
29	Dibromochloromethane	ND	40	µg/Kg						
30	1,2-Dibromoethane (EDB)	ND	160	µg/Kg						
31	Tetrachloroethene	ND	40	µg/Kg						
32	1,1,1,2-Tetrachloroethane	ND	40	µg/Kg						
33	Chlorobenzene	ND	40	µg/Kg						
34	Ethylbenzene	ND	20	µg/Kg						
25	m n Videna									

Reporting Limits were increased due to sample foaming.

Sample results were calculated on a wet weight basis. ND = Not Detected

35 m,p-Xylene

Rogen Scholl

ND

Kandy Danlmer

20

µg/Kg

Walter Alor

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

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Report Date Page 1 of 1



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### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 Job: NTD

Alpha Analytical Number: E2M10052742-07A Client I.D. Number: SB0917SO052710

Sampled:	05/27/10 10:40
Received:	05/27/10
Extracted:	06/02/10
Analyzed:	06/02/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Deperting		54.51		Concentration	Deperting 1	
	· · · · · · · · · · · · · · · · · · ·		Reporting	Limit			Concentration	Reporting L	
1	Dichlorodifluoromethane	ND	40	µg/Kg	36	Bromoform	ND	40	µg/Kg
2	Chloromethane	ND	160	µg/Kg	37	Styrene	ND	40	µg/Kg
3	Vinyl chloride	" ND	40	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chioroethane	ND	40	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	40	µg/Kg
5	Bromomethane	ND	160	µg/Kg	40	1,2,3-Trichloropropane	ND	160	µg/Kg
6	Trichlorofluoromethane	ND	40	µg/Kg	41	Isopropylbenzene	ND	40	µg/Kg
7	1,1-Dichloroethene	ND	40	µg/Kg	42	Bromobenzene	ND	40	µg/Kg
8	Dichloromethane	ND	160	µg/Kg	43	n-Propylbenzene	ND	40	µg/Kg
9	trans-1,2-Dichloroethene	ND	40	µg/Kg	44	4-Chlorotoluene	ND	40	µg/Kg
10	1,1-Dichloroethane	ND	40	µg/Kg	45	2-Chlorotoluene	ND	40	µg/Kg
11	cis-1,2-Dichloroethene	ND	40	µg/Kg	46	1,3,5-Trimethylbenzene	ND	40	µg/Kg
12	Bromochloromethane	ND	40	µg/Kg	47	tert-Butylbenzene	ND	40	µg/Kg
13	Chloroform	ND	40	µg/Kg	48	1,2,4-Trimethylbenzene	ND	40	µg/Kg
14	2,2-Dichloropropane	ND	40	µg/Kg	49	sec-Butylbenzene	ND	40	µg/Kg
15	1,2-Dichloroethane	ND	40	µg/Kg	50	1.3-Dichlorobenzene	ND	40	µg/Kg
16	1,1,1-Trichloroethane	ND	40	µg/Kg	51	1,4-Dichlorobenzene	ND	40	µg/Kg
17	1,1-Dichloropropene	ND	40	µg/Kg	52	4-Isopropyltoluene	ND	40	µg/Kg
18	Carbon tetrachloride	ND	40	µg/Kg	53	1,2-Dichlorobenzene	ND	40	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	40	µg/Kg
20	Dibromomethane	ND	40	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBCI		240	µg/Kg
21	1,2-Dichloropropane	ND	40	µg/Kg	56	1.2.4-Trichlorobenzene	ND	160	µg/Kg
22	Trichloroethene	ND	40	µg/Kg	57	Naphthalene	ND	160	μg/Kg
23	Bromodichloromethane	ND	40	µg/Kg	58	Hexachlorobutadiene	ND	160	µg/Kg
24	cis-1,3-Dichloropropene	ND	40	µg/Kg	59	1,2,3-Trichlorobenzene	ND	160	µg/Kg
25	trans-1,3-Dichloropropene	ND	40	µg/Kg	60	Surr: 1,2-Dichloroethane-d4	130	(70-130)	
26	1,1,2-Trichloroethane	ND	40	µg/Kg	61	Surr: Toluene-d8	94	(70-130)	%REC
27	Toluene	ND	20	µg/Kg	62	Surr: 4-Bromofluorobenzene	103	(70-130)	
28	1,3-Dichloropropane	ND	40	µg/Kg	02		100	(10 100)	/01/200
29	Dibromochloromethane	ND	40	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	160	μg/Kg					
31	Tetrachloroethene	ND	40	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	40	µg/Kg					
33	Chlorobenzene	ND	40	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg µg/Kg					
	m n Videne		20	Parita					

Reporting Limits were increased due to sample foaming.

35 m,p-Xylene

Sample results were calculated on a wet weight basis. ND = Not Detected

Rogen Scholl

ND

Kandy Saulman

20

µg/Kg

lter Ar Da

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Page 1 of 1



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### ANALYTICAL REPORT

HDR	E2M	
2365 I	ron Point Road	
Folson	n, CA 95630	
Job:	NTD	

HDR

Attn: Clayton Mokri Phone: (916) 852-7792 Fax: (916) 852-7836

Alpha Analytical Number: E2M10052742-08A Client I.D. Number: SB1002SO052710

Sampled:	05/27/10 07:40
Received:	05/27/10
Extracted:	06/02/10
Analyzed:	06/02/10

### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Re	eporting Li	imit
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND		20	µg/Kg
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND		20	µg/Kg
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND		20	µg/Kg
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND		20	µg/Kg
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND		80	µg/Kg
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND		20	µg/Kg
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND		20	µg/Kg
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND		20	µg/Kg
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chlorotoluene	ND		20	µg/Kg
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND		20	µg/Kg
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND		20	µg/Kg
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND		20	µg/Kg
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND		20	µg/Kg
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butylbenzene	ND		20	µg/Kg
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND		20	µg/Kg
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND		20	µg/Kg
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-Isopropyltoluene	ND		20	µg/Kg
18	Carbon tetrachloride	ND	20	µg/Kg	53	1,2-Dichlorobenzene	ND		20	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND		20	µg/Kg
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBCI	P) ND		120	µg/Kg
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND		80	µg/Kg
22	Trichloroethene	ND	20	µg/Kg	57	Naphthaiene	ND		80	µg/Kg
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND		80	µg/Kg
24	· · · · · · · · · · · · · · · · · · ·	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND		80	µg/Kg
25	trans-1,3-Dichloropropene	ND	20	µg/Kg	60	Surr: 1,2-Dichloroethane-d4	132	<b>S</b> 55	(70-130)	%REC
26	1,1,2-Trichloroethane	ND	20	µg/Kg	61	Surr: Toluene-d8	95		(70-130)	%REC
27	Toluene	ND	20	µg/Kg	62	Surr: 4-Bromofiuorobenzene	109		(70-130)	%REC
28	1,3-Dichloropropane	ND	20	µg/Kg				x	. ,	
29	Dibromochloromethane	ND	20	µg/Kg						
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg						
31	Tetrachloroethene	ND	20	µg/Kg						
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg						
33	Chlorobenzene	ND	20	µg/Kg						
24	Ether dia a second									

S55 = Surrogate recovery was above laboratory acceptance limits.

ND

ND

Sample results were calculated on a wet weight basis. ND = Not Detected

34 Ethylbenzene

35 m,p-Xylene

Roger Scholl

Kandy Danlmer

20

20

µg/Kg

µg/Kg

Walter Arm

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Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10



Page 1 of 1



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

## Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052742-09A Client I.D. Number: SB1010SO052710

Sampled:	05/27/10 07:50
Received:	05/27/10
Extracted:	06/02/10
Analyzed:	06/02/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Re	eporting Li	mit	
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND		20	µg/Kg	
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND		20	µg/Kg	
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND		20	µg/Kg	
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND		20	µg/Kg	
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND		80	µg/Kg	
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND		20	µg/Kg	
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND		20	µg/Kg	
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND		20	µg/Kg	
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chiorotoluene	ND		20	µg/Kg	
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND		20	µg/Kg	
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND		20	µg/Kg	
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND		20	µg/Kg	
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND		20	µg/Kg	
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butylbenzene	ND		20	µg/Kg	
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND		20	µg/Kg	
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND		20	µg/Kg	
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-Isopropyltoluene	ND		20	µg/Kg	
18	Carbon tetrachloride	ND	20	µg/Kg	53	1,2-Dichlorobenzene	ND		20	µg/Kg	
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND		20	µg/Kg	
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND		120	µg/Kg	
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND		80	µg/Kg	
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND		80	µg/Kg	
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND		80	µg/Kg	
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND		80	µg/Kg	
25	trans-1,3-Dichloropropene	ND	20	µg/Kg	60	Surr: 1,2-Dichloroethane-d4	132	S55	(70-130)	%REC	
26	1,1,2-Trichloroethane	ND	20	µg/Kg	61	Surr: Toluene-d8	96		(70-130)	%REC	
27	Toluene	ND	20	µg/Kg	62	Surr: 4-Bromofluorobenzene	108		(70-130)	%REC	
28	1,3-Dichloropropane	ND	20	µg/Kg			'				
29	Dibromochloromethane	ND	20	µg/Kg							
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg							
31	Tetrachloroethene	ND	20	µg/Kg							
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg							
33	Chlorobenzene	ND	20	µg/Kg							
34	Ethylbenzene	ND	20	µg/Kg							
25	and a Million a										

S55 = Surrogate recovery was above laboratory acceptance limits.

ND

Sample results were calculated on a wet weight basis. ND = Not Detected

35 m,p-Xylene

Roger Scholl

Kandy Sandner

20 µg/Kg

Walter Alor

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

Report Date Page 1 of 1



Job:

2365 Iron Point Road

NTD

Folsom, CA 95630

## Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052742-10A Client I.D. Number: SB1017SO052710

(916) 852-783	16	
	-	

Sampled: 05/27/10 08:05 Received: 05/27/10 Extracted: 06/02/10 Analyzed: 06/02/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	imit
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND -	20	µg/Kg
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/Kg
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	µg/Kg
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	µg/Kg
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	µg/Kg
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND	20	µg/Kg
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/Kg
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chlorotoluene	ND	20	µg/Kg
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/Kg
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/Kg
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	µg/Kg
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND	20	µg/Kg
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butylbenzene	ND	20	µg/Kg
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND	20	µg/Kg
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1.4-Dichlorobenzene	ND	20	µg/Kg
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-Isopropyltoluene	ND	20	µg/Kg
18	Carbon tetrachloride	ND	20	µg/Kg	53	1.2-Dichlorobenzene	ND	20	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	20	µg/Kg
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBCI	P) ND	120	µg/Kg
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND	80	µg/Kg
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND	80	µg/Kg
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND	80	µg/Kg
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND	80	µg/Kg
25	trans-1,3-Dichloropropene	ND	20	µg/Kg	60	Surr: 1,2-Dichloroethane-d4	126	(70-130)	%REC
26	1,1,2-Trichloroethane	ND	20	µg/Kg	61	Surr: Toluene-d8	95	(70-130)	%REC
27	Toluene	ND	20	µg/Kg	62	Surr: 4-Bromofluorobenzene	108	(70-130)	%REC
28	1,3-Dichloropropane	ND	20	µg/Kg			1	· · ·	
29	Dibromochloromethane	ND	20	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg					
31	Tetrachloroethene	ND	20	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg					
33	Chlorobenzene	ND	20	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg					

Sample results were calculated on a wet weight basis. ND = Not Detected

35 m,p-Xylene

Rogen Scholl

ND

dg Danlmer

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

20 µg/Kg

6/4/10

Report Date
Page 1 of 1



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

## Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052742-11A Client I.D. Number: SB10GW20052710 Sampled: 05/27/10 08:20 Received: 05/27/10 Extracted: 05/28/10 Analyzed: 05/28/10

#### Volatile Organics by GC/MS EPA Method SW8260B

2 Ch 3 Vir 4 Ch 5 Bro 6 Tri 7 1,1 8 Dic	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
3 Vir 4 Ch 5 Bro 6 Tri- 7 1,1 8 Dic	chlorodifluoromethane	ND	1.0	µg/L	36	Bromoform	ND	1.0	µg/L
4 Ch 5 Bro 6 Trie 7 1,1 8 Dic	hloromethane	ND	2.0	µg/L	37	Styrene	ND	1.0	µg/L
5 Bro 6 Trie 7 1,1 8 Dic	nyl chloride	ND	1.0	µg/L	38	o-Xvlene	ND	1.0	µg/L
6 Tri 7 1,1 8 Dic	nloroethane	ND	1.0	µg/L	39	1,1,2,2-Tetrachloroethane	ND	1.0	µg/L
7 1,1 8 Dic	romomethane	ND	2.0	µg/L	40	1,2,3-Trichloropropane	ND	2.0	µg/L
8 Dic	ichlorofluoromethane	ND	1.0	µg/L	41	Isopropylbenzene	ND	1.0	µg/L
	1-Dichloroethene	ND	1.0	µg/L	42	Bromobenzene	ND	1.0	µg/L
O tro	chloromethane	ND	2.0	µg/L	43	n-Propylbenzene	ND	1.0	µg/L
9 ua	ans-1,2-Dichloroethene	ND	1.0	µg/L	44	4-Chiorotoluene	ND	1.0	µg/L
10 1,1	1-Dichloroethane	ND	1.0	µg/L	45	2-Chlorotoluene	ND	1.0	μg/L
11 cis	s-1,2-Dichloroethene	ND	1.0	µg/L	46	1,3,5-Trimethylbenzene	ND	1.0	µg/L
12 Bro	omochloromethane	ND	1.0	µg/L	47	tert-Butylbenzene	ND	1.0	μg/L
13 Ch	nloroform	ND	1.0	µg/L	48	1,2,4-Trimethylbenzene	ND	1.0	µg/L
14 2,2	2-Dichloropropane	ND	1.0	µg/L	49	sec-Butylbenzene	ND	1.0	µg/L
15 1,2	2-Dichloroethane	ND	1.0	µg/L	50	1.3-Dichlorobenzene	ND	1.0	µg/L
16 1,1	1,1-Trichloroethane	ND	1.0	µg/L	51	1,4-Dichlorobenzene	ND	1.0	µg/L
17 1,1	1-Dichloropropene	ND	1.0	μg/L	52	4-Isopropyltoluene	ND	1.0	µg/L
18 Ca	arbon tetrachloride	ND	1.0	µg/L	53	1,2-Dichlorobenzene	ND	1.0	µg/L
19 Be	enzene	ND	1.0	µg/L	54	n-Butylbenzene	ND	1.0	μg/L
20 Dib	bromomethane	ND	1.0	µg/L	55	1,2-Dibromo-3-chloropropane (DBCI	P) ND	3.0	µg/L
21 1,2	2-Dichloropropane	ND	1.0	μg/L	56	1,2,4-Trichlorobenzene	ND	2.0	μg/L
22 Tri	ichloroethene	ND	1.0	μg/L	57	Naphthalene	ND	2.0	µg/L
23 Bro	omodichloromethane	ND	1.0	µg/L	58	Hexachlorobutadiene	ND	2.0	µg/L
24 cis	s-1,3-Dichloropropene	ND	1.0	μg/L	59	1,2,3-Trichlorobenzene	ND	2.0	µg/L
25 tra	ins-1,3-Dichloropropene	ND	1.0	µg/L	60	Surr: 1,2-Dichloroethane-d4	116	(70-130)	%REC
26 1,1	1,2-Trichloroethane	ND	1.0	µg/L	61	Surr: Toluene-d8	94	(70-130)	%REC
27 Tol	bluene	ND	1.0	µg/L	62	Surr: 4-Bromofluorobenzene	104	(70-130)	%REC
28 1,3	3-Dichloropropane	ND	1.0	µg/L				( ,	*
29 Dib	bromochloromethane	ND	1.0	µg/L					
30 1,2	2-Dibromoethane (EDB)	ND	2.0	µg/L					
31 Tet	etrachloroethene	ND	1.0	μg/L					
32 1,1	1,1,2-Tetrachloroethane	ND	1.0	µg/L					
33 Ch	lorobenzene	ND	1.0	µg/L					
34 Eth	hylbenzene	ND	1.0	µg/L					

Sample results were calculated on a wet weight basis. ND = Not Detected

35 m,p-Xylene

Rogen Scholl

ND

dg Daulmer

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

1.0 µg/L

6/4/10

Report Date Page 1 of 1



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

## Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052742-12A Client I.D. Number: EB01GWNA052710

Sampled:	05/27/10 00:00
Received:	05/27/10
Extracted:	05/28/10
Analyzed:	05/28/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	1.0	µg/L	36	Bromoform	ND	1.0	µg/L
2	Chloromethane	ND	2.0	μg/L	37	Styrene	ND	1.0	µg/L
3	Vinyl chloride	ND	1.0	μg/L	38	o-Xylene	ND	1.0	μg/L
4	Chioroethane	ND	1.0	μg/L	39	1,1,2,2-Tetrachloroethane	ND	1.0	μg/L
5	Bromomethane	ND	2.0	µg/L	40	1,2,3-Trichloropropane	ND	2.0	µg/L
6	Trichlorofluoromethane	ND	1.0	µg/L	41	Isopropylbenzene	ND	1.0	µg/L
7	1,1-Dichloroethene	ND	1.0	µg/L	42	Bromobenzene	ND	1.0	µg/L
8	Dichloromethane	ND	2.0	µg/L	43	n-Propylbenzene	ND	1.0	µg/L
9	trans-1,2-Dichloroethene	ND	1.0	µg/L	44	4-Chlorotoluene	ND	1.0	µg/L
10	1,1-Dichloroethane	ND	1.0	μg/L	45	2-Chlorotoluene	ND	1.0	µg/L
11	cis-1,2-Dichloroethene	ND	1.0	μg/L	46	1,3,5-Trimethylbenzene	ND	1.0	µg/L
12	Bromochloromethane	ND	1.0	µg/L	47	tert-Butylbenzene	ND	1.0	µg/L
13	Chloroform	ND	1.0	μg/L	48	1,2,4-Trimethylbenzene	ND	1.0	µg/L
14	2,2-Dichloropropane	ND	1.0	μg/L	49	sec-Butylbenzene	ND	1.0	µg/L
15	1,2-Dichloroethane	ND	1.0	μg/L	50	1.3-Dichlorobenzene	ND	1.0	µg/L
16	1,1,1-Trichloroethane	ND	1.0	μg/L	51	1.4-Dichlorobenzene	ND	1.0	µg/L
17	1,1-Dichloropropene	ND	1.0	µg/L	52	4-isopropyltoluene	ND	1.0	µg/L
18	Carbon tetrachloride	ND	1.0	µg/L	53	1.2-Dichlorobenzene	ND	1.0	µg/L
19	Benzene	ND	1.0	µg/L	54	n-Butylbenzene	ND	1.0	µg/L
20	Dibromomethane	ND	1.0	µg/L	55	1,2-Dibromo-3-chloropropane (DBCI	P) ND	3.0	µg/L
21	1,2-Dichloropropane	ND	1.0	µg/L	56	1,2,4-Trichlorobenzene	ND	2.0	µg/L
22	Trichloroethene	ND	1.0	µg/L	57	Naphthalene	ND	2.0	µg/L
23	Bromodichloromethane	ND	1.0	µg/L	58	Hexachlorobutadiene	ND	2.0	µg/L
24	cis-1,3-Dichloropropene	ND	1.0	µg/L	59	1,2,3-Trichlorobenzene	ND	2.0	µg/L
25	trans-1,3-Dichloropropene	ND	1.0	µg/L	60	Surr: 1.2-Dichloroethane-d4	115	(70-130)	%REC
26	1,1,2-Trichloroethane	ND	1.0	µg/L	61	Surr: Toluene-d8	96	(70-130)	%RE0
27	Toluene	ND	1.0	µg/L	62	Surr: 4-Bromofluorobenzene	105	(70-130)	%REC
28	1,3-Dichloropropane	ND	1.0	µg/L				,	
29	Dibromochloromethane	ND	1.0	µg/L					
30	1,2-Dibromoethane (EDB)	ND	2.0	µg/L					
31	Tetrachioroethene	ND	1.0	µg/L					
32	1,1,1,2-Tetrachloroethane	ND	1.0	µg/L					
33	Chiorobenzene	ND	1.0	µg/L					
34	Ethylbenzene	ND	1.0	µg/L					
35	m n Yulana	ND		- <del></del>					

Sample results were calculated on a wet weight basis. ND = Not Detected

35 m,p-Xylene

Rogen Scholl

ND

lg Danlmer

1.0

µg/L

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

**Report Date** Page 1 of 1

6/4/10



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

## Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton N
Phone:	(916) 852
Fax:	(916) 852

Alpha Analytical Number: E2M10052742-13A Client I.D. Number: TB03GWNA052710

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Sampled: 05/27/10 07:00 Received: 05/27/10 Extracted: 05/28/10 Analyzed: 05/28/10

#### Volatile Organics by GC/MS EPA Method SW8260B

			<b>D</b> 11			02000			
	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	1.0	µg/L	36	Bromoform	ND	1.0	µg/L
2	Chloromethane	ND	2.0	µg/L	37	Styrene	ND	1.0	µg/L
3	Vinyl chloride	ND	1.0	µg/L	38	o-Xylene	ND	1.0	µg/L
4	Chloroethane	ND	1.0	µg/L	39	1,1,2,2-Tetrachloroethane	ND	1.0	µg/L
5	Bromomethane	ND	2.0	µg/L	40	1,2,3-Trichloropropane	ND	2.0	µg/L
6	Trichlorofluoromethane	ND	1.0	µg/L	41	Isopropylbenzene	ND	1.0	µg/L
7	1,1-Dichloroethene	ND	1.0	µg/L	42	Bromobenzene	ND	1.0	µg/L
8	Dichloromethane	ND	2.0	µg/L	43	n-Propylbenzene	ND	1.0	µg/L
9	trans-1,2-Dichloroethene	ND	1.0	µg/L	44	4-Chlorotoluene	ND	1.0	µg/L
10	1,1-Dichloroethane	ND	1.0	µg/L	45	2-Chlorotoluene	ND	1.0	µg/L
11	cis-1,2-Dichloroethene	ND	1.0	µg/L	46	1,3,5-Trimethylbenzene	ND	1.0	µg/L
12	Bromochloromethane	ND	1.0	µg/L	47	tert-Butylbenzene	ND	1.0	µg/L
13	Chloroform	ND	1.0	µg/L	48	1,2,4-Trimethylbenzene	ND	1.0	µg/L
14	2,2-Dichloropropane	ND	1.0	µg/L	49	sec-Butylbenzene	ND	1.0	µg/L
15	1,2-Dichloroethane	ND	1.0	µg/L	50	1.3-Dichlorobenzene	ND	1.0	µg/L
16	1,1,1-Trichloroethane	ND	1.0	µg/L	51	1,4-Dichlorobenzene	ND	1.0	µg/L
17	1,1-Dichloropropene	ND	1.0	µg/L	52	4-Isopropyltoluene	ND	1.0	µg/L
18	Carbon tetrachloride	ND	1.0	μg/L	53	1,2-Dichlorobenzene	ND	1.0	µg/L
19	Benzene	ND	1.0	µg/L	54	n-Butylbenzene	ND	1.0	µg/L
20	Dibromomethane	ND	1.0	µg/L	55	1,2-Dibromo-3-chloropropane (DBCF		3.0	µg/L
21	1,2-Dichloropropane	ND	1.0	µg/L	56	1.2.4-Trichlorobenzene	ND	2.0	µg/L
22	Trichloroethene	ND	1.0	µg/L	57	Naphthalene	ND	2.0	µg/L
23	Bromodichloromethane	ND	1.0	µg/L	58	Hexachlorobutadiene	ND	2.0	µg/L
24	cis-1,3-Dichloropropene	ND	1.0	μg/L	59	1.2.3-Trichlorobenzene	ND	2.0	µg/L
25	trans-1,3-Dichloropropene	ND	1.0	µg/L	60	Surr: 1,2-Dichloroethane-d4	111	(70-130)	%REC
26	1,1,2-Trichloroethane	ND	1.0	µg/L	61	Surr: Toluene-d8	96	(70-130)	
27	Toluene	ND	1.0	µg/L	62	Surr: 4-Bromofluorobenzene	103	(70-130)	%REC
28	1,3-Dichloropropane	ND	1.0	µg/L			,	( /	
29	Dibromochloromethane	ND	1.0	µg/L					
30	1,2-Dibromoethane (EDB)	ND	2.0	µg/L					
31	Tetrachloroethene	ND	1.0	μg/L					
32	1,1,1,2-Tetrachloroethane	ND	1.0	µg/L					
33	Chlorobenzene	ND	1.0	µg/L					
34	Ethylbenzene	ND	1.0	µg/L					
25	m n Yulana	ND		~					

Sample results were calculated on a wet weight basis. ND = Not Detected

35 m,p-Xylene

Roger Scholl

ND

ndg Santr

µg/L

1.0

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

**Report Date** 

Page 1 of 1



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## VOC Sample Preservation Report

Work Order: E2M10052742	Job: NTD			
Alpha's Sample ID	Client's Sample ID	Matrix	рН	
10052742-11A	SB10GW20052710	Aqueous	6	
10052742-12A	EB01GWNA052710	Aqueous	2	
10052742-13A	TB03GWNA052710	Aqueous	2	



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<b>Date:</b> 03-Jun-10		(	)C Si	ummar	y Repor	t				<b>Work Ord</b> 10052742	
Method Blan File ID: 21 Sample ID:	k MB-24344	Units : <b>mg/L</b>	Туре М	Ba	est Code: EF atch ID: 2434 _1_100527A	14	hod 300.0			05/27/2010 11:23 05/27/2010 11:18	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qual
Fluoride Chloride Nitrite (NO2) - N Nitrate (NO3) - Sulfate (SO4)		ND ND ND ND ND	0.25 0.5 0.25 0.25 0.25 0.5								
Laboratory I	Fortified Blank		Type L	FB Te	est Code: EF	PA Met	hod 300.0				
File ID: 22				Ba	atch ID: 2434	14		Analy	sis Date:	05/27/2010 11:41	
Sample ID:	LFB-24344	Units : mg/L		Run ID: IC	_1_100527 <i>A</i>	<b>۱</b>		Prep	Date:	05/27/2010 11:18	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua
Fluoride Chloride Nitrite (NO2) - N Nitrate (NO3) - Sulfate (SO4)		4.91 51.1 4.89 5.11 102	0.25 0.5 0.25 0.25 0.5	50 5 5		98 102 98 102 102	90 90 90 90 90	110 110 110 110 110 110			
Sample Matr	ix Spike		Type L	FM To	est Code: EF	A Met	hod 300.0				
File ID: 35				Ва	atch ID: 2434	14		Analy	sis Date:	05/27/2010 15:41	
Sample ID:	10052626-01ALFM	Units : mg/L		Run ID: IC	_1_100527A			Prep	Date:	05/27/2010 11:18	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua
Fluoride Chloride Nitrite (NO2) - N Nitrate (NO3) - Sulfate (SO4)		51 625 48.4 53 3320	1.3 2.5 1.3 1.3 2.5	500 50 50	2.315 97.34 0 0.944 2400	97 105 97 104 92	80 80 80 80 80	120 120 120 120 120			
Sample Matr	ix Spike Duplicate		Type L	FMD T	est Code: EF	PA Met	hod 300.0				
File ID: 36				Ba	atch ID: 2434	14		Analy	sis Date:	05/27/2010 16:00	
Sample ID:	10052626-01ALFMD	Units : mg/L			_1_100527#			Prep		05/27/2010 11:18	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua
Fluoride Chloride Nitrite (NO2) - N Nitrate (NO3) - Sulfate (SO4)		49.9 613 49.2 54.9 2960	1.3 2.5 1.3 1.3 2.5	500 50 50	2.315 97.34 0 0.944 2400	95 103 98 108 56	80 80 80 80 80	120 120 120 120 120	51.03 624.6 48.36 53.01 3322	6 1.9(15) 6 1.8(15) 1 3.5(15)	M2
Canato (CC+)		2000	2.0	1000	2700	50	00	120	5522		IVIZ

#### **Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.



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<b>Date:</b> 03-Jun-10								
Laboratory Control Spike File ID:		Type L		est Code: SM2320 atch ID: W0602AL		Analysis Date:	06/02/2010 11:38	,
Sample ID: LCS-W0602AL	Units : mg/L		Run ID: W	ETLAB_100602A		Prep Date:	06/02/2010 11:38	
Analyte	Result	PQL	SpkVal	SpkRefVal %RE	C LCL(ME	) UCL(ME) RPDRef	Val %RPD(Limit)	Qua
Alkalinity, Total (As CaCO3 at pH 4.5)	258	10	) 250	103	80	120		

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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<b>Date:</b> 03-Jun-10	QC Summary Report									<b>er:</b> 2
Method Blank File ID:		Туре І		est Code: S atch ID: W0			Analy	sis Date:	05/21/2010 11:38	
Sample ID: MBLK-W0521AM	Units : mg/L		Run ID: W	ETLAB_10	)521F		Prep I	Date:	05/21/2010 11:38	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qua
Nitrogen, Ammonia (As N)	ND	0.	1	-						
Laboratory Control Spike		Туре I	_cs T	'est Code: S	M4500-	-NH3D				
File ID:			В	atch ID: W0	521AM		Analy	sis Date:	05/21/2010 11:35	
Sample ID: LCS-W0521AM	Units : mg/L	•	Run ID: W	ETLAB_10	)521F		Prep I	Date:	05/21/2010 11:35	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua
Nitrogen, Ammonia (As N)	5.07	0.	1 5		101	70	130			
Sample Matrix Spike		Туре І	VIS T	est Code: S	M4500-	-NH3D				
File ID:			В	atch ID: W0	521AM		Analy	sis Date:	05/21/2010 11:45	
Sample ID: 10052020-03AMS	Units : mg/L		Run ID: W	ETLAB_10	)521F		Prep I	Date:	05/21/2010 11:45	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qua
Nitrogen, Ammonia (As N)	4.72	0.	1 5	0	94	65	138			
Sample Matrix Spike Duplicate		Туре	NSD T	'est Code: S	M4500	-NH3D				
File ID:			B	atch ID: W0	521AM		Analy	sis Date:	05/21/2010 11:51	
Sample ID: 10052020-03AMSD	Units : mg/L		Run ID: W	ETLAB_10	0521F		Prep I	Date:	05/21/2010 11:51	
Analyte	Result	PQL				LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qua
Nitrogen, Ammonia (As N)	4.91	0.	1 5	0	98	65	138	4.72	4.0(20)	

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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<b>Date:</b> 04-Jun-10	(	QC S	ummar	y Report						<b>Work Order:</b> 10052742		
Method Blank		Type: N	IBLK T	est Code: EP/	A Met	hod SW82	70C					
File ID: 10060226.D			В	atch ID: 24364	4		Analy	/sis Date:	06/03/2010 03:21			
Sample ID: MBLK-24364	Units : µg/L		Run ID: M	SD_16_10060	)1A		•	Date:	06/01/2010 12:00			
Analyte	Result	PQL				LCL(ME)	•		Val %RPD(Limit)	Qua		
Phenol	ND	10	)							<u>.</u>		
2-Chlorophenol	ND	10										
2-Nitrophenol	ND	10	)									
2,4-Dimethylphenol	ND	10	)									
2,4-Dichlorophenol	ND	10										
4-Chloro-3-methylphenol	ND	20										
2,4,6-Trichlorophenol	ND	10										
2,4-Dinitrophenol	ND	100										
4-Nitrophenol 4,6-Dinitro-2-methylphenol	ND	50										
Pentachlorophenol	ND	100										
Surr: 2-Fluorophenol	ND	50			E 4	44	120					
Surr: Phenol-d5	101 72.3		200 200		51 36	41 25	130 130					
Surr: 2,4,6-Tribromophenol	143		200		30 72	61	130					
Laboratory Control Spike		Type: L		est Code: EP/								
File ID: 10060227.D		<i>,</i> ,		atch ID: 24364				sis Date:	06/03/2010 03:47			
Sample ID: LCS-24364	Units : µg/L		Run ID: M	SD_16_10060	)1A		Prep	Date:	06/01/2010 12:00			
Analyte	Result	PQL				LCL(ME)	UCL(ME)	RPDRef	√al %RPD(Limit)	Qua		
Phenol	38.2	10	100		38	20	130					
2-Chlorophenol	81.2	10	100		81	58	130					
4-Chloro-3-methylphenol	90.1	20			90	52	130					
4-Nitrophenol	175	50			44	20	130					
Pentachlorophenol	392	50			98	47	132					
Surr: 2-Fluorophenol Surr: Phenol-d5	115		200		58	41	130					
Sur: 2,4,6-Tribromophenol	85.4 213		200 200		43 107	25 61	130 138					
Laboratory Control Spike Duplicate		Type: L		est Code: EP/					· · · · · · · · · · · · · · · · · · ·			
File ID: 10060228.D		туре. Ц		atch ID: 24364		100 39962		sis Date <sup>.</sup>	06/03/2010 04:13			
Sample ID: LCSD-24364	Units : µg/L			SD_16_10060			•	Date:	06/01/2010 12:00			
Analyte	Result	PQL				LCL(ME)			val %RPD(Limit)	Qua		
Phenol	38.5	10			38	20	130	38.1				
2-Chlorophenol	83.5	10			83	58	130	81.2				
4-Chloro-3-methylphenol	91.2	20	100		91	52	130	90.09				
4-Nitrophenol	166	50	400		41	20	130	175.4				
Pentachlorophenol	381	50	400		95	47	132	391.9	9 2.9(33)			
Surr: 2-Fluorophenol	118		200		59	41	130					
Surr: Phenol-d5 Surr: 2,4,6-Tribromophenol	84.8		200		42	25	130					
	202		200		101	61	138					
Sample Matrix Spike File ID: 10060232.D		Туре: М		est Code: EPA		hod SW82		aia Datas	0010010040 05-50			
Sample ID: 10052741-17AMS	Units : µg/L			atch ID: 24364			Prep		06/03/2010 05:56 06/01/2010 12:00			
Analyte	Result	PQL		SD_16_10060						Ωua		
Phenol	35.8		-					INF DRen	/al %RPD(Limit)	Qua		
2-Chlorophenol	35.8 81.2	10 10		0	36 81	10 40	130 130					
4-Chloro-3-methylphenol	85.4	20		0	81 85	40 42	130					
4-Nitrophenol	152	20 50		0	38	42 10	130					
Pentachlorophenol	379	50		0	95	33	155					
Surr: 2-Fluorophenol	113	00	200	v	56	41	130					
Surr: Phenol-d5	80.3		200		40	25	130					
Surr: 2,4,6-Tribromophenol	195		200		98	61	138					



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#### QC Summary Report

Work Order: 10052742

#### 04-Jun-10 Comments:

Date:



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<b>Date:</b> 03-Jun-10	(	<u>)C</u> Sı	immar	y Repor	t			Work Orde 10052742	
Method Blank File ID: 052810.B\353.D\		Туре М		est Code: El atch ID: 243		hod SW60	20 / SW6020A Analysis Date	: 05/29/2010 10:57	
Sample ID: MB-24353	Units : mg/L			P/MS_1005			Prep Date:	05/28/2010 11:35	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRe	fVal %RPD(Limit)	Qua
Boron (B)	ND	0.1							
Sodium (Na)	ND	0.5							
Chromium (Cr) Manganese (Mn)	ND ND	0.005							
ron (Fe)	ND	0.003							
Nickel (Ni)	ND	0.01							
Copper (Cu)	ND	0.01							
Zinc (Zn)	ND	0.1							
Arsenic (As) Selenium (Se)	ND ND	0.005							
Silver (Ag)	ND	0.005							
Cadmium (Cd)	ND	0.005							
Barium (Ba)	ND	0.005							
Mercury (Hg)	ND	0.001							
Lead (Pb)	ND	0.005		10 I. E					
Laboratory Control Spike File ID: 052810.B\353L1.D\		Type L		est Code: El atch ID: 243		nod Swel	20 / SW6020A	: 05/29/2010 11:02	
Sample ID: LCS-24353	Units : mg/L			P/MS_1005			Prep Date:	05/28/2010 11:02	
Analyte	Result	PQL				LCL(ME)		fVal %RPD(Limit)	Qua
Boron (B)	0.226	0.1	0.25	opratoritar	90	74	132		
Sodium (Na)	50.7	0.5	50		101	80	118		
Chromium (Cr)	0.252	0.005	0.25		101	80	124		
Manganese (Mn)	2.41	0.005	2.5		96	83	120		
lron (Fe) Nickel (Ni)	52.9 0.245	0.3 0.01	50 0.25		106 98	83 83	119 123		
Copper (Cu)	0.245	0.01	0.25		90 95	85	123		
Zinc (Zn)	0.233	0.1	0.25		93	82	123		
Arsenic (As)	0.237	0.005			95	85	118		
Selenium (Se)	0.232	0.005			93	85	118		
Silver (Ag) Cadmium (Cd)	0.237 0.232	0.005			95 93	79 85	118 121		
Barium (Ba)	2.5	0.005			100	85	132		
Mercury (Hg)	0.0101	0.001	0.01		101	70	122		
Lead (Pb)	0.25	0.005	0.25		99.8	85	120		
Sample Matrix Spike		Туре М	-			hod SW6	)20 / SW6020A		
File ID: 052810.B\099SMPL.D\			Ba	atch ID: 243	53		Analysis Date	e: 05/28/2010 21:52	
Sample ID: 10052741-17AMS	Units : mg/L			P/MS_1005			Prep Date:	05/28/2010 11:35	_
Analyte	Result	PQL						fVal %RPD(Limit)	Qua
Boron (B) Sodium (No)	1.68	0.1	0.25	1.537	56	63	150		M3
Sodium (Na) Chromium (Cr)	452 0.326	0.5 0.005		430.1 0.1278	44 79	61 70	135 133		М3
Manganese (Mn)	6.96	0.005		5.511	58	70	130		M2
Iron (Fe)	255	0.3		227.7	54	70	130		M3
Nickel (Ni)	0.306	0.01	0.25	0.09479	84	70	132		
Copper (Ću)	0.453	0.01	0.25	0.2403	85	70	131		
Zinc (Zn)	0.709	0.1	0.25	0.506	81	65	143		
Arsenic (As) Selenium (Se)	0.67	0.005		0.449	88	70 70	130		
Selenium (Se) Silver (Ag)	0.221 0.245	0.005 0.005		0 0	88 98	70 70	131 130		
Cadmium (Cd)	0.245	0.005		0	98 98	70	130		
Barium (Ba)	4.79	0.005	2.5	2.401	96	70	143		
Mercury (Hg)	0.00541	0.001	0.005	0	108	68	130		
Lead (Pb)	0.393	0.005	0.25	0.1531	96	70	130		



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<b>Date:</b> 03-Jun-10	C	QC Su	mmar	y Repor	t				<b>Work Ord</b> 1005274	
Sample Matrix Spike Duplicate		Туре М	SD T	est Code: El	PA Met	hod SW60	)20 / SW6	020A		
File ID: 052810.B\100SMPL.D\	Batch ID: 24353 Analysis Date: 05/2								5/28/2010 21:58	3
Sample ID: 10052741-17AMSD	Units : mg/L	F	Run ID: <b>IC</b>	P/MS_1005	28C		Prep	Date: 0	5/28/2010 11:35	5
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qua
Boron (B)	1.71	0.1	0.25	1.537	70	63	150	1.678	2.0(20)	
Sodium (Na)	460	0.5	50	430.1	59	61	135	452.3	1.6(20)	M3
Chromium (Cr)	0.338	0.005	0.25	0.1278	84	70	133	0.3259	3.6(20)	
Manganese (Mn)	7.37	0.005	2.5	5.511	74	70	130	6.955	5.8(20)	
Iron (Fe)	260	0.3	50	227.7	64	70	130	254.9	1.9(20)	М3
Nickel (Ni)	0.313	0.01	0.25	0.09479	87	70	132	0.3055	2.3(20)	
Copper (Cu)	0.466	0.01	0.25	0.2403	90	70	131	0.4525	2.9(20)	
Zinc (Zn)	0.718	0.1	0.25	0.506	85	65	143	0.7087	1.3(20)	
Arsenic (As)	0.663	0.005	0.25	0.449	86	70	130	0.6702	1.1(20)	
Selenium (Se)	0.227	0.005	0.25	0	91	70	131	0.2209	2.5(20)	
Silver (Ag)	0.253	0.005	0.25	0	101	70	130	0.2454	2.9(20)	
Cadmium (Cd)	0.255	0.005	0.25	0	102	70	130	0.245	3.8(20)	
Barium (Ba)	4.86	0.005	2.5	2.401	98	70	143	4.79	1.5(20)	
Mercury (Hg)	0.00561	0.001	0.005	0	<b>1</b> 12	68	130	0.005407	3.6(20)	
Lead (Pb)	0.391	0.005	0.25	0.1531	95	70	130	0.3927	0.5(20)	

#### **Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.



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<b>Date:</b> 03-Jun-10		QC Si	ummar	y Repor	t				<b>Work Ord</b> 10052742	
Method Blank File ID: 052810.B\018SMPL.D\		Туре М		est Code: EF atch ID: 2434		hod SW60			05/28/2010 14:09	
Sample ID: MB-24346	Units : mg/	Кg	Run ID: IC	P/MS_1005	28A		Prep	Date:	05/27/2010 14:51	
Analyte	Result	PQL		_		LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua
Chromium (Cr)	ND	1	•	··· ·			, .			
Arsenic (As)	ND	1								
Selenium (Śe)	ND	1								
Silver (Ag)	ND	1								
Cadmium (Cd)	ND	1								
Barium (Ba)	ND	1								
Mercury (Hg)	ND	0.2								
Lead (Pb)	ND	1								
Laboratory Control Spike		Type L		est Code: El		hod SW60				
File ID: 052810.B\019_LCS.D\				atch ID: 2434			•		05/28/2010 14:15	
Sample ID: LCS-24346	Units : <b>mg</b>	-		P/MS_1005			Prep		05/27/2010 14:51	-
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua
Chromium (Cr)	24.9	1	25		99	75	120			
Arsenic (As)	25.9	1	25		104	80	120			
Selenium (Se)	25.1	1	25		100	80	120			
Silver (Ag)	26.7	1	25		107	62	132			
Cadmium (Cd)	25.3	1	25		101	80	120			
Barium (Ba)	253	1	250		101	78	123			
Mercury (Hg) Lead (Pb)	0.562 25.4	0.2 1	0.5 25		112 101	68 80	140 122			
Sample Matrix Spike	20.4	Type M		est Code: EF				0204		
File ID: 052810.B\022SMPL.D\			-	atch ID: 2434					05/28/2010 14:31	
Sample ID: 10052741-01AMS	Units : mg	Ka		P/MS_1005			Prep		05/27/2010 14:51	
Analyte	Result	PQL		_		LCL(ME)	-		/al %RPD(Limit)	Qua
Chromium (Cr)	36	1	25	13.16	91	50	150		· · · · · · · · · · · · · · · · · · ·	
Arsenic (As)	30.1	1	25	4.818	101	60	130			
Selenium (Se)	25.3	1	25	0	101	69	130			
Silver (Ag)	27.9	1	25	0	111	62	132			
Cadmium (Cd)	26.3	1	25	0	105	70	130			
Barium (Ba)	375	1	250	106.1	107	58	150			
Mercury (Hg) Lead (Pb)	0.619 33.1	0.2 1	0.5 25	0 7.004	124 104	65 68	150 141			
Sample Matrix Spike Duplicate		Туре М	SD T	est Code: El	PA Met	hod SW6	020 / SW6	020A		
File ID: 052810.B\023SMPL.D\			Ba	atch ID: 2434	46		Analy	sis Date:	05/28/2010 14:37	
Sample ID: 10052741-01AMSD	Units : mg	'Kg		P/MS_1005			Prep		05/27/2010 14:51	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua
Chromium (Cr)	37.2	1	25	13.16	96	50	150	36.02	2 3.1(20)	
Arsenic (As)	28.6	1	25	4.818	95	60	130	30.12		
Selenium (Se)	31.7	1	25	0	127	69	130	25.33		R5
Silver (Ag)	26.9	1	25	0	107	62	132	27.86	5 3.7(20)	
Cadmium (Cd)	25.3	1	25	0	101	70	130	26.27	7 4.0(20)	
Barium (Ba)	367	1	250	106.1	104	58	150	374.6		
Mercury (Hg)	0.58 31.1	0.2		0	116	65	150	0.619		
Lead (Pb)		1	25	7.004	96	68	141	33.12	2 6.2(20)	

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

R5 = MS/MSD RPD exceeded the laboratory control limit. Recovery met acceptance criteria.



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<b>Date:</b> 03-Jun-10	(	QC S	QC Summary Report										
Method Blank File ID:		Type N	ABLK	Test Co Batch ID			NORGC /		H3D /sis Date:	06/01/2010 12:38			
Sample ID: MBLK-W0601TK	Units : mg/L		Run ID		B_100	601C		Prep	Date:	06/01/2010 12:38			
Analyte	Result	PQL	Spk	√ai SpkR	efVal	%REC	LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qua		
Nitrogen, Kjeldahl, Total	ND	0.25	5										
Laboratory Control Spike		Туре L	.CS	Test Co	de: SN	/14500-	NORGC /	SM4500N	H3D				
File ID:				Batch ID	): <b>W06</b>	01TK		Analy	sis Date:	06/01/2010 12:35			
Sample ID: LCS-W0601TK	Units : mg/L		Run ID	: WETLA	B_100	601C		Prep	Date:	06/01/2010 12:35			
Analyte	Result	PQL	Spk\	√al SpkR	efVal	%REC	LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qua		
Nitrogen, Kjeldahl, Total	4.95	0.2	5	5		99	65	135					
Sample Matrix Spike		Туре	NS	Test Co	de: SN	14500-	NORGC /	SM4500N	H3D				
File ID:				Batch ID	): W06	01TK		Analy	/sis Date:	06/01/2010 12:50			
Sample ID: 10051921-01AMS	Units : mg/L		Run ID	WETLA	B_100	601C		Prep	Date:	06/01/2010 12:50			
Analyte	Result	PQL	Spk	√al SpkR	efVal	%REC	LCL(ME)	UCL(ME)	) RPDRef	val %RPD(Limit)	Qua		
Nitrogen, Kjeldahl, Total	33	1.:	3	5	25	160	55	142			M3		
Sample Matrix Spike Duplicate		Туре Г	ISD	Test Co	de: SN	/4500-	NORGC /	SM4500N	H3D				
File ID:				Batch ID	): <b>W06</b>	01TK		Analy	sis Date:	06/01/2010 12:53			
Sample ID: 10051921-01AMSD	Units : mg/L		Run ID	WETLA	B_100	601C		Prep	Date:	06/01/2010 12:53			
Analyte	Result	PQL	Spk	√al SpkF	efVal	%REC	LCL(ME)	UCL(ME	) RPDRef	√al %RPD(Limit)	Qua		
Nitrogen, Kjeldahl, Total	28	1.3	3	5	25	60	55	142	33	16.4(20)			

#### **Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.



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<b>Date:</b> 04-Jun-10	QC Summary Report Work Order: 10052742	<b>Work Order:</b> 10052742		
Method Blank File ID:	Type: MBLK Test Code: EPA Method 1664A	_		
Sample ID: MBLK-W0602OG	Batch ID: W0602OG         Analysis Date:         06/02/2010         00:00           Units : mg/L         Run ID: WETLAB_100602C         Prep Date:         06/02/2010         00:00			
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)	Qua		
Oil & Grease, HEM	ND 5			
Laboratory Control Spike File ID:	Type: LCS       Test Code: EPA Method 1664A         Batch ID: W0602OG       Analysis Date: 06/02/2010 00:00			
Sample ID: LCS-W0602OG	Units : mg/L Run ID: WETLAB_100602C Prep Date: 06/02/2010 00:00			
Analyte		Qua		
Oil & Grease, HEM	39.5 5 40 99 78 114	_		
Sample Matrix Spike File ID:	Type: MS Test Code: EPA Method 1664A Batch ID: W0602OG Analysis Date: 06/02/2010 00:00			
Sample ID: 10052504-04AMS	Units : mg/L Run ID: WETLAB_100602C Prep Date: 06/02/2010 00:00			
Analyte	<b>–</b>	Qua		
Oil & Grease, HEM	40.5 5 40 0 101 78 114			

#### **Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

HEM = Hexane Extractable Material



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<b>Date:</b> 02-Jun-10		<b>Work Order:</b> 10052742	_					
Laboratory Control Spike File ID:		Type L		est Code: EPA Met atch ID: S0601PH	hod SW9		ate: 06/01/2010 15:15	-
Sample ID: LCS-S0601PH	Units : <b>pH</b>	Units	Run ID: W	ETLAB_100601B		Prep Date:	06/01/2010 15:15	
Analyte	Result	PQL	SpkVal	SpkRefVal %REC	LCL(ME	) UCL(ME) RPDF	RefVal %RPD(Limit) Q	ual
рН	4.94	1.7	7 5	99	90	110		_

#### **Comments:**



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<b>Date:</b> 01-Jun-10		Work Orde 10052742						
Laboratory Control Spike File ID:		Type L		est Code: EPA Met atch ID: W0527PH	Analysis Date:	/ SW9040C Date: 05/27/2010 14:21		
Sample ID: LCS-W0527PH	Units : <b>pH</b> (	Units	Run ID: W	ETLAB_100527C		Prep Date:	05/27/2010 14:21	
Analyte	Result	PQL	SpkVal	SpkRefVal %REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qua
pН	5.1	1.7	<b>7</b> 5	102	90	110		

#### Comments:



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<b>Date:</b> 03-Jun-10	(	QC S	ummary	Repor	t				<b>Work Order:</b> 10052742		
Method Blank File ID:		Type N		st Code: E tch ID: W0		hod 365.3			06/02/2010 00:00		
Sample ID: MBLK-W0602TP	Units : mg/L		Run ID: WE	TLAB_100	)602B		Prep (	Date:	06/02/2010 00:00		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua	
Phosphorus, Total (As P)	ND	0.1	l							-	
Laboratory Control Spike File ID:		Туре <b>L</b>		st Code: E tch ID: W0		hod 365.3		_	06/02/2010 00:00		
Sample ID: LCS-W0602TP	Units : mg/L		Run ID: WE	TLAB_10	)602B		Prep [	Date:	06/02/2010 00:00		
Analyte	Result	PQL				LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua	
Phosphorus, Total (As P)	0.972	0.1	1		97	73	127				
Sample Matrix Spike File ID:		Туре М		st Code: E		hod 365.3			06/02/2010 00:00		
Sample ID: 10052849-01AMS	Units : ma/L		Run ID: WE	•••••••			Prepl		06/02/2010 00:00		
Analyte	Result	PQL				LCL(ME)			/al %RPD(Limit)	Qua	
Phosphorus, Total (As P)	1.08	0.1	1	0	108	73	127				
Sample Matrix Spike Duplicate	· · · · · · · · · · · · · · · · · · ·	Туре 🛚		st Code: E tch ID: W0		thod 365.3			06/02/2010 00:00		
Sample ID: 10052849-01AMSD	Units : mg/L						Prep l		06/02/2010 00:00		
Analyte	Result	PQL	Run ID: WE	_					/al %RPD(Limit)	Qua	
Phosphorus, Total (As P)	1.1	0.1		0		73	127	1.08			

#### **Comments:**



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<b>Date:</b> 03-Jun-10	QC Summary Report Work C 10052	
Method Blank File ID: Sample ID: MBLK-W0525DS	Type         MBLK         Test Code:         SM2540C           Batch ID:         W0525DS         Analysis Date:         05/26/2010 00:           Units :         mg/L         Run ID:         WETLAB_100525A         Prep Date:         05/26/2010 00:	00
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit	) Qua
Solids, Total Dissolved (TDS)	ND 10	
Laboratory Control Spike File ID:	Type LCS Test Code: SM2540C Batch ID: W0525DS Analysis Date: 05/26/2010 00:	00
Sample ID: LCS-W0525DS Analyte	Units : mg/L Run ID: WETLAB_100525A Prep Date: 05/26/2010 00: Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit	00
Solids, Total Dissolved (TDS)	91 10 100 91 80 120	

**Comments:** 



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<b>Date:</b> 04-Jun-10	(	QC Summary Report										
Method Blank File ID: 7A05271072.D Sample ID: MBLK-24358	Lipito :	Type: N	B	est Code: E atch ID: 243	58	hod SW80	Anal	ysis Date: Date:	05/30/2010 15:26 05/28/2010 15:05			
Analyte	Units : <b>mg/k</b> Result	PQL		D_7_10052 SpkRefVal		LCL(ME)			Val %RPD(Limit)	Qua		
TPH-E (DRO) TPH-E (ORO) Surr: Nonane	ND ND 6.72	1( 1(		<u> </u>	112	67	156	,	<u> </u>			
Laboratory Control Spike File ID: 7A05271073.D		Type: L		est Code: E atch ID: <b>243</b>		hod SW8(		ysis Date:	05/30/2010 15:52			
Sample ID: LCS-24358 Analyte	Units : <b>mg/k</b> Result	ig PQL		D_7_10052 SpkRefVal		LCL(ME)		Date: ) RPDRef	05/28/2010 15:05	Qua		
TPH-E (DRO) Surr: Nonane	105 6.42	ŧ	5 100 6		105 107	70 67	130 156					
Sample Matrix Spike File ID: 7A05271085.D		Туре: М		est Code: E atch ID: 243		hod SW8(		ysis Date:	05/30/2010 21:13			
Sample ID: 10052840-01AMS Analyte	Units : <b>mg/K</b> Result	í <b>g</b> PQL		D_7_10052 SpkRefVal		LCL(ME)	· · · · ·	Date: ) RPDRef	05/28/2010 15:05 Val %RPD(Limit)	Qua		
TPH-E (DRO) Surr: Nonane	112 6.5	Ę	5 100 6	7.082	105 108	51 67	141 156					
Sample Matrix Spike Duplicate File ID: 7A05271086.D	Type: MSD Test Code: EPA Method SW8015B / E Batch ID: 24358 Analysis Date: 05							05/30/2010 21:39				
Sample ID: 10052840-01AMSD Analyte	Units : <b>mg/K</b> Result	ig PQL	Run ID: FI	D_7_10052	BB	LCL(ME)	Prep	Date:	05/28/2010 15:05 Val %RPD(Limit)	Qua		
TPH-E (DRO) Surr: Nonane	113 <b>7</b> .75	Ę	5 100 6	7.082	106 129	51 67	141 156	111.	7 1.4(40)			

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<b>Date:</b> 04-Jun-10	(	QC Si	ummary	y Report				Work Orde 10052742	
Method Blank File ID: 1A05281038.D		Туре: М		est Code: EPA N atch ID: 24355	lethod S			05/29/2010 05:05	
Sample ID: MBLK-24355 Analyte	Units : <b>mg/L</b> Result	PQL		D_1_100528A .SokRefVal %RI			p Date: E) RPDRef	05/28/2010 13:43	Qua
TPH-E (DRO) TPH-E (ORO) Surr: Nonane	ND ND 0.156	0.5		10					
Laboratory Control Spike File ID: 1A05281039.D		Type: L	CS Te	est Code: EPA N atch ID: 24355	lethod S			05/29/2010 05:30	
Sample ID: LCS-24355 Analyte	Units : <b>mg/L</b> Result	PQL		<b>D_1_100528A</b> SpkRefVal %RI	EC LCL(		p Date: E) RPDRef	05/28/2010 13:43 Val %RPD(Limit)	Qua
TPH-E (DRO) Surr: Nonane	2.62 0.155	0.05	2.5 0.15	10 10		• • • •			
Sample Matrix Spike File ID: 1A05281041.D		Туре: М	-	est Code: EPA N atch ID: 24355	lethod S			05/29/2010 06:20	
Sample ID: 10052726-13AMS Analyte	Units : <b>mg/L</b> Result	PQL		D_1_100528A SpkRefVal %RI	EC LCL(		p Date: E) RPDRef	05/28/2010 13:43 Val %RPD(Limit)	Qua
TPH-E (DRO) Surr: Nonane	2.42 0.108	0.05	2.5 0.15	0 97 72					
Sample Matrix Spike Duplicate File ID: 1A05281042.D	Type: MSD Test Code: EPA Method SW8015B / E Batch ID: 24355 Analysis Date: 09								
Sample ID: 10052726-13AMSD Analyte	Units : <b>mg/L</b> Result	PQL	Run ID: FII	D_1_100528A	EC LCL(	Pre	p Date:	05/28/2010 13:43 Val %RPD(Limit)	Qua
TPH-E (DRO) Surr: Nonane	2.37 0.093	0.05	2.5 0.15	0 95 62			2.42	2 2.1(38)	

#### **Comments:**



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<b>Date:</b> 04-Jun-10		(	QC S	ummar	y Report				<b>Work Orde</b> 10052742	
Method Bla	nk		Type: I	MBLK Te	est Code: EPA M	ethod SW	8015			
File ID: C:\HP	CHEM\MS06\DATA\100601	\10060138.D			atch ID: MS06S4	357B	Analys	sis Date:	06/02/2010 00:28	
Sample ID:	MBLK MS06S4357B	Units : mg/I	Ka	Run ID: MS	5D 06_100601A		Prep D	Date:	06/02/2010 00:28	
Analyte		Result	PQL				•		val %RPD(Limit)	Qua
TPH-P (GRO)		ND	1				<u>, , , ,</u>			
Surr: 1,2-Dich	loroethane-d4	0.241		0.2	12	1 <b>7</b> 0	130			
Surr: Toluene-	-d8	0.183		0.2	92	70	130			
Surr: 4-Bromo	fluorobenzene	0.204		0.2	10	2 70	130			
	Control Spike		Type: I	LCS Te	est Code: EPA M	ethod SW	3015			
File ID: C:\HP	CHEM\MS06\DATA\100601	\10060142.D		Ba	atch ID: MS06S4	357B	Analys	sis Date:	06/02/2010 02:06	
Sample ID:	GLCS MS08S4357B	Units : mg/l	۲g	Run ID: MS	SD_06_100601A		Prep D	Date:	06/02/2010 02:06	
Analyte		Result	PQL	SpkVal	SpkRefVal %R	EC LCL(ME	E) UCL(ME)	RPDRef\	√al %RPD(Limit)	Qua
TPH-P (GRO)		21		2 16	13	1 70	139			
Surr: 1,2-Dich		0.493		0.4	123	3 70	130			
Surr: Toluene		0.386		0.4	97	-	130			
Surr: 4-Bromo	fluorobenzene	0.44		0.4	110	0 70	130			
Sample Ma			Type: I	VIS Te	est Code: EPA M	ethod SW	3015			
File ID: C:\HP	CHEM\MS06\DATA\100601	\10060143.D		Ba	atch ID: MS06S4	357B	Analys	sis Date:	06/02/2010 02:31	
Sample ID:	10052742-04AGS	Units : mg/l	٢g	Run ID: MS	SD_06_100601A	,	Prep D	Date:	06/02/2010 02:31	
Analyte		Result	PQL	SpkVal	SpkRefVal %R	EC LCL(ME	) UCL(ME)	RPDRef	val %RPD(Limit)	Qua
TPH-P (GRO)		16.5		2 16	0 10	3 57	147			
Surr: 1,2-Dich		0.501		0.4	12	5 70	130			
Surr: Toluene-		0.383		0.4	96	5 70	130			
Surr: 4-Bromo	fluorobenzene	0.426		0.4	10	7 70	130			
	trix Spike Duplicate		Type: I	MSD Te	est Code: EPA M	ethod SW8	3015			
File ID: C:\HP	CHEM\MS06\DATA\100601	10060144.D		Ba	tch ID: MS06S4	357B	Analys	sis Date:	06/02/2010 02:56	
Sample ID:	10052742-04AGSD	Units : mg/ł	٢g	Run ID: MS	SD_06_100601A		Prep D	Date:	06/02/2010 02:56	
Analyte		Result	PQL	SpkVal	SpkRefVal %RE	EC LCL(ME	) UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua
TPH-P (GRO)		17.4		2 16	0 10	8 57	147	16.5	1 5.0(20)	
Surr: 1,2-Dich		0.498		0.4	124		130		. ,	
Surr: Toluene-		0.375		0.4	94	70	130			
Surr: 4-Bromo	fluorobenzene	0.433		0.4	108	B 70	130			
Commontes	- · · · · · · · · · · · · · · · · · · ·				, · · · · ·					

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AnalyteResultPQLTPH-P (GRO)ND0.5Surr: 1,2-Dichloroethane-d40.0119	K         Test Code: EPA Method SW8015           Batch ID: MS06W0528B         Analysis Date: 05/28/2010 10:34           DD: MSD_06_100528A         Prep Date: 05/28/2010 10:34           SpkVal         SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)         Qua           0.01         119         70         130
Sample ID:         MBLK MS06W0528B         Units : mg/L         Ru           Analyte         Result         PQL         Surr: 1,2-Dichloroethane-d4         0.0119	n ID: MSD_06_100528A Prep Date: 05/28/2010 10:34 SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qua
AnalyteResultPQLTPH-P (GRO)ND0.5Surr: 1,2-Dichloroethane-d40.0119	SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qua
TPH-P (GRO)ND0.5Surr: 1,2-Dichloroethane-d40.0119	
Surr: 1,2-Dichloroethane-d4 0.0119	0.01 119 70 130
0.0110	0.01 119 70 130
Surr: Toluene d8 0.00074	
0.00014	0.01 97 70 130
Surr: 4-Bromofluorobenzene 0.0103	0.01 103 70 130
Laboratory Control Spike Type: LCS	Test Code: EPA Method SW8015
File ID: C:\HPCHEM\MS06\DATA\100528\10052804.D	Batch ID: MS06W0528B Analysis Date: 05/28/2010 10:09
Sample ID: GLCS MS06W0528B Units : mg/L Ru	n ID: MSD_06_100528A Prep Date: 05/28/2010 10:09
Analyte Result PQL	SpkVal_SpkRefVal %REC_LCL(ME) UCL(ME) RPDRefVal_%RPD(Limit) Qua
TPH-P (GRO) 0.383 0.05	0.4 96 70 130
Surr: 1,2-Dichloroethane-d4 0.0114	0.01 114 70 130
Surr: Toluene-d8 0.00956	0.01 96 70 130
Surr: 4-Bromofluorobenzene 0.0108	0.01 108 70 130
Sample Matrix Spike Type: MS	Test Code: EPA Method SW8015
File ID: C:\HPCHEM\MS06\DATA\100528\10052818.D	Batch ID: MS06W0528B Analysis Date: 05/28/2010 15:55
Sample ID: 10052625-01AGS Units : mg/L Ru	ID:MSD_06_100528A Prep Date: 05/28/2010 15:55
Analyte Result PQL	pkVal_SpkRefVal %REC_LCL(ME) UCL(ME) RPDRefVal_%RPD(Limit) Qua
TPH-P (GRO) 2.12 0.25	2 0 106 58 135
Surr: 1,2-Dichloroethane-d4 0.0573	0.05 115 70 130
Surr: Toluene-d8 0.0474	0.05 95 70 130
Surr: 4-Bromofluorobenzene 0.0535	0.05 107 70 130
Sample Matrix Spike Duplicate Type: MSD	Test Code: EPA Method SW8015
File ID: C:\HPCHEM\MS06\DATA\100528\10052819.D	Batch ID: MS06W0528B Analysis Date: 05/28/2010 16:20
Sample ID: 10052625-01AGSD Units : mg/L Ru	D:MSD_06_100528A Prep Date: 05/28/2010 16:20
	pkVal_SpkRefVal %REC_LCL(ME) UCL(ME) RPDRefVal_%RPD(Limit) Qua
TPH-P (GRO) 2.11 0.25	2 0 105 58 135 2.116 0.3(20)
Surr: 1,2-Dichloroethane-d4 0.0565	0.05 113 70 130
Surr: Toluene-d8 0.0458	0.05 92 70 130
Surr: 4-Bromofluorobenzene 0.0524	0.05 105 70 130

#### **Comments:**



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<u>04-Jun-10</u>		Ç	<u>C Si</u>	immary Repor	rt			Work Orde 10052742	
Method Blan			Туре: М	BLK Test Code: E	PA Meth	od SW8260	)B		
File ID: C:\HPC	HEM\MS06\DATA\100601\1	0060138.D		Batch ID: MS	06S4357/	4	Analysis Date:	06/02/2010 00:28	
Sample ID:	MBLK MS06S4357A	Units : µg/Kg		Run ID: MSD_06_100	601A		Prep Date:	06/02/2010 00:28	
Analyte		Result	PQL	SpkVal SpkRefVal	%REC I	LCL(ME) U	CL(ME) RPDRef	/al %RPD(Limit)	Qua
Dichlorodifluoro	methane	ND	20						
Chloromethane		ND	40						
Vinyl chloride		ND	20						
Chloroethane		ND	20						
Bromomethane Trichlorofluorom	othere	ND	40						
1,1-Dichloroethe		ND ND	20 20						
Dichloromethan		ND	40						
trans-1,2-Dichlo		ND	20						
1,1-Dichloroetha	ane	ND	20						
cis-1,2-Dichloro		ND	20						
Bromochlorome	thane	ND	20						
Chloroform		ND	20						
2,2-Dichloroprop 1,2-Dichloroetha		ND	20						
1,1,1-Trichloroe		ND ND	20 20						
1,1-Dichloroprop		ND	20						
Carbon tetrachic		ND	20						
Benzene		ND	20						
Dibromomethan	-	ND	20						
1,2-Dichloroprop	bane	ND	20						
Trichloroethene	- 4 <b>-</b>	ND	20						
Bromodichlorom cis-1,3-Dichlorop		ND	20						
trans-1,3-Dichlo		ND ND	20 20						
1,1,2-Trichloroe		ND	20						
Toluene		ND	20						
1,3-Dichloroprop	bane	ND	20						
Dibromochlorom		ND	20						
1,2-Dibromoetha		ND	40						
Tetrachloroether 1,1,1,2-Tetrachl		ND	20						
Chlorobenzene	oroemane	ND ND	20 20						
Ethylbenzene		ND	20						
m,p-Xylene		ND	20						
Bromoform		ND	20						
Styrene		ND	20						
o-Xylene		ND	20						
1,1,2,2-Tetrachi		ND	20						
1,2,3-Trichlorop		ND	40						
Isopropylbenzer Bromobenzene	le	ND	20						
n-Propylbenzene	8	ND ND	20 20						
4-Chlorotoluene	-	ND	20						
2-Chlorotoluene		ND	20						
1,3,5-Trimethylb	enzene	ND	20						
tert-Butylbenzen		ND	20						
1,2,4-Trimethylb		ND	20						
sec-Butylbenzer		ND	20						
1,3-Dichloroben:		ND	20						
1,4-Dichloroben: 4-Isopropyltolue		ND ND	20						
1,2-Dichloroben		ND	20 20						
n-Butylbenzene		ND	20						
1,2-Dibromo-3-c	hloropropane (DBCP)	ND	60						
1,2,4-Trichlorobe		ND	40						
Naphthalene		ND	40						
Hexachlorobutad		ND	40						
1,2,3-Trichlorobe		ND	40	000	404	-	100		
Surr: 1,2-Dichlor Surr: Toluene-d8		241 183		200	121	70 70	130		
	orobenzene	204		200 200	92 102	70 70	130 130		



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<b>Date:</b> 04-Jun-10	and the second	Ç	QC Si	ımmar	y Repor	t		<u> </u>		<b>Work Ord</b> 10052742	
Laboratory	Control Spike		Type: L	C <b>S</b> Te	est Code: EF	PA Met	hod SW82	260B			
	CHEM\MS06\DATA\100601\				atch ID: MS0	6\$435	74	Analy	sis Date:	06/02/2010 00:52	
Sample ID:	LCS MS06S4357A	Units : µg/Kg			SD_06_1006			Prep		06/02/2010 00:52	
Analyte	200 1100004337A										Qua
		Result	PQL		SpkRerval				REDREN	/al %RPD(Limit)	Qua
1,1-Dichloroeth	nene	353	20	400		88	10	143			
Benzene		477	10	400		119	70	136			
Trichloroethen	e	533	20	400		133	70	138		<b>^</b>	
Toluene	_	427	10	400		107	70	135			
Chlorobenzene	9	423	20	400		106	70	135			
Ethylbenzene		458	10	400		114	70	137			
m,p-Xylene		426	10	400		106	70	143			
o-Xylene		438	10	400		110	70	143			
Surr: 1,2-Dichle Surr: Toluene-		506		400		126	70	130			
Surr: 4-Bromot		380		400		95	70	130			
Sull. 4-Bromol	nuorobenzene	414		400		104	70	130			
Sample Mat			Type: <b>M</b>	S Te	est Code: EF	PA Met	hod SW82	260B			
File ID: C:\HP	CHEM\MS06\DATA\100601\*	10060140.D		Ba	atch ID: MS0	6S435	7A	Analy	sis Date:	06/02/2010 01:17	
Sample ID:	10052742-04AMS	Units : µg/Kg		Run ID: MS	SD_06_1006	601A		Prep I	Date:	06/02/2010 01:17	
Analyte		Result	PQL				LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua
1,1-Dichloroeth	hene	329	20	400	0	82	10	143			
Benzene		423	10	400	õ	106	57	143			
Trichloroethen	e	442	20	400	Ō	111	52	154			
Toluene		389	10	400	0	97	53	142			
Chlorobenzene	e	378	20	400	0	95	55	142			
Ethylbenzene		412	10	400	0	103	56	145			
m,p-Xylene		395	10	400	0	99	53	154			
o-Xylene		394	10	400	0	99	60	148			
Surr: 1,2-Dichl		502		400		126	70	130			
Surr: Toluene-		390		400		97	70	130			
Surr: 4-Bromot	fluorobenzene	421		400		105	70	130			
Sample Mat	rix Spike Duplicate		Type: M	SD Te	est Code: EF	PA Met	hod SW82	260B			
	CHEM\MS06\DATA\100601\				atch ID: MS0	6S435	7A	Analy	sis Date:	06/02/2010 01:42	
Sample ID:	10052742-04AMSD	Units : µg/Kg		Run ID: MS	SD_06_1006	601A		Prep l	Date:	06/02/2010 01:42	
Analyte		Result	PQL				LCL(ME)	-		/al %RPD(Limit)	Qua
1,1-Dichloroeth	nene	334	20	400	0	84	10	143	328.8	· · · · · · · · · · · · · · · · · · ·	
Benzene		412	10	400	0	103	57	143	423.1		
Trichloroethen	e	471	20	400	0	118	52	154	442.4		
Toluene		383	10	400	Ő	96	53	142	388.7		
Chlorobenzene	e	380	20	400	0	95	55	142	378.5		
Ethylbenzene		411	10	400	Ő	103	56	145	411.8		
m,p-Xylene		389	10		õ	97	53	154	395	1.5(20)	
o-Xylene		393	10	400	õ	98	60	148	394.5		
Surr: 1.2-Dichle	oroethane-d4	501		400	Ŭ	125	70	130			
Surr: Toluene- Surr: 4-Bromof		395		400		99	70	130			

**Comments:** 



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

<b>Date:</b> 04-Jun-10		(	QC Su	ımma	ary Report				<b>Work Orde</b> 100 <b>5</b> 2742	
Method Blank File ID: C:\HPCHE	M\MS06\DATA\100528\10	052805 D	Type: MI	BLK	Test Code: EP				05/28/2010 10:34	
-	BLK MS06W0528A	Units : µg/L					-	Prep Date:	05/28/2010 10:34	
Analyte		••			: MSD_06_10052					0
		Result	PQL	Spk\	/al SpkRefVal %	6REC L	CL(ME) U	CL(ME) RPDRef	/al %RPD(Limit)	Qua
Dichlorodifluorome	thane	ND	1							
Chloromethane		ND	2							
Vinyl chloride Chloroethane		ND	1							
Bromomethane		ND ND	1 2							
Trichlorofluorometh	lane	ND	2							
1,1-Dichloroethene		ND	1							
Dichloromethane		ND	2							
trans-1,2-Dichloroe	thene	ND	1							
1,1-Dichloroethane		ND	1							
cis-1,2-Dichloroeth		ND	1							
Bromochlorometha	ine	ND	1							
Chloroform		ND	1							
2,2-Dichloropropan 1,2-Dichloroethane		ND ND	1							
1,1,1-Trichloroetha		ND	1							
1,1-Dichloropropen		ND	1							
Carbon tetrachlorid		ND	1							
Benzene		ND	1							
Dibromomethane		ND	1							
1,2-Dichloropropan	e	ND	1							
Trichloroethene		ND	1							
Bromodichlorometh		ND	1							
cis-1,3-Dichloropro trans-1,3-Dichlorop		ND	1							
1,1,2-Trichloroetha		ND ND	1							
Toluene		ND	1							
1,3-Dichloropropan	e	ND	1							
Dibromochlorometh		ND	1							
1,2-Dibromoethane	(EDB)	ND	2							
Tetrachloroethene		ND	1							
1,1,1,2-Tetrachloro	ethane	ND	1							
Chlorobenzene Ethylbenzene		ND	1							
m,p-Xylene		ND ND	1							
Bromoform		ND	1							
Styrene		ND	1							
o-Xylene		ND	. 1							
1,1,2,2-Tetrachloro		ND	1							
1,2,3-Trichloroprop	ane	ND	2							
Isopropylbenzene		ND	1							
Bromobenzene n-Propylbenzene		ND	1							
4-Chlorotoluene		ND ND	1							
2-Chlorotoluene		ND	1							
1,3,5-Trimethylben:	zene	ND	1							
tert-Butylbenzene		ND	1							
1,2,4-Trimethylben:	zene	ND	1							
sec-Butylbenzene		ND	1							
1,3-Dichlorobenzer		ND	1							
1,4-Dichlorobenzen	ie	ND	1							
4-Isopropyltoluene 1,2-Dichlorobenzer	20	ND	1							
n-Butylbenzene		ND ND	1							
1,2-Dibromo-3-chlo	ropropage (DBCP)	ND	. 3							
1,2,4-Trichlorobenz		ND	2							
Naphthalene		ND	2							
Hexachlorobutadier	-	ND	2							
1,2,3-Trichlorobenz		ND	2							
	(hane-d4	11.9			10	119	70	130		
Surr: 1,2-Dichloroet Surr: Toluene-d8 Surr: 4-Bromofluoro		9.74 10.3			10 10	97 103	70 70	130 130		



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

<b>Date:</b> 04-Jun-10		(	QC S	ummar	y Repor	t				Work Orde 10052742	
Laboratory	Control Spike		Type: L	CS T	est Code: E	PA Met	hod SW82	260B			
	CHEM\MS06\DATA\100528\1	10052803.D			atch ID: MS	06W052	28A	Analys	sis Date:	05/28/2010 09:44	
Sample ID:	LCS MS06W0528A	Units : µg/L						Prep [		05/28/2010 09:44	
	200 110000003284		<b>B</b> O1		SD_06_100			•			0
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRet	/al %RPD(Limit)	Qua
1,1-Dichloroet	hene	8.87	1			89	80	120			
Benzene		9.61	0.5			96	70	130			
Trichloroethen	e	9.43	1			94	70	130			
Toluene		9.14	0.5			91	80	120			
Chlorobenzen	e	9.27	1			93	70	130			
Ethylbenzene		9.39	0.5			94	80	120			
m,p-Xylene		9.21	0.5			92	70	130			
o-Xylene		9.36	0.5			94	70	130			
Surr: 1,2-Dich		11.5		10		115	70	130			
Surr: Toluene-		9.79		10		98	70	130			
Surr. 4-Bromo	fluorobenzene	10.6		10		106	70	130			
Sample Mat			Type: N	IS To	est Code: E	PA Met	hod SW82	260B			
File ID: C:\HP	CHEM\MS06\DATA\100528\1	10052816.D		Ba	atch ID: MS	06W052	28A	Analys	sis Date:	05/28/2010 15:06	
Sample ID:	10052625-01AMS	Units : µg/L		Run ID: MS	SD_06_100	528A		Prep [	Date:	05/28/2010 15:06	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua
1,1-Dichloroet	hene	48.8	2.5	50	0	98	60	130			
Benzene		52.4	1.3		Ō	105	67	130			
Trichloroethen	e	51.9	2.5		0	104	69	130			
Toluene		49.4	1.3	50	0	99	66	130			
Chlorobenzen	e	50.2	2.5	50	0	100	70	130			
Ethylbenzene		51.4	1.3	50	0	103	68	130			
m,p-Xylene		49.5	1.3	50	0	99	64	130			
o-Xylene		50.9	1.3	50	0	102	70	130			
Surr: 1,2-Dichl		60.2		50		120	70	130			
Surr: Toluene-		47.4		50		95	70	130			
Surr: 4-Bromo	fluorobenzene	51.6		50		103	70	130			
Sample Mat	trix Spike Duplicate		Type: N	ISD Te	est Code: E	PA Met	hod SW82	260B			
File ID: C:\HP	CHEM\MS06\DATA\100528\1	10052817.D		Ba	atch ID: MS	06W052	28A	Analys	sis Date:	05/28/2010 15:30	
Sample ID:	10052625-01AMSD	Units : µg/L		Run ID: MS	SD_06_100	528A		Prep [	Date:	05/28/2010 15:30	
Analyte		Result	PQL				LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua
1,1-Dichloroet	hene	45.4	2.5		. 0		60	130	48.81		
Benzene		51.7	1.3		Ō	103	67	130	52.44	• •	
Trichloroethen	e	51.7	2.5		0	103	69	130	51.88		
Toluene		51.2	1.3		0	102	66	130	49.35		
Chlorobenzen	e	51.3	2.5		Ō	103	70	130	50.16		
Ethylbenzene		52.5	1.3		0		68	130	51.36	§ 2.1(20)	
m,p-Xylene		51	1.3	50	0	102	64	130	49.51	3.0(20)	
o-Xylene		52.8	1.3	50	0	106	70	130	50.93		
Surr: 1,2-Dichl		60.1		50		120	70	130			
Surr: Toluene-		48.8		50		98	70	130			
Surr: 4-Bromo	fluorobenzene	53		50		106	70	130			
Comments:							<u>.</u>				

**Comments:** 



FAX 714/538-1209

CLIENT	Alpha Analytical, Inc.	(11338)	LAB REQUES	ST 255615
	ATTN: Reyna Vallejo			
	255 Glendale Avenue		REPORTED	06/04/2010
	Suite 21			
	Sparks, NV 89431-5778		RECEIVED	05/28/2010

PROJECT W.O. #E2M10052742 05/28/10

SUBMITTER Client

COMMENTS

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

Order No. 1083517 1083518 Client Sample Identification E2M10052742-11A Laboratory Method Blank

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

ASSOCIATED

H./Edward S. Behare, Ph.D. Vice President

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

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Lab request 255615 cover, page 1 of 1

Order #: 1083517 Matrix: WATER Date Sampled: 05/27/2010 Time Sampled: 08:20	Client Sample ID: E2M1005	52742-11A			
Analyte		Result	DLR	Units	Date/Analyst
420.1Total Phenolics					
Total Phenolics		ND	0.005	mg/L	06/03/10 HK
Order #: 1083518 Matrix: WATER	Client Sample ID: Laborator	y Method Blank		<u></u>	
Analyte		Result	DLR	Units	Date/Analyst
20.1Total Phenolics					

 Total Phenolics
 ND
 0.005
 mg/L
 06/03/10
 HK

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



ASSOCIATED LABORATORIES

Lab Request 255615 results, page I of 1

#### Laboratory Report **Report ID: 105988**

Sierra Environmental Monitoring, Inc.

Alpha Analytical	Date:	6/4/2010
	Client:	ALP-855
255 Glendale Avenue Suite 21	Taken by:	J. Ruffing
Sparks, NV 89431	PO #:	

Dear Alpha Analytical,

It is the policy of Sierra Environmental Monitoring, Inc to strictly adhere to a comprehensive Quality Assurance Plan that insures the data presented in this report are both accurate and precise. Sierra Environmental Monitoring, Inc. maintains accreditation in the State of Nevada (NV-15) and the State of California (ELAP 2526).

The data presented in this report were obtained from the analysis of samples received under a chain of custody. Unless otherwise noted below, samples were received in good condition, properly preserved and within the hold time for the requested analyses. Any anomalies associated with the analysis of the samples have been flagged with appropriate explanation in the Analysis Report section of this Laboratory Report.

General Comments:

- There are no general comments for this report.

Individual Sample Comments:

- There are no specific comments that are associated with these samples.

Approved By:

Sierra Environmental Monitoring

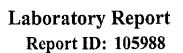
This report is applicable only to the sample received by the laboratory. The liability of the laboratory is limited to the amount paid for this report. This report is for the exclusive use of the client to whom it is addressed and upon the condition that the client assumes all liability for the further distribution of the report or its contents.

Page 1 of 3 1135 Financial Blvd. Reno, NV 89502-2348 Phone (775) 857-2400 FAX (775) 857-2404 sem@sem-analytical.com

John C. Seher Special Consultant Quality Assurance Manager

6/4/2010

Date:





Alpha Analytical	Date:	6/4/2010
	Client:	ALP-855
255 Glendale Avenue Suite 21	Taken by:	J. Ruffing
Sparks, NV 89431	PO #:	

#### Analysis Report

Sample ID:	Custo	mer Sample ID	)	Date Sam	pled Time Sa	mpled Date R	eceived
S201005-1528	E2M10052742-1	1 - SB10GW20	052710	5/27/201	LO 8:20 A	AM 5/28	/2010
Parameter	Method	Result	Units	Reporting Limit	Analyst	Date Analyzed	Data Flag
Cyanide, Total	SM 4500 CN C	0.009	mg/L	0.005	Kobza	6/1/2010	JI

Data Flag Legend:

*J* - The batch MS and/or MSD were outside acceptance limits. The batch LCS was acceptable.

Page 2 of 3 1135 Financial Blvd. Reno, NV 89502-2348 Phone (775) 857-2400 FAX (775) 857-2404 sem@sem-analytical.com

#### Laboratory Report Report ID: 105988



Alpha Analytical	Date: Client:	6/4/2010 ALP-855
255 Glendale Avenue Suite 21	Taken by:	J. Ruffing
Sparks, NV 89431	<b>PO #:</b>	

#### $\Sigma^{nunn}$ Commo 1

Parameter	LCS, % Recovery	MS, % Recovery	MSD, % Recovery	RPD, %	Method Blank
Cyanide, Total	81.0	49.0			<0.005 mg/L
Legend:	LCS- Laboratory Control Standard RPD- Relative Percent Difference	MS- Ma	trix Spike	MSD- Matrix S	pike Duplicate

Page 3 of 3 1135 Financial Blvd. Reno, NV 89502-2348 Phone (775) 857-2400 FAX (775) 857-2404 sem@sem-analytical.com Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Logged in by: Signature Under-Print Name XZRUNA Alpha Analytical, Inc. Company 2KG CH Date/Time

Samples brought in by client. Frozen ice. Total Cyanide subbed to SEM. H2SO4 split was created from 1 Liter unpreseved amber for sample -11A for Phenolics to be subbed to Associated Labs :

**Comments:** 

Client:			Report Attention	ntion	Pho	Phone Number	) Or	EMail Address	ress							
HDR   E2M			Clayton Mokri	kri.	(916	(916) 852-7792		x 204 clayton.mokri@hdrinc.com	ri@hdrinc.c	òm						
2365 Iron Point Road	Road										ED	EDD Required : Yes	ed : Ye	U,		
Suite 300												Compled 1	. Inc	oh Duffeno		
Folsom, CA 95630	30											Sampled	oy : Jac	Sampled by : Jacob Kutting		
PO :												Cooler Temp	gm	Samples Received		Date Printed
Client's COC #: 31	31161	: dob	NTD									4 °C	()	27-May-10	27-	27-May-10
QC Level: S3	= Final Rpt, MBLK, LCS, MS/MSD With Surrogates	LCS, MS/	MSD With Su	ırrogates	0,											
	Client		Collection		No of Bottles		200 D			Requested Tests	Tests					
Sample ID	Sample ID	Matr	Matrix Date	Alpha	Sub	TAT	300_0_W					OTAL Q 0	0 0		Sample Remarks	narks
E2M10052742-01A	SB0802SO052710	so	05/27/10 11:05	_	0	J										And Annual Manual Version
E2M10052742-02A	SB0808SO052710	so	05/27/10 11:20	_	0	ຽ				4 B 94 4 4 1						
E2M10052742-03A	SB0810SO052710	so	05/27/10 11:25	-	0	σ						C A	As, Ba, Cd, Cr, Pb, Hg, Ag, Se			
E2M10052742-04A	SB0817SO052710	so	05/27/10 11:35	-	0	<b>л</b>										
E2M10052742-05A	SB0902SO052710	SO	05/27/10 10:05	-	0	<u>ບ</u> າ										
E2M10052742-06A	SB0910SO052710	SO	05/27/10 10:20	<u>د</u>	0	<b>σ</b>						C A	As, Ba, Cd, Cr, Pb, Hg, Ag, Se			
E2M10052742-07A	SB0917SO052710	so	05/27/10 10:40	<b>د</b>	0	<b>л</b>										
E2M10052742-08A	SB1002SO052710	so	05/27/10 07:40	<b>_</b>	0	<b>с</b> л							- Yi di U di sussesso e			
E2M10052742-09A	SB1010SO052710	so	05/27/10 07:50	<b>_</b>	0	<b>с</b> л						C A	As, Ba, Cd, Cr, Pb, Hg, Ag Se			

Page: 1 of 6

**Billing Information :** 

CHAIN-OF-CUSTODY RECORD

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406

Report Due By : 5:00 PM On : 04-Jun-10

WorkOrder : E2M10052742

Z く

Alpha Analytical, Inc.

E2M

Englewood, CO 80112

9563 S. Kingston Ct.

9563 S. Kingston Ct.				Alph	la An	alytic	Alpha Analytical, Inc	•		4			EJM11	いたいコイ	J
Englewood, CO 80112			255 Gle T	ndale Aven	1ue, Suite 355-1044	21 Sparl	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TFI : (775) 355-1044 FAX: (775) 355-0406	89431-57: 406	78	Rep	ort Du	e By :	port Due By : 5:00 PM On : 04-	On:(0)	Report Due By: 5:00 PM On: 04-Jun-10
Client:		Report Attention		Phon	Phone Number	Q,	EMail Address	ddress		ι					
HDR   E2M		Clayton Mokri	Aokri	(916)	(916) 852-7792	x 204	clayton.mokri@hdrinc.com	okri@hdrii	lc.com						
2365 Iron Point Road										E	DD Req	EDD Required : Yes	es		
Suite 300											Comp.		ant Duffeno		
Folsom, CA 95630											Sample	ba by : Ja	sampled by : Jacob Kutting		
PO :											Coole	Cooler Temp	Samples Received	eceived	Date Printed
Client's COC #: 31161	: doL	NTD										4 °C	27-May-10	-10	27-May-10
QC Level:S3  = Final Rpt, M	BLK, LCS, N	Final Rpt, MBLK, LCS, MS/MSD With Surrogates	Surrogate	S											
Clinat									Request	<b>Requested Tests</b>					
Sample ID Sample ID	Z	Matrix Date		Alpha Sub	TAT			W N		OTAL	Ø			Samp	Sample Remarks
E2M10052742-10A SB1017SO052710		SO 05/27/10 08:05		0	თ										
E2M10052742-11A SB10GW20052710	710 AQ	Q 05/27/10 08:20	13	N	CT IN Z	NO2, NO3, SO4, CI, F	Alk	NH3	Phenols	Cyanide	Spec. List		N-Total =(NO2+NO3 +TKN)		
E2M10052742-12A EB01GWNA052710	2710 AQ	Q 05/27/10 00:00	7	0	<u>ს</u>						As, Ba, Cd, Cr, Pb, Hg, Ag, Se				
E2M10052742-13A TB03GWNA052710		AQ 05/27/10 07:00		0	<b>с</b> л									Reno	Reno TB, 5/17/10

Ē

Logged in by:

Signature

Print Name

Alpha Analytical, Inc. Company

Date/Time 10 13-1

Ş,

Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

HAIN-OF-CUS	<b>STODY RECO</b>		Page: 3 of 6
Alpha Ana	alytical, Inc.		<b>IN V</b> WorkOrder : E2M10052742
255 Glendale Avenue, Suite 2 TEL: (775) 355-1044	21 Sparks, Nevada 89431-5778 FAX: (775) 355-0406		Report Due By : 5:00 PM On : 04-Jun-10
9			
	x 204		EDD Required : Yes
		Samp	Sampled by : Jacob Ruffing
		Coole	Cooler Temp Samples Received Date Printed
			27-May-10
LCS, MS/MSD With Surrogates			
		Requested Tests	
f Bottles Sub TAT	PH/E_W TPH/P_S TPH/P_W	voc_s voc_w	
_	GAS-N	8260_N	
05/27/10 1 0 5	GAS-N	8260_N	
05/27/10 1 0 5	GAS-N	8260_N	
05/27/10 1 0 5 11:35	GAS-N	8260_N	
05/27/10 1 0 5 10:05	GAS-N	8260_N	
05/27/10 1 0 5 10:20 1	GAS-N	8260_N	
05/27/10 1 0 5 10:40 5	GAS-N	8260_N	
05/27/10 1 0 5 07:40 5	GAS-N	8260_N	
05/27/10 1 0 5 07:50 7	GAS-N	8260_N	
05/27/10 1 0 5 08:05 1	GAS-N	8260_N	
stal Cyanide subbed to SEM. H2SC	04 split was created from 1 Liter	unpreseved amber for sample	Total Cyanide subbed to SEM. H2SO4 split was created from 1 Liter unpreseved amber for sample -11A for Phenolics to be subbed to Associated Labs. :
	Print Name		Company Date/Time
Muras -	June Juli	V CODUT	Alpha Analytical, Inc. 5/27/10/34
	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	CHAIN-OF-CUSTODY RECO           Alpha Analytical, Inc.           255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778           TEL: (775) 355-1044           Phone Number         EMail Address           TEL: (775) 355-1044           FAT         IPHIE M           TEL: (775) 355-1044           Address           On Mokri         (916) 852-7792         x 204         clayton.mokri@hdrine           TIPHIE M         TPHIE M           TIPHIE M         TPHIE M           TOTIO         1           On Mokri         (916) 852-7792         x 204         clayton.mokri@hdrine           TIPHIE M         TPHIE M           TOTIO         1           On Mokri         TOTIO           1         0           Colspan= 5         GAS-N           GAS-N         GAS-N           ON         GAS-N           ON         GAS-N	HAIN-OF-CUSTODY RECORD         NV           Alpha Analytical, Inc.         WorkOrc           255 Glendale Aveme. Suite 21 Spacks, Nevada 89431-5778         Tel: (775) 355-0406         Report Due I           Mokri         (916) 852-7792         x 204         clayton.mokri@hdrinc.com         EDD Require           Mokri         (916) 852-7792         x 204         clayton.mokri@hdrinc.com         EDD Require           Intel:         (775) 355-1044         FAX: (775) 355-0406         Report Due I         Cooler Te           Mokri         (916) 852-7792         x 204         clayton.mokri@hdrinc.com         EDD Require           Intel:         Thrip:         Thrip:         Requested Tests         Cooler Te           ion         No. of Bottles         Thrip:         Requested Tests         State           ion         No. of Bottles         Thrip:         Requested Tests         State           ion         No. of Bottles         Goods:         State         State         State           ion         No. of S         Goods:         State         State         State         State           ion         5         Goads:         State         State         State         State         State           ion </td

Billing Information : E2M			CH	AIN	<b>1-01</b>		CHAIN-OF-CUSTODY RECORD	DY H	RECO	ORD	Z	Page:	4 of 6
9563 S. Kingston Ct.					Alp	ha A	Alpha Analytical, Inc.	al, Ind					<u>כ</u>
				255 Gle	ndale Av	'enue, Su	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778	ks, Nevada	89431-577;	80		14/7/0011V17/14	1
	12			L	'EL: (775	i) 355-1(	TEL: (775) 355-1044 FAX: (775) 355-0406	775) 355-0	406		Report Due By : 5:00 PM On : 04-Jun-10	5:00 PM On : 0	4-Jun-10
Client:			<b>Report Attention</b>	ntion	Ph	Phone Number	nber	EMail Address	ddress				
HDR   E2M			Clayton Mokri	Ħ.	(91	6) 852-7	(916) 852-7792 x 204 clayton.mokri@hdrinc.com	clayton.m	okri@hdrine	c.com			
2365 Iron Point Road	ā										EDD Required : Yes	S	
Folsom, CA 95630											Sampled by : Jacob Ruffing	cob Ruffing	
PO :											Cooler Temp	Samples Received	Date Printed
Client's COC #: 31161	1	Job : NTD	NTD								4 °C	27-May-10	27-May-10
QC Level: S3	= Final Rpt, MBLK, LCS, MS/MSD With Surrogates	S, MS	MSD With Su	ırrogate	ö								
										<b>Requested Tests</b>	Tests		
Alpha C Sample ID S	Client Sample ID	Mati	Collection No. of Bottles Matrix Date Alpha Sub	No. of Bottle Alpha Sub	f Bottle: Sub	s TAT	TPH/E_W	TPH/P_S	TPH/P_W	voc_s	Voc_w	S	Samnle Remarks
E2M10052742-11A S	SB10GW20052710	Ą	05/27/10 08:20	13	N	СЛ	TPH/E_N		GAS-N		8260_N		
E2M10052742-12A E		Ą	05/27/10	7	0	5	TPH/E_N				8260_N		
E2M10052742-13A TB03GWNA052710	EB01GWNA052710		00.00		0	51					8260_N	Reno	Reno TB, 5/17/10

Matrix Type : AQ(Aqueor	NOTE: Samples The report for the analysi		Logged in by:	
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)	NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report		May ( Malle Jon)	Signature
er) OT(Other) Bottle Type: L-Liter	other arrangements are made. Hazardou les received by the laboratory with this C		law Mills	Print/Name ,
er V-Voa S-Soil Jar O-Orbo T-	us samples will be returned to client		MSal Alpha Analytical, Inc.	Company
V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other	t or disposed of at client expense. s limited to the amount paid for the rep		lytical, Inc. 5/27/16 1259	pany Date/Time
	Ļ	~	2	

Samples brought in by client. Frozen ice. Total Cyanide subbed to SEM. H2SO4 split was created from 1 Liter unpreseved amber for sample -11A for Phenolics to be subbed to Associated Labs. :

**Comments:** 

Page: 4 of 6

9563 S. Kingston Ct. Englewood, CO 80112 Client:	oct. 30112	2	255 ( Report Attention	/ 55 Glenda TEL: tion	Alpha Ana endale Avenue, Suite 2 TEL: (775) 355-1044 Phone Number		Iytical, Inc. Sparks, Nevada 89431- FAX: (775) 355-0406 EMail Address	9431-5778 )6 <b>Iress</b>		Work Report D	Order : hue By :	WorkOrder: E2M10052742 Report Due By: 5:00 PM On: 04-Jun-10	052742 On: 04	g -Jun-10
		0	Clayton Mokri	<b></b> .	(916) 852-7792	x 204	clayton.mokri@hdrinc.com	ri@hdrinc.c	om					
2365 Iron Point Road Suite 300	load	berran								EDD Re	EDD Required : Yes	es		
Folsom, CA 95630	30									Samj	pled by : Ja	Sampled by : Jacob Ruffing		
PO :										<u>Coo</u>	<u>Cooler Temp</u>	Samples Received	eceived	Date Printed
Client's COC #: 31161	161	Job : N	NTD								4°C	27-May-10	-10	27-May-10
QC Level:S3	= Final Rpt, MBLK, LCS, MS/MSD With Surrogates	LCS, MS/MS	D With Sur	rogates										
									<b>Requested Tests</b>	ests			and the second	
Sample ID	Sample ID	Matrix	conection c Date /	Alpha Sub	Sub TAT	W_TOTAL_	M _	PH_S F	PH_W PHEN	S_W RUS_W	W TDS_W	TPH/E_S	Sample	Sample Remarks
E2M10052742-01A	SB0802SO052710	SO 0	05/27/10		0 5			PH				TPH/E_N	•	
E2M10052742-02A	SB0808SO052710	so os	05/27/10	<b>د</b>	0 5			PH				TPH/E_N		
E2M10052742-03A	SB0810SO052710	SO	05/27/10	<b>_</b>	0 5			PH				TPH/E_N		
E2M10052742-04A	SB0817SO052710	SO 0	05/27/10 11:35	<b>د</b>	0 5			PH				TPH/E_N		
E2M10052742-05A	SB0902SO052710	SO 0	05/27/10 10:05	<b>-</b>	0			pH				TPH/E_N		
E2M10052742-06A	SB0910SO052710	so o	05/27/10 10:20	<b>د</b>	0 5			рH				TPH/E_N		
E2M10052742-07A	SB0917SO052710	so o	05/27/10 10:40	<b>_</b>	0 5			pH				TPH/E_N		
E2M10052742-08A	SB1002SO052710	so 0	05/27/10 07:40	<b>_</b>	0 5			pH				TPH/E_N		
E2M10052742-09A	SB1010SO052710	SO 0	05/27/10 07:50	<b>_</b>	0 5			рH				TPH/E_N		
E2M10052742-10A	SB1017SO052710	SO 0	05/27/10 08:05	<b>د</b>	0 5			pH				TPH/E_N	=	
Comments:	Samples brought in by client. Frozen ice.	lient. Frozen i	<u>ce. Total Cy</u>	anide subt	ed to SEM.	H2SO4 split w	vas created fr	om 1 Liter u	npreseved an	nber for samp	le - I I A for P	Total Cyanide subbed to SEM. H2SO4 split was created from 1 Liter unpreseved amber for sample -11A for Phenolics to be subbed to Associated Labs. :	ubbed to Ass	ociated Labs.
		Signature	ure	-			Print	Print Name			Company	ıny	D	Date/Time
Logged in by:	+ Ole 1.1	alle	han	$\bigvee$	í	Jane	Aic	K-11/183	1		Alpha Analytical, Inc.		$\frac{1}{1}$	تهدر مرا

Billing Information : E2M	СН	CHAIN-OF-CUSTODY RECO	OF-C	USTC	DY R		RD		N N			Page:	6 of 6
9563 S. Kingston Ct.		A		halyti	Alpha Analytical, Inc.	•		8	orkOr.	lor .	WorkOrder · F9M10059749	105774	
Englewood, CO 80112		255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778	e Avenue, S	uite 21 Spa	rks, Nevada 8	39431-5778		Ren		Rv · ·		$\mathbf{O}_{\mathbf{m}} \cdot \mathbf{O}_{\mathbf{m}}$	Report Due Ry · 5:00 PM On · 04. Jun-10
				TAA.	$\frac{1121}{2} + \frac{112}{2} + 1$	.00	and the second					(	
Client:	Report Attention		Phone Number	mber	EMail Address	dress							
HDR   E2M	Clayton Mokri		(916) 852-'	7792 x 204	(916) 852-7792 x 204 clayton.mokri@hdrinc.com	kri@hdrinc.c	om						
2365 Iron Point Road								EL	EDD Required : Yes	ed : Ye			
Folsom, CA 95630									Sampled	by : Jac	Sampled by : Jacob Ruffing		
PO :									Cooler Temp	dui	Samples Received	eceived	Date Printed
Client's COC #: 31161	Job : NTD								4 °C	Ω	27-May-10	-10	27-May-10
QC Level : S3 = Final Rpt, N	Final Rpt, MBLK, LCS, MS/MSD With Surrogates	irrogates											
						R	equest	<b>Requested Tests</b>					
Alpha Client Sample ID Sample ID	Collection Matrix Date	No. of Bottles Alpha Sub	ttles ub TAT	N_TOTAL_ W	OG_HEM_ W	PH_S	PH_W	PHENOLIC PHOSPHO S_W RUS_W		TDS_W	TPH/E_S	Sample	Sample Remarks
E2M10052742-11A SB10GW20052710	2710 AQ 05/27/10 08:20	13 2	ю 5	N-Total =(NO2+NO3 +TKN)	×		pН	x	Total	TDS	7) - 100-1100-0-000 C		
E2M10052742-12A EB01GWNA052710	2710 AQ 05/27/10 7 0	7 0	<b>თ</b>										

NOTE: Samp	Logged in by:	
les are discarded 60 day	Anne !	
NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous	Millen .	Signature
arrangements are made. Hazardous samples wil	Tau Jillaner	Print Name
s samples will be returned to client or disposed of at client expense.	Alpha Analytical, Inc.	Company
of at client expense.	5441 01717C	Date/Time

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)

E2M10052742-13A TB03GWNA052710

AQ 05/27/10 07:00 00:00

0

S

Reno TB, 5/17/10

**Comments:** Samples brought in by client. Frozen ice. Total Cyanide subbed to SEM. H2SO4 split was created from 1 Liter unpreseved amber for sample -11A for Phenolics to be subbed to Associated Labs ::

Company Name Attn:			Sparks.	Sparks, Nevada 89431-5778 Phone (775) 355-1044	0R	OTHER	Page # of_
Address		aternal CO	Fax (7	Fax $(775)$ 355-0406			
City, State, Zip Phone Number	- Frais	Fa			/ Analys	Analyses Required	
Consultant / Client Name	ient Name	p.	# dob	Job Name NTD	1 + K / /	1 2 1 2 1	Level: III or IV
Address			- laita	oject Manager	(157 PH-a el	Tan	
City, State, Zip	Folse	m CA				A VICE	EDD/EDF? YES NO
Time Date	Matrix*	P.O. #	Phone: Mobile	bile:	H A H H H		Global 1D #
<u>ة</u>	d See Key Below	Lab ID Number (Use Only)	Sample Description	TAT Filtered # Containers**	7 50/2 / 42/	-74	REMARKS
lios Steals	ŝ	10-ZH-1CS/JH/Z-01	012250052710	N P4S	$\times$ $\times$ $\times$ $\times$	2	
			61425005808000		- 5 -	A.	
		E)-	01225005012025			X	
1135		11)	0122205213052180515				
2 201		S) OV	012230520609S				
1020		-Qr	0172220201 POB2			×	
640		<del>(</del> )-	ک ۵ ک				
0740		ζ.γ	S BIOOZ SOOSZ FIO				
0750		C	SB 101050052710		 ۲	×	
5020	}-	- IĈ	\$Bip 1750052714		トナイト		
5820	ta		JW17052710	*		X X X	change name to
	+-	212	EBOIGWN4052710		K X	XXSI	SBIEGU20052710
oface +	•	<u></u>	TROS CHUNAOSZZIA	+ 1			
ADDITIONAL		INSTRUCTIONS:					
l, (field samp grounds for l	oler), atte egal acti	I, (field sampler), attest to the validity and authenticity of this sample- grounds for legal action (NAC 445.0636 (c) (2)). Sampled By:	am aware	that campering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be	e sample location, date or tin	ne of collection is consid	ered fraud and may t
Relinquished by: (Signature/Affiliation)	y: (Signatu	re/Affiliation)	Recoved by Signe	WTSignature/Affiliation	Kenna	Date:/77/10	Time:
Relinquished by: (Signature/Affiliation)	y: (Signatu	re/Affiliation)	Received by: (Signature/Affiliation)	-		Date:/	Time:
Relinquished by: (Signature/Affiliation)	/: (Signatu	re/Affiliation)	Received by: (Signature/Affiliation)	ature/Affiliation)		Date:	Time:

6 Veras



Table 2 Groundwater Sample Analyses for the NTD

				1425 5		
F	1			25		
1		SB-7	SB-6			Sample Location
	2010	SB07	SB06	SB03	SB02	(0)
	CW/ J	GW ?	GW ?	GW ?	GM 5	Sample ID
ç	7	D	D	?17 Date		_
Date		Date	Date	ate	Date	
>	<;	×	×	×	×	ТРН- <u>9,</u> ВТЕХ, VOCs (8260)
>	<;	×	×	×	×	ТРН- <b>d</b> , ТРН-то (8015)
>	<;	х	×	×	×	Metals (6020)
>		×	×	×	×	Nitrate, Nitrite, Sulfate, Chloride, Flouride (300.0)
<u> </u>	<	×	×	×	×	Total Nitrogen (calculation)
<u> </u>		×	×	×	×	Ammonia (4500-NH3D)
		×	×	×	×	pH (150.2) and Field Measurement
×		×	×	×	X	Total P (265.3)
×		~	×	×	×	TDS (2540C)
×		<	×	×	×	Phenol (8270)
×			×	×	×	Phenolic compounds (9065)
×		<	×	×	×	Alkalinity (2320B)
×	>	< I	×	×	×	Oil & Grease (1664)

Note: fields with "?" need to be replaced with depth determined in the field Metals = Arsenic, barium, boron, cadmium, chromium (total), copper, cyanide, iron, lead, manganese, mercury, nickel, selenium, sodium, silver zinc

•	2201	5220		
	1075 SS-2 SB03	SS-1	Sample	
2055	SB03	6802-	55 Ci	
-	SE NA Date	SE NA Date	S I	
	×	х	( VOCs (8260)	
	×	×	Sediment S TPH-d, TPH-mo (8015)	
	×	×	Table 3 ample Analy RCRA 8 Metals (6020)	
	×	×	ysis for the N Chlorinated pesticides and PCBs (8081/8082)	
	×	×	OP Pesticides (8151)	
	×	×	SVOCs (8270)	
	×	×	Chlorinated herbicides (8151)	

Table 4 QA/QC Sample Analysis for the NTD

			_			_
Sample Location	Location	EB	ТВ	ΒT	ТВ	В
S	S	EB01	TB01	<b>TB02</b>	<b>TB03</b>	TB04
Sample ID	Imple	GW	GW	GW	GW	GW NA
Ð	ē	Š	AN	Ŋ	Ŋ	Ŋ
		Date	Date	Date	Date	Date
VOCs (8260)	(8260)	×	×	×	×	×
TPH-d, TPH-mo (8015)	(8015)	×				
RCRA 8 Metals (6020)	(6020)	×				

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HDR | E2M

Job:

2365 Iron Point Road

NTD

Folsom, CA 95630

#### Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

#### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-16A Client I.D. Number: SB02GW15052610 Sampled: 05/26/10

Received: 05/26/10

Method Reference :	EPA Method 300.0						
Analyte		Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Fluoride	1000 <b>H</b> 1000	ND	0.25		mg/L	05/27/10 11:18	05/27/10 14:46
Chloride		58	50		mg/L	05/27/10 11:18	05/27/10 14:46
Nitrite (NO2) - N		ND	0.25		mg/L	05/27/10 11:18	05/27/10 14:46
Nitrate (NO3) - N		ND	0.25		mg/L	05/27/10 11:18	05/27/10 14:46
Sulfate (SO4)		130	75		mg/L	05/27/10 11:18	05/27/10 14:46
Method Reference :	SM4500NORGC / SM450	00-NH3D					1. A.
Analyte		Result	<b>Reporting Limit</b>	Qual	Units	Date Extracted	Date Analyzed
Nitrogen, Kjeldahl, Tota	al	7.6	2.5		mg/L	06/01/10	06/01/10
Method Reference :	Total by Calculation						
Analyte		Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Fotal Nitrogen as N		7.6	2.5		mg/L	06/01/10	06/01/10

ND = Not Detected

Roger Scholl

Kandy Dantmer

Walter Arihm

64/10 **Report Date** 

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.



HDR | E2M

Job:

2365 Iron Point Road

NTD

Folsom, CA 95630

### Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

#### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-17A Client I.D. Number: SB07GW17052610

Sampled: 05/26/10 Received: 05/26/10

Method Reference : EPA Me	thod 300.0					
Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Fluoride	0.66	0.25		mg/L	05/27/10 11:18	05/27/10 15:04
Chloride	88	50		mg/L	05/27/10 11:18	05/27/10 15:04
Nitrite (NO2) - N	ND	0.25		mg/L	05/27/10 11:18	05/27/10 15:04
Nitrate (NO3) - N	ND	0.25		mg/L	05/27/10 11:18	05/27/10 15:04
Sulfate (SO4)	810	300		mg/L	05/27/10 11:18	05/27/10 18:27
Method Reference : SM4500	NORGC / SM4500-NH3D					
Analyte	Result	<b>Reporting Limit</b>	Qual	Units	Date Extracted	Date Analyzed
Nitrogen, Kjeldahl, Total	1.4	0.25		mg/L	06/01/10	06/01/10
Method Reference : Total by	Calculation					
Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Total Nitrogen as N	1.4	0.25		mg/L	06/01/10	06/01/10

ND = Not Detected

Roger Scholl

Kandy Sandner

Dalter Acrim

6/4/10**Report Date** 

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

#### **ANALYTICAL REPORT**

HDR   E2M	Attn: Clayton Mokri	
2365 Iron Point Road	Phone: (916) 852-7792	2
Folsom, CA 95630	Fax: (916) 852-7836	5
	Date Received : 05/26/1	0

Job: NTD

		Alkalinity SM2320B			
Par	ameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: SB02GW15052610 Lab ID : E2M10052741-16A Alkalinit Date Sampled 05/26/10 16:30	y, Total (As CaCO3 at pH 4.5)	370	10 mg/L	06/02/10	06/02/10
Client ID: SB07GW17052610 Lab ID : E2M10052741-17A Alkalinit Date Sampled 05/26/10 09:40	y, Total (As CaCO3 at pH 4.5)	610	10 mg/L	06/02/10	06/02/10

Kandy Sandmer Roger Scholl

Walter Arihm

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

**Report Date** 



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

#### **ANALYTICAL REPORT**

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 Attn:Clayton MokriPhone:(916) 852-7792Fax:(916) 852-7836Date Received : 05/26/10

Job: NTD

Ammonia as Nitrogen SM4500-NH3D							
Paran	neter	Concentration	Reporting Limit	Date Extracted	Date Analyzed		
Client ID: <b>SB02GW15052610</b> Lab ID : E2M10052741-16A Nitrogen, A Date Sampled 05/26/10 16:30	Ammonia (As N)	2.3	1.0 mg/L	05/28/10	05/28/10		
Client ID: SB07GW17052610 Lab ID : E2M10052741-17A Nitrogen, A Date Sampled 05/26/10 09:40	Ammonia (As N)	0.39	0.10 mg/L	05/28/10	05/28/10		

Roger Scholl

Kandy Santur.

Walter Ainihum

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

€⁄ 6/4/10 Report Date



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### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-16A Client I.D. Number: SB02GW15052610

HDR | E2M

Job:

2365 Iron Point Road

NTD

Folsom, CA 95630

Sampled: 05/26/10 16:30 Received: 05/26/10 Extracted: 06/01/10 12:00 Analyzed: 06/03/10

Semivolatile Organics by GC/MS EPA Method SW8270C

	Compound	Concentration	Reporting Limit	
1	Phenol	ND	10 µg/L	
2	2-Chlorophenol	ND	10 µg/L	
3	2-Nitrophenol	ND	10 µg/L	
4	2,4-Dimethylphenol	ND	10 µg/L	
5	2,4-Dichlorophenol	ND	10 µg/L	
6	4-Chloro-3-methylphenol	ND	20 µg/L	
7	2,4,6-Trichlorophenol	ND	10 µg/L	
8	2,4-Dinitrophenol	ND	100 µg/L	
9	4-Nitrophenol	ND	50 µg/L	
10	4,6-Dinitro-2-methylphenol	ND	100 µg/L	
11	Pentachlorophenol	ND	50 µg/L	

ND = Not Detected

Roger Scholl

Kandg Saulner

Walter Alm

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

**Report Date** 



Job:

2365 Iron Point Road

NTD

Folsom, CA 95630

# Alpha Analytical, Inc.

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### **ANALYTICAL REPORT**

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-17A Client I.D. Number: SB07GW17052610 Sampled: 05/26/10 09:40 Received: 05/26/10 Extracted: 06/01/10 12:00 Analyzed: 06/03/10

#### Semivolatile Organics by GC/MS EPA Method SW8270C

	Compound	Concentration	Reporting Limit	
1	Phenol	ND	10 µg/L	
2	2-Chlorophenol	ND	10 µg/L	
3	2-Nitrophenol	ND	10 µg/L	
4	2,4-Dimethylphenol	ND	10 µg/L	
5	2,4-Dichlorophenol	ND	10 µg/L	
6	4-Chloro-3-methylphenol	ND	20 µg/L	
7	2,4,6-Trichlorophenol	ND	10 µg/L	
8	2,4-Dinitrophenol	ND	100 µg/L	
9	4-Nitrophenol	ND	50 µg/L	
10	4,6-Dinitro-2-methylphenol	ND	100 µg/L	
11	Pentachlorophenol	ND	50 µg/L	

ND = Not Detected

Roger Scholl

Kandy Santner

Walter Arihm

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

Report Date



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### **ANALYTICAL REPORT**

HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Job: NTD

Attn:Clayton MokriPhone:(916) 852-7792Fax:(916) 852-7836Date Received : 05/26/10

### Metals by ICPMS EPA Method SW6020 / SW6020A

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: SB0102SO052610					
Lab ID : E2M10052741-01A	Chromium (Cr)	13	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/26/10 13:30	Arsenic (As)	4.8	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Selenium (Se)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Barium (Ba)	110	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/10
	Lead (Pb)	7.0	1.0 mg/Kg	05/27/10 14:51	05/28/10
Client ID: SB0108SO052610					
Lab ID : E2M10052741-02A	Chromium (Cr)	17	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/26/10 13:40	Arsenic (As)	5.5	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Selenium (Se)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Barium (Ba)	240	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/10
	Lead (Pb)	11	1.0 mg/Kg	05/27/10 14:51	05/28/10
Client ID: SB0113SO052610					
Lab ID : E2M10052741-03A	Chromium (Cr)	15	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/26/10 13:50	Arsenic (As)	2.8	1.0 mg/Kg	05/27/10 14:51	05/28/10
1	Selenium (Se)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Barium (Ba)	150	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/10
	Lead (Pb)	8.8	1.0 mg/Kg	05/27/10 14:51	05/28/10
Client ID: SB0202SO052610					
Lab ID : E2M10052741-04A	Chromium (Cr)	16	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/26/10 15:15	Arsenic (As)	10	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Selenium (Se)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Barium (Ba)	170	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/10
	Lead (Pb)	7.3	1.0 mg/Kg	05/27/10 14:51	05/28/10
					00.20.10



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Client ID: SB0208SO052610					
Lab ID : E2M10052741-05A	Chromium (Cr)	15	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/26/10 15:50	Arsenic (As)	7.4	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/20/10 15:50	Selenium (Se)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Barium (Ba)	150	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/10
	Lead (Pb)	8.2	1.0 mg/Kg	05/27/10 14:51	05/28/10
Client ID: <b>SB0215SO052610</b> Lab ID: E2M10052741-06A	Characterizer (Ca)	12	1.0	05/07/10 14:51	05/00/10
	()	13	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/26/10 16:10	Arsenic (As)	7.3	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Selenium (Se) Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51 05/27/10 14:51	05/28/10 05/28/10
	Cadmium (Cd)	ND ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Barium (Ba)	170	1.0 mg/Kg 1.0 mg/Kg	05/27/10 14:51	05/28/10
	Mercury (Hg)	ND	0.20  mg/Kg	05/27/10 14:51	05/28/10
	Lead (Pb)	8.6	1.0 mg/Kg	05/27/10 14:51	05/28/10
		0.0	1.0 mg/kg	03/27/10 14.51	03/28/10
Client ID: SB0401SO052610					
Lab ID : E2M10052741-07A	Chromium (Cr)	19	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/26/10 08:10	Arsenic (As)	12	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Selenium (Se)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Barium (Ba)	140	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/10
	Lead (Pb)	8.5	1.0 mg/Kg	05/27/10 14:51	05/28/10
Client ID: SB0410SO052610					
Lab ID : E2M10052741-08A	Chromium (Cr)	20	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/26/10 07:45	Arsenic (As)	8.9	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Selenium (Se)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Barium (Ba)	140	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/10
	Lead (Pb)	11	1.0 mg/Kg	05/27/10 14:51	05/28/10
Client ID: SB0417SO052610					
Lab ID : E2M10052741-09A	Chromium (Cr)	23	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/26/10 08:00	Arsenic (As)	7.0	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Selenium (Se)	ND	1.0  mg/Kg	05/27/10 14:51	05/28/10
	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Barium (Ba)	260	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/10
	Lead (Pb)	36	1.0 mg/Kg	05/27/10 14:51	05/28/10
Client ID: SB0502SO052610					
Lab ID : E2M10052741-10A	Chromium (Cr)	17	10 m~/V~	05/27/10 14:51	05/20/10
Date Sampled 05/26/10 11:05	Arsenic (As)	9.6	1.0 mg/Kg 1.0 mg/Kg	05/27/10 14:51	05/28/10
Suc Sumplea - 05/20/10 11.05	Selenium (Se)	1.1	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10 05/28/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Barium (Ba)	180	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/10
	Lead (Pb)	9.9	1.0 mg/Kg	05/27/10 14:51	05/28/10
					00,20,10



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Client ID: SI	B0510SO052610
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Client ID: 3D051050052010					
Lab ID : E2M10052741-11A	Chromium (Cr)	24	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/26/10 11:30	Arsenic (As)	8.7	1.0 mg/Kg	05/27/10 14:51	05/28/10
1	Selenium (Se)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Barium (Ba)	190	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/10
	Lead (Pb)	9.0	1.0 mg/Kg	05/27/10 14:51	05/28/10
Client ID: 58051750052610					
Client ID: SB0517SO052610		10	1.0 07	05/07/10 14 51	05/00/10
Lab ID : E2M10052741-12A		19	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/26/10 11:45	Arsenic (As)	7.2	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Selenium (Se)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Barium (Ba)	160	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/10
	Lead (Pb)	7.4	1.0 mg/Kg	05/27/10 14:51	05/28/10
Client ID: SB0702SO052610					
Lab ID : E2M10052741-13A	Chromium (Cr)	18	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/26/10 08:55	Arsenic (As)	11	1.0 mg/Kg	05/27/10 14:51	05/28/10
<b>-</b>	Selenium (Se)	6.2	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Barium (Ba)	390	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/10
	Lead (Pb)	6.2	1.0 mg/Kg	05/27/10 14:51	05/28/10
Client ID: SB0710SO052610					
Lab ID : E2M10052741-14A	Characteristic (Ca)		10 11	05/07/10 14 51	05/00/10
	Chromium (Cr)	11	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/26/10 09:15	Arsenic (As)	3.0	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Selenium (Se)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Barium (Ba)	86	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/10
	Lead (Pb)	4.7	1.0 mg/Kg	05/27/10 14:51	05/28/10
Client ID: SB0717SO052610					
Lab ID : E2M10052741-15A	Chromium (Cr)	15	1.0 mg/Kg	05/27/10 14:51	05/28/10
Date Sampled 05/26/10 09:25	Arsenic (As)	5.5	1.0 mg/Kg	05/27/10 14:51	05/28/10
-	Selenium (Se)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Silver (Ag)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
-	Cadmium (Cd)	ND	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Barium (Ba)	120	1.0 mg/Kg	05/27/10 14:51	05/28/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/27/10 14:51	05/28/10
	Lead (Pb)	5.2	1.0 mg/Kg	05/27/10 14:51	05/28/10

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### Client ID: SB02GW15052610

Chem 1D. 50020 W15052010					
Lab ID : E2M10052741-16A	Boron (B)	1.0	0.10 mg/L	05/28/10 11:35	05/28/10
Date Sampled 05/26/10 16:30	Sodium (Na)	150	0.50 mg/L	05/28/10 11:35	05/28/10
	Chromium (Cr)	0.61	0.0050 mg/L	05/28/10 11:35	05/28/10
	Manganese (Mn)	27	0.10 mg/L	05/28/10 11:35	06/04/10
	Iron (Fe)	1,100	0.30 mg/L	05/28/10-11:35	05/28/10
	Nickel (Ni)	0.70	0.010 mg/L	05/28/10 11:35	05/28/10
	Copper (Cu)	1.6	0.010 mg/L	05/28/10 11:35	05/28/10
	Zinc (Zn)	3.0	0.10 mg/L	05/28/10 11:35	05/28/10
	Arsenic (As)	0.39	0.0050 mg/L	05/28/10 11:35	05/28/10
	Selenium (Se)	0.025	0.0050 mg/L	05/28/10 11:35	05/28/10
	Silver (Ag)	ND	0.0050 mg/L	05/28/10 11:35	05/28/10
	Cadmium (Cd)	0.0087	0.0050 mg/L	05/28/10 11:35	05/28/10
	Barium (Ba)	14	0.0050 mg/L	05/28/10 11:35	05/28/10
	Mercury (Hg)	ND	0.0010 mg/L	05/28/10 11:35	05/28/10
	Lead (Pb)	0.36	0.0050 mg/L	05/28/10 11:35	05/28/10
Client ID: SB07GW17052610					
Lab ID : E2M10052741-17A	Boron (B)	1.5	0.10 mg/L	05/28/10 11:35	05/28/10
Date Sampled 05/26/10 09:40	Sodium (Na)	430	0.50 mg/L	05/28/10 11:35	05/28/10
•	Chromium (Cr)	0.13	0.0050 mg/L	05/28/10 11:35	05/28/10
	Manganese (Mn)	5.5	0.0050 mg/L	05/28/10 11:35	05/28/10
	Iron (Fe)	230	0.30 mg/L	05/28/10 11:35	05/28/10
	Nickel (Ni)	0.095	0.010 mg/L	05/28/10 11:35	05/28/10
	Copper (Cu)	0.24	0.010 mg/L	05/28/10 11:35	05/28/10
	Zinc (Zn)	0.51	0.10 mg/L	05/28/10 11:35	05/28/10
	Arsenic (As)	0.45	0.0050 mg/L	05/28/10 11:35	05/28/10
	Selenium (Se)	ND	0.0050 mg/L	05/28/10 11:35	05/28/10
	Silver (Ag)	ND	0.0050 mg/L	05/28/10 11:35	05/28/10
	Cadmium (Cd)	ND	0.0050 mg/L	05/28/10 11:35	05/28/10
	Barium (Ba)	2.4	0.0050 mg/L	05/28/10 11:35	05/28/10
	Mercury (Hg)	ND	0.0010 mg/L	05/28/10 11:35	05/28/10
	Lead (Pb)	0.15	0.0050 mg/L	05/28/10 11:35	05/28/10
			-		

Sample results were calculated on a wet weight basis. ND = Not Detected

Roger Scholl

Kandy Sandmer

Dalter Arihun

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical. Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

A 6/4/10 **Report Date** 



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### **ANALYTICAL REPORT**

HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Attn: Clayton Mokri Phone: (916) 852-7792 (916) 852-7836 Fax: Date Received : 05/26/10

Job: NTD

Oil and Grease, HEM EPA Method 1664A					
Pa	arameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: SB02GW15052610 Lab ID : E2M10052741-16A Oil & Date Sampled 05/26/10 16:30	Grease, HEM	ND	5.0 mg/L	06/02/10	06/02/10
Client lD: <b>SB07GW17052610</b> Lab lD : E2M10052741-17A Oil & Date Sampled 05/26/10 09:40	Grease, HEM	ND	5.0 mg/L	06/02/10	06/02/10

HEM = Hexane Extractable Material

ND = Not Detected

Roger Scholl

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6/4/10



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### **ANALYTICAL REPORT**

HDR   E2M
2365 Iron Point Road
Folsom, CA 95630

Attn: Clayton Mokri Phone: (916) 852-7792 Fax: (916) 852-7836 Date Received : 05/26/10

Job:	NTD

pH (Soil) EPA Method SW9045D							
	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed		
Client ID: SB0108SO052610							
Lab ID : E2M10052741-02A	рН	8.0	1.7 pH Units	06/01/10 11:32	06/01/10 15:52		
Date Sampled 05/26/10 13:40	pH - Temperature	20	1.0 °C	06/01/10 11:32	06/01/10 15:52		
Client ID: SB0510SO052610							
Lab ID : E2M10052741-11A	pН	8.0	I.7 pH Units	06/01/10 11:32	06/01/10 15:55		
Date Sampled 05/26/10 11:30	pH - Temperature	20	1.0 °C	06/01/10 11:32	06/01/10 15:55		
Client ID: SB0710SO052610							
Lab ID : E2M10052741-14A	рН	7.8	1.7 pH Units	06/01/10 11:32	06/01/10 15:58		
Date Sampled 05/26/10 09:15	pH - Temperature	20	1.0 °C	06/01/10 11:32	06/01/10 15:58		

Roger Scholl

Walter Hindman

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Kandy Dandmer

6/4/10 **Report Date** 



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### ANALYTICAL REPORT

HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Job: NTD

Clayton Mokri Attn: (916) 852-7792 Phone: Fax: (916) 852-7836 Date Received : 05/26/10

### pH (Range 1.7 to 12.4) EPA Method 150.2 / SM4500HB / SW9040C

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: SB02GW15052610					
Lab ID : E2M10052741-16A	рН	7.7	1.7 pH Units	05/27/10 14:29	05/27/10 14:29
Date Sampled 05/26/10 16:30	pH - Temperature	19	1.0 °C	05/27/10 14:29	05/27/10 14:29
Client ID: SB07GW17052610					
Lab ID : E2M10052741-17A	рН	7.1	1.7 pH Units	05/27/10 14:32	05/27/10 14:32
Date Sampled 05/26/10 09:40	pH - Temperature	19	1.0 °C	05/27/10 14:32	05/27/10 14:32

The EPA has established an analytical holding time of 15 minutes for this method as documented in the Methods Update Rule, Federal Register, Vol 72, No 47, March 2007. This holding time will always be exceeded, unless samples are analyzed in the field.

The laboratory performed this analysis in the shortest practical holding time after sample receipt.

Roger Scholl

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6/4/10

**Report Date** 



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### ANALYTICAL REPORT

HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Job: NTD

Attn: Clayton Mokri Phone: (916) 852-7792 Fax: (916) 852-7836 Date Received : 05/26/10

Phosphorus EPA Method 365.3 / SM4500PE								
	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed			
Client ID: SB02GW15052610 Lab ID : E2M10052741-16A P Date Sampled 05/26/10 16:30	hosphorus, Total (As P)	50	5.0 mg/L	06/02/10	06/02/10			
Client ID: SB07GW17052610 Lab ID : E2M10052741-17A P Date Sampled 05/26/10 09:40	Phosphorus, Total (As P)	2.0	0.50 mg/L	06/02/10	06/02/10			

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Kandy Sandmer

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CA/10 Report Date



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### **ANALYTICAL REPORT**

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 Attn:Clayton MokriPhone:(916) 852-7792Fax:(916) 852-7836Date Received : 05/26/10

Job: NTD

Total Dissolved Solids (TDS) SM2540C								
	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed			
Client ID: <b>SB02GW15052610</b> Lab ID : E2M10052741-16A Date Sampled 05/26/10 16:30	Solids, Total Dissolved (TDS)	670	10 mg/L	05/28/10	05/28/10			
Client ID: <b>SB07GW17052610</b> Lab ID : E2M10052741-17A Date Sampled 05/26/10 09:40	Solids, Total Dissolved (TDS)	1,900	10 mg/L	05/28/10	05/28/10			

Roger Scholl

Kandy Sandmer

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6/4/10 **Report Date** 



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### **ANALYTICAL REPORT**

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 Attn:Clayton MokriPhone:(916) 852-7792Fax:(916) 852-7836Date Received : 05/26/10

Job: NTD

### Total Petroleum Hydrocarbons - Extractable (TPH-E) EPA Method SW8015B Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B

					Reporting	Date	Date
		Parameter	Concentra	tion	Limit	Extracted	Analyzed
Client ID :	SB0102SO052610						-
Lab ID :	E2M10052741-01A	TPH-E (DRO)	340	L	100 mg/Kg	06/02/10 10:35	06/02/10
Date Sampled	05/26/10 13:30	TPH-E (ORO)	2,800	-	100 mg/Kg	06/02/10 10:35	06/02/10
		TPH-P (GRO)	ND		10 mg/Kg	05/28/10	05/28/10
Client ID :	SB0108SO052610						
Lab ID :	E2M10052741-02A	TPH-E (DRO)	290	L	100 mg/Kg	06/02/10 10:35	06/02/10
Date Sampled	05/26/10 13:40	TPH-E (ORO)	2,000		100 mg/Kg	06/02/10 10:35	06/02/10
		TPH-P (GRO)	ND		10 mg/Kg	05/28/10	05/28/10
Client ID :	SB0113SO052610						
Lab ID :	E2M10052741-03A	TPH-E (DRO)	ND		10 mg/Kg	06/02/10 10:35	06/02/10
Date Sampled	05/26/10 13:50	TPH-E (ORO)	ND		10 mg/Kg	06/02/10 10:35	06/02/10
Cliant ID	SB020250052/10	TPH-P (GRO)	ND		10 mg/Kg	05/28/10	05/28/10
Client ID : Lab ID :	SB0202SO052610				1.0 177	04/00/10 10 25	06/00/10
	E2M10052741-04A	TPH-E (DRO)	ND		10 mg/Kg	06/02/10 10:35	06/02/10 06/02/10
Date Sampled	05/26/10 15:15	TPH-E (ORO) TPH-P (GRO)	ND ND		10 mg/Kg 10 mg/Kg	06/02/10 10:35 06/02/10	06/02/10
Client ID :	SB0208SO052610	IIII-I (OKO)	ND		TO ING/Kg	00/02/10	00/02/10
Lab ID :	E2M10052741-05A	TPH-E (DRO)	49	L	25 mg/Kg	06/02/10	06/02/10
	05/26/10 15:50	TPH-E (ORO)	49 180	L	50 mg/Kg	06/02/10	06/02/10
Date Sampled	05/20/10 15.50	TPH-P (GRO)	ND		10 mg/Kg	06/02/10	06/02/10
Client ID :	SB0215SO052610						
Lab ID :	E2M10052741-06A	TPH-E (DRO)	ND		10 mg/Kg	06/02/10 10:35	06/02/10
Date Sampled	05/26/10 16:10	TPH-E (ORO)	ND		10 mg/Kg	06/02/10 10:35	06/02/10
•		TPH-P (GRO)	ND		10 mg/Kg	06/02/10	06/02/10
Client ID :	SB0401SO052610						
Lab ID :	E2M10052741-07A	TPH-E (DRO)	220	L	100 mg/Kg	06/02/10 10:35	06/02/10
Date Sampled	05/26/10 08:10	TPH-E (ORO)	1,800		100 mg/Kg	06/02/10 10:35	06/02/10
		TPH-P (GRO)	ND		10 mg/Kg	06/04/10	06/04/10
Client ID :	SB0410SO052610						
Lab ID :	E2M10052741-08A	TPH-E (DRO)	49	L	25 mg/Kg	06/02/10 10:35	06/02/10
Date Sampled	05/26/10 07:45	TPH-E (ORO)	240		50 mg/Kg	06/02/10 10:35	06/02/10
Client ID :	SB041750052610	TPH-P (GRO)	ND		10 mg/Kg	06/02/10	06/02/10
Lab ID :	SB0417SO052610			-	100 77	0.000/10.10.05	0.4/00/110
	E2M10052741-09A	TPH-E (DRO)	130	L	100 mg/Kg	06/02/10 10:35	06/02/10
Date Sampled	05/26/10 08:00	TPH-E (ORO) TPH-P (GRO)	850		100 mg/Kg 10 mg/Kg	06/02/10 10:35 06/04/10	06/02/10 06/04/10
Client ID :	SB0502SO052610		ND		TO mg/Kg	00/04/10	10/07/10
Lab ID :	E2M10052741-10A	TPH-E (DRO)	42	L .	25 mg/Kg	06/02/10 10:35	06/02/10
	05/26/10 11:05	TPH-E (ORO)	42	L.	50 mg/Kg	06/02/10 10:35	06/02/10
2 and 3 amplea		TPH-P (GRO)	ND		10 mg/Kg	06/04/10	06/04/10
Client ID :	SB0510SO052610	<pre></pre>					
Lab ID :	E2M10052741-11A	TPH-E (DRO)	ND		10 mg/Kg	06/02/10 10:35	06/02/10
Date Sampled	05/26/10 11:30	TPH-E (ORO)	ND		10 mg/Kg	06/02/10 10:35	06/02/10
-		TPH-P (GRO)	ND		10 mg/Kg	06/04/10	06/04/10
					• •		



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Client ID :	SB0517SO052610					
Lab ID :	E2M10052741-12A	TPH-E (DRO)	ND	10 mg/Kg	06/02/10 10:35	06/02/10
Date Sampled	05/26/10 11:45	TPH-E (ORO)	ND	10 mg/Kg	06/02/10 10:35	06/02/10
		TPH-P (GRO)	ND	10 mg/Kg	06/04/10	06/04/10
Client ID :	SB0702SO052610					
Lab ID :	E2M10052741-13A	TPH-E (DRO)	260 L	100 mg/Kg	06/02/10 10:35	06/02/10
Date Sampled	05/26/10 08:55	TPH-E (ORO)	2,200	100 mg/Kg	06/02/10 10:35	06/02/10
-		TPH-P (GRO)	ND	10 mg/Kg	06/04/10	06/04/10
Client ID :	SB0710SO052610					
Lab ID :	E2M10052741-14A	TPH-E (DRO)	ND	10 mg/Kg	06/02/10 10:35	06/02/10
Date Sampled	05/26/10 09:15	TPH-E (ORO)	ND	10 mg/Kg	06/02/10 10:35	06/02/10
_		TPH-P (GRO)	ND	10 mg/Kg	06/02/10	06/02/10
Client ID :	SB0717SO052610					
Lab ID :	E2M10052741-15A	TPH-E (DRO)	ND	10 mg/Kg	06/02/10 10:35	06/02/10
Date Sampled	05/26/10 09:25	TPH-E (ORO)	ND	10 mg/Kg	06/02/10 10:35	06/02/10
		TPH-P (GRO)	ND	10 mg/Kg	06/02/10	06/02/10
Client ID :	SB02GW15052610					
Lab ID :	E2M10052741-16A	TPH-E (DRO)	ND	0.50 mg/L	05/27/10 13:35	05/28/10
Date Sampled	05/26/10 16:30	TPH-E (ORO)	ND	0.50 mg/L	05/27/10 13:35	05/28/10
		TPH-P (GRO)	ND	0.50 mg/L	05/28/10	05/28/10
Client ID :	SB07GW17052610					
Lab ID :	E2M10052741-17A	TPH-E (DRO)	ND	0.50 mg/L	05/27/10 13:35	05/28/10
Date Sampled	05/26/10 09:40	TPH-E (ORO)	ND	0.50 mg/L	05/27/10 13:35	05/28/10
		TPH-P (GRO)	ND	0.50 mg/L	05/28/10	05/28/10

Diesel Range Organics (DRO) C13-C22

Gasoline Range Organics (GRO) C4-C13

L = DRO concentration may include contributions from heavier-end hydrocarbons that elute in the DRO range.

Oil Range Organics (ORO) C22-C40+

Sample results were calculated on a wet weight basis. ND = Not Detected

Roger Scholl

Kandy Santur

Walter Hinhur

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6/4/10

**Report Date** 



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

## Alpha Analytical, Inc.

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### **ANALYTICAL REPORT**

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-01A Client I.D. Number: SB0102SO052610 Sampled: 05/26/10 13:30 Received: 05/26/10 Extracted: 05/28/10 Analyzed: 05/28/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	40	µg/Kg	36	Bromoform	ND	40	µg/Kg
2	Chloromethane	ND	160	µg/Kg	37	Styrene	ND	40	µg/Kg
3	Vinyl chloride	ND	40	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	40	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	40	µg/Kg
5	Bromomethane	ND	160	µg/Kg	40	1,2,3-Trichloropropane	ND	160	µg/Kg
6	Trichlorofluoromethane	ND	40	µg/Kg	41	Isopropylbenzene	ND	40	µg/Kg
7	1,1-Dichloroethene	ND	40	µg/Kg	42	Bromobenzene	ND	40	µg/Kg
8	Dichloromethane	ND	160	µg/Kg	43	n-Propylbenzene	ND	40	µg/Kg
9	trans-1,2-Dichloroethene	ND	40	µg/Kg	44	4-Chlorotoluene	ND	40	µg/Kg
10	1,1-Dichloroethane	ND	40	µg/Kg	45	2-Chlorotoluene	ND	40	µg/Kg
11	cis-1,2-Dichloroethene	ND	40	µg/Kg	46	1,3,5-Trimethylbenzene	ND	40	µg/Kg
12	Bromochloromethane	ND	40	µg/Kg	47	tert-Butylbenzene	ND	40	µg/Kg
13	Chloroform	ND	40	µg/Kg	48	1,2,4-Trimethylbenzene	ND	40	µg/Kg
14	2,2-Dichloropropane	ND	40	µg/Kg	49	sec-Butylbenzene	ND	40	µg/Kg
15	1,2-Dichloroethane	ND	40	µg/Kg	50	1,3-Dichlorobenzene	ND	40	µg/Kg
16	1,1,1-Trichloroethane	ND	40	µg/Kg	51	1,4-Dichlorobenzene	ND	40	µg/Kg
17	1,1-Dichloropropene	ND	40	µg/Kg	52	4-Isopropyltoluene	ND	40	µg/Kg
18	Carbon tetrachloride	ND	40	µg/Kg	53	1,2-Dichlorobenzene	ND	40	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	40	µg/Kg
20	Dibromomethane	ND	40	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	240	µg/Kg
21	1,2-Dichloropropane	ND	40	µg/Kg	56	1,2,4-Trichlorobenzene	ND	160	µg/Kg
22	Trichloroethene	ND	40	µg/Kg	57	Naphthalene	ND	160	µg/Kg
23	Bromodichloromethane	ND	40	µg/Kg	58	Hexachlorobutadiene	ND	160	µg/Kg
24	cis-1,3-Dichloropropene	ND	40	µg/Kg	59	1,2,3-Trichlorobenzene	ND	160	µg/Kg
25	trans-1,3-Dichloropropene	ND	40	µg/Kg					
26	1,1,2-Trichloroethane	ND	40	µg/Kg					
27	Toluene	ND	20	µg/Kg					
28	1,3-Dichloropropane	ND	40	µg/Kg					
29	Dibromochloromethane	ND	40	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	160	µg/Kg					
31	Tetrachloroethene	ND	40	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	40	µg/Kg					
~~									

Some Reporting Limits were increased due to high concentrations of target analytes.

ND

ND

ND

Sample results were calculated on a wet weight basis. ND = Not Detected

33 Chlorobenzene

m,p-Xylene

Ethylbenzene

34

35

Roger Scholl

40

20

20

µg/Kg

µg/Kg

µg/Kg

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Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

Report Date



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

# Alpha Analytical, Inc.

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### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-02A Client I.D. Number: SB0108SO052610

Sampled:	05/26/10 13:40
Received:	05/26/10
Extracted:	05/28/10
Analyzed:	05/28/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	EFA Method Sw8200D								
	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND	20	µg/Kg
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/Kg
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	µg/Kg
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	µg/Kg
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	µg/Kg
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND	20	µg/Kg
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/Kg
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chlorotoluene	ND	20	µg/Kg
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/Kg
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/Kg
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	µg/Kg
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND	20	µg/Kg
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butylbenzene	ND	20	µg/Kg
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND	20	µg/Kg
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND	20	µg/Kg
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-Isopropyltoluene	ND	20	µg/Kg
18	Carbon tetrachloride	ND	20	µg/Kg	53	1,2-Dichlorobenzene	ND	20	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	20	µg/Kg
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	120	µg/Kg
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND	80	µg/Kg
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND	80	µg/Kg
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND	80	µg/Kg
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND	80	µg/Kg
25	trans-1,3-Dichloropropene	ND	20	µg/Kg					
26	1,1,2-Trichloroethane	ND	20	µg/Kg					
27	Toluene	ND	20	µg/Kg					
28	1,3-Dichloropropane	ND	20	µg/Kg					
29	Dibromochloromethane	ND	20	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg					
31	Tetrachloroethene	ND	20	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg					
33	Chlorobenzene	ND	20	µg/Kg					
24		ND							

Sample results were calculated on a wet weight basis. ND = Not Detected

34 Ethylbenzene

35 m,p-Xylene

Roger Scholl

ND

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

20 µg/Kg

20 µg/Kg

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

*6/4/10* 

**Report Date** 



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-03A Client I.D. Number: SB0113SO052610

HDR | E2M

Job:

2365 Iron Point Road Folsom, CA 95630

NTD

Sampled:	05/26/10 13:50
Received:	05/26/10
Extracted:	05/28/10
Analyzed:	05/28/10

#### Volatile Organics by GC/MS EPA Method SW8260B

				- wicult	u o n	78200 <b>D</b>			
	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND	20	µg/Kg
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/Kg
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	µg/Kg
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	µg/Kg
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	µg/Kg
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND	20	µg/Kg
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/Kg
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chlorotoluene	ND	20	µg/Kg
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/Kg
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/Kg
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	µg/Kg
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND	20	µg/Kg
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butylbenzene	ND	20	µg/Kg
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND	20	µg/Kg
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND	20	µg/Kg
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-Isopropyltoluene	ND	20	µg/Kg
18	Carbon tetrachloride	ND	20	µg/Kg	53	1,2-Dichlorobenzene	ND	20	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	20	µg/Kg
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	120	µg/Kg
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND	80	µg/Kg
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND	80	µg/Kg
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND	80	µg/Kg
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND	80	µg/Kg
25	trans-1,3-Dichloropropene	ND	20	µg/Kg					
26	1,1,2-Trichloroethane	ND	20	µg/Kg					
27	Toluene	ND	20	µg/Kg					
28	1,3-Dichloropropane	ND	20	µg/Kg					
29	Dibromochloromethane	ND	20	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg					
31	Tetrachloroethene	ND	20	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg					
33	Chlorobenzene	ND	20	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg					
25	an a Vidaaa	ND							

Sample results were calculated on a wet weight basis. ND = Not Detected

35 m,p-Xylene

Roger Scholl

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

20 µg/Kg

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

Report Date Page 1 of 1



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 Job: NTD

Alpha Analytical Number: E2M10052741-04A Client I.D. Number: SB0202SO052610

### Sampled: 05/26/10 15:15 Received: 05/26/10 Extracted: 06/02/10 Analyzed: 06/02/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND	20	µg/Kg
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/Kg
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	µg/Kg
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	µg/Kg
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	µg/Kg
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND	20	µg/Kg
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/Kg
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chlorotoluene	ND	20	µg/Kg
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/Kg
11	cis-1,2-Dichloroethene	ND ·	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/Kg
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	µg/Kg
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND	20	µg/Kg
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butylbenzene	ND	20	µg/Kg
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND	20	µg/Kg
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND	20	µg/Kg
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-Isopropyltoluene	ND	20	µg/Kg
18	Carbon tetrachloride	ND	20	µg/Kg	53	1,2-Dichlorobenzene	ND	20	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	20	µg/Kg
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	120	µg/Kg
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND	80	µg/Kg
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND	80	µg/Kg
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND	80	µg/Kg
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND	80	µg/Kg
25	trans-1,3-Dichloropropene	ND	20	µg/Kg					
26	1,1,2-Trichloroethane	ND	20	µg/Kg					
27	Toluene	ND	20	µg/Kg					
28	1,3-Dichloropropane	ND	20	µg/Kg					
29	Dibromochloromethane	ND	20	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg					
31	Tetrachloroethene	ND	20	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg					
33	Chlorobenzene	ND	20	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg					
35	m,p-Xylene	ND	20	µg/Kg					

Sample results were calculated on a wet weight basis. ND = Not Detected

Roger Scholl

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

Report Date



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

## Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-05A Client I.D. Number: SB0208SO052610

Sampled:	05/26/10 15:50
Received:	05/26/10
Extracted:	06/02/10
Analyzed:	06/02/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	imit
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND	20	µg/Kg
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/Kg
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	µg/Kg
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	µg/Kg
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	µg/Kg
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND	20	µg/Kg
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/K <b>g</b>
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chlorotoluene	ND	20	µg/Kg
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/Kg
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/Kg
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	µg/Kg
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND	20	µg/Kg
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butylbenzene	ND	20	µg/Kg
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND	20	µg/Kg
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND	20	µg/Kg
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-Isopropyltoluene	ND	20	µg/Kg
18	Carbon tetrachloride	ND	20	µg/Kg	53	1,2-Dichlorobenzene	ND	20	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	20	µg/Kg
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBCI	P) ND	120	µg/K <b>g</b>
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND	80	µg/K <b>g</b>
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND	80	µg/Kg
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND	80	µg/Kg
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND	80	µg/Kg
25	trans-1,3-Dichloropropene	ND	20	µg/Kg					
26	1,1,2-Trichloroethane	ND	20	µg/Kg					
27	Toluene	ND	20	µg/Kg					
28	1,3-Dichloropropane	ND	20	µg/Kg					
29	Dibromochloromethane	ND	20	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	- 80	µg/Kg					
31	Tetrachloroethene	ND	20	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg					
33	Chlorobenzene	ND	20	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg					
35	m,p-Xylene	ND	20	µg/Kg					

Sample results were calculated on a wet weight basis. ND = Not Detected

Rogen Scholl

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6 **/ X** /

Report Date



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

## Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-06A Client I.D. Number: SB0215SO052610

Sampled:	05/26/10 16:10
Received:	05/26/10
Extracted:	06/02/10
Analyzed:	06/02/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	imit
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND	20	µg/Kg
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/Kg
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	μg/Kg
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	μg/Kg
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	μg/Kg
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND	20	μg/Kg
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/Kg
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chlorotoluene	ND	20	µg/Kg
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/Kg
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/Kg
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	μg/Kg
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND	20	μg/Kg
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butylbenzene	ND	20	μg/Ko
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND	20	μg/Kg
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND	20	μg/Kg
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-isopropyltoluene	ND	20	μg/Kg
18	Carbon tetrachloride	ND	20	µg/Kg	53	1,2-Dichlorobenzene	ND	20	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	20	µg/Kg
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	120	μg/K
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND	80	µg/Kg
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND	80	µg/Kg
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND	80	μg/Kg
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND	80	μg/Kg
25	trans-1,3-Dichloropropene	ND	20	µg/Kg					
26	1,1,2-Trichloroethane	ND	20	µg/Kg					
27	Toluene	ND	20	µg/Kg					
28	1,3-Dichloropropane	ND	20	µg/Kg					
29	Dibromochloromethane	ND	20	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg					
31	Tetrachloroethene	ND	20	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg					
33	Chlorobenzene	ND	20	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg					
35	•	ND	20	µg/Kg					

Sample results were calculated on a wet weight basis. ND = Not Detected

Roger Scholl

Da

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

Report Date Page 1 of 1



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-07A Client I.D. Number: SB0401SO052610

Sampled:	05/26/10 08:10
Received:	05/26/10
Extracted:	06/04/10
Analyzed:	06/04/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	80	µg/Kg	36	Bromoform	ND	80	µg/Kg
2	Chloromethane	ND	320	µg/Kg	37	Styrene	ND	80	µg/Kg
3	Vinyl chloride	ND	80	µg/Kg	38	o-Xylene	ND	40	µg/Kg
4	Chloroethane	ND	80	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	80	µg/Kg
5	Bromomethane	ND	320	µg/Kg	40	1,2,3-Trichloropropane	ND	320	µg/Kg
6	Trichlorofluoromethane	ND	80	µg/Kg	41	Isopropylbenzene	ND	80	µg/Kg
7	1,1-Dichloroethene	ND	80	µg/Kg	42	Bromobenzene	ND	80	µg/Kg
8	Dichloromethane	ND	320	µg/Kg	43	n-Propylbenzene	ND	80	µg/Kg
9	trans-1,2-Dichloroethene	ND	80	µg/Kg	44	4-Chlorotoluene	ND	80	µg/Kg
10	1,1-Dichloroethane	ND	80	µg/Kg	45	2-Chlorotoluene	ND	80	µg/Kg
11	cis-1,2-Dichloroethene	ND	80	µg/Kg	46	1,3,5-Trimethylbenzene	ND	80	µg/Kg
12	Bromochloromethane	ND	80	µg/Kg	47	tert-Butylbenzene	ND	80	µg/Kg
13	Chloroform	ND	80	µg/Kg	48	1,2,4-Trimethylbenzene	ND	80	µg/Kg
14	2,2-Dichloropropane	ND	80	µg/Kg	49	sec-Butylbenzene	ND	80	µg/Kg
15	1,2-Dichloroethane	ND	80	µg/Kg	50	1,3-Dichlorobenzene	ND	80	µg/Kg
16	1,1,1-Trichloroethane	ND	80	µg/Kg	51	1,4-Dichlorobenzene	ND	80	µg/Kg
17	1,1-Dichloropropene	ND	80	µg/Kg	52	4-Isopropyltoluene	ND	80	µg/Kg
18	Carbon tetrachloride	ND	80	µg/Kg	53	1,2-Dichlorobenzene	ND	80	µg/Kg
19	Benzene	ND	40	µg/Kg	54	n-Butylbenzene	ND	80	µg/Kg
20	Dibromomethane	ND	80	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	480	µg/Kg
21	1,2-Dichloropropane	ND	80	µg/Kg	56	1,2,4-Trichlorobenzene	ND	320	µg/Kg
22	Trichloroethene	ND	80	µg/Kg	57	Naphthalene	ND	320	µg/Kg
23	Bromodichloromethane	ND	80	µg/Kg	58	Hexachlorobutadiene	ND	320	µg/Kg
24	cis-1,3-Dichloropropene	ND	80	µg/Kg	59	1,2,3-Trichlorobenzene	ND	320	µg/Kg
25	trans-1,3-Dichloropropene	ND	80	µg/Kg					
26	1,1,2-Trichloroethane	ND	80	µg/Kg					
27	Toluene	ND	40	µg/Kg					
28	1,3-Dichloropropane	ND	80	µg/Kg					
29	Dibromochloromethane	ND	80	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	320	µg/Kg					
31	Tetrachloroethene	ND	80	µg/Kg					
~~	A A A O Talas ablass allows								

Reporting Limits were increased due to high concentrations of target analytes.

ND

ND

ND

ND

Sample results were calculated on a wet weight basis. ND = Not Detected

1,1,1,2-Tetrachioroethane

33 Chlorobenzene

34 Ethylbenzene

35 m,p-Xylene

32

Roger Scholl

ulm

80

80

40

40 µg/Kg

µg/Kg

µg/Kg

µg/Kg

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

**Report Date** 



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

## Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-08A Client I.D. Number: SB0410SO052610

Sampled:	05/26/10 07:45
Received:	05/26/10
Extracted:	06/02/10
Analyzed:	06/02/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND	20	µg/Kg
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/Kg
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	µg/Kg
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	µg/Kg
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	µg/Kg
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND	20	µg/Kg
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/Kg
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chlorotoluene	ND	20	µg/Kg
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/Kg
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/Kg
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	µg/Kg
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND	20	µg/Kg
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butylbenzene	ND	20	µg/Kg
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND	20	µg/Kg
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND	20	µg/Kg
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-Isopropyltoluene	ND	20	µg/Kg
18	Carbon tetrachloride	ND	20	µg/Kg	53	1.2-Dichlorobenzene	ND	20	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	20	µg/Kg
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	120	µg/Kg
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND	80	µg/Kg
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND	80	µg/Kg
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND	80	µg/Kg
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND	80	µg/Kg
25	trans-1,3-Dichloropropene	ND	20	µg/Kg					
26	1,1,2-Trichloroethane	ND	20	µg/Kg					
27	Toluene	ND	20	µg/Kg					
28	1,3-Dichloropropane	ND	20	µg/Kg					
29	Dibromochloromethane	ND	20	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg					
31	Tetrachloroethene	ND	20	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg					
33	Chlorobenzene	ND	20	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg					
35	m,p-Xylene	ND	20	µg/Kg					

Sample results were calculated on a wet weight basis. ND = Not Detected

Roger Scholl

Kandy Danlmer

Walter Hindren

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.



•



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### **ANALYTICAL REPORT**

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-09A Client I.D. Number: SB0417SO052610

HDR | E2M

Job:

2365 Iron Point Road Folsom, CA 95630

NTD

Sampled:	05/26/10 08:00
Received:	05/26/10
Extracted:	06/04/10
Analyzed:	06/04/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	40	µg/Kg	36	Bromoform	ND	40	µg/K
2	Chloromethane	ND	160	µg/Kg	37	Styrene	ND	40	µg/K
3	Vinyl chloride	ND	40	µg/Kg	38	o-Xylene	ND	20	µg/K
4	Chloroethane	ND	40	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	40	µg/K
5	Bromomethane	ND	160	µg/Kg	40	1,2,3-Trichloropropane	ND	160	µg/K
6	Trichlorofluoromethane	ND	40	µg/Kg	41	Isopropylbenzene	ND	40	µg/K
7	1,1-Dichloroethene	ND	40	µg/Kg	42	Bromobenzene	ND	40	µg/K
8	Dichloromethane	ND	160	µg/Kg	43	n-Propylbenzene	ND	40	µg/K
9	trans-1,2-Dichloroethene	ND	40	µg/Kg	44	4-Chlorotoluene	ND	40	µg/K
10	1,1-Dichloroethane	ND	40	µg/Kg	45	2-Chlorotoluene	ND	40	µg/K
11	cis-1,2-Dichloroethene	ND	40	µg/Kg	46	1,3,5-Trimethylbenzene	ND	40	µg/K
12	Bromochloromethane	ND	40	µg/Kg	47	tert-Butylbenzene	ND	40	µg/K
13	Chloroform	ND	40	µg/Kg	48	1,2,4-Trimethylbenzene	ND	40	µg/K
14	2,2-Dichloropropane	ND	40	µg/Kg	49	sec-Butylbenzene	ND	40	µg/K
15	1,2-Dichloroethane	ND	40	µg/Kg	50	1,3-Dichlorobenzene	ND	40	µg/K
16	1,1,1-Trichloroethane	ND	40	µg/Kg	51	1,4-Dichlorobenzene	ND	40	µg/K
17	1,1-Dichloropropene	ND	40	µg/Kg	52	4-Isopropyltoluene	ND	40	µg/K
18	Carbon tetrachloride	ND	40	µg/Kg	53	1,2-Dichlorobenzene	ND	40	µg/K
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	40	µg/K
20	Dibromomethane	ND	40	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	240	µg/K
21	1,2-Dichloropropane	ND	40	µg/Kg	56	1,2,4-Trichlorobenzene	ND	160	µg/K
22	Trichloroethene	ND	40	µg/Kg	57	Naphthalene	ND	160	µg/K
23	Bromodichloromethane	ND	40	µg/Kg	58	Hexachlorobutadiene	ND	. 160	µg/K
24	cis-1,3-Dichloropropene	ND	40	µg/Kg	59	1,2,3-Trichlorobenzene	ND	160	µg/K
25	trans-1,3-Dichloropropene	ND	40	µg/Kg					
26	1,1,2-Trichloroethane	ND	40	µg/Kg					
27	Toluene	ND	20	µg/Kg					
28	1,3-Dichloropropane	ND	40	µg/Kg					
29	Dibromochloromethane	ND	40	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	160	µg/Kg					
31	Tetrachloroethene	ND	40	µg/Kg					
32	1,1,1,2-Tetrachioroethane	ND	40	µg/Kg					
33	Chlorobenzene	ND	40	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg					

Some Reporting Limits were increased due to high concentrations of target analytes.

ND

Sample results were calculated on a wet weight basis. ND = Not Detected

35 m,p-Xylene

Roger Scholl

20 µg/Kg

alter Al

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

**Report Date** 



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-10A Client I.D. Number: SB0502SO052610

Sampled:	05/26/10 11:05
Received:	05/26/10
Extracted:	06/04/10
Analyzed:	06/04/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	40	µg/Kg	36	Bromoform	ND	40	µg/Kg
2	Chloromethane	ND	160	µg/Kg	37	Styrene	ND	40	µg/Kg
3	Vinyl chloride	ND	40	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	40	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	40	µg/Kg
5	Bromomethane	ND	160	µg/Kg	40	1,2,3-Trichloropropane	ND	160	µg/Kg
6	Trichlorofluoromethane	ND	40	µg/Kg	41	Isopropylbenzene	ND	40	µg/Kg
7	1,1-Dichloroethene	ND	40	µg/Kg	42	Bromobenzene	ND	40	µg/Kg
8	Dichloromethane	ND	160	µg/Kg	43	n-Propylbenzene	ND	40	µg/Kg
9	trans-1,2-Dichloroethene	ND	40	µg/Kg	44	4-Chlorotoluene	ND	40	µg/Kg
10	1,1-Dichloroethane	ND	40	µg/Kg	45	2-Chlorotoluene	ND	40	µg/Kg
11	cis-1,2-Dichloroethene	ND	40	µg/Kg	46	1,3,5-Trimethylbenzene	ND	40	µg/Kg
12	Bromochloromethane	ND	40	µg/Kg	47	tert-Butylbenzene	ND	40	µg/Kg
13	Chloroform	ND	40	µg/Kg	48	1,2,4-Trimethylbenzene	ND	40	<b>µg</b> /Kg
14	2,2-Dichloropropane	ND	40	µg/Kg	49	sec-Butylbenzene	ND	40	µg/Kg
15	1,2-Dichloroethane	ND	40	µg/Kg	50	1,3-Dichlorobenzene	ND	40	µg/Kg
16	1,1,1-Trichloroethane	ND	40	µg/Kg	51	1,4-Dichlorobenzene	ND	40	µg/Kg
17	1,1-Dichloropropene	ND	40	µg/Kg	52	4-Isopropyltoluene	ND	40	µg/Kg
18	Carbon tetrachloride	ND	40	µg/Kg	53	1,2-Dichlorobenzene	ND	40	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	40	µg/Kg
20	Dibromomethane	ND	40	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	240	µg/Kg
21	1,2-Dichloropropane	ND	40	µg/Kg	56	1,2,4-Trichlorobenzene	ND	160	µg/Kg
22	Trichloroethene	ND	40	µg/Kg	57	Naphthalene	ND	160	µg/Kg
23	Bromodichloromethane	ND	40	µg/Kg	58	Hexachlorobutadiene	ND	160	µg/Kg
24	cis-1,3-Dichloropropene	ND	40	µg/Kg	59	1,2,3-Trichlorobenzene	ND	160	µg/Kg
25	trans-1,3-Dichloropropene	ND	40	µg/Kg					
26	1,1,2-Trichloroethane	ND	40	µg/Kg					
27	Toluene	ND	20	µg/Kg					
28	1,3-Dichloropropane	ND	40	µg/Kg					
29	Dibromochloromethane	ND	40	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	160	µg/Kg					
31	Tetrachloroethene	ND	40	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	40	µg/Kg					
33	Chlorobenzene	ND	40	µg/Kg					

Some Reporting Limits were increased due to high concentrations of target analytes.

ND

ND

Sample results were calculated on a wet weight basis. ND = Not Detected

34 Ethylbenzene

35 m,p-Xylene

Roger Scholl

La Dandmer

20 µg/Kg

20 µg/Kg

lter Arihan

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

**Report Date** 



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### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 Job: NTD

Alpha Analytical Number: E2M10052741-11A Client I.D. Number: SB0510SO052610

Sampled:	05/26/10 11:30
Received:	05/26/10
Extracted:	06/04/10
Analyzed:	06/04/10

#### Volatile Organics by GC/MS EPA Method SW8260B

			EPA	A Metho	dSW	8260B			
	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND	20	µg/Kg
1	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/Kg
2	•	ND	20	µg/Kg	38	o-Xvlene	ND	20	µg/Kg
3	Vinyl chloride	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	µg/Kg
4	Chloroethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	µg/Kg
5	Bromomethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	µg/Kg
6	Trichlorofluoromethane	ND	20	µg/Kg	42	Bromobenzene	ND	20	µg/Kg
	1,1-Dichloroethene	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/Kg
8	Dichloromethane	ND	20	µg/Kg	44	4-Chlorotoluene	ND	20	µg/Kg
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/Kg
10	1,1-Dichloroethane	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/Kg
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	µg/Kg
12	Bromochloromethane	ND	20	µg/Kg	48	1.2.4-Trimethylbenzene	ND	20	µg/Kg
13	Chloroform	ND	20	µg/Kg µg/Kg	49	sec-Butylbenzene	ND	20	
14	2,2-Dichloropropane	ND	20	µg/Kg	50	1.3-Dichlorobenzene	ND	20	µg/Kg
15	1,2-Dichloroethane		20	µg/Kg µg/Kg	51	1.4-Dichlorobenzene	ND	20	µg/Kg
16	1,1,1-Trichloroethane	ND	20	µg/Kg µg/Kg	52	4-isopropyltoluene	ND	20	µg/Kg
17	1,1-Dichloropropene	ND	20	µg/Kg µg/Kg	53		ND	20	µg/Kg
18	Carbon tetrachloride	ND			54	·	ND	20	µg/Kg
19	Benzene	ND	20	µg/Kg ₩a/Ka	55	1,2-Dibromo-3-chloropropane (DB	CP) ND	120	µg/Kg
20	Dibromomethane	ND	20	µg/Kg			ND	80	µg/Kg
21	1,2-Dichloropropane	ND	20	µg/Kg	56	Naphthalene	ND	80	µg/Kg
22		ND	20	µg/Kg	57	·	ND	80	⊨µg/Kg
23		ND	20	µg/Kg	58		ND	80	) µg/Kg
24		ND	20	µg/Kg	59	1,2,3-11011010Den2616	1		
25		ND	20						
26	1,1,2-Trichloroethane	ND	20						
27	Toluene	ND	20						
28		ND	20						
29		ND	20						
30		ND	80						
31		ND	20						
32	2 1,1,1,2-Tetrachloroethane	ND	20						
33	3 Chlorobenzene	ND	20						
34	1 Ethylbenzene	ND	20						
35	5 m,p-Xylene	ND	- 20	) µg/Kg					

Sample results were calculated on a wet weight basis. ND = Not Detected

Roger Scholl

Kandy Danlmer

lter Al. Wa

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

**Report Date** 



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-12A Client I.D. Number: SB0517SO052610

Sampled:	05/26/10 11:45
Received:	05/26/10
Extracted:	06/04/10
Analyzed:	06/04/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND	20	µg/Kg
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/Kg
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	µg/Kg
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	µg/Kg
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	µg/Kg
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND	20	µg/Kg
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/Kg
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chlorotoluene	ND	20	µg/Kg
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/Kg
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/Kg
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	µg/Kg
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND	20	µg/Kg
14	2,2-Dichloroproparie	ND	20	µg/Kg	49	sec-Butylbenzene	ND	20	µg/Kg
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND	20	µg/Kg
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND	20	µg/Kg
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-Isopropyltoluene	ND	20	µg/Kg
18	Carbon tetrachloride	ND	20	µg/Kg	53	1,2-Dichlorobenzene	ND	20	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	20	µg/Kg
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	120	µg/Kg
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND	80	µg/Kg
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND	80	µg/Kg
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND	80	µg/Kg
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND	80	µg/Kg
25	trans-1,3-Dichloropropene	ND	20	µg/Kg					
26	1,1,2-Trichloroethane	ND	20	µg/Kg					
27	Toluene	ND	20	µg/Kg					
28	1,3-Dichloropropane	ND	20	µg/Kg					
29	Dibromochloromethane	ND	20	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg					
31	Tetrachloroethene	ND	20	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg					
33	Chlorobenzene	ND	20	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg					
35	m,p-Xylene	ND	20	µg/Kg					

Sample results were calculated on a wet weight basis. ND = Not Detected

Roger Scholl

Walter S

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

**Report Date** 



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

## Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-13A Client I.D. Number: SB0702SO052610

Sampled:	05/26/10 08:55
Received:	05/26/10
Extracted:	06/04/10
Analyzed <sup>.</sup>	06/04/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	40	µg/Kg	36	Bromoform	ND	40	µg/Kg
2	Chloromethane	ND	160	µg/Kg	37	Styrene	ND	40	µg/Kg
3	Vinyl chloride	ND	40	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	40	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	40	µg/Kg
5	Bromomethane	ND	160	µg/Kg	40	1,2,3-Trichloropropane	ND	160	µg/Kg
6	Trichlorofluoromethane	ND	40	µg/Kg	41	Isopropylbenzene	ND	40	µg/Kg
7	1,1-Dichloroethene	ND	40	µg/Kg	42	Bromobenzene	ND	40	µg/Kg
8	Dichloromethane	ND	160	µg/Kg	43	n-Propylbenzene	ND	40	µg/Kg
9	trans-1,2-Dichloroethene	ND	40	µg/Kg	44	4-Chlorotoluene	ND	40	µg/Kg
10	1,1-Dichloroethane	ND	40	µg/Kg	45	2-Chlorotoluene	ND	40	µg/Kg
11	cis-1,2-Dichloroethene	ND	40	µg/Kg	46	1,3,5-Trimethylbenzene	ND	40	µg/Kg
12	Bromochloromethane	ND	40	µg/Kg	47	tert-Butylbenzerie	ND	40	µg/Kg
13	Chloroform	ND	40	µg/Kg	48	1,2,4-Trimethylbenzene	ND	40	µg/Kg
14	2,2-Dichloropropane	ND	40	µg/Kg	49	sec-Butylbenzene	ND	40	µg/Kg
15	1,2-Dichloroethane	ND	40	µg/Kg	50	1,3-Dichlorobenzene	ND	40	µg/Kg
16	1,1,1-Trichloroethane	ND	40	µg/Kg	51	1,4-Dichlorobenzene	ND	40	µg/Kg
17	1,1-Dichloropropene	ND	40	µg/Kg	52	4-Isopropyltoluene	ND	40	µg/Kg
18	Carbon tetrachloride	ND	40	µg/Kg	53	1,2-Dichlorobenzene	ND	40	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	40	µg/Kg
20	Dibromomethane	ND	40	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	240	µg/Kg
21	1,2-Dichloropropane	ND	40	µg/Kg	56	1,2,4-Trichlorobenzene	ND	160	µg/Kg
22	Trichloroethene	ND	40	µg/Kg	57	Naphthalene	ND	160	µg/Kg
23	Bromodichloromethane	ND	40	µg/Kg	58	Hexachlorobutadiene	ND	160	µg/Kg
24	cis-1,3-Dichloropropene	ND	40	µg/Kg	59	1,2,3-Trichlorobenzene	ND	160	µg/Kg
25	trans-1,3-Dichloropropene	ND	40	µg/Kg					
26	1,1,2-Trichloroethane	ND	40	µg/Kg					
27	Toluene	ND	20	µg/Kg					
28	1,3-Dichloropropane	ND	40	µg/Kg					
29	Dibromochloromethane	ND	40	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	160	µg/Kg					
31	Tetrachloroethene	ND	40	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	40	µg/Kg					
33	Chlorobenzene	ND	40	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg					
35	m,p-Xylene	ND	20	µg/Kg					

Some Reporting Limits were increased due to high concentrations of target analytes.

Sample results were calculated on a wet weight basis. ND = Not Detected

Roger Scholl

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Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10





Job:

2365 Iron Point Road Folsom, CA 95630

NTD

## Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-14A Client I.D. Number: SB0710SO052610

Sampled:	05/26/10 09:15
Received:	05/26/10
Extracted:	06/02/10
Analyzed:	06/02/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND	20	µg/Kg
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/Kg
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	µg/Kg
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	µg/Kg
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	µg/Kg
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND	20	µg/Kg
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/Kg
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chlorotoluene	ND	20	µg/Kg
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/Kg
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/Kg
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	µg/Kg
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND	20	µg/Kg
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butylbenzene	ND	20	µg/Kg
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND	20	µg/Kg
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND	20	µg/Kg
17	1,1-Dichloropropene	ND	. 20	µg/Kg	52	4-Isopropyltoluene	ND	20	µg/Kg
18	Carbon tetrachloride	ND	20	µg/Kg	53	1,2-Dichlorobenzene	ND	20	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	20	µg/Kg
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBCI	P) ND	120	µg/Kg
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND	80	µg/Kg
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND	80	µg/Kg
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND	80	µg/Kg
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND	80	µg/Kg
25	trans-1,3-Dichloropropene	ND	20	µg/Kg					
26	1,1,2-Trichloroethane	ND	20	µg/Kg					
27	Toluene	ND	20	µg/Kg					
28	1,3-Dichloropropane	ND	20	µg/Kg					
29	Dibromochloromethane	ND	20	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg					
31	Tetrachloroethene	ND	20	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg					
33	Chlorobenzene	ND	20	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg					
35	m,p-Xylene	ND	20	µg/Kg					

Sample results were calculated on a wet weight basis. ND = Not Detected

Roger Scholl

Walter A.

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.





Job:

2365 Iron Point Road Folsom, CA 95630

NTD

# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### **ANALYTICAL REPORT**

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-15A Client I.D. Number: SB0717SO052610

Sampled:	05/26/10 09:25
Received:	05/26/10
Extracted:	06/02/10
Analyzed:	06/02/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND	20	µg/Kg
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/K
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND	20	µg/K
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	µg/K
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	µg/K
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	µg/K
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND	20	µg/K
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/K
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chlorotoluene	ND	20	µg/K
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/K
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/K
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	µg/K
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND	20	µg/K
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butylbenzene	ND	20	µg/K
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND	20	µg/K
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND	20	µg/K
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-Isopropyltoluene	ND	20	µg/K
18	Carbon tetrachloride	ND	20	µg/Kg	53	1,2-Dichlorobenzene	ND	20	µg/K
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	20	µg/K
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	120	µg/K
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND	80	µg/K
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND	80	µg/K
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND	80	µg/K
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND	80	µg/K
25	trans-1,3-Dichloropropene	ND	20	µg/Kg					
26	1,1,2-Trichloroethane	ND	20	µg/Kg					
27	Toluene	ND	20	µg/Kg					
28	1,3-Dichloropropane	ND	20	µg/Kg					
29	Dibromochloromethane	ND	20	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg					
31	Tetrachloroethene	ND	20	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg					
33	Chlorobenzene	ND	20	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg					
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Sample results were calculated on a wet weight basis. ND = Not Detected

35 m,p-Xylene

Roger Scholl

ND

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20 µg/Kg

6/4/10 **Report Date** 



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### **ANALYTICAL REPORT**

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-16A Client I.D. Number: SB02GW15052610

Sampled:	05/26/10 16:30
Received:	05/26/10
Extracted:	05/28/10
Analyzed:	05/28/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	1.0	µg/L	36	Bromoform	ND	1.0	µg/l
2	Chloromethane	ND	2.0	µg/L	37	Styrene	ND	1.0	µg/l
3	Vinyl chloride	ND	1.0	µg/L	38	o-Xylene	ND	1.0	µg/l
4	Chloroethane	ND	1.0	µg/L	39	1,1,2,2-Tetrachloroethane	ND	1.0	µg/l
5	Bromomethane	ND	2.0	µg/L	40	1,2,3-Trichloropropane	ND	2.0	µg/l
6	Trichlorofluoromethane	ND	1.0	µg/L	41	Isopropylbenzene	ND	1.0	µg/l
7	1,1-Dichloroethene	ND	1.0	µg/L	42	Bromobenzene	ND	1.0	µg/l
8	Dichloromethane	ND	2.0	µg/L	43	n-Propylbenzene	ND	1.0	µg/l
9	trans-1,2-Dichloroethene	ND	1.0	µg/L	44	4-Chlorotoluene	ND	1.0	µg/I
10	1,1-Dichloroethane	ND	1.0	µg/L	45	2-Chlorotoluene	ND	1.0	µg/l
11	cis-1,2-Dichloroethene	ND	1.0	µg/L	46	1,3,5-Trimethylbenzene	ND	1.0	µg/l
12	Bromochloromethane	ND	1.0	µg/L	47	tert-Butylbenzene	ND	1.0	μg/l
13	Chloroform	ND	1.0	µg/L	48	1,2,4-Trimethylbenzene	ND	1.0	µg/l
14	2,2-Dichloropropane	ND	1.0	µg/L	49	sec-Butylbenzene	ND	1.0	μg/l
15	1,2-Dichloroethane	ND	1.0	µg/L	50	1,3-Dichlorobenzene	ND	1.0	µg/l
16	1,1,1-Trichloroethane	ND	1.0	µg/L	51	1,4-Dichlorobenzene	ND	1.0	µg/l
17	1,1-Dichloropropene	ND	1.0	μg/L	52	4-Isopropyitoluene	ND	1.0	μg/l
18	Carbon tetrachloride	ND	1.0	µg/L	53	1,2-Dichlorobenzene	ND	1.0	µg/l
19	Benzene	ND	1.0	µg/L	54	n-Butylbenzene	ND	1.0	µg/l
20	Dibromomethane	ND	1.0	µg/L	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	3.0	µg/l
21	1,2-Dichloropropane	ND	1.0	µg/L	56	1,2,4-Trichlorobenzene	ND	2.0	µg/l
22	Trichloroethene	ND	1.0	µg/L	57	Naphthalene	ND	2.0	µg/l
23	Bromodichloromethane	ND	1.0	µg/L	58	Hexachlorobutadiene	ND	2.0	µg/l
24	cis-1,3-Dichloropropene	ND	1.0	μg/L	59	1,2,3-Trichlorobenzene	ND	2.0	µg/l
25	trans-1,3-Dichloropropene	ND	1.0	μg/L					
26	1,1,2-Trichloroethane	ND	1.0	μg/L					
27	Toluene	ND	1.0	µg/L					
28	1,3-Dichloropropane	ND	1.0	µg/L					
29	Dibromochloromethane	ND	1.0	µg/L					
30	1,2-Dibromoethane (EDB)	ND	2.0	µg/L					
31	Tetrachloroethene	ND	1.0	µg/L					
32	1,1,1,2-Tetrachloroethane	ND	1.0	µg/L					
33	Chlorobenzene	ND	1.0	µg/L					
34	Ethylbenzene	ND	1.0	µg/L					
25	an a Milana		1.0	- · ·					

ND = Not Detected

35 m,p-Xylene

Roger Scholl

ND

1.0

µg/L

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Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

**Report Date** 



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

## Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### **ANALYTICAL REPORT**

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-17A Client I.D. Number: SB07GW17052610

### Sampled: 05/26/10 09:40 Received: 05/26/10 Extracted: 05/28/10 Analyzed: 05/28/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Limit	
1	Dichlorodifluoromethane	ND	1.0	µg/L	36	Bromoform	ND	1.0	µg/l
2	Chloromethane	ND	2.0	µg/L	37	Styrene	ND	1.0	µg/l
3	Vinyl chloride	ND	1.0	µg/L	38	o-Xylene	ND	1.0	μg/l
4	Chloroethane	ND	1.0	µg/L	39	1,1,2,2-Tetrachioroethane	ND	1.0	µg/l
5	Bromomethane	ND	2.0	µg/L	40	1,2,3-Trichloropropane	ND	2.0	µg/l
6	Trichlorofluoromethane	ND	1.0	µg/L	41	Isopropylbenzene	ND	1.0	µg/l
7	1,1-Dichloroethene	ND	1.0	µg/L	42	Bromobenzene	ND	1.0	µg/l
8	Dichloromethane	ND	2.0	µg/L	43	n-Propylbenzene	ND	1.0	µg/l
9	trans-1,2-Dichloroethene	ND	1.0	µg/L	44	4-Chlorotoluene	ND	1.0	µg/l
10	1,1-Dichloroethane	ND	1.0	µg/L	45	2-Chlorotoluene	ND	1.0	μg/l
11	cis-1,2-Dichloroethene	ND	1.0	µg/L	46	1,3,5-Trimethylbenzene	ND	1.0	µg/l
12	Bromochloromethane	ND	1.0	µg/L	47	tert-Butylbenzene	ND	1.0	μg/l
13	Chloroform	ND	1.0	µg/L	48	1,2,4-Trimethylbenzene	ND	1.0	µg/l
14	2,2-Dichloropropane	ND	1.0	µg/L	49	sec-Butylbenzene	ND	1.0	µg/l
15	1,2-Dichloroethane	ND	1.0	µg/L	50	1,3-Dichlorobenzene	ND	1.0	µg/l
16	1,1,1-Trichloroethane	ND	1.0	µg/L	51	1,4-Dichlorobenzene	ND	1.0	μġ/l
17	1,1-Dichloropropene	ND	1.0	µg/L	52	4-Isopropyltoluene	ND	1.0	µg/l
18	Carbon tetrachloride	ND	1.0	µg/L	53	1,2-Dichlorobenzene	ND	1.0	µg/l
19	Benzene	ND	1.0	µg/L	54	n-Butylbenzene	ND	1.0	μg/l
20	Dibromomethane	ND	1.0	µg/L	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	3.0	µg/l
21	1,2-Dichloropropane	ND	1.0	µg/L	56	1,2,4-Trichlorobenzene	ND	2.0	µg/l
22	Trichloroethene	ND	1.0	µg/L	57	Naphthalene	ND	2.0	µg/l
23	Bromodichloromethane	ND	1.0	µg/L	58	Hexachlorobutadiene	ND	2.0	µg/l
24	cis-1,3-Dichloropropene	ND	1.0	µg/L	59	1,2,3-Trichlorobenzene	ND	2.0	µg/l
25	trans-1,3-Dichloropropene	ND	1.0	µg/L					
26	1,1,2-Trichloroethane	ND	1.0	µg/L					
27	Toluene	ND	1.0	µg/L					
28	1,3-Dichloropropane	ND	1.0	µg/L					
29	Dibromochloromethane	ND	1.0	µg/L					
30	1,2-Dibromoethane (EDB)	ND	2.0	µg/L					
31	Tetrachloroethene	ND	1.0	µg/L					
32	1,1,1,2-Tetrachloroethane	ND	1.0	µg/L					
33	Chlorobenzene	ND	1.0	μg/L					
34	Ethylbenzene	ND	1.0	µg/L					

ND = Not Detected

35 m,p-Xylene

Rogen Scholl

ND

1.0

µg/L

lter Arihm 6

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/4/10

**Report Date** 



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### **ANALYTICAL REPORT**

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052741-18A Client I.D. Number: TB02GWNA052610

HDR | E2M

Job:

2365 Iron Point Road Folsom, CA 95630

NTD

### Sampled: 05/26/10 07:00 Received: 05/26/10 Extracted: 05/28/10 Analyzed: 05/28/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit			Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	1.0	µg/L	36	Bromoform	ND	1.0	μg/L
2	Chloromethane	ND	2.0	µg/L	37	Styrene	ND	1.0	µg/L
3	Vinyi chloride	ND	1.0	µg/L	38	o-Xylene	ND	1.0	µg/L
4	Chloroethane	ND	1.0	µg/L	39	1,1,2,2-Tetrachloroethane	ND	1.0	µg/L
5	Bromomethane	ND	2.0	µg/L	40	1,2,3-Trichloropropane	ND	2.0	µg/L
6	Trichlorofluoromethane	ND	1.0	µg/L	41	Isopropylbenzene	ND	1.0	µg/L
7	1,1-Dichloroethene	ND	1.0	µg/L	42	Bromobenzene	ND	1.0	µg/L
8	Dichloromethane	ND	2.0	µg/L	43	n-Propylbenzene	ND	1.0	µg/L
9	trans-1,2-Dichloroethene	ND	1.0	µg/L	44	4-Chlorotoluene	ND	1.0	μg/L
10	1,1-Dichloroethane	ND	1.0	µg/L	45	2-Chlorotoluene	ND	1.0	µg/L
11	cis-1,2-Dichloroethene	ND	1.0	µg/L	46	1,3,5-Trimethylbenzene	ND	1.0	μg/L
12	Bromochloromethane	ND	1.0	µg/L	47	tert-Butylbenzene	ND	1.0	µg/L
13	Chloroform	ND	1.0	µg/L	48	1,2,4-Trimethylbenzene	ND	1.0	µg/L
14	2,2-Dichloropropane	ND	1.0	µg/L	49	sec-Butylbenzene	ND	1.0	µg/L
15	1,2-Dichloroethane	ND	1.0	µg/L	50	1,3-Dichlorobenzene	ND	1.0	µg/L
16	1,1,1-Trichloroethane	ND	1.0	µg/L	51	1,4-Dichlorobenzene	ND	1.0	µg/L
17	1,1-Dichloropropene	ND	1.0	µg/L	52	4-Isopropyltoluene	ND	1.0	µg/L
18	Carbon tetrachloride	ND	1.0	µg/L	53	1,2-Dichlorobenzene	ND	1.0	µg/L
19	Benzene	ND	1.0	µg/L	54	n-Butylbenzene	ND	1.0	µg/L
20	Dibromomethane	ND	1.0	μg/L	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	3.0	µg/L
21	1,2-Dichloropropane	ND	1.0	µg/L	56	1,2,4-Trichlorobenzene	ND	2.0	µg/L
22	Trichloroethene	ND	1.0	µg/L	57	Naphthalene	ND	2.0	µg/L
23	Bromodichloromethane	ND	1.0	µg/L	58	Hexachlorobutadiene	ND	2.0	µg/L
24	cis-1,3-Dichloropropene	ND	1.0	µg/L	59	1,2,3-Trichlorobenzene	ND	2.0	µg/L
25	trans-1,3-Dichloropropene	ND	1.0	µg/L					
26	1,1,2-Trichloroethane	ND	1.0	µg/L					
27	Toluene	ND	1.0	µg/L					
28	1,3-Dichloropropane	ND	1.0	µg/L					
29	Dibromochloromethane	ND	1.0	µg/L					
30	1,2-Dibromoethane (EDB)	ND	2.0	μg/L					
31	Tetrachloroethene	ND	1.0	μg/L					
32	1,1,1,2-Tetrachloroethane	ND	1.0	μg/L					
33	Chlorobenzene	ND	1.0	µg/L					
34	Ethylbenzene	ND	1.0	μg/L					
-		,		· -					

ND = Not Detected

35 m,p-Xylene

Roger Scholl

ND

to Al

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

1.0

µg/L

6/4/10

**Report Date** 



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# VOC Sample Preservation Report

Work Order: E2M10052741	Job: NTD			
Alpha's Sample ID	Client's Sample ID	Matrix	рН	
10052741-I6A	SB02GW15052610	Aqueous	5	
10052741-17A	SB07GW17052610	Aqueous	2	
10052741-18A	TB02GWNA052610	Aqueous	2	

6/4/10 Report Date



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<b>Date:</b> 03-Jun-10		Ç	<b>Work Order:</b> 10052741								
Method Blank File ID: 21 Sample ID: M	к МВ-24344	Units : <b>mg/L</b>	Туре М	Ba	est Code: EF atch ID: 2434 _1_1005274	14	hod 300.0	Analy Prep I		05/27/2010 11:23 05/27/2010 11:18	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qual
Fluoride Chloride Nitrite (NO2) - N Nitrate (NO3) - N Sulfate (SO4)	- -	ND ND ND ND ND	0.25 0.5 0.25 0.25 0.5	<u></u>							
Laboratory Fo	ortified Blank		Type Ll	FB Te	est Code: El	PA Met	hod 300.0				
File ID: 22				Ba	atch ID: 2434	14		Analy	sis Date:	05/27/2010 11:41	
Sample ID: L	_FB-24344	Units : mg/L		Run ID: IC	_1_100527 <i>A</i>	ι		Prep l	Date:	05/27/2010 11:18	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qual
Fluoride Chloride Nitrite (NO2) - N Nitrate (NO3) - N Sulfate (SO4)	I	4.91 51.1 4.89 5.11 102	0.25 0.5 0.25 0.25 0.5	50 5 5		98 102 98 102 102	90 90 90 90 90	110 110 110 110 110 110			
Sample Matri	x Spike		Type L	FM Te	est Code: El	PA Met	hod 300.0			· · ·	
File ID: 35	•			Ba	atch ID: 2434	14		Analy	sis Date:	05/27/2010 15:41	
Sample ID: 1	10052626-01ALFM	Units : <b>mg/L</b>		Run ID: IC	_1_100527#	ι		Prep I	Date:	05/27/2010 11:18	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qual
Fluoride Chloride Nitrite (NO2) - N Nitrate (NO3) - N Sulfate (SO4)	I	51 625 48.4 53 3320	1.3 2.5 1.3 1.3 2.5	500 50 50	2.315 97.34 0 0.944 2400	97 105 97 104 92	80 80 80 80 80	120 120 120 120 120 120			
Sample Matri	x Spike Duplicate		Type L	FMD Te	est Code: El	PA Met	hod 300.0				
File ID: <b>36</b> Sample ID: 1	10052626-01ALFMD	Units : mg/L			atch ID: 2434 _1_1005274			Analy Prep I		05/27/2010 16:00 05/27/2010 11:18	
Analyte		Result	PQL				LCL(ME)	•		Val %RPD(Limit)	Qual
Fluoride Chloride Nitrite (NO2) - N Nitrate (NO3) - N Sulfate (SO4)		49.9 613 49.2 54.9 2960	1.3 2.5 1.3 1.3 2.5	50 500 50 50	2.315 97.34 0 0.944 2400	95 103 98 108 56	80 80 80 80 80 80	120 120 120 120 120 120	51.03 624.0 48.30 53.0 3322	3         2.2(15)           6         1.9(15)           6         1.8(15)           1         3.5(15)	M2

#### **Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.



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<b>Date:</b> 03-Jun-10	(	<b>Work Order:</b> 10052741						
Laboratory Control Spike File ID:	<u> </u>	Type L		est Code: SM2320E atch ID: W0602AL	8	Analysis Date:	06/02/2010 11:38	
Sample ID: LCS-W0602AL	Units : mg/L		Run ID: W	ETLAB_100602A		Prep Date:	06/02/2010 11:38	
Analyte	Result	PQL	SpkVal	SpkRefVal %REC	LCL(ME	) UCL(ME) RPDRef	Val %RPD(Limit)	Qual
Alkalinity, Total (As CaCO3 at pH 4.5)	258	10	) 250	103	80	120		

#### **Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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<b>Date:</b> 03-Jun-10	(	QC Summary Report								
Method Blank File ID:		Туре		est Code: \$ atch ID: W			Analys	sis Date:	05/21/2010 11:38	
Sample ID: MBLK-W0521AM	Units : <b>mg/L</b>			/ETLAB_10			Prep D		05/21/2010 11:38	
Analyte	Result	PQL	SpkVal	SpkRefVa	I %REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Nitrogen, Ammonia (As N)	ND	0.	1							
Laboratory Control Spike		Туре	LCS T	est Code:	SM4500	-NH3D				
File ID:			В	atch ID: W	)521 <b>AM</b>		Analys	sis Date:	05/21/2010 11:35	
Sample ID: LCS-W0521AM	Units : mg/L		Run ID: W	/ETLAB_10	0521F		Prep D	Date:	05/21/2010 11:35	
Analyte	Result	PQL	SpkVal	SpkRefVa	I %REC	CLCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Nitrogen, Ammonia (As N)	5.07	0.	1 5		101	70	130			
Sample Matrix Spike		Туре		est Code:		-				
File ID:			-	atch ID: W					05/21/2010 11:45	
Sample ID: 10052020-03AMS	Units : mg/L		Run ID: W	/ETLAB_10	0521F		Prep D	Date:	05/21/2010 11:45	
Analyte	Result	PQL	SpkVal	SpkRefVa	I %REC	C LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Nitrogen, Ammonia (As N)	4.72	0.	15	(	) 94	65	138			
Sample Matrix Spike Duplicate		Туре	MSD T	est Code:	SM4500	-NH3D				
File ID:			B	atch ID: W	)521AM		Analys	sis Date:	05/21/2010 11:51	
Sample ID: 10052020-03AMSD	Units : mg/L		Run ID: W	ETLAB_10	0521F		Prep D	Date:	05/21/2010 11:51	
Analyte	Result	PQL	SpkVal	SpkRefVa	I %REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qual
Nitrogen, Ammonia (As N)	4.91	· 0.	1 5		) <del>9</del> 8	65	138	4.72	2 4.0(20)	

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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Method Blank         Type: NBLK         Test Code: EPA Method SW8270C           File D: 10060226.D         Batch ID: 24364         Analysis Date: 06(01/2010 0.32)           Analyte         Result         PQL         SpkVal. SpkRefVal %REC. LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)           Phenol         ND         10         SpkVal. SpkRefVal %REC. LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)           Phenol         ND         10         SpkVal. SpkRefVal %REC. LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)           2-40Dithorphonol         ND         10         SpkVal. SpkRefVal %REC. LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)           2-40Dithorphonol         ND         10         SpkVal. SpkRefVal %REC. LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)           2-40Dithorphonol         ND         10         SpkVal. SpkRefVal %REC. LCL(ME) UCL(ME) RPDRefVal %RPDRefVal %REC. LCL(ME) UCL(ME) RPDRefVal %REC. LCL(ME) UCL(ME) R	<b>Date:</b> 08-Jun-10	QC Summary Report							Work Order: 10052741	
Analyte         Result         PQL         SpkVal         SpkVal         SpkReVal         KREC         LCL(ME)         RPDReVal         %RPD(Limit)           Phenol         ND         10         2-Mirochynol         ND         10         2-Mirochynol         ND         10           2-Mirochynolenol         ND         10         2-Mirochynolenol         ND         10         2-Mirochynolenol         ND         10         2-Mirochynolenol         ND         10         2-Mirochynolenol         ND         10         2-Mirochynolenol         ND         10         2-Mirochynolenol         ND         10         2-Mirochynolenol         ND         100         4-Mirochenol         ND         100         2-Mirochynolenol         ND         50         50         72.3         200         36         25         130         50         50         50         50         50         72.3         200         72         61         133         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70         70								sis Date:		
Analyte         Result         PQL         SpkKerVal         SpkKerVal         SREC         LCL(ME)         RPDReIVal         %RPD(Limit)           Phenol         ND         10         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2 </th <th>Sample ID: MBLK-24364</th> <th>Units : µg/L</th> <th></th> <th>Run ID: M</th> <th>SD 16 100601A</th> <th></th> <th>Prep I</th> <th>Date:</th> <th>06/01/2010 12:00</th> <th></th>	Sample ID: MBLK-24364	Units : µg/L		Run ID: M	SD 16 100601A		Prep I	Date:	06/01/2010 12:00	
2-Chiorophenol         ND         10           2.4-Dimethylphenol         ND         100           2.4-Dimethylphenol         ND         100           2.4-Dimethylphenol         ND         100           2.4-Dimethylphenol         ND         100           2.4-Dimethylphenol         ND         50           Surr: Ptenolophenol         ND         50           Surr: Ptenolof         ND         50           Surr: Ptenolof         ND         50           Surr: Ptenolof         ND         50           Surr: Ptenolof         72.3         200         72         61         138           Laboratory Control Spike         Type: LCS         Test Code: EPA Method SW8270C         Fiel D: 1006027.0         Nalysis Date: 06/03/2010 03-47           Sample ID:         LCS-24364         Units : µg/L         Run ID: MSD 16_100601A         Prep Date: 06/03/2010 04:13           2-Chiorophenol         38.2         10         100         88         130 <tr< th=""><th>Analyte</th><th></th><th>PQL</th><th></th><th></th><th>C LCL(M</th><th>E) UCL(ME)</th><th>RPDRef</th><th>val %RPD(Limit)</th><th>Qua</th></tr<>	Analyte		PQL			C LCL(M	E) UCL(ME)	RPDRef	val %RPD(Limit)	Qua
2-Chiarophenol ND 10 2.4-Dinkinophenol ND 10 2.4-Dinkinophenol ND 10 2.4-Dinkinophenol ND 10 2.4-Dinkinophenol ND 100 4.4-Dinkinophenol ND 100 4.4-Dinkinophenol ND 100 4.4-Dinkinophenol ND 100 4.4-Dinkinophenol ND 50 Surr: P4-64-5 72.3 200 36 25 130 Surr: P4-64-5 72.3 200 36 20 130 Surr: P4-64-5 72.3 200 38 20 130 2-Chiarophenol 81.2 10 100 88 130 4-Nitrophenol 90.1 20 100 90 52 130 4-Nitrophenol 75 50 400 44 20 130 Surr: P4-64-65 85.4 200 43 25 130 Surr: P4-64-65 85.4 200 41 20 130 175.4 5.7(40) P4-1 52 130 90.09 1.2(26) Surr: P4-64-65 84.8 200 42 25 130 Surr: P4-64-65 84.8 200 42 25 130 S	Phenol	ND	10	i			- ú ·			
2.4-Dichlorophenol ND 10 4-Dichlorophenol ND 10 2.4-Dichlorophenol ND 100 2.4-Dichlorophenol ND 100 4-Nirophenol ND 100 4-Nirophenol ND 50 500 51 41 130 500 500 51 41 130 50	•	ND								
2.4-Dichiorophenol ND 10 2.4.6-Trichiorophenol ND 100 4-Nitrophenol ND 100 4-Dipritorphenol ND 100 Pentachiorophenol ND 100 Pentachiorophenol ND 100 Pentachiorophenol ND 100 Surr: 2-La Orophenol ND 200 51 41 130 Surr: 2-La Orophenol ND 200 72 61 138 Laboratory Control Spike Type: LCS Test Code: EPA Method SW8270C File D: 10060227.0 To Kisser NS										
4-Chloro-3-methylphenol         ND         20           2.4-B-Trichforophenol         ND         100           2.4-Dinitro-2-methylphenol         ND         100           A-Brichforophenol         ND         50           Surr: 2-Ricorophenol         ND         50           Surr: 2-Ricorophenol         101         200         51         41         130           Surr: 2-Ricorophenol         101         200         36         25         130           Surr: 2-Ricorophenol         143         200         36         25         130           Surr: 2-Ricorophenol         143         200         36         25         130           Surr: 2-Ricorophenol         143         200         36         25         130           Sample ID:         LGS-24364         Units : µg/L         Run ID: MSD 16         0601/2010 (2:00           Analysis Date:         06/03/2010 03.47         Sec 0         130         2         130           2-Chlorophenol         38.2         10         100         38         20         130           2-Chlorophenol         175         50         400         44         20         130           2-Chlorophenol         385.4 <td></td>										
2.4.6.Tichlorophenol       ND       10         4.4.Dinitophenol       ND       100         4.4.Dinitophenol       ND       100         4.6.Dinitor-2-methylphenol       ND       100         Surr: Pienol-dis       101       200       51       41       130         Surr: Pienol-dis       72.3       200       36       25       130         Surr: Pienol-dis       72.3       200       36       25       130         Surr: Pienol-dis       143       200       72       61       138         Laboratory Control Spike       Type: LCS       Batch ID: 24364       Analysis Date: 06/03/2010 03:47         Sample ID:       LCS-24364       Units : µg/L       Run ID.MSD_16_100601A       Prep Date:       06/01/2010 12:00         Analyte       Result       POL       SpkVal       SpkRetVal %REC LCL(ME) WCL(ME) RPDRefVal %RPD(Limit)         Phenol       38.2       10       100       38       20       130         2-Chloro-3-methylphenol       175       50       400       98       47       132         Surr: 2-A-Entrononphenol       115       200       48       130       100       138       100       100       38.2       130	• • • •									
4-Nicophenol         ND         50           4-Diluto-Zentehlydpenol         ND         50           Surr: 2-Fluorophenol         101         200         51         41         130           Surr: 2-Fluorophenol         101         200         36         25         133           Surr: 2-Fluorophenol         143         200         72         61         138           Laboratory Control Spike         Type: LCS         Test Code: EPA Method SW8270C         Fluir 10060227.0           Sample ID:         LCS-24364         Units : µg/L         Run ID: MSD_16_100601A         Prep Date: 06/01/2010 12:00           Analyte         Result         PQL         SpkVal SpkRefVal %REC LCL(ME) UCL(ME) PDRefVal %RPD(Limit)           Phenol         38.2         10         100         38         20         130           2-Chloro-3-methylphenol         81.2         10         100         84         130         -           2-Chloro-3-methylphenol         362.5         0         00         43         25         130           2-Chloro-3-methylphenol         365.4         200         43         25         130           Surr: 2.4.6-Tribromophenol         38.5         10         100         38         20 </td <td></td>										
4.6-Dintro-2-methylphenol         ND         100           Surr: 24-Filuorophenol         101         200         51         41         130           Surr: 24-Filuorophenol         143         200         72         61         138           Laboratory Control Spike         Type: LCS         Test Code: EPA Method SW8270C         Batch ID: 24364         Analysis Date: 06/03/2010 03:47           Sample ID:         LCS-24364         Units : µg/L         Result         PQL         SpKeVal         SpKerVal         NR C         CL(ME)         VC(ME)         MRPD(Limit)           Phenol         38.2         10         100         38         20         130         -           Chlorophenol         81.2         10         100         81         58         130         -         -         -         -         -         -         -         130         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -	2,4-Dinitrophenol	ND	100	1						
Pentachlorophenol         ND         50           Surr: 2-Livorophenol         101         200         51         41         130           Surr: 2-Livorophenol         143         200         36         25         130           Surr: 2-Livorophenol         143         200         36         25         130           Laboratory Control Spike         Type: LCS         Test Code: EPA Method SW8270C         Batch ID: 24364         Analysis Date:         06/03/2010 03:47           Sample ID:         LCS-24364         Units : μg/L         Run ID: MSD_16_100601A         Prep Date:         06/01/2010 12:00           Analyte         Result         POL         SpkVal         SpkRefVal %REC         LCL(ME)         UCL(ME) RPDRefVal %RPD(Limit)           Phenol         38.2         10         100         38         20         130           2-Chlorophenol         81.2         10         100         94         20         130           2-Chlorophenol         175         50         400         94         47         132           Surr: 2-Livorophenol         115         200         58         41         130           Surr: 2-Livorophenol         115         200         58         41	•									
Surr: 2.4.6-Tribromophenol         101         200         51         41         130           Surr: 2.4.6-Tribromophenol         143         200         36         25         133           Laboratory Control Spike         Type: LCS         Test Code: EPA Method SW8270C         Analysis Date:         06/01/2010 12:00           Sample ID:         LCS-24364         Units : µg/L         Type: LCS         Test Code: EPA Method SW8270C         Analysis Date:         06/01/2010 12:00           Analyte         Result         POL         SpkVal         SpkRefVal %REC         LCL(ME)         WCL(ME) RPDRefVal %RPD(Limit)           Phenol         38.2         10         100         38         20         130           2-Chlorophenol         81.2         10         100         88         130         -           2-Chlorophenol         115         200         58         41         130         -           Surr: Phenol-2         50         400         44         20         130         -           Surr: Phenol-1         392         50         400         44         20         130           Surr: Phenol-1         213         200         58         41         130         -										
Surr. Phenol-d5         72.3         200         36         25         130           Surr. 2,4,6-Tribromophenol         143         200         72         61         138           Laboratory Control Spike File ID: 10060227.D         Test Code: EPA Method SW8270C         Batch ID: 24364         Analysis Date:         06/03/2010 03:47           Sample ID:         LCS-24364         Units: µg/L         Run ID: MSD_16_100601A         Prep Date:         06/01/2010 12:00           Analyte         Result         POL         SpkVal SpRefval %REC LCL(ME) UCL(ME) RPDRefval %RPD(Limit)           Phenol         38.2         10         100         38         20         130           2-Chicroshenol         81.2         10         100         98         47         132           4-Nitrophenol         90.1         20         100         98         47         132           Surr: 2-Lionophenol         115         200         43         25         130           Surr: 2-Lionophenol         115         200         58         41         130           Surr: 2-Lionophenol         115         200         133         20         130           Surr: 2-Lionophenol         115         200         38.2         130	•		50		51	41	120			
Surr: 2.4.6-Tribromophenol         143         200         72         61         138           Laboratory Control Spike File ID: 10060227.D         Type: LCS         Test Code: EPA Method SW8270C         Analysis Date:         06/03/2010         03:47           Sample ID: LCS-24364         Units : µg/L         Result         PQL         SpkVal SpkRefVal %REC         CL(L(ME)         UCL(ME) RPDRefVal %RPD(Limit)           Phenol         38.2         10         100         38         20         130           Chlorophenol         81.2         10         100         38         20         130           Chlorophenol         81.2         10         100         38         20         130           Surr: 2.4.6-Tribromophenol         39.2         50         400         44         20         130           Surr: 2.4.6-Tribromophenol         175         50         400         44         20         130           Surr: 2.4.6-Tribromophenol         315         200         58         41         130         30           Surr: 2.4.6-Tribromophenol         85.4         200         58         41         138         30           Laboratory Control Spike Duplicate File ID: 1006022.D         Type: LCSD         Test Code: EPA Me	•									
File ID: 10060227.D       Batch ID: 24364       Analysis Date:       06/03/2010 03:47         Sample ID:       LCS-24364       Units: µg/L       Run ID: NSD_16_100601A       Prep Date:       06/01/2010 12:00         Analyte       Result       PQL       SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)       Phenol       0.00       88       20       130         2-Chlorophenol       81.2       10       100       88       20       130       200       2130       200         4-Chloro-3-methylphenol       90.1       20       100       98       47       132       300         Surr: 2-Huorophenol       392       50       400       44       200       130       300       300         Surr: 2-Huorophenol       392       50       400       98       47       132       300         Surr: 2-Huorophenol       115       200       58       41       130       300       300       300       300         Surr: 2-A,6-Tribromophenol       213       200       107       61       138       300       4130       300       300       300       300       300       300       300       300       300       300       300       300       300 </td <td></td>										
Sample ID:         LCS-24364         Units : µg/L         Run ID: MSD_16_100601A         Prep Date:         06/01/2010 12:00           Analyte         Result         PQL         SpkVal         SpkRefVal %REC         LCL(ME)         UCL(ME)         RPDRefVal %RPD(Limit)           Phenol         38.2         10         100         38         20         130           2-Chlorophenol         81.2         10         100         81         58         130           4-Chloro-3-methylphenol         90.1         20         100         90         52         130           4-Nitrophenol         392         50         400         44         20         130           Surr: 2,4.5-rithormophenol         115         200         58         41         130           Surr: 2,4.5-rithormophenol         213         200         107         61         185           Sample ID:         LCSD-24364         Units : µg/L         Run ID: MSD_16_10601A         Prep Date:         06/03/2010 04:13           Sample ID:         LCSD-24364         Units : µg/L         Run ID: MSD_16_106061A         Prep Date:         06/03/2010 04:13           Sample ID:         LCSD-24364         Units : µg/L         Run ID: MSD_16_100601A         Prep Date: </td <td></td> <td></td> <td>Type: L</td> <td>CS T</td> <td>est Code: EPA M</td> <td>ethod SW</td> <td>8270C</td> <td></td> <td></td> <td></td>			Type: L	CS T	est Code: EPA M	ethod SW	8270C			
Analyte         Result         PQL         SpkVal         SpkRefVal %REC         LCL(ME)         UCL(ME)         RPDRefVal %RPD(Limit)           Phenol         38.2         10         100         38         20         130           2-Chlorophenol         81.2         10         100         81         58         130           4-Chloro-3-methylphenol         90.1         20         100         90         52         130           4-Nitrophenol         175         50         400         44         20         130           Pentachlorophenol         392         50         400         98         47         132           Surr: 2-Fluorophenol         115         200         58         41         130           Surr: 2-A(6-Tribromophenol         213         200         107         61         138           Laboratory Control Spike Duplicate         Type: LCSD         Test Code: EPA Method SW8270C         Malysis Date:         06/01/2010         12:00           Analyte         Result         PQL         SpkRefVal %REV LC(ME)         PRDRefval %RPD(Limit)           Phenol         38.5         10         100         38         50         130         81.9         0.7(26) <td></td> <td></td> <td></td> <td>Ba</td> <td>atch ID: 24364</td> <td></td> <td>Analys</td> <td>sis Date:</td> <td>06/03/2010 03:47</td> <td></td>				Ba	atch ID: 24364		Analys	sis Date:	06/03/2010 03:47	
Phenol         38.2         10         100         38         20         130           2-Chlorophenol         81.2         10         100         81         58         130           4-Chloro-3-methyliphenol         90.1         20         100         90         52         130           4-Nitrophenol         175         50         400         44         20         130           Pentachlorophenol         392         50         400         98         47         132           Surr: 2-Flucophenol         115         200         58         41         130           Surr: 2-A,6-Tribromophenol         213         200         107         61         138           Laboratory Control Spike Duplicate         Type: LCSD         Test Code: EPA Method SW8270C         Batch ID: 24364         Analysis Date:         06/03/2010 04:13           Sample ID:         LCSD-24364         Units : µg/L         Run ID: INSD_16_100601A         Prep Date:         06/01/2010 12:00           Analyte         Result         PQL         SpkVal         SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)           Phenol         38.5         10         100         38         20         130         175.4         5.7(40)		Units : µg/L		Run ID: M	SD_16_100601A		Prep I	Date:	06/01/2010 12:00	
2-Chlorophenol         81.2         10         00         81         58         130           4-Chloro-3-methylphenol         90,1         20         100         90         52         130           4-Nitrophenol         175         50         400         44         20         130           Pentachlorophenol         392         50         400         98         47         132           Surr: 2.4,6-Tribromophenol         115         200         58         41         130           Surr: 2.4,6-Tribromophenol         213         200         107         61         138           Laboratory Control Spike Duplicate         Type: LCSD         Test Code: EPA Method SW8270C         Fer Date:         06/01/2010 12:00           Analyte         Result         PQL         SpkVal         SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)           Phenol         38.5         10         100         38         20         130         38.19         0.7(26)           2-Chlorophenol         83.5         10         100         38         58         130         81.23         2.7(32)           4-Nitrophenol         166         50         400         91         52         130 <t< td=""><td>Analyte</td><td>Result</td><td>PQL</td><td>SpkVal</td><td>SpkRefVal %RE</td><td>C LCL(M</td><td>E) UCL(ME)</td><td>RPDRef</td><td>√al %RPD(Limit)</td><td>Qua</td></t<>	Analyte	Result	PQL	SpkVal	SpkRefVal %RE	C LCL(M	E) UCL(ME)	RPDRef	√al %RPD(Limit)	Qua
4-Chloro-3-methylphenol       90.1       20       100       90       52       130         4-Nitrophenol       175       50       400       44       20       130         4-Nitrophenol       392       50       400       98       47       132         Surr: 2-Fluorophenol       115       200       58       41       130         Surr: 2-Fluorophenol       115       200       58       41       130         Surr: 2-Fluorophenol       213       200       107       61       138         Laboratory Control Spike Duplicate       Type: LCSD       Test Code: EPA Method SW8270C       Fere Date:       06/01/2010       06/01/2010       12:00         Analyte       Result       PQL       SpkVal       SpkRefVal %REC LCL(ME)       UCL(ME) RPDRefVal %RPD(Limit)         Phenol       38.5       10       100       38       20       130       38.1.9       0.7(26)         2-Chlorophenol       83.5       10       100       38       58       130       81.2.3       2.7(32)         4-Chloro-3-methylphenol       91.2       20       100       43       55       400       95       47       132       391.9       2.9(33)		38.2	10		38	20	130			
4-Nitrophenol       175       50       400       44       20       130         Pentachlorophenol       392       50       400       98       47       132         Surr: 2-Fluorophenol       115       200       58       41       130         Surr: 2-A,6-Tribromophenol       213       200       107       61       138         Laboratory Control Spike Duplicate File ID: 10060228.D       Test Code: EPA Method SW8270C       Fere Date:       06/03/2010 04:13         Sample ID:       LCSD-24364       Units : µg/L       Run ID: MSD_16_100601A       Prep Date:       06/03/2010 04:13         Analyte       Result       PQL       SpkVal       SpkRefVal %REC       LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)         Phenol       38.5       10       100       38       20       130       38.19       0.7(26)         2-Chlorophenol       83.5       10       100       88       20       130       90.09       1.2(26)         4-Nitrophenol       91.2       20       100       91       52       130       90.09       1.2(26)         Surr: 2-FLuorophenol       381       50       400       95       41       130       1.2(26)         Surr: 2-FLuoropheno										
Pentachlorophenol         392         50         400         98         47         132           Surr: 2-Fluorophenol         115         200         58         41         130           Surr: 2-Fluorophenol         213         200         61         138           Laboratory Control Spike Duplicate File ID: 10060228.D         Type: LCSD         Test Code: EPA Method SW8270C           Sample ID:         LCSD-24364         Units : µg/L         Run ID: MSD_16_100601A         Prep Date:         06/03/2010 04:13           Analyte         Result         PQL         SpkVal         SpkRerVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)           Phenol         38.5         10         100         38         20         130         38.19         0.7(26)           2-Chlorophenol         83.5         10         100         38         58         130         81.23         2.7(32)           4-Nitrophenol         91.2         20         100         91         52         130         90.09         1.2(26)           4-Nitrophenol         91.2         20         100         91         52         130         90.09         1.2(26)           30 Sur: 2-Fluorophenol         188         200         59         41 <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>				-						
Surr: 2-Fluorophenol       115       200       58       41       130         Surr: Phenol-d5       85.4       200       43       25       130         Surr: 2,4,6-Tribromophenol       213       200       107       61       138         Laboratory Control Spike Duplicate       Type: LCSD       Test Code: EPA Method SW8270C       Analysis Date:       06/03/2010       04:13         Sample ID:       LCSD-24364       Units:       µg/L       Run ID: MSD_16_100601A       Prep Date:       06/03/2010       04:13         Phenol       38.5       10       100       38       20       130       38.19       0.7(26)         2-Chlorophenol       83.5       10       100       38       20       130       38.19       0.7(26)         2-Chlorophenol       38.5       10       100       38       20       130       38.19       0.7(26)         2-Chlorophenol       38.5       10       100       91       52       130       90.09       1.2(26)         4-Nitrophenol       91.2       20       100       91       52       130       90.09       1.2(26)         Surr: 2-Fluorophenol       118       200       59       41       1			-							
Surr: Phenol-d5         85.4         200         43         25         130           Surr: 2.4.6-Tribromophenol         213         200         107         61         138           Laboratory Control Spike Duplicate File D: 10060228.D         Type: LCSD         Test Code: EPA Method SW8270C           Sample ID:         LCSD-24364         Units : µg/L         Run ID: MSD_16_100601A         Prep Date:         06/01/2010 04:13           Analyte         Result         PQL         SpkVal         SpkRefVal %REC         LCL(ME)         UCL(ME) RPDRefVal %RPD(Limit)           Phenol         38.5         10         100         38         20         130         38.19         0.7(26)           2-Chlorophenol         83.5         10         100         38         50         90.09         1.2(26)           4-Chloro-3-methylphenol         91.2         20         100         91         52         130         90.09         1.2(26)           4-Strophenol         166         50         400         41         20         130         175.4         5.7(40)           Surr: 2-Fluorophenol         118         200         59         41         130           Surr: 2-Fluorophenol         118         200         42	•		00							
Laboratory Control Spike Duplicate         Type: LCSD         Test Code: EPA Method SW8270C           Batch ID: 24364         Analysis Date:         06/03/2010 04:13           Sample ID:         LCSD-24364         Units: µg/L         Run ID: MSD_16_100601A         Prep Date:         06/01/2010 12:00           Analyte         Result         PQL         SpkRefVal         %REC         LCL(ME)         UCL(ME)         RPDRefVal         %RPD(Limit)           Phenol         38.5         10         100         38         20         130         38.19         0.7(26)           2-Chloro-3-methylphenol         91.2         20         100         83         58         130         81.23         2.7(32)           4-Nitrophenol         91.2         20         100         91         52         130         90.09         1.2(26)           4-Nitrophenol         91.2         20         100         91         52         130         91.23         2.7(32)           Surr: 2-Fluorophenol         118         200         59         41         130         92.9(33)         93.9         2.9(33)           Surr: 2.4,6-Tribromophenol         202         200         101         61         138         93.9         2.9(33)				200	43	25				
File ID: 10060228.D       Batch ID: 24364       Analysis Date:       06/03/2010 04:13         Sample ID:       LCSD-24364       Units: µg/L       Run ID: MSD_16_100601A       Prep Date:       06/01/2010 12:00         Analyte       Result       PQL       SpkVal       SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)         Phenol       38.5       10       100       38       20       130       38.19       0.7(26)         2-Chlorophenol       83.5       10       100       83       58       130       81.23       2.7(32)         4-Chloro-3-methylphenol       91.2       20       100       91       52       130       90.09       1.2(26)         4-Nitrophenol       166       50       400       95       47       132       391.9       2.9(33)         Surr: 2-Fluorophenol       118       200       59       41       130       38.15       5.7(40)         Surr: 2-A,6-Tribromophenol       202       200       101       61       138       5.7(40)         Surr: 2-A,6-Tribromophenol       202       200       101       61       138       5.7(40)         Surr: 2-A,6-Tribromophenol       202       200       101       61       138	Surr: 2,4,6-Tribromophenol	213		200	107	<u> </u>	138			
Sample ID:         LCSD-24364         Units : µg/L         Run ID: MSD_16_100601A         Prep Date:         06/01/2010 12:00           Analyte         Result         PQL         SpkVal         SpkRefVal %REC         LCL(ME)         UCL(ME)         RPDRefVal %RPD(Limit)           Phenol         38.5         10         100         38         20         130         38.19         0.7(26)           2-Chlorophenol         83.5         10         100         83         58         130         81.23         2.7(32)           4-Chloro-3-methylphenol         91.2         20         100         91         52         130         90.09         1.2(26)           4-Nitrophenol         166         50         400         41         20         130         175.4         5.7(40)           Pentachlorophenol         381         50         400         95         47         132         391.9         2.9(33)           Surr: 2-Fluorophenol         118         200         59         41         130         Surrestructure <ttr>         Surr: 2,4,6-Tribromophenol         202         200         101         61         138         Surrestructure<ttr>         Sample Matrix Spike         Type: MS         Test Code: EPA Method SW8270C         Bat</ttr></ttr>			Type: L			ethod SW		sie Dato:	06/03/2010 04-13	
Analyte         Result         PQL         SpkVal         SpkRefVal %REC         LCL(ME)         UCL(ME)         RPDRefVal %RPD(Limit)           Phenol         38.5         10         100         38         20         130         38.19         0.7(26)           2-Chlorophenol         83.5         10         100         83         58         130         81.23         2.7(32)           4-Chloro-3-methylphenol         91.2         20         100         91         52         130         90.09         1.2(26)           4-Nitrophenol         166         50         400         41         20         130         175.4         5.7(40)           Pentachlorophenol         381         50         400         95         47         132         391.9         2.9(33)           Surr: 2-Fluorophenol         118         200         59         41         130         38.5         30         Surr:         30         38.19         0.7(26)           Surr: 2-A(6-Tribromophenol         202         200         101         61         138         57         30         33         30         30         30         30         30         30         30         30         30	· · · · · · · · · · · · · · · · · · ·						•			
Phenol         38.5         10         100         38         20         130         38.19         0.7(26)           2-Chlorophenol         83.5         10         100         83         58         130         81.23         2.7(32)           4-Chloro-3-methylphenol         91.2         20         100         91         52         130         90.09         1.2(26)           4-Nitrophenol         166         50         400         41         20         130         175.4         5.7(40)           Pentachlorophenol         381         50         400         95         47         132         391.9         2.9(33)           Surr: 2-Fluorophenol         118         200         59         41         130           Surr: 2,4,6-Tribromophenol         202         200         101         61         138           Sample Matrix Spike         Type: MS         Test Code: EPA Method SW8270C         Batch ID: 24364         Analysis Date:         06/03/2010         05:56           Sample ID:         10052741-17AMS         Units : µg/L         Run ID: MSD_16_100601A         Prep Date:         06/01/2010         12:00           Analyte         Result         PQL         SpkVal         SpkRefVal %RE			POI				•			Qua
2-Chlorophenol       83.5       10       100       83       58       130       81.23       2.7(32)         4-Chloro-3-methylphenol       91.2       20       100       91       52       130       90.09       1.2(26)         4-Nitrophenol       166       50       400       41       20       130       175.4       5.7(40)         Pentachlorophenol       381       50       400       95       47       132       391.9       2.9(33)         Surr: 2-Fluorophenol       118       200       59       41       130       30       333       50       300       314       50       400       95       47       132       391.9       2.9(33)         Surr: 2-Fluorophenol       118       200       42       25       130       50       50       41       130       50       50       41       130       50       50       41       130       50       50       41       130       50       50       41       130       50       50       41       130       50       50       50       50       50       50       50       50       50       50       50       50       50       50										
4-Chloro-3-methylphenol       91.2       20       100       91       52       130       90.09       1.2(26)         4-Nitrophenol       166       50       400       41       20       130       175.4       5.7(40)         Pentachlorophenol       381       50       400       95       47       132       391.9       2.9(33)         Surr: 2-Fluorophenol       118       200       59       41       130       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30       30										
Pentachlorophenol       381       50       400       95       47       132       391.9       2.9(33)         Surr: 2-Fluorophenol       118       200       59       41       130         Surr: Phenol-d5       84.8       200       42       25       130         Surr: 2,4,6-Tribromophenol       202       200       101       61       138         Sample Matrix Spike       Type: MS       Test Code: EPA Method SW8270C         File ID: 10060232.D       Batch ID: 24364       Analysis Date:       06/03/2010 05:56         Sample ID:       10052741-17AMS       Units : µg/L       Run ID: MSD_16_100601A       Prep Date:       06/01/2010 12:00         Analyte       Result       PQL       SpkVal       SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)         Phenol       35.8       10       100       0       36       10       130         2-Chlorophenol       81.2       10       100       0       81       40       130         4-Chloro-3-methylphenol       85.4       20       100       0       85       42       130										
Surr: 2-Fluorophenol       118       200       59       41       130         Surr: Phenol-d5       84.8       200       42       25       130         Surr: 2,4,6-Tribromophenol       202       200       101       61       138         Sample Matrix Spike       Type: MS       Test Code: EPA Method SW8270C         File ID: 10060232.D       Batch ID: 24364       Analysis Date:       06/03/2010 05:56         Sample ID:       10052741-17AMS       Units : µg/L       Run ID: MSD_16_100601A       Prep Date:       06/01/2010 12:00         Analyte       Result       PQL       SpkVal       SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)         Phenol       35.8       10       100       0       36       10       130         2-Chlorophenol       81.2       10       100       0       81       40       130         4-Chloro-3-methylphenol       85.4       20       100       0       85       42       130	•	166	50		41	20				
Surr: Phenol-d5         84.8         200         42         25         130           Surr: 2,4,6-Tribromophenol         202         200         101         61         138           Sample Matrix Spike         Type: MS         Test Code: EPA Method SW8270C           File ID: 10060232.D         Batch ID: 24364         Analysis Date:         06/03/2010 05:56           Sample ID:         10052741-17AMS         Units : µg/L         Run ID: MSD_16_100601A         Prep Date:         06/01/2010 12:00           Analyte         Result         PQL         SpkVal         SpkRefVal %REC         LCL(ME)         UCL(ME) RPDRefVal %RPD(Limit)           Phenol         35.8         10         100         0         36         10         130           2-Chlorophenol         81.2         10         100         0         81         40         130           4-Chloro-3-methylphenol         85.4         20         100         0         85         42         130			50					391.9	9 2.9(33)	
Surr: 2,4,6-Tribromophenol         202         200         101         61         138           Sample Matrix Spike         Type: MS         Test Code: EPA Method SW8270C           File ID: 10060232.D         Batch ID: 24364         Analysis Date:         06/03/2010 05:56           Sample ID:         10052741-17AMS         Units : µg/L         Run ID: MSD_16_100601A         Prep Date:         06/01/2010 12:00           Analyte         Result         PQL         SpkVal         SpkRefVal %REC         LCL (ME)         UCL(ME) RPDRefVal %RPD(Limit)           Phenol         35.8         10         100         0         36         10         130           2-Chlorophenol         81.2         10         100         0         81         40         130           4-Chloro-3-methylphenol         85.4         20         100         0         85         42         130	•									
Sample Matrix Spike         Type: MS         Test Code: EPA Method SW8270C           File ID: 10060232.D         Batch ID: 24364         Analysis Date: 06/03/2010 05:56           Sample ID:         10052741-17AMS         Units : µg/L         Run ID: MSD_16_100601A         Prep Date:         06/01/2010 12:00           Analyte         Result         PQL         SpkVal         SpkRefVal %REC         LCL(ME)         UCL(ME) RPDRefVal %RPD(Limit)           Phenol         35.8         10         100         0         36         10         130           2-Chlorophenol         81.2         10         100         81         40         130           4-Chloro-3-methylphenol         85.4         20         100         0         85         42         130										
Batch ID: 24364     Analysis Date: 06/03/2010 05:56       Sample ID:     10052741-17AMS     Units : µg/L     Run ID: MSD_16_100601A     Prep Date:     06/01/2010 12:00       Analyte     Result     PQL     SpkVal     SpkRefVal     %REC     LCL(ME)     UCL(ME) RPDRefVal     %RPD(Limit)       Phenol     35.8     10     100     0     36     10     130       2-Chlorophenol     81.2     10     100     0     81     40     130       4-Chloro-3-methylphenol     85.4     20     100     0     85     42     130			Type: M							
Sample ID:         10052741-17AMS         Units : µg/L         Run ID: MSD_16_100601A         Prep Date:         06/01/2010 12:00           Analyte         Result         PQL         SpkVal         SpkRefVal %REC         LCL(ME)         UCL(ME)         RPDRefVal %RPD(Limit)           Phenol         35.8         10         100         0         36         10         130           2-Chlorophenol         81.2         10         100         0         81         40         130           4-Chloro-3-methylphenol         85.4         20         100         0         85         42         130			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					sis Date:	06/03/2010 05:56	
Analyte         Result         PQL         SpkVal         SpkRefVal %REC         LCL(ME)         UCL(ME)         RPDRefVal         %RPD(Limit)           Phenol         35.8         10         100         0         36         10         130           2-Chlorophenol         81.2         10         100         0         81         40         130           4-Chloro-3-methylphenol         85.4         20         100         0         85         42         130	Sample ID: 10052741-17AMS	Units : µa/L					•			
Phenol         35.8         10         100         0         36         10         130           2-Chlorophenol         81.2         10         100         0         81         40         130           4-Chloro-3-methylphenol         85.4         20         100         0         85         42         130	Analyte	_	PQL							Qua
2-Chlorophenol         81.2         10         100         0         81         40         130           4-Chloro-3-methylphenol         85.4         20         100         0         85         42         130										
4-Chloro-3-methylphenol 85.4 20 100 0 85 42 130										
	4-Chloro-3-methylphenol									
	4-Nitrophenol	152				10	130			
Pentachlorophenol         379         50         400         0         95         33         155           Surr: 2-Fluorophenol         113         200         56         41         130	· ·		50							
Surr: 2-Fluorophenol         113         200         56         41         130           Surr: Phenol-d5         80.3         200         40         25         130	•									
Surr: 2,4,6-Tribromophenol 195 200 98 61 138										



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#### QC Summary Report

Work Order: 10052741

#### 08-Jun-10 Comments:

Date:



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<b>Date:</b> 03-Jun-10	(	QC Si	ımmar	y Repor	t			<b>Work Ord</b> 1005274	
Method Blank File ID: 052810.B\353.D\		Туре М		est Code: El atch ID: 243		hod SW60	)20 / SW6020A Analysis Date	: 05/29/2010 10:57	
Sample ID: MB-24353	Units : mg/L		Run ID: IC	P/MS_1005	28C		Prep Date:	05/28/2010 11:35	,
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRe	fVal %RPD(Limit)	Qua
Boron (B)	ND	0.1							
Sodium (Na)	ND	0.5							
Chromium (Cr)	ND	0.005							
Manganese (Mn) Iron (Fe)	ND ND	0.005 0.3							
Nickel (Ni)	ND	0.0							
Copper (Cu)	ND	0.01							
Zinc (Zn)	ND	0.1							
Arsenic (As)	ND	0.005							
Selenium (Se)	ND	0.005							
Silver (Ag) Cadmium (Cd)	ND ND	0.005 0.005							
Barium (Ba)	ND	0.005							
Mercury (Hg)	ND	0.001							
Lead (Pb)	ND	0.005							
Laboratory Control Spike		Type L	CS ⊺	est Code: El	PA Met	hod SW60	)20 / SW6020A		
File ID: 052810.B\353L1.D\			В	atch ID: 243	53		Analysis Date	: 05/29/2010 11:02	
Sample ID: LCS-24353	Units : mg/L		Run ID: IC	P/MS_1005	28C		Prep Date:	05/28/2010 11:35	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRe	fVal %RPD(Limit)	Qua
Boron (B)	0.226	0.1			90	74	132		
Sodium (Na)	50.7	0.5			101	80	118		
Chromium (Cr) Manganese (Mn)	0.252 2.41	0.005			101 96	80	124 120		
Iron (Fe)	52.9	0.005			90 106	83 83	119		
Nickel (Ni)	0.245	0.01			98	83	123		
Copper (Cu)	0.239	0.01			95	85	123		
Zinc (Zn)	0.233	0.1			93	82	123		
Arsenic (As)	0.237	0.005	-		95	85	118		
Selenium (Se) Silver (Ag)	0.232 0.237	0.005			93 95	85 79	118 118		
Cadmium (Cd)	0.232	0.005			93	85	121		
Barium (Ba)	2.5	0.005			100	85	132		
Mercury (Hg)	0.0101	0.001			101	70	122		
Lead (Pb)	0.25	0.005	0.25		99.8	85	120		
Sample Matrix Spike		Туре 🕅				hod SW6	)20 / SW6020A		
File ID: 052810.B\099SMPL.D\				atch ID: 243				: 05/28/2010 21:52	
Sample ID: 10052741-17AMS	Units : mg/L			P/MS_1005			Prep Date:	05/28/2010 11:35	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRe	fVal %RPD(Limit)	Qua
Boron (B)	1.68	0.1		1.537	56	63	150		М3
Sodium (Na)	452	0.5		430.1	44	61	135		М3
Chromium (Cr)	0.326	0.005		0.1278	79	70	133		
Manganese (Mn)	6.96	0.005		5.511	58	70	130		M2
Iron (Fe) Nickel (Ni)	255	0.3		227.7	54	70	130		М3
Copper (Cu)	0.306 0.453	0.01 0.01		0.09479 0.2403	84 85	70 70	132 131		
Zinc (Zn)	0.709	0.01		0.2403	80 81	70 65	143		
Arsenic (As)	0.67	0.005		0.449	88	70	130		
Selenium (Se)	0.221	0.005	0.25	0	88	70	131		
Silver (Ag) Cadmium (Cd)	0.245	0.005		0	98	70	130		
Cadmium (Cd) Barium (Ba)	0.245 4.79	0.005 0.005		0 2 401	98 96	70 70	130		
Mercury (Hg)	4.79 0.00541	0.005		2.401 0	96 108	70 68	143 130		
Lead (Pb)	0.393	0.005		0.1531	96	70	130		



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<b>Date:</b> 03-Jun-10	QC Summary Report										
Sample Matrix Spike Duplicate		Type MS	SD T	est Code: El	PA Met	hod SW60	)20 / SW6	020A			
File ID: 052810.B\100SMPL.D\			Ba	atch ID: 243	53		Analy	/sis Date: 0	5/28/2010 21:58	3	
Sample ID: 10052741-17AMSD	Units : mg/L	F	Run ID: IC	P/MS_1005	28C		Prep	Date: 0	5/28/2010 11:35	ز	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVa	I %RPD(Limit)	Qua	
Boron (B)	1.71	0.1	0.25	1.537	70	63	150	1.678	2.0(20)		
Sodium (Na)	460	0.5	50	430.1	59	61	135	452.3	1.6(20)	M3	
Chromium (Cr)	0.338	0.005	0.25	0.1278	84	70	133	0.3259	3.6(20)		
Manganese (Mn)	7.37	0.005	2.5	5.511	74	70	130	6.955	5.8(20)		
Iron (Fe)	260	0.3	50	227.7	64	70	130	254.9	1.9(20)	M3	
Nickel (Ni)	0.313	0.01	0.25	0.09479	87	70	132	0.3055	2.3(20)		
Copper (Cu)	0.466	0.01	0.25	0.2403	90	70	131	0.4525	2.9(20)		
Zinc (Zn)	0.718	0.1	0.25	0.506	85	65	143	0.7087	1.3(20)		
Arsenic (As)	0.663	0.005	0.25	0.449	86	70	130	0.6702	1.1(20)		
Selenium (Se)	0.227	0.005	0.25	0	91	70	131	0.2209	2.5(20)		
Silver (Ag)	0.253	0.005	0.25	0	101	70	130	0.2454	2.9(20)		
Cadmium (Cd)	0.255	0.005	0.25	0	102	70	130	0.245	3.8(20)		
Barium (Ba)	4.86	0.005	2.5	2.401	98	70	143	4.79	1.5(20)		
Mercury (Hg)	0.00561	0.001	0.005	0	112	68	130	0.005407	3.6(20)		
Lead (Pb)	0.391	0.005	0.25	0.1531	95	70	130	0.3927	0.5(20)		

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.



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<b>Date:</b> 03-Jun-10										<b>Work Ord</b> 10052741	
Method Blan File ID: 052810 Sample ID:	k ).B\018SMPL.D\ MB-24346	Units : <b>mg</b> /	Type M	Ва	est Code: EF atch ID: 2434 P/MS_10052	46	hod SW60		sis Date:	05/28/2010 14:09 05/27/2010 14:51	
Analyte	MD-2-0-10	Result	PQL				LCL(ME)	•		al %RPD(Limit)	Qua
				Эркічаі	Spkilervar	/orceo					
Chromium (Cr) Arsenic (As)		ND ND	1								
Selenium (Se)		ND	1								
Silver (Ag)		ND	1								
Cadmium (Cd)		ND	1								
Barium (Ba)		ND	1								
Mercury (Hg)		ND	0.2								
Lead (Pb)		ND	1								
	Control Spike		Type L		est Code: EF		hod SW60				
	).B\019_LCS.D\				atch ID: 2434			•		05/28/2010 14:15	
Sample ID:	LCS-24346	Units : <b>mg</b> /	-		P/MS_10052			Prep		05/27/2010 14:51	
Analyte	·····	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	<b>RPDRef</b> V	al %RPD(Limit)	Qual
Chromium (Cr)		24.9	1	25		99	75	120			
Arsenic (As)		25.9	1	25		104	80	120			
Selenium (Se)		25.1	1	25		100	80	120			
Silver (Ag)		26.7	1	25		107	62	132			
Cadmium (Cd)		25.3	1	25		101	80	120			
Barium (Ba)		253 0.562	1	250		101	78	123 140			
Mercury (Hg) Lead (Pb)		25.4	0.2 1	0.5 25		112 101	68 80	122			
Sample Matr	rix Snike		Туре М		est Code: Ef				020A		
-	).B\022SMPL.D\		. , , , , , , , , , , , , , , , , , , ,		atch ID: 2434					05/28/2010 14:31	
Sample ID:	10052741-01AMS	Units : mg/	Ka		P/MS_1005			Prep		05/27/2010 14:51	
Analyte		Result	PQL				LCL(ME)			/al %RPD(Limit)	Qua
Chromium (Cr)		36	1	25	13,16	91	50	150			
Arsenic (As)		30.1	1	25	4.818	101	60	130			
Selenium (Se)		25.3	1	25	0	101	69	130			
Silver (Ag)		27.9	1	25	0	111	62	132			
Cadmium (Cd)		26.3	1	25	0	105	70	130			
Barium (Ba)		375	1		106.1	107	58	150			
Mercury (Hg) Lead (Pb)		0.619 33.1	0.2 1		0 7.004	124 104	65 68	150 141			
	rix Spike Duplicate		Type <b>N</b>		est Code: EF				0204		
-	).B\023SMPL.D\		. , po 10		atch ID: 2434					05/28/2010 14:37	
Sample ID:	10052741-01AMSD	Units : mg/	Kg		P/MS_1005			Prep		05/27/2010 14:51	
Analyte		Result	PQL				LCL(ME)	•		/al %RPD(Limit)	Qua
Chromium (Cr)	·	37.2	1	· · · · ·	13.16	96	50	150	36.02		
Arsenic (As)		28.6	1	25	4.818	95	60	130	30.12		
Selenium (Se)		31.7	1	25	0	127	69	130	25.33		R5
0		26.9	1	25	0	107	62	132	27.86		
Silver (Ag)		25.3	1	25	õ	101	70	130	26.27		
Silver (Ag) Cadmium (Cd)											
		367	1	250	106.1	104	58	150	374.6		
Cadmium (Cd)			1 0.2	250						5 2.1(20)́	

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

R5 = MS/MSD RPD exceeded the laboratory control limit. Recovery met acceptance criteria.



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<b>Date:</b> 03-Jun-10	QC Summary Report										
Method Blank File ID:		Type N	IBLK	Test Code Batch ID:	-		NORGC /	SM4500N Analy		06/01/2010 12:38	
Sample ID: MBLK-W0601TK	Units : mg/L		Run ID	WETLAB	_1006	601C		Prep	Date:	06/01/2010 12:38	
Analyte	Result	PQL	Spk\	/al SpkRe	fVal <sup>o</sup>	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Nitrogen, Kjeldahl, Total	ND	0.25									
Laboratory Control Spike File ID:		Type <b>L</b>	CS	Test Code Batch ID:			NORGC /	SM4500N Analy		06/01/2010 12:35	
Sample ID: LCS-W0601TK	Units : mg/L		Run ID	WETLAB	1000	601C		Prep	Date:	06/01/2010 12:35	
Analyte	Result	PQL		-	-		LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Nitrogen, Kjeldahl, Total	4.95	0.25		5	•	99	65	135			
Sample Matrix Spike		Туре 🛚	IS	Test Cod	e: SN	14500-	NORGC /	SM4500N	H3D		
File ID:				Batch ID:	W06	01TK		Analy	sis Date:	06/01/2010 12:50	
Sample ID: 10051921-01AMS	Units : mg/L		Run ID	WETLAB	_1006	501C		Prep	Date:	06/01/2010 12:50	
Analyte	Result	PQL	Spk\	/al SpkRe	fVal '	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Nitrogen, Kjeldahl, Total	33	1.3		5	25	160	55	142			М3
Sample Matrix Spike Duplicate	<u> </u>	Туре М	ISD	Test Code	e: SN	4500-	NORGC /	SM4500N	H3D		
File ID:				Batch ID:	W06	01TK		Analy	sis Date:	06/01/2010 12:53	
Sample ID: 10051921-01AMSD	Units : mg/L		Run ID	WETLAB	100	601C		Prep	Date:	06/01/2010 12:53	
Analyte	Result	PQL	Spk\	/al SpkRe	- fVal '	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Nitrogen, Kjeldahl, Total	28	1.3		5	25	60	55	142	33	16.4(20)	

#### **Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.



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<b>Date:</b> ()4-Jun-1()	QC Summary Report									
Method Blank		Туре:№	IBLK 1	Fest Code:	EPA Met	hod 1664/	A			
File ID:			E	Batch ID: <b>W</b>	/0602OG		Analysis Date:	06/02/2010 00:00		
Sample ID: MBLK-W0602OG	Units : mg/L		Run ID: V	VETLAB_1	00602C		Prep Date:	06/02/2010 00:00		
Analyte	Result	PQL	SpkVa	l SpkRef∨	al %REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual	
Oil & Grease, HEM	ND	Ę	5				<u></u>			
Laboratory Control Spike		Type: L	. <b>cs</b> 1	est Code:	EPA Met	hod 1664/	4			
File ID:			E	Batch ID: W	/0602OG		Analysis Date:	06/02/2010 00:00		
Sample ID: LCS-W0602OG	Units : mg/L		Run ID: W	ETLAB_1	00602C		Prep Date:	06/02/2010 00:00		
Analyte	Result	PQL	SpkVa	SpkRefv	al %REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual	
Oil & Grease, HEM	39.5	5	5 40	)	99	78	114			
Sample Matrix Spike		Type: N	<b>1S</b> 1	est Code:	EPA Met	hod 1664/	4			
File ID:			E	Batch ID: W	0602OG		Analysis Date:	06/02/2010 00:00		
Sample ID: 10052504-04AMS	Units : mg/L		Run ID: W	ETLAB_1	00602C		Prep Date:	06/02/2010 00:00		
Analyte	Result	PQL				LCL(ME)	UCL(ME) RPDRef	√al %RPD(Limit)	Qual	
Oil & Grease, HEM	40.5	5	5 40	)	0 101	78	114			

#### **Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

HEM = Hexane Extractable Material



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<b>Date:</b> 02-Jun-10		QC Summary Report									
Laboratory Control Spike File ID:		Туре <b>L</b>		t Code: EPA Met	hod SW9(		e: 06/01/2010 15:15				
Sample ID: LCS-S0601PH	Units : pH	Units	Run ID: WE	TLAB_100601B		Prep Date:	06/01/2010 15:15				
Analyte	Result	PQL	SpkVal S	pkRefVal %REC	LCL(ME)	UCL(ME) RPDRe	efVal %RPD(Limit)	Qua			
pН	4.94	1.7	<b>7</b> 5	99	90	110					

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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<b>Date:</b> 01-Jun-10		QC Summary Report								
Laboratory Control Spike File ID:		Type L		est Code: EPA Me atch ID: W0527PH		2 / SM4500HB / SW Analysis Date:	9040C 05/27/2010 14:21			
Sample ID: LCS-W0527PH	Units : <b>pH</b>	Units		ETLAB_100527C		Prep Date:	05/27/2010 14:21			
Analyte	Result	PQL	SpkVal	SpkRefVal %REC	C LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qua		
pН	5.1	1.7	5	102	90	110				

#### **Comments:**



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<b>Date:</b> 03-Jun-2010	QC Summary Report									
Method Blank File ID:		Type N	B	atch ID: <b>N</b>	/0602TP	hod 365.3	Analy	sis Date:	06/02/2010 00:00 06/02/2010 00:00	
Sample ID: MBLK-W0602TP Analyte	Units : <b>mg/L</b> Result	PQL	Run ID: W SpkVal			LCL(ME)	•	Date: RPDRef	Val %RPD(Limit)	Qual
Phosphorus, Total (As P)	ND	0.1								
Laboratory Control Spike File ID:		Type L		est Code: atch ID: <b>W</b>		hod 365.3			06/02/2010 00:00	
Sample ID: LCS-W0602TP Analyte	Units : <b>mg/L</b> Result	PQL	Run ID: <b>W</b> SpkVal	_		LCL(ME)	•	Date: RPDRef	06/02/2010 00:00 Val %RPD(Limit)	Qual
Phosphorus, Total (As P)	0.972	0.1	I 1		97	73	127			
Sample Matrix Spike File ID:		Туре 🛚		est Code: atch ID: <b>V</b>	_	thod 365.3			06/02/2010 00:00	
Sample ID: 10052849-01AMS Analyte	Units : <b>mg/L</b> Result	PQL	Run ID: <b>W</b> SpkVal			LCL(ME)	•	Date: RPDRef	06/02/2010 00:00 Val %RPD(Limit)	Qua
Phosphorus, Total (As P)	1.08	0.	1 1		0 108	73	127			
Sample Matrix Spike Duplicate File ID:		Type I		est Code: atch ID: V		thod 365.3		) <b>PE</b> /sis Date:	06/02/2010 00:00	
Sample ID: 10052849-01AMSD	Units : mg/L		Run ID: W				•	Date:	06/02/2010 00:00	_
Analyte	Result	PQL	SpkVal	SpkRef\	/al %REC	CLCL(ME)	UCL(ME)	) RPDRef	Val %RPD(Limit)	Qual
Phosphorus, Total (As P)	1.1	0.	1 1		0 110	73	127	1.08	3 1.8(20)	

#### **Comments:**



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<b>Date:</b> 03-Jun-2010	QC Summary Report Work C 10052	
Method Blank File ID: Sample ID: MBLK-W0525DS Analyte	Type       MBLK       Test Code:       SM2540C         Batch ID:       W0525DS       Analysis Date:       05/26/2010 00:         Units :       mg/L       Run ID:       WETLAB_100525A       Prep Date:       05/26/2010 00:         Result       PQL       SpkVal       SpkRefVal       %REC       LCL(ME)       UCL(ME)       RPDRefVal       %RPD(Limit)	00
Solids, Total Dissolved (TDS)	ND 10	
Laboratory Control Spike File ID: Sample ID: LCS-W0525DS Analyte	Type LCS         Test Code: SM2540C           Batch ID: W0525DS         Analysis Date: 05/26/2010 00           Units : mg/L         Run ID: WETLAB_100525A         Prep Date: 05/26/2010 00           Result         PQL         SpkVal         SpkRefVal         %REC LCL(ME)         UCL(ME)         RPDRefVal         %RPD(Limits)	:00
Solids, Total Dissolved (TDS)	91 10 100 91 80 120	

Comments:



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<b>Date:</b> 08-Jun-10		<b>Work Orde</b> 10052741							
Method Blank File ID: 2A06021005.D		Туре: М		ode: EPA Met ID: 24372	nod SW8		s Date:	06/02/2010 11:58	
Sample ID: MBLK-24372	Units : <b>mg/</b>	Kg f	Run ID: FID_2_	100602A		Prep D	ate:	06/02/2010 10:35	
Analyte	Result	PQL	SpkVal Spk	RefVal %REC	LCL(ME)	) UCL(ME) F	RPDRef∨	/al %RPD(Limit)	Qual
TPH-E (DRO) TPH-E (ORO) Surr: Nonane	ND ND	10 10			07	450			
Sur. Nonane	5.14	· · · · · · · · · · · · · · · · · · ·	6	86	67	156			
Laboratory Control Spike File ID: 2A06021006.D		Type: LC		ode: <b>EPA Met</b> l ID: <b>24372</b>	nod SW8		s Date:	06/02/2010 12:24	
Sample ID: LCS-24372	Units : mg/	Kg F	Run ID: FID_2_	100602A		Prep D	ate:	06/02/2010 10:35	
Analyte	Result	PQL	SpkVal Spk	RefVal %REC	LCL(ME)	) UCL(ME) F	RPDRef∨	/al %RPD(Limit)	Qual
TPH-E (DRO) Surr: Nonane	97.4 5.6	5	100 6	97 93	70 67	130 156		enddi'' o	
Sample Matrix Spike		Type: MS	5 Test C	ode: EPA Met	nod SW8	015B / E			
File ID: 2A06021021.D			Batch	ID: 24372		Analysi	s Date:	06/02/2010 18:43	
Sample ID: 10052741-15AMS	Units : mg/	Ka l	Run ID: FID 2	100602A		Prep D	ate:	06/02/2010 10:35	
Analyte	Result	PQL	SpkVal Spk	RefVal %REC	LCL(ME)	) UCL(ME) F	RPDRefv	/al %RPD(Limit)	Qual
TPH-E (DRO) Surr: Nonane	108 5.55	5	100 6	0 108 92	51 67	141 156			
Sample Matrix Spike Duplicate		Type: MS	SD Test C	ode: EPA Met	nod SW8	015B / E			
File ID: 2A06021022.D			Batch	ID: <b>24372</b>		Analysi	s Date:	06/02/2010 19:08	
Sample ID: 10052741-15AMSD	Units : mg/	Ka I	Run ID: FID 2	100602A		Prep D	ate:	06/02/2010 10:35	
Analyte	Result	PQL		-	LCL(ME)	) UCL(ME) F	RPDRefv	/al %RPD(Limit)	Qual
TPH-E (DRO) Surr: Nonane	104 5.17	5	100 6	0 104 86	51 67	141 156	107.8		

#### **Comments:**



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<b>Date:</b> 08-Jun-10		Ç	<b>Work Order:</b> 10052741								
Method Blan	ık		Type: N	BLK Te	est Code: El	PA Met	hod SW80	15B / E			
File ID: 2A0521	1098.D			Ba	atch ID: 243	45		Analy	/sis Date:	05/27/2010 17:31	
Sample ID:	MBLK-24345	Units : mg/L		Run ID: FII	D_2_100527	7 <b>A</b>		Prep	Date:	05/27/2010 13:35	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME	) RPDRef	Val %RPD(Limit)	Qual
TPH-E (DRO) TPH-E (ORO)		ND ND	0.5 0.5								
Surr: Nonane		0.114		0.15		76	57	147			
Laboratory (	Control Spike		Type: L	.CS Te	est Code: El	PA Met	hod SW80	15B / E			
File ID: 2A0521	10127.D			Ba	atch ID: 243	45		Anal	vsis Date:	05/28/2010 12:27	
Sample ID:	LCS-24345	Units : mg/L		Run ID: FII	D_2_10052	7 <b>A</b>		Prep	Date:	05/27/2010 13:35	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME	) RPDRef	Val %RPD(Limit)	Qual
TPH-E (DRO)		3.1	0.05	5 2.5		124	67	130			
Surr: Nonane	·····	0.088		0.15		59	57	147			
Sample Matr	rix Spike		Type: N	IS Te	est Code: El	PA Met	hod SW80	15B / E			
File ID: 2A0521	110118.D			Ba	atch ID: 243	45		Anal	ysis Date:	05/28/2010 01:59	
Sample ID:	10052625-10AMS	Units : mg/L		Run ID: FI	D_2_10052	7 <b>A</b>		Prep	Date:	05/27/2010 13:35	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME	) RPDRef	Val %RPD(Limit)	Qual
TPH-E (DRO)		6.14	0.05	5 2.5	3.64	99.8	49	150			
Surr: Nonane		0.118		0.15		79	57	147			
Sample Matr	rix Spike Duplicate		Type: N	ISD TO	est Code: E	PA Met	hod SW80	15B / E			
File ID: 2A0521	110119.D			Ba	atch ID: 243	45		Anal	sis Date:	05/28/2010 02:24	
Sample ID:	10052625-10AMSD	Units : mg/L		Run ID: FI	D_2_10052	7 <b>A</b>		Prep	Date:	05/27/2010 13:35	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME	) RPDRef	Val %RPD(Limit)	Qual
TPH-E (DRO) Surr: Nonane		6.45 0.099	0.05	5 2.5 0.15	3.64	112 66	49 57	150 147	6.13	5 5.0(38)	

#### Comments:



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Method Blank	QC Summary Report										
File ID: C:\HPCHEM\MS06\DATA\100602\100		Туре: М	Ba	est Code: EPA Me atch ID: MS06S434		Analysis Date:	06/02/2010 15:57				
Sample ID: MBLK MS06S4340B Analyte	Units : mg/K Result	9 PQL		SD_06_100602B		Prep Date: UCL(ME) RPDRef	06/02/2010 15:57	Qual			
TPH-P (GRO)	ND			Spkreival /arec							
Surr: 1,2-Dichloroethane-d4	0.25		0.2	125	70	130					
Surr: Toluene-d8	0.186		0.2	93	70	130					
Surr: 4-Bromofluorobenzene	0.212		0.2	106	70	130					
Laboratory Control Spike		Type: L	_CS Te	est Code: EPA Me	hod SW80	015					
File.ID: C:\HPCHEM\MS06\DATA\100602\100	60219.D		Ba	atch ID: MS06S434	0B	Analysis Date:	06/02/2010 16:47				
Sample ID: LCS MS06S4340B	Units : mg/K	g	Run ID: MS	SD_06_100602B		Prep Date:	06/02/2010 16:47				
Analyte	Result	PQL	SpkVal	SpkRefVal %REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual			
TPH-P (GRO)	16.6	1	2 16	104	70	139					
Surr: 1,2-Dichloroethane-d4	0.509		0.4	127	70	130					
Surr: Toluene-d8	0.371		0.4	93	70	130					
Surr: 4-Bromofluorobenzene	0.425		0.4	106	70	130					
Sample Matrix Spike		Туре: 🛚	MS Te	est Code: EPA Me	hod SW80	015					
File ID: C:\HPCHEM\MS06\DATA\100602\100	60220.D		Ba	atch ID: MS06S434	0B	Analysis Date:	06/02/2010 17:11				
Sample ID: 10052504-03AGS	Units : mg/K	g	Run ID: MS	SD_06_100602B		Prep Date:	06/02/2010 17:11				
Analyte	Result	PQL	SpkVal	SpkRefVal %REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual			
TPH-P (GRO)	15.5	2	2 16	0 97	57	147					
Surr: 1,2-Dichloroethane-d4	0.524		0.4	131	70	130		S55			
Surr: Toluene-d8	0.359		0.4	90	70	130					
Surr: 4-Bromofluorobenzene	0.442		0.4	111	70	130					
Sample Matrix Spike Duplicate		Туре: М	MSD Te	est Code: EPA Met	hod SW80	)15					
File ID: C:\HPCHEM\MS06\DATA\100602\100	60221.D		Ba	atch ID: MS06S434	0B	Analysis Date:	06/02/2010 17:36				
Sample ID: 10052504-03AGSD	Units : mg/K	g	Run ID: MS	SD_06_100602B		Prep Date:	06/02/2010 17:36				
Analyte	Result	PQL	SpkVal	SpkRefVal %REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual			
TPH-P (GRO)	15.6		2 16	0 98	57	147 15.4	7 1.1(20)				
Surr: 1,2-Dichloroethane-d4	0.521		0.4	130	70	130	. ,				
Surr: Toluene-d8	0.362		0.4	91	70	130					
Surr: 4-Bromofluorobenzene	0.446		0.4	112	70	130					

#### **Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

S55 = Surrogate recovery was above laboratory acceptance limits.



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<b>Date:</b> 08-Jun-10	(	QC SI	ummar	y Repor	t			<b>Work Orde</b> 10052741	
Method Blank File ID: C:\HPCHEM\MS06\DATA\100528\ Sample ID: MBLK MS06W0528B		Туре: N	Ba	est Code: EF atch ID: MS0 SD_06_1005	6W052			05/28/2010 10:34 05/28/2010 10:34	
Analyte	Result	PQL				LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual
TPH-P (GRO) Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	ND 0.0119 0.00974 0.0103	0.5			119 97 103	70 70 70 70	130 130 130		
Laboratory Control Spike		Type: L	CS Te	est Code: EF	A Met	hod SW80	15		
File ID: C:\HPCHEM\MS06\DATA\100528\	10052804.D		Ва	atch ID: MS0	6W052	28B	Analysis Date:	05/28/2010 10:09	
Sample ID: GLCS MS06W0528B	Units : <b>mg/L</b>		Run ID: M	SD_06_1005	28A		Prep Date:	05/28/2010 10:09	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual
TPH-P (GRO) Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	0.383 0.0114 0.00956 0.0108	0.05	0.4 0.01 0.01 0.01		96 114 96 108	70 70 70 70	130 130 130 130		
Sample Matrix Spike		Type: N	IS Te	est Code: EF	A Met	hod SW80	15		
File ID: C:\HPCHEM\MS06\DATA\100528\	10052818.D		Ba	atch ID: MS0	6W052	28B	Analysis Date:	05/28/2010 15:55	
Sample ID: 10052625-01AGS	Units : <b>mg/L</b>		Run ID: MS	SD_06_1005	28A		Prep Date:	05/28/2010 15:55	
Analyte	Result	PQL	SpkVał	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual
TPH-P (GRO) Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	2.12 0.0573 0.0474 0.0535	0.25	2 0.05 0.05 0.05	0	106 115 95 107	58 70 70 70	135 130 130 130		
Sample Matrix Spike Duplicate		Туре: М	ISD Te	est Code: EP	A Met	hod SW80	15		
File ID: C:\HPCHEM\MS06\DATA\100528\	10052819.D		Ba	atch ID: MS0	6W052	28B	Analysis Date:	05/28/2010 16:20	
Sample ID: 10052625-01AGSD	Units : <b>mg/L</b>		Run ID: MS	SD_06_1005	28A		Prep Date:	05/28/2010 16:20	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual
TPH-P (GRO) Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	2.11 0.0565 0.0458 0.0524	0.25	2 0.05 0.05 0.05	0	105 113 92 105	58 70 70 70	135 2.11 130 130 130	6 0.3(20)	

#### **Comments:**



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<b>Date:</b> 08-Jun-10	(	QC Su	immary Repo	ort			<b>Work Ord</b> 1005274	
Method Blank File ID: C:\HPCHEM\MS06\DATA\100602		Type: MI	BLK Test Code: Batch ID: M				06/02/2010 15:57	
					A	-		
Sample ID: MBLK MS06S4340A	Units : µg/Kg		Run ID: MSD_06_10			Prep Date:	06/02/2010 15:57	~
Analyte	Result	PQL	SpkVal SpkRefV	al %REC	LCL(ME)	JCL(ME) RPDRef	Val %RPD(Limit)	Qua
Dichlorodifluoromethane	ND	20						
Chloromethane Vinyl chloride	ND	40						
Chloroethane	ND ND	20 20						
Bromomethane	ND	20 40						
Trichlorofluoromethane	ND	20						
1,1-Dichloroethene	ND	20						
Dichloromethane	ND	40						
trans-1,2-Dichloroethene	ND	20						
1,1-Dichloroethane cis-1,2-Dichloroethene	ND ND	20						
Bromochloromethane	ND	20 20						
Chloroform	ND	20						
2,2-Dichloropropane	ND	20						
1,2-Dichloroethane	ND	20						
1,1,1-Trichloroethane	ND	20						
1,1-Dichloropropene Carbon tetrachloride	ND	20						
Benzene	ND ND	20 20						
Dibromomethane	ND	20						
1,2-Dichloropropane	ND	20						
Trichloroethene	ND	20						
Bromodichloromethane	ND	20						
cis-1,3-Dichloropropene	ND	20						
trans-1,3-Dichloropropene 1,1,2-Trichloroethane	ND	20						
Toluene	ND ND	20 20						
1,3-Dichloropropane	ND	20						
Dibromochloromethane	ND	20						
1,2-Dibromoethane (EDB)	ND	40						
Tetrachloroethene	ND	20						
1,1,1,2-Tetrachloroethane	ND	20						
Chlorobenzene Ethylbenzene	ND ND	20 20						
m,p-Xylene	ND	20						
Bromoform	ND	20						
Styrene	ND	20						
o-Xylene	ND	20						
1,1,2,2-Tetrachloroethane	ND	20						
1,2,3-Trichloropropane Isopropylbenzene	ND	40						
Bromobenzene	ND ND	20 20						
n-Propylbenzene	ND	20						
4-Chiorotoluene	ND	20						
2-Chlorotoluene	ND	20						
1,3,5-Trimethylbenzene	ND	20						
tert-Butylbenzene	ND	20						
1,2,4-Trimethylbenzene sec-Butylbenzene	ND	20						
1.3-Dichlorobenzene	ND ND	20 20						
1,4-Dichlorobenzene	ND	20						
4-Isopropyltoluene	ND	20						
1,2-Dichlorobenzene	ND	20						
n-Butylbenzene	ND	20						
1,2-Dibromo-3-chloropropane (DBCP) 1,2,4-Trichlorobenzene	ND	60						
Naphthalene	ND ND	40 40						
Hexachlorobutadiene	ND	40 40						
1,2,3-Trichlorobenzene	ND	40						
Surr: 1,2-Dichloroethane-d4	250	-	200	125	70	130		
Surr: Toluene-d8	186		200	93	70	130		
Surr: 4-Bromofluorobenzene	212		200	106	70	130		



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<b>Date:</b> 08-Jun-10		Ç	QC Si	ummar	Repor	t				<b>Work Ord</b> 1005274	
Laboratory	Control Spike		Type: L	CS Te	est Code: EF	PA Met	hod SW82	60B			
	CHEM\MS06\DATA\100602	10060218.D		Ba	tch ID: MS0	6S434	0A	Analysi	is Date:	06/02/2010 16:22	
Sample ID:	LCS MS06S4340A	Units : µg/Kg	1		SD_06_1006			Prep D		06/02/2010 16:22	
Analyte		Result	PQL							/al %RPD(Limit)	Qua
·					эркпетиа						
1,1-Dichloroet	hene	303	20			76	10	143			
Benzene Trichloroethen	_	379	10			95	70	136			1.54
	le	586	20			146	70	138			L51
Toluene Chlorobenzene	-	341	10			85	70	135			
Ethylbenzene	e	330 358	20			82 90	70 70	135 137			
m,p-Xylene		358 341	10 10			90 85	70	137			
o-Xylene		341	10			85	70	143			
Surr: 1,2-Dichl	loroethane-d4	519	10	400		130	70	130			
Surr: Toluene-		379		400		95	70	130			
Surr: 4-Bromo	fluorobenzene	446		400		112	70	130			
Sample Mat	trix Spike		Туре: М	S Te	est Code: EF	PA Met	hod SW82	60B			
	CHEM\MS06\DATA\100607				tch ID: MS0	6S434	0A	Analys	is Date:	06/07/2010 19:46	
Sample ID:	10052504-03AMS	Units : µg/Kg	I		SD_06_1006			Prep D		06/07/2010 19:46	
Analyte		Result	PQL				LCL(ME)	•		/al %RPD(Limit)	Qua
1,1-Dichloroet	hene	344	20		0	86	10	143			
Benzene		502	10		0	125	57	143			
Trichloroethen	e	471	20		Õ	118	52	154			
Toluene		478	10		Ō	119	53	142			
Chlorobenzen	e	444	20	400	0	111	55	142			
Ethylbenzene		450	10	400	0	113	56	145			
m,p-Xylene		482	10	400	0	121	53	154			
o-Xylene		488	10		0	122	60	148			
Surr: 1,2-Dichl		359		400		90	<b>7</b> 0	130			
Surr: Toluene-		411		400		103	70	130			
Surr: 4-Bromo	fluorobenzene	406		400		102	70	130			
	trix Spike Duplicate		Type: M	SD Te	est Code: EF	PA Met	hod SW82	60B			
File ID: C:\HP	CHEM\MS06\DATA\100604	\10060415.D		Ba	tch ID: MS0	6S434	0A	Analysi	is Date:	06/04/2010 16:56	
Sample ID:	10052504-03AMSD	Units : µg/Kg		Run ID: MS	SD_06_1006	602B		Prep D	ate:	06/04/2010 16:56	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) F	RPDRef\	/al %RPD(Limit)	Qua
1,1-Dichloroet	hene	549	20	400	0	137	10	143	344.4	45.9(20)	R5
Benzene		436	10	400	0	109	57	143	501.6	5 14.1(20)	
Trichloroethen	e	437	20	400	0	109	52	154	471.1	7.5(20)	
Toluene		403	10	400	0	101	53	142	477.6		
Chlorobenzen	e	409	20		0	102	55	142	444.4		
Ethylbenzene		410	10		0	103	56	145	450.3		
m,p-Xylene		438	10		0	109	53	154	482.1		
o-Xylene Surr: 1.2-Dichl		422	10		0	105	60	148	488	14.6(20)	
Surr: 1,2-Dichi Surr: Toluene-		442		400		110	70	130			
	do fluorobenzene	392 400		400 400		98 100	70 <b>7</b> 0	130 130			
		400		400		100	10	130			
Comments:	······································			· ·							

**Comments:** 

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

L51 = Analyte recovery was above acceptance limits for the LCS, but was acceptable in the MS/MSD.

R5 = MS/MSD RPD exceeded the laboratory control limit. Recovery met acceptance criteria.



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

<b>Date:</b> 08-Jun-10		(	QC Sumn	nary Report	-		<b>Work Ord</b> 1005274	
Method Blank			Type: <b>MBLK</b>	Test Code: EPA				
File ID: C:\HPCH	IEM\MS06\DATA\100528	3\10052805.D		Batch ID: MS06W	/0528A	Analysis Da	te: 05/28/2010 10:34	
Sample ID: N	MBLK MS06W0528A	Units : µg/L	Run II	D: MSD_06_100528	Α	Prep Date:	05/28/2010 10:34	Ļ
Analyte		Result	PQL Spl	Val SpkRefVal %F	REC LCL(ME)	UCL(ME) RPDF	RefVal %RPD(Limit)	Qua
Dichlorodifluorom	nethane	ND	1					
Chloromethane	louidito	ND	2					
Vinyl chloride		ND	1					
Chloroethane		ND	1					
Bromomethane		ND	2					
Trichlorofluorome		ND	1					
1,1-Dichloroether		ND	1					
Dichloromethane		ND	2					
trans-1,2-Dichlore		ND	1					
1,1-Dichloroethar cis-1,2-Dichloroet		ND	1					
Bromochloromet		ND	1					
Chloroform	lidite	ND ND	1 1					
2.2-Dichloropropa	ane	ND	1					
1.2-Dichloroethar		ND	1					
1,1,1-Trichloroeth		ND	1					
1,1-Dichloroprope		ND	1					
Carbon tetrachlor	ride	ND	1					
Benzene		ND	1					
Dibromomethane		ND	1					
1,2-Dichloropropa	ane	ND	1					
Trichloroethene		ND	1					
Bromodichlorome		ND	1					
cis-1,3-Dichlorop		ND	1					
trans-1,3-Dichloro 1,1,2-Trichloroeth		ND	1					
Toluene	Idile	ND ND	1					
1,3-Dichloropropa	ane	ND	1 1					
Dibromochlorome		ND	1					
1,2-Dibromoetha		ND	2					
Tetrachloroethen		ND	1					
1,1,1,2-Tetrachlo	roethane	ND	1					
Chlorobenzene		ND	1					
Ethylbenzene		ND	1					
m,p-Xylene		ND	1					
Bromoform		ND	1					
Styrene		ND	1					
o-Xylene	raathana	ND	1					
1,1,2,2-Tetrachlor 1,2,3-Trichloropro		ND	1					
Isopropylbenzene		ND ND	2 1					
Bromobenzene	•	ND	1					
n-Propylbenzene	·	ND	1					
4-Chlorotoluene		ND	1					
2-Chlorotoluene		ND	1					
1,3,5-Trimethylbe		ND	1					
tert-Butylbenzene		ND	1					
1,2,4-Trimethylbe	-	ND	1					
sec-Butylbenzene		ND	1					
1,3-Dichlorobenze		ND	1					
4-Isopropyltoluen		ND	1					
1,2-Dichlorobenzo		ND	1					
n-Butylbenzene		ND ND	1					
1.2-Dibromo-3-ch	nloropropane (DBCP)	ND	1 3					
1,2,4-Trichlorobe		ND	2					
Naphthalene		ND	2					
Hexachlorobutadi	iene	ND	2					
1,2,3-Trichlorober		ND	2					
Surr: 1,2-Dichloro		11.9		10 1	19 70	130		
Surr: Toluene-d8		9.74			7 70	130		
Surr: 4-Bromofluc	and the second	10.3		10 1	03 70	130		



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<b>Date:</b> 08-Jun-10		(	QC Su	immary	y Repor	t				<b>Work Ord</b> 10052741	
Laboratory	Control Spike		Type: LC	CS Te	est Code: El	PA Met	hod SW82	260B			
-	CHEM\MS06\DATA\100528\1	10052803.D	•		atch ID: MSC	6W052	8A	Analy	sis Date:	05/28/2010 09:44	
Sample ID:	LCS MS06W0528A	Units : µg/L			SD_06_100		•	Prep		05/28/2010 09:44	
Analyte	200 110000003284	• •									Qual
	*	Result	PQL		SpkRetval				REDREN	/al %RPD(Limit)	
1,1-Dichloroet	hene	8.87	1	10		89	80	120			
Benzene		9.61	0.5	10		96	70	130			
Trichloroethen	e	9.43	1	10		94	70	130			
Toluene		9.14	0.5	10		91	80	120			
Chlorobenzene	8	9.27	1	10		93	70	130			
Ethylbenzene		9.39	0.5	10		94	80	120			
m,p-Xylene		9.21	0.5	10		92	70	130			
o-Xylene		9.36	0.5	10		94	70	130			
Surr: 1,2-Dichl		11.5		10		115	70	130			
Surr: Toluene-		9.79		10		98	70	130			
Surr: 4-Bromo	fluorobenzene	10.6		10		106	70	130			
Sample Mat			Type: M	S Te	est Code: El	PA Met	hod SW82	260B			
File ID: C:\HP	CHEM\MS06\DATA\100528\1	10052816.D		Ba	atch ID: MSC	6W052	28A	Analy	sis Date:	05/28/2010 15:06	
Sample ID:	10052625-01AMS	Units : µg/L		Run ID: MS	SD_06_100	528A		Prep	Date:	05/28/2010 15:06	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qual
1,1-Dichloroeth	hene	48.8	2.5	50	0	98	60	130			
Benzene		52.4	1.3	50	0	105	67	130			
Trichloroethen	e	51.9	2.5	50	0	104	69	130			
Toluene		49.4	1.3	50	0	99	66	130			
Chlorobenzene	e	50.2	2.5	50	0	100	70	130			
Ethylbenzene		51.4	1.3	50	0	103	68	130			
m,p-Xylene		49.5	1.3	50	0	99	64	130			
o-Xylene		50.9	1.3	50	0	102	70	130			
Surr: 1,2-Dichl		60.2		50		120	70	130			
Surr: Toluene-		47.4		50		95	70	130			
Surr: 4-Bromot	fluorobenzene	51.6		50		103	70	130			
Sample Mat	rix Spike Duplicate		Туре: М	SD Te	est Code: El	PA Met	hod SW82	260B			
File ID: C:\HP	CHEM\MS06\DATA\100528\1	10052817.D		Ba	atch ID: MSC	6W052	8A	Analy	sis Date:	05/28/2010 15:30	
Sample ID:	10052625-01AMSD	Units : µg/L		Run ID: MS	SD_06_100	528A		Prep	Date:	05/28/2010 15:30	
Analyte		Result	PQL				LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qual
1,1-Dichloroet	hene	45.4	2.5	. 50	. 0	91	60	130	48.8		
Benzene		51.7	1.3	50	Ő	103	67	130	52.4	• •	
Trichloroethen	e	51.7	2.5	50	Ő	103	69	130	51.8	• •	
Toluene		51.2	1.3	50	Ő	102	66	130	49.3		
Chlorobenzene	e	51.3	2.5	50	Ő	103	70	130	50.10		
Ethylbenzene		52.5	1.3	50	Ő	105	68	130	51.30		
m,p-Xylene		51	1.3	50	0	102	64	130	49.5		
o-Xylene		52.8	1.3	50	Ō	106	70	130	50.93	• •	
Surr: 1,2-Dichl	oroethane-d4	60.1		50	-	120	70	130	-	. ,	
Surr: Toluene-	d8	48.8		50		98	70	130			
Surr: 4-Bromot	fluorobenzene	53		50		106	70	130			
Commontos		<u> </u>						. <u></u>			

**Comments:** 



FAX 714/538-1209

CLIENT	Alpha Analytical, Inc. ATTN: Reyna Vallejo	(11338)	LAB REQUES	ST 255616
	255 Glendale Avenue Suite 21		REPORTED	06/04/2010
	Sparks, NV 89431-5778		RECEIVED	05/28/2010
PROJECT	W.O. #E2M10052741			

#### SUBMITTER Client

#### COMMENTS

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

<u>Order No.</u>	<b>Client Sample Identification</b>
1083519	E2M10052741-16A
1083520	E2M10052741-17A
1083521	Laboratory Method Blank

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

IATED LABORATORIES/by. Edward S. Behare. Vice President

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

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TESTING & CONSULTING Chemical Microbiological Environmental

Lab request 255616 cover, page 1 of 1

Order #: 1083519 Matrix: WATER Date Sampled: 05/26/2010 Time Sampled: 16:30	<b>lient Sample ID:</b> E2M1	0052741-16A	<u>2000,</u>		
Analyte		Result	DLR	Units	Date/Analyst
420.1Total Phenolics					
Total Phenolics		ND	0.005	mg/L	06/03/10 HK
Order #: 1083520 C Matrix: WATER Date Sampled: 05/26/2010 Time Sampled: 09:40	lient Sample ID: E2M1	0052741-17A	- <u> </u>		
Analyte		Result	DLR	Units	Date/Analyst
420.1Total Phenolics				······	
Total Phenolics		ND	0.005	mg/L	06/03/10 HK
Order #: 1083521 C Matrix: WATER	lient Sample ID: Labora	ntory Method Blank	• <u>••••••••••••</u> •••		
Analyte		Result	DLR	Units	Date/Analyst
20.1Total Phenolics					
Total Phenolics		ND	0.005	mg/L	06/03/10 HK

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



### ASSOCIATED LABORATORIES

#### ASSOCIATED LABORATORIES QA REPORT FORM

QC Sample: LR 255328

Matrix: WATER

Prep. Date: June 3, 2010

Analysis Date: June 3, 2010

ID#'s in Batch: LR 255045, 255220, 255328, 255410, 255509, 255615, 255616, 255627, 255655

#### MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
PHENOLICS	420.1/5530/9065	ND	0.20	0.205	0.200	103	100	2

ND - Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate %REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS	=	80-120
RPD LIMITS	=	20

### PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK				*******	
Value	Result	True	%Kec	L.Limit	H.Limit
ND	0.080	0.08	100	80%	120%

Value – Preparation Blank Value LCS Result – Lab Control Sample Result True – True Value of LCS L-Limit / H.Limit = LCS Control Limits

#### Laboratory Report Report ID: 105970

Date:

Client:

**PO #:** 

Taken by:

Sierra Environmental Monitoring, Inc.

6/8/2010

ALP-855

J. Ruffing

Alpha Analytical

255 Glendale Avenue Suite 21 Sparks, NV 89431

Dear Alpha Analytical,

It is the policy of Sierra Environmental Monitoring, Inc to strictly adhere to a comprehensive Quality Assurance Plan that insures the data presented in this report are both accurate and precise. Sierra Environmental Monitoring, Inc. maintains accreditation in the State of Nevada (NV-15) and the State of California (ELAP 2526).

The data presented in this report were obtained from the analysis of samples received under a chain of custody. Unless otherwise noted below, samples were received in good condition, properly preserved and within the hold time for the requested analyses. Any anomalies associated with the analysis of the samples have been flagged with appropriate explanation in the Analysis Report section of this Laboratory Report.

General Comments:

- There are no general comments for this report.

Individual Sample Comments:

- There are no specific comments that are associated with these samples.

**Approved By:** 

Sterra Environmental Monitoring, Inc.

This report is applicable only to the sample received by the laboratory. The liability of the laboratory is limited to the amount paid for this report. This report is for the exclusive use of the client to whom it is addressed and upon the condition that the client assumes all liability for the further distribution of the report or its contents.

1135 F<sup>h</sup>affcla<sup>f</sup>Blvd. Reno, NV 89502-2348 Phone (775) 857-2400 FAX (775) 857-2404 sem@sem-analytical.com John C. Seher Special Consultant Quality Assurance Manager

Date:

6/8/2010

### Laboratory Report Report ID: 105970



Alpha Analytical

255 Glendale Avenue Suite 21 Sparks, NV 89431 Date:6/8/2010Client:ALP-855Taken by:J. RuffingPO #:

### Analysis Report

Sample ID: S201005-1492	Custor E2M10052741-1	mer Sample ID 6 - SB02GW15		Date Sam 5/26/20	-		e Received /27/2010
Parameter	Method	Result	Units	Reporting Limit	Analyst	Date Analyze	Data d Flag
Cyanide, Total	SM 4500 CN C	< 0.005	mg/L	0.005	Kobza	6/1/ <b>2</b> 010	) JI
Sample ID: S201005-1493	Custo E2M10052741-1	mer Sample II 7 - SB07GW17		<b>Date Sam</b> 5/26/20	-		e <b>Received</b> /27/2010
-		-			- <b>4</b> -		/27/2010 Data

Data Flag Legend:

*Il* - The batch MS and/or MSD were outside acceptance limits. The batch LCS was acceptable.

### Laboratory Report Report ID: 105970



Alpha Analytical	Date:	6/8/2010
	Client:	ALP-855
255 Glendale Avenue Suite 21	Taken by:	J. Ruffing
Sparks, NV 89431	PO #:	

	Quality	Control	Report		
Parameter	LCS, % Recovery	MS, % Recovery	MSD, % Recovery	RPD, %	Method Blank
Cyanide, Total	96.0	94.0			<0.005 mg/L
Cyanide,Total	81.0	49.0			<0.005 mg/L
Legend:	LCS- Laboratory Control Standard RPD- Relative Percent Difference	MS- Ma	trix Spike	MSD- Matrix S	pike Duplicate

127/10 124	ical, Inc.	Alpha Analytical, Inc.		Caston		Nach	7 Alama	C	als	due	Alla It	Logged in by:
subbed to SEM. : H2SO4 split was created from 1 Liter unpreseved amber for sample -16A & -17A for Phenolics to be subbed to Associated Labs. Amended 5/27/10 to note that Total Cyanide will be subbed to SEM, due to login error. TD. Signature Date/Time	ded 5/27/10 to	Associated Labs. Amende Company	e subbed to A	17A for Phenolics to b Print Name	le -16A & -17A	er for samp	eved amb	iter unpres	<u>vas created from 1 1</u> error. TD. Vignature	split was c b login error Signs	subbed to SEM. : H2SO4 split was created be subbed to SEM, due to login error. TD Signature	
As, Ba, Cd, Cr, Pb, Hg, Ag, Se Samples rec'd after 4:30 cut-off time, therefore one day added to TAT. Total Cyanide	ore one day add	As, Ba, Cd, Cr, Pb, Hg, Ag, Se	s rec'd after 4		re until login on	Id and secu	0. kept co]	1 0 cc'd 5/26/10	05/26/10 07:45	ent. Frozen	SB0410SO052610     SO     05/26/10     1     0     5       07:45     07:45     07:45     1     0     1       Samples brought in by client. Frozen ice. Samples rec'd 5/26/10. kept cold and secure until login on 5/27/10	E2M10052741-08A Comments:
		As, Ba, Cd, Cr, Pb, Hg, Ag, Se	-			- -	თ	- 0	05/26/10 08:10		SB0401SO052610	E2M10052741-07A
Sample ID on brass tube is SB0213SO052610, logged in per COC and matched by sampling time.	<u>ي کې د</u>	As, Ba, Cd, Cr, Pb, Hg, Ag,Se	-				თ	د 0	05/26/10 16:10	S	SB0215SO052610	
		As, Ba, Cd, Cr, Pb, Hg, Ag, Se					თ	0	05/26/10 15:50	so	SB0208SO052610	
Sample ID on brass tube is SB02SO052610, matched by sampling time.	S S	As. Ba. Cd. Cr. Pb. Hg. Ag. Se		-				1 0	05/26/10 15:15		SB0202SO052610	
		As. Ba. Cd. Cr. Pb. Hg. Ag. Se					ა თ	1	05/26/10 13:50	so	SB0113SO052610	E2M10052741-03A
		As, Ba, Cd, Cr, Pb, Hg, Ag, Se		· · · · · · · · · · · · · · · · · · ·			თ	- 0	05/26/10 13:40	so	SB0108SO052610	E2M10052741-02A
		As, Ba, Cd, Cr. Pb, Hg, Ag, Se					сл Сл	1	05/26/10 13:30	so	SB0102SO052610	E2M10052741-01A
Sample Remarks	N_TKN_W	INTERPORT		· · · · · · ·	W ALKALINIT AMMONIA Y_W W	300_0_W	ties Jb TAT	No. of Bottles Alpha Sub	Date /	C Matrix	Client Sample ID	Alpha Sample ID
	-			<b>I</b> .				ogates	ISD With Surr	CS, MS/M	= Final Rpt, MBLK, LCS, MS/MSD With Surrogates	QC Level: S3
ceived Date Printed 10 27-May-10	ob Ruffing <u>Samples Received</u> 26-May-10	Sampled by : Jacob Ruffing <u>Cooler Temp</u> <u>Samples R</u> <u>4 °C</u> 26-May	ţ						NTD	Job :	17	Suite 300 Folsom, CA 95630 PO : Client's COC # : 32517
	2	DD Damirad · Va	Г <u>і</u>	clayton.mokri@hdrinc.com	1	-//92 x 204	26/1-758 (916)		Clayton Mokri		ad	2365 Iron Point Road
				dress	1		Phone Number	Ō	Report Attention			
WorkOrder : E2M10052741 Report Due By : 5:00 PM On : 04-Jun-10	E2M100 3:00 PM 0	• • • • WorkOrder : E2M10052741 eport Due By : 5:00 PM On : 04	Rep	• 9431-5778 06	Alpha Analytical, Inc. ale Avenue, Suite 21 Sparks, Nevada 89431-5 .: (775) 355-1044 FAX: (775) 355-0406		Alpha An: andale Avenue, Suite: IFEL: (775) 355-1044	Jlenda TEL	2		01.	9563 S. Kingston Ct. Englewood, CO 80112
			U	ECORD	HAIN-OF-CUSTODY REC		OH-C	NIN-C				E2M

sher mfzzle	cal, Inc.	Alpha Analytical, Inc.	Alp	5	NVV	hick	ue /	)		( A	Munh	HT W	(/ ma	Ë	Logged in by:	Ľ
Date/Time	Ŋ	Company				rint Name	P				re	Signature	7	$\triangleright$		
Samples brought in by client. Frozen ice. Samples rec'd 5/26/10, kept cold and secure until login on 5/27/10. Samples rec'd after 4:30 cut-off time, therefore one day added to TAT. Total Cyanide subbed to SEM. : H2SO4 split was created from 1 Liter unpreseved amber for sample -16A & -17A for Phenolics to be subbed to Associated Labs. Amended 5/27/10 to note that Total Cyanide will be subbed to SEM, due to login error. TID.	ore one day add ded 5/27/10 to 1	time, thereft abs. Amenc	:30 cut-off	rec'd after 4: subbed to A	<u>Samples 1</u> olics to be	<u>m 5/27/10.</u> A for Phen	<u>until login o</u> -16A & -17,	and secure for sample	), kept cold eved amber	<u>x'd 5/26/1(</u> iter unpres	<u>e. Samples ra</u> u <u>ted from 1 L</u> [ <u>D.</u>	Frozen ic t was crea n error, T	Samples brought in by client. Frozen ice. S subbed to SEM. : H2SO4 split was created be subbed to SEM, due to login error. TID.	Samples bro subbed to SI be subbed to	ents:	Comments:
	TPH/E_N				**************				თ		05/26/10 07:45	SO 05		SB0410SO052610	E2M10052741-08A	E2M10
	TPH/E_N		TT. 108 Reconciled						თ	- 0	05/26/10 08:10	SO 05	0052610	SB0401SO052610	E2M10052741-07A	E2M10
Sample ID on brass tube is SB0213SO052610, logged in per COC and matched by sampling time.					-				თ	- 0	05/26/10 16:10	SO 05	0052610	SB0215SO052610	E2M10052741-06A	E2M1C
	TPH/E_N				••••				თ	1	05/26/10 15:50	SO 05		SB0208SO052610	E2M10052741-05A	E2M10
Sample ID on brass tube is SB02SO052610, matched by sampling time.	TPH/E_N S	- ····							Сл	- 0	05/26/10 15:15			SB0202SO052610	E2M10052741-04A	E2M10
	TPH/E_N								თ	- 0	05/26/10 13:50	SO 05	0052610	SB0113SO052610	E2M10052741-03A	E2M10
	TPH/E_N				-	pH			ഗ	1	05/26/10 13:40	SO 05		SB0108SO052610	E2M10052741-02A	E2M10
	TPH/E_N								υ	- 0	05/26/10 13:30	SO 05		SB0102SO052610	E2M10052741-01A	E2M10
Sample Remarks	TPH/E_S	TDS_W	PHOSPHO RUS_W	PH_W PHENOLIC S_W	Reques	PH_S	_ OG_HEM_	N_TOTAL_ W	tles Ib TAT	No. of Bottles Alpha Sub	Collection N < Date Al	Co Matrix		Client Sample ID	le ID	Alpha Sample ID
a - Auto Multimo dana ana ana ana ana ana ana ana ana an										ogates	) With Surr	MS/MS[	Final Rpt, MBLK, LCS, MS/MSD With Surrogates	= Final R	vel: S3	QC Level :
10 27-May-10	26-May-10	4°C	4								D	b: NTD	qof	32517	Client's COC #: 32	lient's
ceived Date Printed	Samples Received	Temp	Cooler Temp													P0 :
	Sampled by : Jacob Ruffing	d by : Jac	Sample											30	Suite 300 Folsom, CA 95630	Folg
	S	EDD Required : Yes	DD Requ	EI					an a			. [		Road	2365 Iron Point Road	236
					inc.com	clayton.mokri@hdrinc.com		792 x 204	(916) 852-7792	_	Clayton Mokri	Cl			HDR   E2M	HD
						ddress	EMail Address		Phone Number		Report Attention	Re				Client:
WorkOrder : E2M10052741 Report Due By : 5:00 PM On : 04-Jun-10	WorkOrder:E2M10052741 eport Due By:5:00 PM On: 04	rder: e By:5	ort Due	W	178	, 9431-57 )6	Alpha Analytical, Inc. ale Avenue, Suite 21 Sparks, Nevada 89431-57 .: (775) 355-1044 FAX: (775) 355-0406	<b>nalyti</b> uite 21 Spz 144 FAX:	Alpha Anal 255 Glendale Avenue, Suite 21 TEL: (775) 355-1044 F	A 5 Glendale TEL: (	25			1 Ct. 30112	9563 S. Kingston Ct. Englewood, CO 80112	9563 Engle
			Z <		ORD		CHAIN-OF-CUSTODY REC	USIC	)H-C	IN-C	CHA				E2M	E2M

	HAIN-	OF-C	<b>USTO</b>	DY REC	ORD	22	
	255 Glendi	Alpha A ale Avenue, Si		<b>al, Inc.</b> cs. Nevada 89431-5	778	WorkOrder : E2M10052741	E2M10052741
Report A		.: (775) 355-1 Phone Nu	<b>1</b>	775) 355-0406 EMail Address		Keport Due By : 5:0	JU PNI On : 04-Jun-10
Clayton N	Mokri	(916) 852-2	792 x 204	clayton.mokri@hdr	inc.com		
					ан сулар — станција да деновија — и тек стана — малектирија — мале	EDD Required : Yes	
						Sampled by : Jacot	) Ruffing
						<u>Cooler Temp</u>	Samples Received Date Printed
Job : NTD							
_CS, MS/MSD With	Surrogates						
					Requested	Tests	
Collectio Matrix Date	-		TPH/E_W	TPH/P_S TPH/P_W	voc_s	oc_w	Sample Demarke
SO 05/26/10		0		GAS-N	8260_N		
SO 05/26/10 13:40		05		GAS-N	8260_N		
SO 05/26/10 13:50		0 5		GAS-N	8260_N		
SO 05/26/10 15:15		О 5		GAS-N	8260_N		Sample ID on brass tube is SB02SO052610, matched by sampling time
SO 05/26/10 15:50		0		GAS-N	8260_N		
SO 05/26/10 16:10		O J		GAS-N	8260_N		Sample ID on brass tube is SB0213SO052610, logged in per COC and matched by sampling time.
SO 05/26/10 08:10		0 5		GAS-N	8260_N		
SO 05/26/10 07:45		0 5		GAS-N	8260_N		
ient. Frozen ice. Sam 4 split was created fro 0 login error. TD.	ples rec'd 5/26 m 1 Liter unpi	/10, kept cold reseved amber	<u>and secure u</u> for sample - l	ntil login on 5/27/10 6A & -17A for Phe	. Samples rec'd nolics to be subb	after 4:30 cut-off time, therefore ed to Associated Labs. Amender	one day added to TAT. Total Cyan <u>1</u> 5/27/10 to note that Total Cyanide
Julun	hon		iau		~ app	Alpha Analytical, Inc.	1, Inc. 5/27/10 16
days after results au mples is applicable (Soil) WS(Waste)	re reported u only to those DW(Drinkin	inless other a samples rec	rrangements seived by the T(Other)	s are made. Haza laboratory with th Bottle Tyne: I	rdous samples is COC. The li	will be returned to client or di ability of the laboratory is limit S-Soil Jar O-Orho T-Tedla	isposed of at client expense. ed to the amount paid for the rep or R-Brass P-Plastic OT-Othe
	Ct. Ct. Ct. I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112 I112	$\begin{tabular}{ c c c c } \hline & & & & & & & & & & & & & & & & & & $	Englewood, CO 80112     Alpha A       Englewood, CO 80112     Assist Grade Avens, St.       TELL (775) 355:11       TELL (775) 355:11       Englewood, CO 80112       TELL (775) 355:11       TELL (775) 355:10       TELL (775) 355:11       TELL (775) 355:11       TELL (775) 355:11       TELL (775) 355:11       TEL (775) 355:11       TEL (775) 35:11       TEL (775) 35:11       TEL (775) 11	Alpha Analytic         Alpha Analytic         255 Glendale Avenue, Suite 21 Spar         TEL: (775) 355-1044 FAX: (TEL: (775) 355-1044 FAX: (Phone Number         Collection No. of Bottles         TPHE W         Matrix Date Alpha Sub TAT         SO 05/26/10 1 0 5         SO 05/26/10 1 1 0 5         Matter to thot th	Analytical S. Suite 21 Sparks, N 5-1044 FAX: (775 Number E Number E 22-7792 x 204 cla 22-7792 x 204 cla 22-7792 x 204 cla 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Analytical, Inc.       Suite 21 Sparks, Nevada 89431-577       5-1044 FAX: (775) 355-0406       Number     EMail Address       2-7792 x 204 clayton.mokri@hdrin       2-7792 x 204 clayton.mokri@hdrin       GAS-N       Hator       GAS-N       GAS-N       Hator       GAS-N       GAS-N       GAS-N       GAS-N <td>Analytical, Inc.       W         Suite 21 Sparks, Nevada 89431-5778       Rep         Number       EMail Address       Rep         2-7792       x 204       clayton.mokri@hdrinc.com       E         1       GAS-N       \$250_N       \$250_N       E         1       GAS-N       \$250_N       E       E         1       <t< td=""></t<></td>	Analytical, Inc.       W         Suite 21 Sparks, Nevada 89431-5778       Rep         Number       EMail Address       Rep         2-7792       x 204       clayton.mokri@hdrinc.com       E         1       GAS-N       \$250_N       \$250_N       E         1       GAS-N       \$250_N       E       E         1 <t< td=""></t<>

Information:       Alpha Analytical, Inc.       Non-Constant	5/27/10 124	cal, Inc.	Alpha Analytical, Inc.	Alt		225	CKIVAC		λΩ.(μ	• • • • • • • • • • • • • • • • • • •		1430	ulunger	)ul	(Aare	Logged in by:	Logg
Information : M 33 S. Kingston 35 Iron Point R 35 Iron Point R 36 Iron Point R	Date/Time	Ŋ	Compar				int Name	Pri				·	nature	Sig			
Information : M         CHAIN-OF-CUSTODY RECORD Alpha Analytical, Inc.           Solution Ct: Sewood, CO 80112         Alpha Analytical, Inc. 23 Classical Annue, State 21 Sparks, Neuda 831-5778 TEL: (775) 25:104           RI EZM 55 Ion Point Read 18 300 som, CA 96630         Classical Analytical, Inc. 23 Classical Annue, State 21 Sparks, Neuda 831-5778 TEL: (775) 25:1044           Color No. of Bottles Sample ID         Natrix Collection No. of Bottles Sample ID         Natrix Collection No. of Bottles Classical Apple SB0417S0052610         Solution With Surrogates           Collection No. of Bottles Sample ID         Natrix Totle Apple SB0417S0052610         Solution Mutual Apple SB0417S0052610         Solution Marking Chaine, and BB0502S0052610         Solution No. of Bottles Solution (No. of Bottles Solution (N	ded to TAT. Total Cyanide note that Total Cyanide wi	<u>òre one day adı</u> ded 5/27/10 to	time, therefi abs. Amenu	1:30 cut-off Associated 1	rec'd after 4 subbed to <i>f</i>	Samples ) olics to be	<u>m 5/27/10.</u> <u>A for Phen</u>	<u>ntil login o</u> <u>6A &amp; -17</u> ,	<u>or sample - l</u>	<u>kept cold å</u> ed amber f	<u>5/26/10,</u> unpresev	<u>m l Liter</u>	<u>en ice. Sam</u> <u>created fro</u> <u>or. TD.</u>	<u>lient. Froz</u> 4 split was o login err	amples brought in by c ubbed to SEM. : H2SO e subbed to SEM, due t		Comments:
Information: M       CHAIN-OF-CUSTODY RECORD Alpha Analytical, Inc.       WWILTWL-Mage         33.5. Kingston Ct.       Alpha Analytical, Inc.       Star Panel Namber       Star Panel Namber       WorkOrder : E2M10052741         R   E2M       Star Panel Namber       Star Almanton       Noter Almanton       Prone Number       EDM Required : Yes       Star Panel Namber       Star Panel Namber       EDD Required : Yes         Star Panel Namber       Sample ID       Matrix Davis Alpha Sub TAT       Old Star Panel Namber       Engles Algings       EDD Required : Yes         Star Panel Namber       Collection No. of Bottles Is son Panel Namber       Engles Algings       Sample Ib       Sample Ib       Matrix Davis Alpha Sub TAT       Star Panel Name       Sample Ib		=(N02+N03 +TKN)			Cyamuc	1 HOLIVIS	Ę	25	SO4, CI, F				16:30				
Information: M         CHAIN-OF-CUSTODY RECORD Alpha Analytical, Inc.         WWILE WILE MURE Manalytical, Inc.         WWILE WILE MURE Mure Signore Classical Alpha Analytical, Inc.         WWILE WILE MURE Mure Signore Classical Alpha Alpha Mure Signore Classical Alpha Alpha Sub TAT         Constraine Mure Mure Mure Mure Signore Classical Alpha Mure Signore Classical Alpha Mure Mure Mure Mure Mure Mure Mure Mure		-				2		•		ים ה יו	0 0		05/26/10 09:25	so OS	3B0717SO052610		E2M10052
Information: M       CHAIN-OF-CUSTODY RECORD Alpha Analytical, Inc. 255 Gladuk Avenus Suite 21 Spatts, Novada 98415.778 TEL. (775) 355-1044       Number Fall       Chain Analytical, Inc. 255 Gladuk Avenus Suite 21 Spatts, Novada 98415.778       WorkOrder : E2M10052741         gewood, CO 80112       Report Attention       Phone Number       EMail Address       Report Due By : 5:00 PM On : 04- EMail Address       Second Fatts, Novada 98415.778       Report Due By : 5:00 PM On : 04- EMail Address         R [22M       Cleart Note:       Value Number       EMail Address       Sampled by : Jacob Ruffing Cooler Temp       Sampled Cooler Te			As, Ba, Cd, Cr, Pb, Hg, Ag, Se						-	თ	0		05/26/10 09:15	so	3B0710SO052610		E2M10052
Information: M       CHAIN-OF-CUSTODY RECORD       WWIL-WU-Fage. Law         33 S. Kingston Ct.       Alpha Analytical, Inc.       235 Glendal Areune, Suite 21 Spatisk, Neudata 99:11-778       WorkOrder : E2MI0052741         glewood, CO 80112       TEL. (73) S15-1044       Areune, Suite 21 Spatisk, Neudata 99:11-778       Report Due By : 5:00 PM On : 04         R1 [E2M 56 Ion PointRead       Phone Number       EMail Address       EDD Required : Yes         Sample ID       Job : NITD       204 dayton.mobri@Multics.com       EDD Required : Yes         Sample ID       Job : NITD       205 Or 6526/10       No of Bottles       Sample By : Jacob Rufing         COC #:       22517       Job : NITD       206 S00.00       1       0       5         Collection       No of Bottles       Sample ID       Matrix Date       Alpha Sub TAT       Requested Tests       Calebas, NEW, S.S. N.TINUW       Sample         2052741-10A       SB0517S0052610       S0       05/26/10       1       0       5       Alpha Sub TA			As, Ba, Cd, Cr, Pb, Hg, Ag, Se							ъ	0		05/26/10 08:55	so	3B0702SO052610		E2M10052
Information : M M Si Singston Ct. Si Singston Ct. Singston			As, Ba, Cd, Cr, Pb, Hg, Ag, Se							ი ი	0		05/26/10 11:45	SO	3B0517SO052610		E2M10052
Information: M M 33 S. Kingston Cl. 33 S. Kingston Cl. 35 Iron Point Road 15 Iron Point Road 16 Sample ID 35 Iron Point Road 1 0 Sample ID 35 Iron Point Surrogates 4 oc 35 Iron Point Surrogates 4 oc 36 Iron Point Surrogates 5 Iron Point Surrogates 5 Iron Point Road 4 oc 36 Iro			As, Ba, Cd, Cr, Pb, Hg, Ag, Se							თ	0		05/26/10 11:30	so	3B0510SO052610		E2M10052
Information:       CHAIN-OF-CUSTODY RECORD       NULL_Factor         33 S. Kingston Ct.       Alpha Analytical, Inc.       255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778       WorkOrder : E2M10052741         glewood, CO 80112       Report Attention       Phone Number       EMail Address       Report Attention         R   E2M       Report Attention       Phone Number       EMail Address       EDD Required : Yes         Son, CA 96630       Clayton Mokri       (916) 852.7192       x.244       clayton mokri@hdmin.com         st Ion Point Road       Job : NITD       Into       Sampled by : Jacob Ruffing       Sampled by : Jacob Ruffing         rel : S3       = Final Rpt. MBLK, LCS, MSMSD With Surrogates       Son_0.w//Yww       NaterAus, or Son Son, Son Son, Alpha Sub TAT       Son_0.w//Yww       Requested Tests         eID       Sample ID       Matrix Date Alpha Sub TAT       Son_0.w//Yww       NaterAus, or Son Son, Alpha Sub TAT       Son Son, Alpha Sub TAT       Son Son, Alpha Sub Alpha Sub Alpha Sub Alpha Sub, Alpha			As, Ba, Cd, Cr, Pb, Hg, Ag, Se								0	1	05/26/10 11:05	SO	3B0502SO052610		E2M10052
Information :       CHAIN-OF-CUSTODY RECORD       NULLIVL/Age: L         M       Alpha Analytical, Inc.       255 Glendale Arenue, Suite 21 Sparks, Nevada 89431-5778       WorkOrder : E2M10052741         glewood, CO 80112       Report Attention       Phone Number       EMail Address       WorkOrder : E2M10052741         Stron Point Road       Glayton Mokri       (916) 852-7792 x 204       clayton.mokri@hdrine.com       EDD Required : Yes         Stron Point Road       Glayton Mokri       (916) 852-7792 x 204       clayton.mokri@hdrine.com       EDD Required : Yes         Stron Point Road       Glayton Mokri       (916) 852-7792 x 204       clayton.mokri@hdrine.com       EDD Required : Yes         Stron Point Road       Glayton Mokri       (916) 852-7792 x 204       clayton.mokri@hdrine.com       EDD Required : Yes         Stron Point Road       Glayton Mokri       (916) 852-7792 x 204       clayton.mokri@hdrine.com       EDD Required : Yes         Stron CA 96630       Job : NTD       Sampled by : Jacob Ruffing       Sampled by : Jacob Ruffing       Cooler Temp       Samples Received         Client       Job : NTD       Job : NTD       Sample Samples       Sample Samples       Sample Samples       Sample Samples       Sample			As, Ba, Cd, Cr, Pb, Hg, Ag, Se		1.1 1.11 mmmmm				<i>21</i>	Сл	0		05/26/10 08:00	So	3B0417SO052610		E2M10052
Information :       CHAIN-OF-CUSTODY RECORD       Number	Sample Remarks	N_TKN_W	METALS_S	T METALS_A	CYANIDE_1 OTAL	BNA_W	AMMONIA	ALKALINIT Y_W	here are a manual of	••	of Bottle a Sub	~	Collectic ix Date	Matr	Xlient Sample ID		Alpha Sample ID
Information :       CHAIN-OF-CUSTODY RECORD       NULLINLAGE         M       Alpha Analytical, Inc.       255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778       WorkOrder : E2M10052741         glewood, CO 80112       255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778       WorkOrder : E2M10052741         R[E2M       Report Attention       Phone Number       EMail Address         R[ E2M       Clayton Mokri       (916) 852-7792 x 204 clayton.mokri@hdrine.com       EDD Required : Yes         Som, CA 95630       Som, CA 95630       Sampled by : Jacob Ruffing       Sampled by : Jacob Ruffing         ccoc #: 32517       Job : NTD       VTD       26/May-10					4						ites	Surroga	MSD With	LCS, MS/		S3	QC Level :
Information :       CHAIN-OF-CUSTODY RECORD         M       Alpha Analytical, Inc.         33 S. Kingston Ct.       Alpha Analytical, Source         glewood, CO 80112       255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778         TEL: (775) 355-1044       FAX: (775) 355-0406         R   E2M       Clayton Mokri       (916) 852-7792         S6 Iron Point Road       Clayton Mokri       (916) 852-7792         tie 300       S0       S1		Samples Re 26-May-	<u>Temp</u>  °C	Cooler 4									NTD	Job :	7		Folson PO : Client's CC
Information :       CHAIN-OF-CUSTODY RECORD         M       Alpha Analytical, Inc.         33 S. Kingston Ct.       Alpha Analytical, Inc.         33 S. Kingston Ct.       255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778         glewood, CO 80112       TEL: (775) 355-1044         FR   E2M       Clayton Mokri         St Ion Boint Bood       Clayton Mokri		S D	lired : Ye		تا												Suite 3
Information : M S3 S. Kingston Ct. Glewood, CO 80112 Glewood, CO 80112 Glewood, CO 80112 CHAIN-OF-CUSTODY RECORD Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406 Report Attention Phone Number EMail Address			1			nc.com	10kri@hdri	clayton.m	x 204	16) 852-77	(9	Mokri	Clayton N		ž	E2M	
n Ct. Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406			•				ddress	EMail A	14	Ione Num	<b>₽</b>	ttention	Report Ai				Client:
<b>CHAIN-OF-CUSTODY RECORD</b>	052741 On : 04-Jun-10	E2M10	rder : e By : 5	vorkO	Rep	.78	<b>C.</b> 1 89431-57 1406	<b>al, In</b> ks, Nevada	nalytic te 21 Spark	<b>pha A</b> venue, Sui 5) 355-10	Alj ilendale A	255 G			112 H	5. Kingston C nood, CO 801	9563 S Englew
	Page: 2 of			Ş	. –	ORD	REC	DY 1	JSTO	F-CU	N-O	HAI	C			mation:	<b>iilling Info</b> E2M

Bing Information: Bing In		ical, Inc. 5	Alpha Analytical, Inc.	Alpi			UX		1040			153	LUULA	X	Mala	by:	Logged in by:
Information : M G3 S. Kingston glewood, CO 8 F [ E2M 65 Iron Point R ite 300 Isom, CA 9563 S COC # : 325 COC # : 325 Vel : S3 0052741-09A 0052741-10A 0052741-11A 0052741-14A 0052741-16A 0052741-16A 0052741-17A	Date/Time	ny	Compa				it Name	Prin		- 41 P		-	<u>or. TD.</u> nature	o login err Sig	subbed to SEM, due t	bes	
CHAIN-OF-CUSTODY RECORD       WWL. W	1 to TAT. Total Cyanide	fore one day addee	ime, theref	0 cut-off ti sociated Lz	d after 4:3 bbed to Ass	Samples rec	15/27/10. S	ttil login on 6A & -17A	+TKN) and secure un for sample - 1	kept cold	5/26/10, 1	oles rec'd	en ice. Sam	lient. Froz 4 split was	nples brought in by c	Sam Sam	nments:
CHAIN-OF-CUSTODY RECORD         WWW. WW. WW. WW. WW. WW. WW. WW. WW. WW			TDS	Total	×	pH		×	N-Total =(NO2+NO3	5	2		05/26/10 09:40	AQ	07GW17052610		M10052741-17
Informeton: M         Alpha Analytical, Inc.         With Mark 10, 10, 10, 10, 10, 10, 10, 10, 10, 10,			TDS	Total	×	рН		×	N-Total =(NO2+NO3 +TKN)	თ	2		05/26/10 16:30	AQ	02GW15052610		M10052741-16
Information: M       CHAIN-OF-CUSTODY RECORD Alpha Analytical, Inc. 255 Gindale Avenue, Suite 21 Sparts, Novada 89431-5778       WorkOrder : E2MI0052741         Sa Kingston Cl.       Alpha Analytical, Inc. 255 Gindale Avenue, Suite 21 Sparts, Novada 89431-5778       WorkOrder : E2MI0052741         Glewood, CO 80112       Nove Attension       Phone Number Ell (775) 355-1044       FALL (775) 355-406       WorkOrder : E2MI0052741         RE [22M       Calpon Moderi       (916) 852-7792       204 dayon mode/@lutine.com       EDD Required : Ves         Sample ID       Not NTD       Collection No. of Bottles       Nove Number       Samples Tests       Collection No. of Bottles       Nove Number       Samples Tests       Samples Tests       Samples Tests       Sample         Collection No. of Bottles       Nove Number       Nove Number       Samples Tests       Samples Tests         Colspan= 10       Samples Descale Tests       Sample         Nove Number       Nove Number       Samples Tests         Sample       Nove Number <th< td=""><td></td><td>TPH/E_N</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>თ</td><td>0</td><td></td><td>05/26/10 09:25</td><td>so</td><td>0717SO052610</td><td>ĺ</td><td>M10052741-1</td></th<>		TPH/E_N								თ	0		05/26/10 09:25	so	0717SO052610	ĺ	M10052741-1
Information: M       M       AIpha Analytical, Inc. 255 Gradue Avenue, Suite 21 Sparts, Nevada 89431-5778       WorkOrder : E2M10052741         gewood, C0 80112       Export Attention       Phone Number       EMail Address       Report Attention       Report Due By : 5:00 PM On : 04- 20052741-048 89431-5778       Report Due By : 5:00 PM On : 04- 20052741-048 89431-5778       EDD Required : Yes       Sampled by : Jacob Ruffing         is an Point Road       Collection No. of Bottles 10052741-104       Collection No. of Bottles 10052741-104       Utry No.       Number       Required Tests 20052741-104       Sampled by : Jacob Ruffing         colection       No. of Spatialis       Utry No.       Number       Number       Arc       26-May-10         0052741-104       SB050250025610       S0       05/26/10       1       0       5       PH       PH       PH       PHE N       TPHE N         0052741-12A       SB0517S0052510       S0       05/26/10       1       0       5       PH       PH       PH       PHE N       P		TPH/E_N					pH			თ	0	_ _	05/26/10 09:15	so	0710SO052610		M10052741-14
Information:       M       CHAIN-OF-CUSTODY RECORD       WorkOrder:       Page:		TPH/E_N								Сл	0		05/26/10 08:55	so	0702SO052610		M10052741-13
Information : M       M       CHAIN-OF-CUSTODY RECORD Alpha Analytical, Inc.       M       M       M       M       M       Page: 1       Alpha Analytical, Inc.       WorkOrder : E2M10052741       WorkOrder : E2M10052741         gewood, CO 80112       Alpha Analytical, Inc.       255 Gindale Annalytical, Inc.       255 Gindale Annalytical, Inc.       WorkOrder : E2M10052741       WorkOrder : E2M10052741         gewood, CO 80112       File 200       File 200       File 200       File 200       Beport Attention       Phone Number       EMail Address       EDD Required : Yes       Sampled by : Jacob Ruffing       EDD Required : Yes       Sampled by : Jacob Ruffing       Coder Temp       Sampled by : Jacob Ruffing       Coder Temp       Samples Received       4 °C       26-May-10         voc X # 32517       Job : NTD       Job : NTD       Collection       No. of Bottles       NurotA OC_ HEM_ PH.S       Phys.       Pherested Tests       26-May-10         voc X # 1050052610       S0       05/26/10       1       0       5       N//// W       Phys.       Phys.       Phys.       The L.       Sample		TPH/E_N								σı	0	- -	05/26/10 11:45	so	0517SO052610		M10052741-12
Information : M       M       CHAIN-OF-CUSTODY RECORD       WW       M       WW       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M       M <td></td> <td>TPH/E_N</td> <td></td> <td></td> <td></td> <td></td> <td>PH</td> <td></td> <td></td> <td>თ</td> <td>0</td> <td></td> <td>05/26/10 11:30</td> <td>so</td> <td>0510SO052610</td> <td></td> <td>M10052741-1</td>		TPH/E_N					PH			თ	0		05/26/10 11:30	so	0510SO052610		M10052741-1
Information :       CHAIN-OF-CUSTODY RECORD       Image: Control of the state of the s		TPH/E_N								J	0	-	05/26/10 11:05	so	0502SO052610		M10052741-1(
Information:       CHAIN-OF-CUSTODY RECORD       Image: Content of the state of the st		TPH/E_N								თ	0		05/26/10 08:00	so	0417SO052610	Í	M10052741-09
Intomation:       CHAIN-OF-CUSTODY RECORD       Image: Constraint of the system	Sample Remarks			RUS_W	N_S			×					ix Date	Matr	mple ID	Sar	nple ID
Information :       CHAIN-OF-CUSTODY RECORD       Image: Constraint of the second constraint of t		TPH/E_S	TDS_W	PHOSPHO		Requeste		OG_HEM_		Ű.	of Bottle		Collectio		ent	Clic	ha
Information :       CHAIN-OF-CUSTODY RECORD       Number Fage: 1       <											Ites	Surroga	MSD With	_CS, MS/	Final Rpt, MBLK, I	11	
Information :       CHAIN-OF-CUSTODY RECORD       No.		26-May-10	°C	4									NTD	Job :		32517	nt's COC # :
Information :       CHAIN-OF-CUSTODY RECORD         M       Alpha Analytical, Inc.         63 S. Kingston Ct.       Alpha Analytical, Inc.         glewood, CO 80112       255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778         TEL: (775) 355-1044       FAX: (775) 355-0406         Report Attention       Phone Number       EMail Address         Clayton Mokri       (916) 852-7792       x 204 clayton.mokri@hdrinc.com         Ite 300       Clayton Mokri       (916) 852-7792       x 204 clayton.mokri@hdrinc.com		Samples Rece	Temp	Cooler 1													
Information :       CHAIN-OF-CUSTODY RECORD         M       Alpha Analytical, Inc.         63 S. Kingston Ct.       Alpha Analytical, Inc.         glewood, CO 80112       255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778         glewood, CO 80112       TEL: (775) 355-1044 FAX: (775) 355-0406         Report Attention       Phone Number       EMail Address         Clayton Mokri       (916) 852-7792 x 204 clayton.mokri@hdrinc.com		cob Ruffing	i by : Jac	Sampled												15630	Folsom, CA 9
Information :       CHAIN-OF-CUSTODY RECORD         M       Alpha Analytical, Inc.         63 S. Kingston Ct.       Alpha Analytical, Sanalytical, Inc.         glewood, CO 80112       255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778         glewood, CO 80112       TEL: (775) 355-1044         FEL: (775) 355-1044       FAX: (775) 355-0406         Report Attention       Phone Number         EMail Address       Clayton Mokri         Clayton Mokri       (916) 852-7792         x 204       clayton.mokri@hdrinc.com		<b>S</b> 6	ired : Ye	D Requi	ED											nt Road	2365 Iron Poir
Information :       CHAIN-OF-CUSTODY RECORD         M       Alpha Analytical, Inc.         63 S. Kingston Ct.       Alpha Analytical, Suite 21 Sparks, Nevada 89431-5778         glewood, CO 80112       TEL: (775) 355-1044 FAX: (775) 355-0406         Report Attention       Phone Number       EMail Address						:.com	vkri@hdrinc	clayton.mo	x 204	16) 852-7	(9)	Iokri	Clayton N				HDR   E2M
n Ct. Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406							dress	EMail Ac	3	one Nun	P	tention	Report A				ont
CHAIN-OF-CUSTODY RECORD	52741 n : 04-Jun-10	E2M100: 5:00 PM 0	rder : By : 5	orkOn rt Due	Repo	æ	2• 89431-5778 106	cal, 111 (3, Nevada ) (75) 355-04	ite 21 Spark 44 FAX: (7	5) 355-10	TEL: (77.	255 G			N	0 8011;	Englewood, C
<b>CHAIN-OF-CUSTODY RECORD</b>			ſ				•	al Inc	nglytic	ha A						ston Ct.	9563 S. Kings
	Page: Forg	And Survey Streets Streets				)RD	RECC	DY F	JSTO	F-Cl	N-0]	IAI	C				ing Information E2M

Billing Information : E2M		CHAI	CHAIN-OF-CUSTODY REC	CUST	ODY ]	RECO	ORD	WENDED age: forg		e: - Joref
9563 S. Kingston Ct.		255	Alpha		Analytical, Inc	•		WorkOrder : E2M10052741	E2M100527	'41
Englewood, CO 80112		2.1.2	TEL: (775) 355-1044	<b>T</b>	FAX: (775) 355-0406	1 89431-3778 )406		Report Due By: 5:00 PM On: 04-Jun-10	:00 PM On :	04-Jun-10
Client:	Rep	<b>Report Attention</b>	Phone	۳.	EMail Address	ddress		,		
HDR   E2M	Clay	Clayton Mokri	(916)	(916) 852-7792 x 204		clayton.mokri@hdrinc.com	om	I		
Suite 300								EDD Required : Yes	•1	
Folsom, CA 95630								Sampled by : Jacob Ruffing	ob Ruffing	
PO :								Cooler Temp	Samples Received	Date Printed
Client's COC #: 32517	Job : NTD							4 °C	26-May-10	27-May-10
QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates	CS, MS/MSD	With Surrog	ates							
	2				-	-	ste	3Sts		
Sample ID Sample ID	Matrix D	Conection No. o Conection No. o	Sup	TAT TPH/E_W	W TPH/P_S	TPH/P_W V	voc_s vo	voc_w	<b>0</b>	Cample Demarks
E2M10052741-09A SB0417SO052610	SO 05/2	05/26/10 1	0	ບ ບ	GAS-N	8	8260_N			
E2M10052741-10A SB0502SO052610	SO 05/2	05/26/10 1 11:05 1	0	ග 	GAS-N		8260_N			
E2M10052741-11A SB0510SO052610	SO 05/2	05/26/10 1 11:30 1	0	ŋ	GAS-N		8260_N			
E2M10052741-12A SB0517SO052610	SO 05/2	05/26/10 1 11:45	0	თ	GAS-N	8	8260_N			
E2M10052741-13A SB0702SO052610	SO 05/2	05/26/10 1 08:55	0	თ 	GAS-N	8	8260_N			
E2M10052741-14A SB0710SO052610	SO 05/2	05/26/10 1 09:15 1	0	თ	GAS-N		8260_N			
E2M10052741-15A SB0717SO052610	SO 05/2	05/26/10 1 09:25	0	<u></u>	GAS-N		8260_N			
E2M10052741-16A SB02GW15052610	AQ 05/2	05/26/10 13 16:30	N	5 TPH/E_N	Z	GAS-N	826	8260_N		
E2M10052741-17A SB07GW17052610	AQ 05/2	05/26/10 13 09:40	N	5 TPH/E_N		GAS-N	826	8260_N		a series a s
E2M10052741-18A TB02GWNA052610	AQ 05/2	05/26/10 1 07:00 1	0	თ 			8260_N		Reno Ti	Reno Trip Blank 5/17/10
Comments: <u>Samples brought in by client. Frozen ice.</u> subbed to SEM. : H2SO4 split was created be subbed to SEM, due to login error. TD.	ient. Frozen ice. split was create blogin error. TL	Samples rec'o ed from 1 Lite	1 5/26/10, kept r unpreseved au	cold and secur mber for sampl	e until login o e -16A & -17/	n 5/27/10. Sau A for Phenolics	nples rec'd a	Samples brought in by client. Frozen ice. Samples rec'd 5/26/10, kept cold and secure until login on 5/27/10. Samples rec'd after 4:30 cut-off time, therefore one day added to TAT. Total Cyanide subbed to SEM. : H2SO4 split was created from 1 Liter unpreseved amber for sample -16A & -17A for Phenolics to be subbed to Associated Labs. Amended 5/27/10 to note that Total Cyanide will be subbed to SEM, due to bgin error. TD.	re one day added to T <sub>1</sub> ed 5/27/10 to note that	AT. Total Cyanide t Total Cyanide will
	Signature	e			Pti	Pkint,Name		Company	Y	Date/Time
Logged in by:	you	Labo	() A	- I ale	10 /	(clark	w www	Alpha Analytical, Inc.		And 01/12/5
NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.	60 days after results a samples is applicable	able only to	re reported unless othe only to those samples	ner arrangeme s received by	ents are mad the laborator	e made. Hazardou poratory with this C(	s samples v DC. The liat	Hazardous samples will be returned to client or disposed of at client expense. with this COC. The liability of the laboratory is limited to the amount paid for the reported to the amount paid for the reported to the second to	disposed of at client ited to the amount p	and for the report.

HAIN	-OF-C	USTO	DY F	RECC	ORD				Page: 3 of sy
	Alpha	Analyti	cal, Inc	•		W	IVV V V	FJM1	1/2/2/1
255 Gle 1	ndale Avenue, 1 TEL: (775) 355-	Suite 21 Spa 1044 FAX:	rks, Nevada (775) 355-04	89431-5778 406		Repo	rt Due By : 5	:00 PM	On : 04-Jun-10
Report Attention	Phone N	umber	EMail Ac	ddress		I			
Clayton Mokri	(916) 852	-7792 x 204	clayton.mc	okri@hdrinc	.com				
					Walton a succession of the suc	ED	D Required : Ye	2	
							Sampled by : Jac	ob Ruffing	54
							Cooler Temp	Samples R	Received Date Printed
							4 °C	26-May-10	
ith Surrogate	Ø			_	Docupetor	Tasts			
Collection No. o Matrix Date Alpha		300_0_W	ALKALINIT		BNA_W C	YANIDE_T N	RETALS_A METALS_S	N_TKN_W	Sample Remarks
-	2	NO2, NO3, SO4, CI, F	Alk	NH3	Phenols			N-Total =(NO2+NO3 +TKN)	
05/26/10 13 09:40									Reno Trip Blank 5/17/10
	HAIN 255 Gle 1 Attention n Mokri n Mokri th Surrogate	CHAIN-OF-C         Alpha         Alpha         2       255 Glendale Avenue, 1         TEL: (775) 355-         Report Attention Phone N         Clayton Mokri       (916) 852         Collection No. of Bottles         mn       Collection       No. of Bottles         Matrix       Date       Alpha         VGW17052610       AQ       05/26/10       13       2       5         2GWNA052610       AQ       05/26/10       1       0       5	CHAIN-OF-CUSTC         Alpha Analyti         255 Glendale Avenue, Suite 21 Spa         TEL: (775) 355-1044 FAX:         Sport Attention Phone Number         Phone Number         Iayton Mokri (916) 852-7792 x 204         Iayton Mokri (916) 852-7792 x 204         D With Surrogates         Solection No. of Bottles         Date Alpha Sub TAT         No2_N03_         5/26/10       13       2       5       No2_N03_         69:400       1       0       5       Soq. (1, F)	HAIN-OF-CUSTODY HAIN-OF-CUSTODY HAIN-OF-CUSTODY HAIN-COLSTORIAL Analytical, Inc.         Alpha Analytical, Inc.         255 Glendale Avenue, Suite 21 Sparks, Nevada         TEL: (775) 355-1044 FAX: (775) 355-0         Attention       Phone Number         Phone Number       EMail A         Attention       Phone Number         Mokri       (916) 852-7792 x 204 clayton.md         a Alpha       Sub       TAT         a Alpha       2       5       No2. No3.         a Alpha       2       5       No2. No3.         a Alpha       2       5       No2. No3.         a Alpha       2       5       Soq. Cl. F         a Alpha       3       2       5         a Alpha       3       2       5         a Alpha       3	-OF-CUSTODY RECC Alpha Analytical, Inc. dale Avenue, Suite 21 Sparks, Nevada 89431-577 12: (775) 355-1044 FAX: (775) 355-0406 Phone Number EMail Address (916) 852-7792 x 204 clayton.mokri@hdrine (916) 852-7792 x 204 clayton.mokri@hdrine	-OF-CUSTODY RECORD Alpha Analytical, Inc. dale Avenue, Suite 21 Sparks, Nevada 89431-5778 12: (775) 355-1044 FAX: (775) 355-0406 Phone Number EMail Address (916) 852-7792 x 204 clayton.mokri@hdrinc.com Sub TAT 300_0_W ALKALINIT AMMONIA_ BNA_W Sub TAT 300_0_W ALKALINIT AMMONIA_ BNA_W	-OF-CUSTODY RECORD Alpha Analytical, Inc. dale Avenue, Suite 21 Sparks, Nevada 89431-5778 1: (775) 355-1044 FAX: (775) 355-0406 Phone Number EMail Address (916) 852-7792 x 204 clayton.mokri@hdrinc.com Sub TAT 300_0_W ALKALINIT AMMONIA_ BNA_W CYA Sub TAT 300_0_W ALKALINIT AMMONIA_ BNA_W CYA 2 5 NO2. NO3. Alk NH3 Phenols C	-OF-CUSTODY RECORD Alpha Analytical, Inc. dale Avenue, Suite 21 Sparks, Nevada 89431-5778 1: (775) 355-1044 FAX: (775) 355-0406 Phone Number EMail Address (916) 852-7792 x 204 clayton.mokri@hdrinc.com Sub TAT 300_0_W ALKALINIT AMMONIA_ BNA_W CYA Sub TAT 300_0_W ALKALINIT AMMONIA_ BNA_W CYA 2 5 NO2. NO3. Alk NH3 Phenols C	OF-CUSTODY RECORD Alpha Analytical, Inc. date Avenue, Suite 21 Sparks, Nevada 89431-5778       NU       NU       WorkOrder : E2         Alpha Analytical, Inc. date Avenue, Suite 21 Sparks, Nevada 89431-5778       Bottles       WorkOrder : E2         Phone Number       EMail Address       Report Due By : 5:00         Phone Number       EMail Address       Bottles         (916) 852-7792       x 204       clayton.mokri@hdrinc.com       EDD Required : Yes         Sub       TAT       Son_0_W       ALKALINIT       Requested Tests         Sub       TAT       Son_0_W       Alk       NH3       Phenols       Cyanide       Spec. List

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazard The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this	Logged in by:		Comments: Samples brought in by client. Frozen ice. subbed to SEM. : H2SO4 split was created be subbed to SEM, due to login error. TD
es are discarded 60 days after results are reported unless other ysis of the above samples is applicable only to those samples results and the samples is applicable only to those samples results and the samples is applicable only to the samples results a second structure of the samples results are results are reported unlessed as the samples results are reported as the samples r	Johnson	Signature	tt. Frozen ice. Samples rec'd 5/26/10, kept cc olit was created from 1 Liter unpreseved amb ogin error. TD.
NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. port for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the	Jave Dicknows	Print Name	Samples brought in by client. Frozen ice. Samples rec'd 5/26/10, kept cold and secure until login on 5/27/10. Samples rec'd after 4:30 cut-off time, therefore one day added to TAT. Total Cyanide subbed to SEM. : H2SO4 split was created from 1 Liter unpreseved amber for sample -16A & -17A for Phenolics to be subbed to Associated Labs. Amended 5/27/10 to note that Total Cyanide will be subbed to SEM, due to login error. TD.
ous samples will be returned to client or disposed of at client expense. COC. The liability of the laboratory is limited to the amount paid for the report.	Alpha Analytical, Inc.	Company	0 cut-off time, therefore one day a sociated Labs. Amended 5/27/10
of at client expense. amount paid for the report.	Alpha Analytical, Inc. 572710 1247	Date/Time	<u>added to TAT. Total Cyanide</u> <u>to note that Total Cyanide will</u>

Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

1.1-1		C				(			
5/17/10/18	Alpha Analytical, Inc.	2 NULADSON	) (liii			1ardon	Alle	KI WALLY	Logged in by:
Date/Time	Company	Print Name	a la constante de la constante			ure	Signature		
dded to TAT. Total Cyanide	Samples rec'd after 4:30 cut-off time, therefore one day added to TAT. Total Cyanide lics to be subbed to Associated Labs.	Samples brought in by client. Frozen ice. Samples rec'd 5/26/10, kept cold and secure until login on 5/27/10. Samples rec'd after 4:30 cut-off time subbed-to CLS. : H2SQ4 split was created from 1 Liter unpreseved amber for sample -16A & -17A for Phenolics to be subbed to Associated Labs.	1 and secure for sample -	, kept colc ved amber	er unprese	ice. Samples ro ated from 1 Lit	nt. Frozen plit was cre	Samples brought in by client. Frozen ice. Samples rec'd 5/26/10, kept cold and secure until login on 5/27/10. subbed-to CLS. : H2SQ4 split was created from 1 Liter unpreseved amber for sample -16A & -17A for Pheno	Comments:
	As, Ba, Cd, Cr, Pb, Hg, Ag, Se			ى ب	0	05/26/10 1 07:45 1	SO	SB0410SO052610	E2M10052741-08A
	As, Ba, Cd, Cr, Pb, Hg, Ag, Se			- 5	0	05/26/10 08:10	so	SB0401SO052610	E2M10052741-07A
Sample ID on brass tube is SB0213SO052610, logged in per COC and matched by sampling time.	As Ba Cd. Cr. Pb. Hg. Ag. Sc			ഗ	0	05/26/10 16:10	So	SB0215SO052610	E2M10052741-06A
	As, Ba, Cd, Cr, Pb, Hg, Ag, Se			ග	1		SO	SB0208SO052610	E2M10052741-05A
Sample ID on brass tube is SB02SO052610, matched by sampling time.			· 	თ	0			SB0202SO052610	
	As, Ba, Cd, Cr, Pb, Hg, Ag, Se			<u></u> л	0	05/26/10 13:50	so	SB0113SO052610	E2M10052741-03A
	As, Ba, Cd, Cr, Pb, Hg, Ag, Se			СЛ	0	05/26/10 13:40	SO	SB0108SO052610	E2M10052741-02A
	As, Ba. Cd, Cr, Pb, Hg, Ag, Se			ப	0	05/26/10 13:30	so	SB0102SO052610	E2M10052741-01A
Sample Remarks	CYANDE_T METALS_A METALS_S N_TKN_W OTAL Q 0	ALKALINIT AMMONIA_ BNA_W	300_0_W	lles b TAT	No. of Bottles Alpha Sub	9	Collecti Matrix Date	Client Sample ID	Alpha Sample ID
					gates	SD With Surro	CS, MS/M	= Final Rpt, MBLK, LCS, MS/MSD With Surrogates	QC Level: S3
y-10 27-May-10	4 °C 26-May-10					NTD	Job: N	517	Client's COC #: 32517
Received Date Printed	Cooler Temp Samples Received								PO:
24	Sampled by : Jacob Ruffing							0	Folsom, CA 95630
	EDD Required : Yes	El						oad	2360 Iron Point Road Suite 300
		clayton.mokri@hdrinc.com	7792 x 204	(916) 852-7792	•	Clayton Mokri		L	
		EMail Address		Phone Number		Report Attention	נב[		Client:
On : 04-Jun-10	Report Due By: 5:00 PM On: 04-Jun-10	9431-5778 06	- T.		255 Glendale Avenue, Suite 21 TEL: (775) 355-1044 1	255		0112	Englewood, CO 80112
112020			Analyti	lpha /	A			Ct.	9563 S. Kingston Ct.
-									E2M

1.0 11:30	12/2	ical, Inc.	Alpha Analytical, Inc.	Alp	Z	Sett	ilt.		10.		Ş	Merles	Jlá	VIan 1	Logged in by: (	ŗ
Date/Time	, <b>1</b>	ny	Company				Print Name	Pr				ire	Signature			
Samples rec'd after 4:30 cut-off time, therefore one day added to TAT. Total Cyanide lies to be subbed to Associated Labs.	added to TAT	ore one day	time, theref abs.	<u>30 cut-off t</u> sociated La	x'd after 4: ibbed to As	Samples re lics to be su	n 5/27/10. for Phenol	ntil login o 6A & -17A	and secure u for sample - 1	kept cold ed amber f	'd 5/26/10, r unpresev	<u>ce. Samples rec</u> ted from 1 Lite	. Frozen ic t was crea	Samples brought in by client. Frozen ice. Samples rec'd 5/26/10, kept cold and secure until login on 5/27/10. Samples rec'd after 4:30 cut-off time subbed of CLS. : H2SO4 split was created from 1 Liter unpreseved amber for sample -16A & -17A for Phenolics to be subbed to Associated Labs.		Comments:
		N-Total =(NO2+NO3 +TKN)		Spec. List	Cyanide	Phenols	NH3	Aik	NO2, NO3, SO4, CI, F	5	3 2	05/26/10 13 16:30	AQ	SB02GW15052610	E2M10052741-16A SE	E2M10
			As, Ba, Cd, Cr, Pb, Hg, Ag, Se				-			თ	0	05/26/10 1 09:25	so 03	SB0717SO052610	E2M10052741-15A SE	E2M10
			As, Ba, Cd, Cr, Pb, Hg, Ag, Se							თ	0	05/26/10 1 09:15 1	so 08	SB0710SO052610	E2M10052741-14A SE	E2M10
			As, Ba, Cd, Cr, Pb, Hg, Ag, Se							თ	0	05/26/10 1 08:55	SO 02	SB0702SO052610	E2M10052741-13A SE	E2M10
			As, Ba, Cd, Cr, Pb, Hg, Ag, Se							თ	0	05/26/10 1 11:45 1		SB0517SO052610		E2M10
			As, Ba, Cd, Cr, Pb, Hg, Ag, Se							თ	0	05/26/10 1 11:30 1	SO 02	SB0510SO052610		E2M10
			As, Ba, Cd, Cr, Pb, Hg, Ag, Se							თ	0	05/26/10 1 11:05 1	SO 02	SB0502SO052610	E2M10052741-10A SE	E2M10
			As, Ba, Cd, Cr, Pb, Hg, Ag, Se							თ	0	05/26/10 1 08:00 1	so 0	SB0417SO052610	E2M10052741-09A SE	E2M10
Sample Remarks	Sampl	N_TKN_W	CYANIDE_T METALS_A METALS_S OTAL Q 0	METALS_A	CYANIDE_T OTAL	Requested Tests BNA_W CYANIDE_ OTAL	AMMONIA	ALKALINIT AMMONIA Y_W W	300_0_W	les ) TAT	No. of Bottles Alpha Sub	Collection No x Date Alp	Cc Matrix	Client Sample ID		Alpha Sample ID
											gates	D With Surro	, MS/MS	<ul> <li>Final Rpt, MBLK, LCS, MS/MSD With Surrogates</li> </ul>	/el : S3 =	QC Level :
Date Printed 27-May-10	B <u>Received</u> ₃y-10	Samples Received 26-May-10	<u>ar Temp</u> 4 °C	<u>Cooler Temp</u> 4 °C								ס	Job : NTD		PO : Client's COC # : 32517	PO : Client's
	P	D Required : <b>Yes</b> Sampled by : Jacob Ruffing	EDD Required : Yes Sampled by : Jacc	OD Requ Sample	E									c	Suite 300	Suit
			• • •	1		ic.com	clayton.mokri@hdrinc.com	clayton.m	792 x 204	(916) 852-7792	6)	Clayton Mokri	C	-	HDR   E2M	2 H
							ddress	EMail Address	nber	Phone Number		Report Attention	Re			Client:
1 4-Jun-10	WorkOrder : E2M10052741 Report Due By : 5:00 PM On : 04-Jun-10	E2M1 :00 PM	rder : • By : 5	orkO	W	78	<b>C.</b> 1 89431-5778 )406	lytical, Inc. Sparks, Nevada 894 FAX: (775) 355-0406	22	Alpha An: endale Avenue, Suite TEL: (775) 355-1044	Al Glendale / TEL: (7	255			9563 S. Kingston Ct. Englewood, CO 80112	956 Eng
-				2<						)	; ; ;				NI IVI	EZM

Billing Information : E2M	CH/	IN-C	)F-C	CHAIN-OF-CUSTODY RECO	DDY ]	RECO	ORD		Z		Page: 3 of \$f-
9563 S. Kingston Ct.		A	lpha	Alpha Analytical, Inc.	cal, In	. 00/31 577	0	\$	WorkOrder : E2M10052741	E2M10	0052741
Englewood, CO 80112		oo Giendale TEL: (	Avenue, 1775) 355-	255 Giendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406	arks, Nevada (775) 355-	a 89431-577 0406	õ	Rep	ort Due By : 5	:00 PM	Report Due By : 5:00 PM On : 04-Jun-10
Client:	Report Attention		Phone Number	ımber	EMail /	EMail Address					
HDR   E2M	Clayton Mokri		(916) 852-7792	7792 x 204		clayton.mokri@hdrinc.	ic.com				
2365 Iron Point Road			randa in an de ser a de s					E	EDD Required : Yes		
Suite Surv Folsom, CA 95630									Sampled by : Jacob Ruffing	ob Ruffinį	ρŋ
PO:									Cooler Temp	Samples Received	Received Date Printed
Client's COC #: 32517	Job : NTD								4 °C	26-May-10	ay-10 27-May-10
QC Level : S3 = Final Rpt, I	Final Rpt, MBLK, LCS, MS/MSD With Surrogates	rogates									
Alpha Client	Collection	No. of Bottles	tles	300 0 W	1. m	AMMONIA	BNA W CYANIDE	ed Tests	CYANIDE_T METALS_A METALS_S_N_TKN_W	N TKN W	
Sample ID Sample ID	Matrix Date	Alpha Sub	b TAT			Y_W W		OTAL	م 0		Sample Remarks
E2M10052741-17A SB07GW17052610	2610 AQ 05/26/10 09:40	13 2	J	NO2, NO3, SO4, Cl, F	Alk	NH3	Phenols	Cyanide	Spec. List	N-Total =(NO2+NO3 +TKN)	
E2M10052741-18A TB02GWNA052610	2610 AQ 05/26/10 07:00	1	ъ								Reno Trip Blank 5/17/10
Comments: Samples brough	Samples brought in by client. Frozen ice. Samples rec'd 5/26/10, kept cold and secure until login on 5/27/10. Samples rec'd after 4:30 cut-off time, therefore one day added to TAT. Total Cyanide	rec'd 5/26/10	0, kept col	d and secure	until login (	on 5/27/10.	Samples re	c'd after 4:	30 cut-off time, therefore	re one day a	added to TAT. Total Cyanide
		Iter IInnrese	wed ambe	<ul> <li>for sample -</li> </ul>	- 16 A & - 17.			The for A			
subbed to CLS.	subbed to CLS. : H2SO4 split was created from 1 Liter unpreseved amber for sample -16A & -17A for Phenolics to be subbed to Associated Labs.	sected in 1910							ssociated Labs.		

Logged in by; , Maa Makinson TOWN 1 JULIAR Alpha Analytical, Inc. 0112110 112

Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

5171 01730	cal, Inc.	Alpha Analytical, Inc.	Alph	X	MR.	101	the 1	pl		F	NUN	MC			l in by:	Logged in by:
Date/Time	ıy	Company		•		tName	Print				·e/] _`	Signature				
Samples rec'd after 4:30 cut-off time, therefore one day added to TAT. Total Cyanide lies to be subbed to Associated Labs.	ore one day ad	<u>me, theref</u> <u>bs.</u>	<u>0 cut-off ti</u> ociated La	<u>'d after 4:3</u> bbed to Ass	Samples rec	<u>5/27/10.</u> for Phenoli	ntil login on 6A & -17A	nd secure u or sample -1	, kept cold ved amber f	<u>x'd 5/26/10</u> ter unpresev	. Samples re ed from 1 Li	Frozen ice was create	t in by client. H2SO4 split	Samples brought in by client. Frozen ice. Samples rec'd 5/26/10, kept cold and secure until login on 5/27/10. Samples rec'd after 4:30 cut-off time subbed to CLS, : H2SO4 split was created from 1 Liter unpreseved amber for sample -16A & -17A for Phenolics to be subbed to Associated Labs.	<b>1</b> 22	Comments:
	TPH/E_N								ۍ ا	1	05/26/10 07:45	SO 05/ 0		SB0410SO052610		E2M10052741-08A
	TPH/E_N								<u>л</u>	1	05/26/10 08:10	SO 05/		SB0401SO052610	1	E2M10052741-07A
Sample ID on brass tube is SB0213SO052610, logged in per COC and matched by sampling time.										- 0	05/26/10 16:10	SO 05		SB0215SO052610		E2M10052741-06A
	TPH/E_N								<u></u> ,	1 0	05/26/10 15:50	SO 05,		SB0208SO052610		E2M10052741-05A
Sample ID on brass tube is SB02SO052610, matched by sampling time.	TPH/E_N S								თ	- 1 0	05/26/10 15:15	SO 05		SB0202SO052610		E2M10052741-04A
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	TPH/E_N					pH			л	1 0	05/26/10 13:40	SO 05,		SB0108SO052610		E2M10052741-02A
	TPH/E_N			- 1					 თ	-1 0	05/26/10 13:30	SO 05,		SB0102SO052610		E2M10052741-01A
Sample Remarks	TPH/E_S	TDS_W	PHOSPHO RUS_W		PH_W PHENOLIC S_W	PH_s	OG_HEM_	N_TOTAL_	les 5 TAT	No. of Bottles Alpha Sub	Collection N C Date A	Col Matrix I		Client Sample ID	<i>(</i> <b>1 0 0</b>	Alpha Sample ID
				4	7					ogates	With Surr	MS/MSD	Final Rpt, MBLK, LCS, MS/MSD With Surrogates	= Final Rpt, I	ŭ	QC Level: S3
aceived Date Printed -10 27-May-10	Sampled by : Jacob Ruffing <u>Cooler Temp</u> <u>Samples Received</u> <u>4 °C</u> 26-May-10	led by : Jac <u>er Temp</u> 4 °C	Sampled by : Jaco <u>Cooler Temp</u> 4 °C	Ę							C .	S: NTD	Job :		CA 95630 #: 32517	Suite 300 Folsom, CA 95630 PO : Client's COC # : 325
	1			 5	c.com	kri@hdrin	clayton.mo	(916) 852-7792 x 204 clayton.mokri@hdrinc.com	916) 852-7		Clayton Mokri	Cla		ad	HDR   E2M 2365 Iron Point Road	2365 Iron P
WorkOrder: E2M10052741 Report Due By: 5:00 PM On: 04-Jun-10	WorkOrder:E2M10052741 port Due By:5:00 PM On:04	rder : By : 5	orkOı ort Due	W. Repo	×	4 89431-577 106 I <b>dress</b>	<b>2al, Inc.</b> ks, Nevada 89431- 775) 355-0406 EMail Address	Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406 ntion Phone Number EMail Address	<b>Ipha Ana</b> Avenue, Suite 2 (775) 355-1044 Phone Number	A Glendale TEL: (	255 ( Report Attention	Rep		112 112	9563 S. Kingston Ct. Englewood, CO 80112 ntt	9563 S. Kingston Ct. Englewood, CO 8011 Client:
Page: 4ofg			Z Z		ORD	ECC	DY F	CHAIN-OF-CUSTODY RECORD	)F-Cl	IN-O	CHA				ation :	Billing Information : E2M

*	512	tical, Inc.	Alpha Analytical, Inc.	Α	$\left( \right)$	MAN	Tor		1 (14		2	1/2	OHL	1 h	UM	Logged in by:
Date/Time		any	Company		>	-	Print Name	- Pri					Signature	Sig		
AT. Total Cyanid	tay added to T	efore one c	f time, there Labs.	:30 cut-ofi ssociated 1	<u>x'd after 4</u> ubbed to A	in on 5/27/10. Samples rec'd after 4:30 cut-off time 17A for Phenolics to be subbed to Associated Labs	<u>n 5/27/10.</u> for Pheno	<u>ntil login o</u> 6A & -17A	<u>ind secure u</u> <u>yr sample - l</u>	<u>cept cold a</u> d amber fo	<u>5/26/10, k</u> inpreseved	<u>ples rec'd</u> 1 Liter (	n ice. Sam preated fron	ient. Froze split was	Samples brought in by client. Frozen ice. Samples rec'd 5/26/10, kept cold and secure until login on 5/27/10. Samples rec'd after 4:30 cut-off time, therefore one day added to TAT. Total Cyanide subbed to CLS. : H2SO4 split was created from 1 Liter unpreserved amber for sample -16A & -17A for Phenolics to be subbed to Associated Labs.	Comments: <u>S.</u> <u>st</u>
			TDS	Total	x	pH		×	N-Total =(NO2+NO3 +TKN)	თ	2	13	05/26/10 09:40	AQ	SB07GW17052610	E2M10052741-17A S
			TDS	Total	×	pH		×	N-Total =(NO2+NO3 +TKN)	ۍ ت	N	13	05/26/10 16:30	AQ	SB02GW15052610	E2M10052741-16A S
	'z	TPH/E_N								CJ	0	 	05/26/10 09:25	so	SB0717SO052610	
	Ż	TPH/E_N					pH				0		05/26/10 09:15	so	SB0710SO052610	E2M10052741-14A S
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	'z	TPH/E_N								- თ	0	۔ د	05/26/10 11:45	so	SB0517SO052610	
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	'z	TPH/E_N								<u></u>	0		05/26/10 11:05	so	SB0502SO052610	
	'z	TPH/E_N								υ	0	-	05/26/10 08:00	so	SB0417SO052610	
Sample Remarks		TPH/E_S	O TDS_W	S_W RUS_W	PHENOLIC S_W	PH_W	PH_S	OG_HEM_	N_TOTAL_	TAT	No. of Bottles Alpha Sub	~	Collection ix Date	Matrix	Client Sample ID	Alpha C Sample ID S
				a generalization of the second	<b>Requested Tests</b>	Request						2	<b>)</b> =			obacan War an War ( Ward an an I
											tes	Surroga	LCS, MS/MSD With Surrogates	.CS, MS/	= Final Rpt, MBLK, L	QC Level : S3
Date Printed 27-May-10	<u>Samples Received</u> 26-May-10	<u>Sampl</u> 26	<u>Cooler Temp</u> 4 °C	Coole									NTD	Job :	7	PO: Client's COC #: 32517
	ffing	acob Rui	Sampled by : Jacob Ruffing	Sampl												Folsom, CA 95630
		es	EDD Required : Yes	DD Req	щ										Ĩ	Suite 300
						nc.com	clayton.mokri@hdrinc.com	clayton.m	792 x 204	(916) 852-7792	(9)	lokri	Clayton Mokri		Ŀ	HDR   E2M
							ddress	EMail Address	ıber	Phone Number	Ph	tention	Report Attention			Client:
Report Due By : 5:00 PM On : 04-Jun-10	'M On:	5:00 P	ıe By :	ort Du	Rep	118	1 89431-37 1406	FAX: (775) 355-0406	L L	TEL: (775) 355-1044	TEL: (77.	D.CC7			112	Englewood, CO 80112
741	WorkOrder : E2M10052741	: E2N	)rder :	VorkC	4	5		al, In	Alpha Analytical, Inc.	oha A	Alt					9563 S. Kingston Ct.
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211 11 +FC/2	Alpha Analytical, Inc.	Man	10KA	Lel	) (		J.	and	M.V.	H	(IUM	Logged in by: (
Date/Time	Company	2	Print Name	Print	Í		2		Signature	5		
radded to TAT. Total Cyanide	Samples rec'd after 4:30 cut-off time, therefore one day added to TAT. Total Cyanide blics to be subbed to Associated Labs.	nples rec'd afte to be subbed to	5/27/10. Sar or Phenolics	<u>e until login on</u> - 16A & -17A f	and secure for sample	<u>, kept cold</u> ved amber	<u>;'d 5/26/10</u> er unpresev	Samples rec d from 1 Lite	ozen ice. as create	<u>client. Fr</u> 14 split w	Samples brought in by client. Frozen ice. Samples rec'd 5/26/10, kept cold and secure until login on 5/27/10. Samples rec'd after 4:30 cut-off time subbed by CLS. : H2SO4 split was created from 1 Liter unpreseved amber for sample -16A & -17A for Phenolics to be subbed to Associated Labs.	Comments: S
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Sample Remarks			1 F TH/F_W	ודחוד_ט ט		b TAT	Alpha Sub	c Date Alp	Matrix D	M	Sample ID	Đ
	- 6	ste	- 1			lae	No of Bottles		2		Client	
							gates	With Surro	S/MSD	, LCS, M	= Final Rpt, MBLK, LCS, MS/MSD With Surrogates	QC Level: S3
26-May-10 27-May-10	4 °C 26-M								NTD	: doL	7	Client's COC #: 32517
Samples Received Date Printed	Cooler Temp Samples											
gu	Sampled by : Jacob Ruffing											Suite 300 Folsom, CA 95630
	EDD Required : Yes					-			1		ad	2365 Iron Point Road
		om	clayton.mokri@hdrinc.com		7792 x 204	(916) 852-7792	~	Clayton Mokri	Clay			HDR   E2M
	•		dress	EMail Address	mber	Phone Number		Report Attention	Rep			Client:
10052/41 1 On : 04-Jun-10	WORKURGER : EZMIJUUSZ/41 Report Due By : 5:00 PM On : 04-Jun-10	R	9431-5778 06	endale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406		• Avenue, S 775) 355-1	255 Glendale Avenue, Suite 21 TEL: (775) 355-1044 1	255			112	Englewood, CO 80112
				Alpha Analytical. Inc.	halvt	lpha /	A				¥	9563 S. Kingston Ct.

Alpha Analy le Avenue, Suite 21 \$ (775) 355-1044 FA	<b>tical, Inc.</b> \$parks, Nevada 89431-4 X: (775) 355-0406		WorkOrder: E2M10052741 (aport Due By: 5:00 PM On: 04)	2M10052741 0 PM On : 04-Jun-10
Phone Number (916) 852-7792 x 2	EMail Address			
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			Sampled by : Jacob Ruffing	Ruffing
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10, kept cold and secu seved amber for sample	re until login on 5/27/11 e -16A & -17A for Phe		er 4:30 cut-off time, therefore c to Associated Labs.	one day added to TAT. Total Cyanid
	Print, Name		Company	Date/Time
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	Alpha AnalyS5 Glendale Avenue, Suite 21 sTTEL: $(775) 355-1044 FAPhone Numberi(916) 852-7792 x 2i(916) 852-7792 x 2No. of BottlesTATNphaSubTATI0510510510510510510510510510513251325132514051571605170518219510511012513214015161717181910101112131415151617171819191910111112131415151617171819191919191919$	Alpha Analytical, Inc.           Signal Analytical, Inc.           25 Gleada Areaus, Suite 21 Sparks, Newas 831-3           TEL. (75) 355-0406           Report Attention Phone Number EL (75) 355-0406           Clayton Mokri (916) 852-7792 x 204 elayton.mokri@hd           TEL. (75) 355-0406           Clayton Mokri (916) 852-7792 x 204 elayton.mokri@hd           TEL (75) 355-0406           Clayton Mokri (916) 852-7792 x 204 elayton.mokri@hd           TEL (75) 355-0406           TEL (75) 355-0406           Clayton Mokri (916) 852-7792 x 204 elayton.mokri@hd           TEL (75) 355-0406           TEL (75) 355-0406           Collection No. of Bottles           THE Matrix Date Alpha Sub TAT           THE Matrix Date Alpha Sub TAT           THE M THE M THHE S           SB0617S0052610         S0 (526/10         THE OS           Gardin Spin (113)         C         THE N         claysen           SB0717S0052610         A         of Spin (13)         C         THEN N         claysen	II Address         n.mokri@hdrin         n.mokri@hdrin         n.mokri@hdrin         n.mokri@hdrin         Gas-N         Gas-N         Hint_Name	Inc.       Requested Tes       Refuested Tes         a.mokri@hdrinc.com       8260_N       8260_N         a.mokri@hdrinc.com       8260_N       8260_N

	- Alpha A 255 Glenda	nalytical, Inc le Avenue, Suite 2		amples Co Z C	Nected Fr	iv Which	2	DD Site
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OT - Other A	R - Air **: L-Lit	ter V-Voa	S-Soil Jar	O-Orbo	I-Tedlar	B-Brass	P-Plastic	OT-Other
oorted unless other arra eceived by the laborato	ngements are made. ry with this coc. The	Hazardous sample liability of the labo	les will be returi ratory is limited	to the amoun	t paid for the	at client expe report.	inse. The re	port for the analysis
	Image: Image	Silling information:       Apple A         Address: In Inter Inte	Alpha Analytical, Inc.         Sample Second a venue, Suite 2         Db#       Index (Tris) 355-0404         Beport Attention / Project Manager and:       Index (Tris) 355-0404         Tail:       Nobile:       Index (Tris) 355-0406         Tail:       Nobile:       Index (Tris) 355-0406         Tail:       Sample Description       Tail:         Tail:       Nobile:       Index (Tris) 355-0406         Bell 2 S C a S 2 L (a)       S-d N       Nobile:         Bell 2 S C a S 2 L (a)       S-d N       N         Bell 2 S C a S 2 L (a)       S-d N       N         Bell 2 S C a S 2 L (a)       S-d N       N         Bell 2 S C a S 2 L (a)       S-d N       N         Bell 3 S C a S 2 L (a)       S-d N       N         Bell 3 S C a S 2 L (a)       S-d N       N         Bell 3 S C a S 2 C (a)       S a S (a) S C a S 2 C (a)       S a S (a) S C a S 2 C (a)         Bell 3 S C a S 2 C (a)       A S a S (a) S C a S 2 C (a)       A S (a) A S (a) S (a) S (a) S (a) A A A A A A A A A A A A A A A A A A A	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Alpha Analytical, Inc.       Samples Collection         255 Glerdale Avenue, Suite 21       Spatks Neurade, Seid1, S778         Spatks Noved       Spatks Neurade, Seid1, S778         Phone (775) 355-046       Inc.         ane       Lob Name, / TO         Sample Decription       Tail         Sample Decription       Tail	Appha Analytical, Inc.       Samples Collected Fr         255 Glendle Asenue, Suite 21 $a_{25}$ Glendle Asenue, Suite 21         Poet Kumitori / Project Manager $a_{25}$ Glendle Asenue, Suite 21         nor       Report Kumitori / Project Manager $a_{25}$ Glendle Asenue, Suite 21         nor       Report Kumitori / Project Manager $a_{25}$ Glendle Asenue, Suite 21         nor       Report Kumitori / Project Manager $a_{25}$ Glendle Asenue, Suite 21         nor       Maly Ses $a_{25}$ Glendle Asenue, Suite 21         nor       Nor       Nor $a_{25}$ Glendle Asenue, Suite 21         nor       Maly Ses $a_{25}$ Glendle Asenue, Suite 21 $a_{25}$ Glendle Asenue, Suite 21         nor       Maly Ses $a_{25}$ Glendle Asenue, Suite 21 $a_{25}$ Glendle Asenue, Suite 21         nor       Maly Ses $a_{25}$ Glendle Asenue, Maly Ses $a_{25}$ Glendle Asenue, Suite 21 $a_{25}$ Glendle Asenue, Suite 21         Suite Asenue, Sui	Alpha Analytical, Inc.       Samples Collected From Which the control Shine 21 state of the laboratory is functioned by the laboratory with the score.       Samples Collected From Which the control shine 21 state of the laboratory is function. $Arriski = Cristian from (7/5) 355-0406$ Analyses Required from (7/5) 355-0406       Analyses Required from (7/5) 355-0406 $arriski = Cristian from (7/5) 355-0406$ Analyses Required from (7/5) 355-0406       Analyses Required from (7/5) 355-0406 $arriski = Cristian from (7/5) 355-0406$ Trif from (7/5) 355-0406       Analyses Required from (7/5) 355-0406 $arriski = Cristian from (7/5) 355-0406$ Trif from (7/5) 355-0406       Analyses Required from (7/5) 355-0406 $Bac (12,5) Car (2,5) Car (2,1) Cristian from (7/5) (2,2) Cristian from (7/5) Cristi$	a Analytical, Inc.       Az moles Collected From Which Stare?         nrade Avenue, Suile 21       Az or

Billing Information: $400/2$	Alph	Alpha Analytical, Inc.	Samples Collected From Which State?	-	Site .
Addross	Sparks Phone	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 Phone (775) 355-1044	0R	Pag	of 2
City, State, Zip Engleweed CC	Hax (/	Fax (775) 355-0406	Analyses Required	equired	
nt Name	Job #	Job Name TO	× / ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Data Validation	fation or IV
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City, State, Zin Felsion CA	712.21		64	EDD / EDF? YES	NO
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ă	Sample Description	TAT Field # Containers**	R		KS
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Contraction of Market					
ADDITIONAL INSTRUCTIONS:					
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action (NAC 445.0636 (c) (2)). Sampled By:	is sample. I am aware that tampering w I By:	ith or intentionally misabeling the sa	mple location, date or time of co	ollection is considered fraud ar	nd may be
Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation)	ature/Affiliation)		Date: Time:	1
Relinquished by: (Signature/Affiliation)	Received by (Signature/Affiliation)	ture/Affiliation)	Da	ate: Time:	
Relinquished by: (Signature/Affiliation)	Received by: (Signature/Affiliation)	tture/Affiliation)	Da	Date: Time:	
*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable poly to those samples received by the laboratory with this pop. The liability of the laboratory is limited to the amount poid for the report.	OT - Other AR - Air **: ported unless other arrangements are m	L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brainade. Hazardous samples will be returned to client or disposed of at client the laboratory is limited to the product heid for the product	O-Orbo T-Tedlar B urned to client or disposed of at	B-Brass P-Plastic OT at client expense. The report for	OT-Other for the analysis

 $([\gamma_{i}]_{i\in I}, \rho_{i}, \rho_{i}])$ 

or the above samples is applicable ĉ only to 1000 npros by the lab alory with ē 000, 2 inty of the laboratory is inflited to the amount paid for the report.

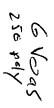




Table 2 Groundwater Sample Analyses for the NTD

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				1425 5/25	ļ	
	SB-10	SB-7	SB-6	SB-3	SB-2	Sample Location
. 8	<b>SB10</b>	SB07	SB06	SB03	SB02	
	GM 5	GM 5	GM ?	GW ?/7Date	GM 3	Sample ID
	Date	Date	Date	Date	Date	
	×	×	×	×	×	9 % × ø
	×	×	×	×	×	ТРН-d, ТРН-то (8015)
	×	×	×	×	×	Metals (6020)
	×	×	×	×	×	Nitrate, Nitrite, Sulfate, Chloride, Flouride (300.0)
	×	×	×	×	×	Total Nitrogen (calculation)
And the second se	×	×	×	×	×	Ammonia (4500-NH3D)
	×	×	×	×	×	pH (150.2) and Field Measurement
:	×	×	×	Х	×	Total P (265.3)
	×	×	×	×	×	TDS (2540C)
;;	×	×	×	×	×	Phenol (8270)
;	×	×	×	×	×	Phenolic compounds (9065)
	×	×	×	×	×	Alkalinity (2320B)
,	<b>-</b>	×	×	×	×	Oil & Grease (1664)

Note: fields with "?" need to be replaced with depth determined in the field Metals = Arsenic, barium, boron, cadmium, chromium (total), copper, cyanide, iron, lead, manganese, mercury, nickel, selenium, sodium, silver zinc

	5201	SZHO	
2055	SS-2	SS-1	Sample
2055	SB03	6802	io 25
-	SE	SE	Sample ID
	SE NA Date	SE NA Date	5
	×	×	VOCs (8260)
	×	×	Sediment Sa TPH-d, TPH-mo (8015)
	×	×	Table 3 nt Sample Analys d, RCRA 8 no Metals 5) (6020)
	×	×	is for the NT Chlorinated pesticides and PCBs (8081/8082)
	×	×	OP Pesticides (8151)
	×	×	SVOCs (8270)
	×	×	Chlorinated herbicides (8151)

Table 4 QA/QC Sample Analysis for the NTD

Sample Location	Sa	Sample ID	0		VOCs (8260)	TPH-d, TPH-mo (8015)	RCRA 8 Metals (6020)
EB	EB01	GW	V NA	Date	×	×	×
TB	TB01	GW	AN	Date	×		
ТВ	TB02	GW	AN	Date	×		
ΤB	<b>TB</b> 03	GW	NA	Date	×		
ТB	<b>TB04</b>	GW	Ķ	Date	×		

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NTD

Job:

## Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### **ANALYTICAL REPORT**

Sampled: 05/25/10

Received: 05/25/10

HDR   E2M	Attn:	Clayton Mokri
2365 Iron Point Road	Phone:	(916) 852-7792
Folsom, CA 95630	Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052504-04A Client I.D. Number: SB03GW17052510

Method Reference : EPA Method 300.0	,					
Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed
Fluoride	ND	0.25		mg/L	05/26/10 12:49	05/26/10 14:58
Chloride	80	50		mg/L	05/26/10 12:49	05/26/10 14:58
Nitrite (NO2) - N	ND	0.25		mg/L	05/26/10 12:49	05/26/10 14:58
Nitrate (NO3) - N	ND	0.25		mg/L	05/26/10 12:49	05/26/10 14:58
Sulfate (SO4)	160	75		mg/L	05/26/10 12:49	05/26/10 14:58
Method Reference : SM4500NORGC / SM	14500-NH3D					
Analyte	Result	<b>Reporting Limit</b>	Qual	Units	Date Extracted	Date Analyzed
Nitrogen, Kjeldahl, Total	0.99	0.25		mg/L	06/01/10	06/01/10
Method Reference : Total by Calculation						
Analyte	Result	<b>Reporting Limit</b>	Qual	Units	Date Extracted	Date Analyzed

ND = Not Detected

Roger Scholl

Walter Arm

Kandy Daulmer Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/2/10

**Report Date** 



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

## Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052504-05A Client I.D. Number: SS01SENA052510 Sampled: 05/25/10 09:25 Received: 05/25/10 Extracted: 05/27/10 15:43 Analyzed: 05/28/10

### Organochlorine Pesticides EPA Method SW8081A

 •	Compound	Concentration		Reporting Limit	
1	alpha-BHC	ND		1.7 µg/Kg	
2	gamma-BHC (Lindane)	ND	ĺ	1.7 µg/Kg	
3	beta-BHC	ND		1.7 µg/Kg	
4	delta-BHC	ND		1.7 µg/Kg	
5	Heptachlor	ND		1.7 µg/Kg	
6	Aldrin	ND		1.7 µg/Kg	
7	Heptachlor epoxide	ND		1.7 µg/Kg	
8	Endosulfan I	ND		1.7 µg/Kg	
9	4,4´-DDE	ND		3.3 µg/Kg	
10	Dieldrin	ND		3.3 µg/Kg	
11	Endrin	ND		3.3 µg/Kg	
12	4,4´-DDD	ND	Ì	3.3 µg/Kg	
13	Endosulfan II	ND		3.3 µg/Kg	
14	Endrin aldehyde	ND		3.3 µg/Kg	
15	4,4´-DDT	ND	UJ	3.3 µg/Kg	
16	Endosulfan sulfate	ND		3.3 µg/Kg	
17	Methoxychlor	ND	UJ	17 µg/Kg	
18	Endrin ketone	ND		3.3 µg/Kg	
19	Toxaphene	ND		170 µg/Kg	
20	Chlordane (Technical)	ND		33 µg/Kg	
21	Surr: Tetrachloro-m-xylene	96		(30-130) %REC	
22	Surr: Decachlorobiphenyl	100		(34-142) %REC	

Sample data was verified by second column confirmation.

Sample results were calculated on a wet weight basis.

ND = Not Detected

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte.

Roger Scholl

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Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

Kandy Sandmer

Æ

6/2/10 Report Date



Job:

2365 Iron Point Road

NTD

Folsom, CA 95630

## Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052504-06A Client I.D. Number: SS02SENA052510

Sampled: 05/25/10 10:25 Received: 05/25/10 Extracted: 05/27/10 15:43 Analyzed: 05/28/10

Organochlorine Pesticides EPA Method SW8081A

	Compound	Concentration	Reporting Limit
1	alpha-BHC	ND	1.7 µg/Kg
2	gamma-BHC (Lindane)	ND	1.7 µg/Kg
3	beta-BHC	ND	1.7 µg/Kg
4	delta-BHC	ND	1.7 µg/Kg
5	Heptachlor	ND	1.7 µg/Kg
6	Aldrin	ND	1.7 µg/Kg
7	Heptachlor epoxide	ND	1.7 µg/Kg
8	Endosulfan I	ND	1.7 µg/Kg
9	4,4´-DDE	ND	3.3 µg/Kg
10	Dieldrin	ND	3.3 µg/Kg
11	Endrin	ND	3.3 µg/Kg
12	4,4´-DDD	ND	3.3 µg/Kg
13	Endosulfan II	ND	3.3 µg/Kg
14	Endrin aldehyde	ND	3.3 µg/Kg
15	4,4´-DDT	ND	UJ 3.3 µg/Kg
16	Endosulfan sulfate	ND	3.3 µg/Kg
17	Methoxychlor	ND	UJ 17 μg/Kg
18	Endrin ketone	ND	3.3 µg/Kg
19	Toxaphene	ND	170 µg/Kg
20	Chlordane (Technical)	ND	33 µg/Kg
21	Surr: Tetrachloro-m-xylene	112	(30-130)%REC
22	Surr: Decachlorobiphenyl	115	(34-142)%REC

Sample data was verified by second column confirmation.

Sample results were calculated on a wet weight basis. ND = Not Detected

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte.

Roger Scholl

Walter Aridman

Roger L. Schoil, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Kandy Sandner

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**Report Date** 



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## **ANALYTICAL REPORT**

2365 Iron Point Road Folsom, CA 95630

Clayton Mokri Attn: Phone: (916) 852-7792 Fax: (916) 852-7836 Date Received : 05/25/10

Job: NTD

HDR | E2M

Polychlorinated Biphenyls (PCBs) EPA Method SW8082								
	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed			
Client ID: SS01SENA052510								
Lab ID : E2M10052504-05A	Aroclor 1016	ND	33 µg/Kg	05/27/10 15:43	05/27/10			
Date Sampled 05/25/10 09:25	Aroclor 1221	ND	33 µg/Kg	05/27/10 15:43	05/27/10			
-	Aroclor 1232	ND	33 μg/Kg	05/27/10 15:43	05/27/10			
	Aroclor 1242	ND	33 µg/Kg	05/27/10 15:43	05/27/10			
	Aroclor 1248	ND	33 µg/Kg	05/27/10 15:43	05/27/10			
	Aroclor 1254	ND	33 µg/Kg	05/27/10 15:43	05/27/10			
	Aroclor 1260	ND	33 µg/Kg	05/27/10 15:43	05/27/10			
	Surr: Tetrachloro-m-xylene	99	(30-130) %REC	05/27/10 15:43	05/27/10			
	Surr: Decachlorobiphenyl	85	(34-142) %REC	05/27/10 15:43	05/27/10			
Client ID: SS02SENA052510								
Lab ID : E2M10052504-06A	Aroclor 1016	ND	33 µg/Kg	05/27/10 15:43	05/27/10			
Date Sampled 05/25/10 10:25	Aroclor 1221	ND	33 µg/Kg	05/27/10 15:43	05/27/10			
	Aroclor 1232	ND	33 µg/Kg	05/27/10 15:43	05/27/10			
	Aroclor 1242	ND	33 µg/Kg	05/27/10 15:43	05/27/10			
	Aroclor 1248	ND	33 µg/Kg	05/27/10 15:43	05/27/10			
	Aroclor 1254	ND	33 µg/Kg	05/27/10 15:43	05/27/10			
	Aroclor 1260	ND	33 µg/Kg	05/27/10 15:43	05/27/10			
	Surr: Tetrachloro-m-xylene	69	(30-130) %REC	05/27/10 15:43	05/27/10			
	Surr: Decachlorobiphenyl	48	(34-142) %REC	05/27/10 15:43	05/27/10			

Sample results were calculated on a wet weight basis. ND = Not Detected

Rogen Scholl

Kandy Danlmer

lter Arm

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/2/10 **Report Date** 



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## **ANALYTICAL REPORT**

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 
 Attn:
 Clayton Mokri

 Phone:
 (916) 852-7792

 Fax:
 (916) 852-7836

 Date Received : 05/25/10

Job: NTD

Alkalinity SM2320B							
·	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed		
Client ID: <b>SB03GW17052510</b> Lab ID : E2M10052504-04A Date Sampled 05/25/10 14:25	Alkalinity, Total (As CaCO3 at pH 4.5)	440	10 mg/L	06/02/10	06/02/10		

Roger Scholl

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Walter Hirihm

6/2/10

**Report Date** 

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.



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## ANALYTICAL REPORT

HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Job: NTD

Attn:Clayton MokriPhone:(916) 852-7792Fax:(916) 852-7836Date Received : 05/25/10

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: <b>SB03GW17052510</b> Lab ID: E2M10052504-04A Date Sampled 05/25/10 14:25	Nitrogen, Ammonia (As N)	0.26	0.10 mg/L	05/28/10	05/28/10

Roger Scholl

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6/2/10

**Report Date** 



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### ANALYTICAL REPORT

HDR   ]	E2M	
2365 Ir	on Point Road	
Folsom	, CA 95630	
Job:	NTD	

Attn: Clayton Mokri Phone: (916) 852-7792 Fax: (916) 852-7836

Alpha Analytical Number: E2M10052504-04A Client I.D. Number: SB03GW17052510 Sampled: 05/25/10 14:25 Received: 05/25/10 Extracted: 05/26/10 11:56 Analyzed: 05/27/10

### Semivolatile Organics by GC/MS EPA Method SW8270C

	Compound	Concentration	Reporting Limit
1	Phenol	ND	10 µg/L
2	2-Chlorophenol	ND	10 µg/L
3	2-Nitrophenol	ND	10 µg/L
4	2,4-Dimethylphenol	ND	10 µg/L
5	2,4-Dichlorophenol	ND	10 µg/L
6	4-Chloro-3-methylphenol	ND	20 µg/L
7	2,4,6-Trichlorophenol	ND	10 µg/L
8	2,4-Dinitrophenol	ND	100 µg/L
9	4-Nitrophenol	ND	50 µg/L
10	4,6-Dinitro-2-methylphenol	ND	100 µg/L
11	Pentachlorophenol	ND	50 µg/L
12	Surr: 2-Fluorophenol	38 S54	(41-130) %REC
13	Surr: Phenol-d5	27	(25-130) %REC
14	Surr: 2,4,6-Tribromophenol	67	(61-138) %REC

S54 = Surrogate recovery was below laboratory acceptance limits.

ND = Not Detected

Roger Scholl

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Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/2/10

**Report Date** 



Job:

2365 Iron Point Road

NTD

Folsom, CA 95630

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052504-05A Client I.D. Number: SS01SENA052510

### Sampled: 05/25/10 09:25 Received: 05/25/10 Extracted: 05/27/10 11:06 Analyzed: 05/27/10

#### Semivolatile Organics by GC/MS EPA Method SW8270C

	Li A Mediod 5 w 82700									
	Compound	Concentration	Reporting	Limit		Compound	Concentration	Re	eporting Li	mit
1	Phenol	ND	660	µg/Kg	36	Hexachlorobenzene	ND		660	µg/Kg
2	2-Chlorophenol	ND	660	µg/Kg	37	Pentachlorophenol	ND		3,300	µg/Kg
3	Bis(2-chloroethyl)ether	ND	660	µg/Kg	38	Phenanthrene	ND		660	µg/Kg
4	1,3-Dichlorobenzene	ND	1,300	µg/Kg	39	Anthracene	ND		660	µg/Kg
5	1,4-Dichlorobenzene	ND	1,300	µg/Kg	40	Di-n-butyl phthalate	ND		3,300	µg/Kg
6	1,2-Dichlorobenzene	ND	1,300	µg/Kg	41	Fluoranthene	ND		660	µg/Kg
7	Bis(2-chloroisopropyl)ether	ND	660	µg/Kg	42	Pyrene	ND		660	µg/Kg
8	N-Nitrosodi-n-propylamine	ND	660	µg/Kg	43	Butyl benzyl phthalate	ND		1,300	µg/Kg
9	Hexachloroethane	ND	1,300	µg/Kg	44	Benzo(a)anthracene	ND		660	µg/Kg
10	Nitrobenzene	ND	660	µg/Kg	45	3,3'-Dichlorobenzidine	ND		1,300	µg/Kg
11	Isophorone	ND	660	µg/Kg	46	Chrysene	ND		660	µg/Kg
12	2-Nitrophenol	ND	660	µg/Kg	47	Bis(2-ethylhexyl)phthalate	ND		3,300	µg/Kg
13	2,4-Dimethylphenol	ND	660	µg/Kg	48	Di-n-octyl phthalate	ND		3,300	µg/Kg
14	Bis(2-chloroethoxy)methane	ND	660	µg/Kg	49	Benzo(b)fluoranthene	ND		660	µg/Kg
15	2,4-Dichlorophenol	ND	660	µg/Kg	50	Benzo(k)fluoranthene	ND		660	µg/Kg
16	1,2,4-Trichlorobenzene	ND	660	µg/Kg	51	Benzo(a)pyrene	ND		660	µg/Kg
17	Naphthalene	ND	660	µg/Kg	52	Indeno(1,2,3-cd)pyrene	ND		660	µg/Kg
18	Hexachlorobutadiene	ND	1,300	µg/Kg	53	Dibenz(a,h)anthracene	ND		660	µg/Kg
19	4-Chloro-3-methylphenol	ND	1,300	µg/Kg	54	Benzo(g,h,i)perylene	ND		660	µg/Kg
20	Hexachlorocyclopentadiene	ND	6,600	µg/Kg	55	Surr: 2-Fluorophenol	20	S54	(67-131)	%REC
21	2,4,6-Trichlorophenol	ND	660	µg/Kg	56	Surr: Phenol-d5	41	S54	(60-133)	%REC
22	2-Chloronaphthalene	ND	660	µg/Kg	57	Surr: Nitrobenzene-d5	40	S54	(54-135)	%REC
23	Dimethyl phthalate	ND	660	µg/Kg	58	Surr: 2-Fluorobiphenyl	48	S54	(70-130)	%REC
24	Acenaphthylene	ND	660	µg/Kg	59	Surr: 2,4,6-Tribromophenol	49		(44-151)	%REC
25	2,6-Dinitrotoluene	ND	660	µg/Kg	60	Surr: 4-Terphenyi-d14	48	S54	(59-139)	%REC
26	Acenaphthene	ND	660	µg/Kg						
27	2,4-Dinitrophenol	ND	6,600	µg/Kg						
28	4-Nitrophenol	ND	3,300	µg/Kg						
29	2,4-Dinitrotoluene	ND	660	µg/Kg						
30	Diethyl phthalate	ND	660	µg/Kg						
31	Fluorene	ND	660	µg/Kg						

S54 = Surrogate recovery was below laboratory acceptance limits.

ND

ND

ND

ND

Sample results were calculated on a wet weight basis. ND = Not Detected

ND = Not Detected

32 4-Chlorophenyl phenyl ether

35 4-Bromophenyl phenyl ether

33 4,6-Dinitro-2-methylphenol

34 N-Nitrosodiphenylamine

Roger Scholl

660

660

660

6,600

µg/Kg

µg/Kg

µg/Kg

µg/Kg

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6/2/10

**Report Date** 



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### ANALYTICAL REPORT

HDR   E	2M	
2365 Irc	n Pc	int Road
Folsom,	CA	95630
Job:	NT	D

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32

35

Diethyl phthalate

4-Chlorophenyl phenyl ether

4-Bromophenyl phenyl ether

33 4,6-Dinitro-2-methylphenol

34 N-Nitrosodiphenylamine

Fluorene

Clayton Mokri Attn: (916) 852-7792 Phone: (916) 852-7836 Fax:

Alpha Analytical Number: E2M10052504-06A Client I.D. Number: SS02SENA052510

### Sampled: 05/25/10 10:25 Received: 05/25/10 Extracted: 05/27/10 11:06 Analyzed: 05/27/10

#### Semivolatile Organics by GC/MS EPA Method SW8270C

				Amenic	u o n	102700				
Compound Co		oound Concentration		Reporting Limit		Compound	Concentration	Reporting Limit		
Phenol		ND	660	µg/Kg	36	Hexachlorobenzene	ND		660	µg/Kg
2-Chlorophenol		ND	660	µg/Kg	37	Pentachlorophenol	ND		3,300	µg/Kg
Bis(2-chloroethyl)e	ther	ND	660	µg/Kg	38	Phenanthrene	ND		660	µg/Kg
1,3-Dichlorobenzer	e	ND	1,300	µg/Kg	39	Anthracene	ND		660	µg/Kg
1,4-Dichlorobenzer	ne	ND	1,300	µg/Kg	40	Di-n-butyl phthalate	ND		3,300	µg/Kg
1,2-Dichlorobenzer	ne -	ND	1,300	µg/Kg	41	Fluoranthene	ND		660	µg/Kg
Bis(2-chloroisoprop	yl)ether	ND	660	µg/Kg	42	Pyrene	ND		660	µg/Kg
N-Nitrosodi-n-prop	/lamine	ND	660	µg/Kg	43	Butyl benzyl phthalate	ND		1,300	µg/Kg
Hexachloroethane		ND	1,300	µg/Kg	44	Benzo(a)anthracene	ND		660	µg/Kg
0 Nitrobenzene		ND	660	µg/Kg	45	3,3'-Dichlorobenzidine	ND		1,300	µg/Kg
1 Isophorone		ND	660	µg/Kg	46	Chrysene	ND		660	µg/Kg
2 2-Nitrophenol		ND	660	µg/Kg	47	Bis(2-ethylhexyl)phthalate	ND		3,300	µg/Kg
3 2,4-Dimethylpheno	1	ND	660	µg/Kg	48	Di-n-octyl phthalate	ND		3,300	µg/Kg
4 Bis(2-chloroethoxy)	methane	ND	660	µg/Kg	49	Benzo(b)fluoranthene	ND		660	µg/Kg
5 2,4-Dichlorophenol		ND	660	µg/Kg	50	Benzo(k)fluoranthene	ND		660	µg/Kg
6 1,2,4-Trichlorobenz	ene	ND	660	µg/Kg	51	Benzo(a)pyrene	ND		660	µg/Kg
7 Naphthalene		ND	660	µg/Kg	52	Indeno(1,2,3-cd)pyrene	ND		660	µg/Kg
8 Hexachlorobutadie	ne	ND	1,300	µg/Kg	53	Dibenz(a,h)anthracene	ND		660	µg/Kg
9 4-Chloro-3-methylp	henol	ND	1,300	µg/Kg	54	Benzo(g,h,i)perylene	ND		660	µg/Kg
0 Hexachlorocyclope	ntadiene	ND	6,600	µg/Kg	55	Surr: 2-Fluorophenol	64	S54	(67-131)	%REC
1 2,4,6-Trichloropher	nol	ND	660	µg/Kg	56	Surr: Phenol-d5	66		(60-133)	%REC
2 2-Chloronaphthale	ne	ND	660	µg/Kg	57	Surr: Nitrobenzene-d5	69		(54-135)	%REC
3 Dimethyl phthalate		ND	660	µg/Kg	58	Surr: 2-Fluorobiphenyl	69	S54	(70-130)	%REC
4 Acenaphthylene		ND	660	µg/Kg	59	Surr: 2,4,6-Tribromophenol	57		(44-151)	%REC
5 2,6-Dinitrotoluene		ND	660	µg/Kg	60	Surr: 4-Terphenyl-d14	65		(59-139)	%REC
6 Acenaphthene		ND	660	µg/Kg						
7 2,4-Dinitrophenol		ND	6,600	µg/Kg						
8 4-Nitrophenol		ND	3,300	µg/Kg						
9 2,4-Dinitrotoluene		ND	660	µg/Kg						

S54 = Surrogate recovery was below laboratory acceptance limits.

ND

ND

ND

ND

ND

ND

Sample results were calculated on a wet weight basis. ND = Not Detected

Roger Scholl

660

660

660

6,600

660

660

µg/Kg

µg/Kg

µg/Kg

µg/Kg

µg/Kg

µg/Kg

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6/2/10

**Report Date** 



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## ANALYTICAL REPORT

HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Job: NTD

 Attn:
 Clayton Mokri

 Phone:
 (916) 852-7792

 Fax:
 (916) 852-7836

 Date Received : 05/25/10

## Metals by ICPMS EPA Method SW6020 / SW6020A

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: SB0302SO052510					2
Lab ID : E2M10052504-01A	Chromium (Cr)	19	1.0 mg/Kg	05/26/10 12:03	05/26/10
Date Sampled 05/25/10 13:30	Arsenic (As)	12	1.0 mg/Kg	05/26/10 12:03	05/26/10
Date Sampled 05/25/10 15:50	Selenium (Se)	ND	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Silver (Ag)	ND	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Barium (Ba)	270	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/26/10 12:03	05/26/10
	Lead (Pb)	9.0	1.0 mg/Kg	05/26/10 12:03	05/26/10
Client ID: SB0313SO052510					
Lab ID : E2M10052504-02A	Chromium (Cr)	18	1.0 mg/Kg	05/26/10 12:03	05/26/10
Date Sampled 05/25/10 13:55	Arsenic (As)	5.4	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Selenium (Se)	ND	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Silver (Ag)	ND	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Barium (Ba)	190	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/26/10 12:03	05/26/10
	Lead (Pb)	13	1.0 mg/Kg	05/26/10 12:03	05/26/10
Client ID: SB0317SO052510					
Lab ID : E2M10052504-03A	Chromium (Cr)	21	1.0 mg/Kg	05/26/10 12:03	05/26/10
Date Sampled 05/25/10 14:15	Arsenic (As)	7.3	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Selenium (Se)	ND	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Silver (Ag)	ND	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Barium (Ba)	52	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/26/10 12:03	05/26/10
	Lead (Pb)	4.5	1.0 mg/Kg	05/26/10 12:03	05/26/10
Client ID: SB03GW17052510					
Lab ID : E2M10052504-04A	Boron (B)	0.82	0.10 mg/L	05/26/10 10:15	05/26/10
Date Sampled 05/25/10 14:25	Sodium (Na)	210	0.50 mg/L	05/26/10 10:15	05/26/10
	Chromium (Cr)	0.17	0.0050 mg/L	05/26/10 10:15	05/26/10
	Manganese (Mn)	2.8	0.0050 mg/L	05/26/10 10:15	05/26/10
	Iron (Fe)	140	0.30 mg/L	05/26/10 10:15	05/26/10
	Nickel (Ni)	0.082	0.010 mg/L	05/26/10 10:15	05/26/10
	Copper (Cu)	0.22	0.010 mg/L	05/26/10 10:15	05/26/10
	Zinc (Zn)	0.44	0.10 mg/L	05/26/10 10:15	05/26/10
	Arsenic (As)	0.11	0.0050 mg/L	05/26/10 10:15	05/26/10
	Selenium (Se)	ND	0.0050 mg/L	05/26/10 10:15	05/26/10
	Silver (Ag)	ND	0.0050 mg/L	05/26/10 10:15	05/26/10
	Cadmium (Cd)	ND	0.0050 mg/L	05/26/10 10:15	05/26/10
	Barium (Ba) Moreum (Ha)	1.0	0.0050 mg/L	05/26/10 10:15	05/26/10
	Mercury (Hg)	ND	0.0010 mg/L	05/26/10 10:15	05/26/10
NITTIN	Lead (Pb)	0.10	0.0050 mg/L	05/26/10 10:15	05/26/10



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### Client ID: SS01SENA052510

Lab ID : E2M10052504-05A	Chromium (Cr)	12	1.0 mg/Kg	05/26/10 12:03	05/26/10
Date Sampled 05/25/10 09:25	Arsenic (As)	5.2	1.0 mg/Kg	05/26/10 12:03	05/26/10
·	Selenium (Se)	ND	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Silver (Ag)	ND	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Barium (Ba)	63	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/26/10 12:03	05/26/10
	Lead (Pb)	5.0	1.0 mg/Kg	05/26/10 12:03	05/26/10
Client ID: SS02SENA052510					
Lab ID : E2M10052504-06A	Chromium (Cr)	16	1.0 mg/Kg	05/26/10 12:03	05/26/10
Date Sampled 05/25/10 10:25	Arsenic (As)	8.0	1.0 mg/Kg	05/26/10 12:03	05/26/10
·	Selenium (Se)	ND	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Silver (Ag)	ND	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Cadmium (Cd)	ND	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Barium (Ba)	160	1.0 mg/Kg	05/26/10 12:03	05/26/10
	Mercury (Hg)	ND	0.20 mg/Kg	05/26/10 12:03	05/26/10
	Lead (Pb)	8.7	1.0 mg/Kg	05/26/10 12:03	05/26/10

Sample results were calculated on a wet weight basis. ND = Not Detected

Roger Scholl

Walter Arihm

Roger Scholl Kandy Soulan Dalter Hinkman Roger L. Scholl, Ph.D., Laboratory Director · · Randy Gardner, Laboratory Manager · · Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/2/10

**Report Date** 



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## **ANALYTICAL REPORT**

HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Job: NTD

Attn: Clayton Mokri Phone: (916) 852-7792 Fax: (916) 852-7836 Date Received : 05/25/10

Oil and Grease, HEM EPA Method 1664A							
	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed		
Client ID: <b>SB03GW17052510</b> Lab ID : E2M10052504-04A Date Sampled 05/25/10 14:25	Oil & Grease, HEM	ND	5.0 mg/L	06/02/10	06/02/10		

HEM = Hexane Extractable Material

ND = Not Detected

Roger Scholl

Kandy Saulner

lter A.

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

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6/2/10

**Report Date** 



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## **ANALYTICAL REPORT**

HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Attn:Clayton MokriPhone:(916) 852-7792Fax:(916) 852-7836Date Received : 05/25/10

Job: NTD

pH (Soil) EPA Method SW9045D								
Paramete	Concentration	Reporting Limit	Date Extracted	Date Analyzed				
Client ID: SB0313SO052510								
Lab ID : E2M10052504-02A pH	8.4	I.7 pH Units	06/01/10 15:44	06/01/10 15:44				
Date Sampled 05/25/10 13:55 pH - Temperatu	re 20	1.0 °C	06/01/10 15:44	06/01/10 15:44				

Roger Scholl

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**Report Date** 



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## **ANALYTICAL REPORT**

HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Job: NTD

Attn: Clayton Mokri Phone: (916) 852-7792 Fax: (916) 852-7836 Date Received : 05/25/10

### pH (Range 1.7 to 12.4) EPA Method 150.2 / SM4500HB / SW9040C

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: SB03GW17052510				
Lab ID : E2M10052504-04A pH	7.7	1.7 pH Units	05/26/10 11:06	05/26/10 11:06
Date Sampled 05/25/10 14:25 pH - Temperature	18	1.0 °C	05/26/10 11:06	05/26/10 11:06

The EPA has established an analytical holding time of 15 minutes for this method as documented in the Methods Update Rule, Federal Register, Vol 72, No 47, March 2007. This holding time will always be exceeded, unless samples are analyzed in the field. The laboratory performed this analysis in the shortest practical holding time after sample receipt.

Roger Scholl

Kandy Santner

Walter Aridmon

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**Report Date** 



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## **ANALYTICAL REPORT**

HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Job: NTD

Attn: Clayton Mokri Phone: (916) 852-7792 Fax: (916) 852-7836 Date Received : 05/25/10

Phosphorus EPA Method 365.3 / SM4500PE							
	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed		
Client ID: <b>SB03GW17052510</b> Lab ID : E2M10052504-04A Date Sampled 05/25/10 14:25	Phosphorus, Total (As P)	1.2	0.10 mg/L	06/02/10	06/02/10		

Roger Scholl

Kandy Sandmer

Dalter Hindman

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6/2/10

**Report Date** 



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## **ANALYTICAL REPORT**

HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Job: NTD

Attn:Clayton MokriPhone:(916) 852-7792Fax:(916) 852-7836Date Received : 05/25/10

Total Dissolved Solids (TDS) SM2540C							
	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed		
Client ID: <b>SB03GW17052510</b> Lab ID : E2M10052504-04A Date Sampled 05/25/10 14:25	Solids, Total Dissolved (TDS)	830	10 mg/L	05/26/10	05/26/10		

Roger Scholl

Kandy Sandmer

Walter Al

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6/2/10

**Report Date** 



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## **ANALYTICAL REPORT**

HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Attn: Clayton Mokri Phone: (916) 852-7792 Fax: (916) 852-7836 Date Received : 05/25/10

Job: NTD

## Total Petroleum Hydrocarbons - Extractable (TPH-E) EPA Method SW8015B Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B

					Reporting	Date	Date
		Parameter	Concentrat	ion	Limit	Extracted	Analyzed
Client ID :	SB0302SO052510						
Lab ID :	E2M10052504-01A	TPH-E (DRO)	ND		10 mg/Kg	05/28/10 15:05	05/30/10
Date Sampled	05/25/10 13:30	TPH-E (ORO)	31		10 mg/Kg	05/28/10 15:05	05/30/10
		Surr: Nonane	120		(67-156) %REC	05/28/10 15:05	05/30/10
		TPH-P (GRO)	ND		10 mg/Kg	05/28/10	05/28/10
		Surr: 1,2-Dichloroethane-d4	93		(70-130) %REC	05/28/10	05/28/10
		Surr: Toluene-d8	106		(70-130) %REC	05/28/10	05/28/10
		Surr: 4-Bromofluorobenzene	101		(70-130) %REC	05/28/10	05/28/10
Client ID :	SB0313SO052510						
Lab ID :	E2M10052504-02A	TPH-E (DRO)	ND		10 mg/Kg	05/28/10 15:05	05/30/10
Date Sampled	05/25/10 13:55	TPH-E (ORO)	15		10 mg/Kg	05/28/10 15:05	05/30/10
		Surr: Nonane	112		(67-156) %REC	05/28/10 15:05	05/30/10
		TPH-P (GRO)	ND		10 mg/Kg	05/28/10	05/28/10
		Surr: 1,2-Dichloroethane-d4	91		(70-130) %REC	05/28/10	05/28/10
		Surr: Toluene-d8	108		(70-130) %REC	05/28/10	05/28/10
		Surr: 4-Bromofluorobenzene	100		(70-130) %REC	05/28/10	05/28/10
Client ID :	SB0317SO052510						
Lab ID :	E2M10052504-03A	TPH-E (DRO)	ND		10 mg/Kg	05/28/10 15:05	05/31/10
Date Sampled	05/25/10 14:15	TPH-E (ORO)	20		10 mg/Kg	05/28/10 15:05	05/31/10
		Surr: Nonane	117		(67-156) %REC	05/28/10 15:05	05/31/10
		TPH-P (GRO)	ND		10 mg/Kg	05/28/10	05/28/10
		Surr: 1,2-Dichloroethane-d4	92		(70-130) %REC	05/28/10	05/28/10
		Surr: Toluene-d8	108		(70-130) %REC	05/28/10	05/28/10
		Surr: 4-Bromofluorobenzene	100		(70-130) %REC	05/28/10	05/28/10
Client ID :	SB03GW17052510						
Lab ID :	E2M10052504-04A	TPH-E (DRO)	ND		0.50 mg/L	05/26/10 12:20	05/26/10
Date Sampled	05/25/10 14:25	TPH-E (ORO)	ND		0.50 mg/L	05/26/10 12:20	05/26/10
		Surr: Nonane	83		(57-147) %REC	05/26/10 12:20	05/26/10
		TPH-P (GRO)	ND		0.50 mg/L	05/28/10	05/28/10
		Surr: 1,2-Dichloroethane-d4	124		(70-130) %REC	05/28/10	05/28/10
		Surr: Toluene-d8	92		(70-130) %REC	05/28/10	05/28/10
		Surr: 4-Bromofluorobenzene	110		(70-130) %REC	05/28/10	05/28/10
Client ID :	SS01SENA052510						
Lab ID :	E2M10052504-05A	TPH-E (DRO)	22	L	10 mg/Kg	05/28/10 15:05	05/31/10
Date Sampled	05/25/10 09:25	TPH-E (ORO)	170		10 mg/Kg	05/28/10 15:05	05/31/10
•		Surr: Nonane	123		(67-156) %REC	05/28/10 15:05	05/31/10
Client ID :	SS02SENA052510						
Lab ID :	E2M10052504-06A	TPH-E (DRO)	ND		10 mg/Kg	05/28/10 15:05	05/30/10
Date Sampled	05/25/10 10:25	TPH-E (ORO)	17		10 mg/Kg	05/28/10 15:05	05/30/10
<b>,</b>	-	Surr: Nonane	115		(67-156) %REC	05/28/10 15:05	05/30/10



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Diesel Range Organics (DRO) C13-C22

Gasoline Range Organics (GRO) C4-C13

L = DRO concentration may include contributions from heavier-end hydrocarbons that elute in the DRO range.

Oil Range Organics (ORO) C22-C40+

Sample results were calculated on a wet weight basis. ND = Not Detected

Walter Aridmen Roger Scholl Kandy Sandmer

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/2/

Report Date



Job:

2365 Iron Point Road Folsom, CA 95630 NTD

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attr
Pho
Fax

Alpha Analytical Number: E2M10052504-01A Client I.D. Number: SB0302SO052510

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Sampled: 05/25/10 13:30 Received: 05/25/10 Extracted: 05/28/10 Analyzed: 05/28/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND	20	µg/Kg
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/Kg
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	µg/Kg
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	µg/Kg
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	µg/Kg
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND	20	µg/Kg
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/Kg
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chlorotoluene	ND	20	µg/Kg
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/Kg
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/Kg
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	µg/Kg
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND	20	µg/Kg
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butylbenzene	ND	20	µg/Kg
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND	20	µg/Kg
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND	20	µg/Kg
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-Isopropyltoluene	ND	20	µg/Kg
18	Carbon tetrachloride	ND	20	µg/Kg	53	1,2-Dichlorobenzene	ND	20	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	20	µg/Kg
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	120	µg/Kg
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND	80	µg/Kg
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND	80	µg/Kg
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND	80	µg/Kg
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND	80	µg/Kg
25	trans-1,3-Dichloropropene	ND	20	µg/Kg	60	Surr: 1,2-Dichloroethane-d4	93	(70-130)	%REC
26	1,1,2-Trichloroethane	ND	20	µg/Kg	61	Surr: Toluene-d8	106	(70-130)	%REC
27	Toluene	ND	20	µg/Kg	62	Surr: 4-Bromofluorobenzene	101	(70-130)	%REC
28	1,3-Dichloropropane	ND	20	µg/Kg					
29	Dibromochloromethane	ND	20	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg					
31	Tetrachloroethene	ND	20	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg					
33	Chlorobenzene	ND	20	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg					
	N I								

Sample results were calculated on a wet weight basis. ND = Not Detected

35 m,p-Xylene

Roger Scholl

ND

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20

µg/Kg

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6/2/10

**Report Date** 



Job:

2365 Iron Point Road

NTD

Folsom, CA 95630

Alpha Analytical, Inc.

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### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052504-02A Client I.D. Number: SB0313SO052510 Sampled: 05/25/10 13:55 Received: 05/25/10 Extracted: 05/28/10 Analyzed: 05/28/10

### Volatile Organics by GC/MS EPA Method SW8260B

-	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND	20	µg/Kg
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/Kg
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	µg/Kg
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	µg/Kg
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	µg/Kg
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND	20	µg/Kg
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/Kg
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chlorotoluene	ND	20	µg/Kg
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/Kg
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/Kg
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	µg/Kg
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND	20	µg/Kg
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butylbenzene	ND	20	µg/Kg
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND	20	µg/Kg
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND	20	µg/Kg
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-Isopropyltoluene	ND	20	µg/Kg
18	Carbon tetrachloride	ND	20	µg/Kg	53	1,2-Dichlorobenzene	ND	20	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	20	µg/Kg
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBCI	P) ND	120	µg/Kg
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND	80	µg/Kg
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND	80	µg/Kg
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND	80	µg/Kg
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND	80	µg/Kg
25	trans-1,3-Dichloropropene	ND	20	µg/Kg	60	Surr: 1,2-Dichloroethane-d4	91	(70-130)	%REC
26	1,1,2-Trichloroethane	ND	20	µg/Kg	61	Surr: Toluene-d8	108	(70-130)	%REC
27	Toluene	ND	20	µg/Kg	62	Surr: 4-Bromofluorobenzene	100	(70-130)	%REC
28	1,3-Dichloropropane	ND	20	µg/Kg					
29	Dibromochloromethane	ND	20	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg					
31	Tetrachloroethene	ND	20	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg					
33	Chlorobenzene	ND	20	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg					
35	m,p-Xylene	ND	20	µg/Kg					

Sample results were calculated on a wet weight basis. ND = Not Detected

Roger Scholl

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Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

HDR   E	2M	
2365 Irc	n Po	int Road
Folsom,	CA	95630
Job:	NTI	D

 Attn:
 Clayton Mokri

 Phone:
 (916) 852-7792

 Fax:
 (916) 852-7836

Alpha Analytical Number: E2M10052504-03A Client I.D. Number: SB0317SO052510 Sampled: 05/25/10 14:15 Received: 05/25/10 Extracted: 05/28/10 Analyzed: 05/28/10

### Volatile Organics by GC/MS EPA Method SW8260B

						02002			
	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	imit
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND	20	µg/Kg
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/Kg
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	µg/Kg
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	µg/Kg
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	µg/Kg
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND	20	µg/Kg
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/Kg
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chlorotoluene	ND	20	µg/Kg
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/Kg
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/Kg
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	µg/Kg
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND	20	µg/Kg
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butylbenzene	ND	20	µg/Kg
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND	20	µg/Kg
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND	20	µg/Kg
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-Isopropyltoluene	ND	20	µg/Kg
18	Carbon tetrachloride	ND	20	µg/Kg	53	1,2-Dichlorobenzene	ND	20	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	20	µg/Kg
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBCI	P) ND	120	µg/Kg
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND	80	µg/Kg
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND	80	µg/Kg
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND	80	µg/Kg
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND	80	µg/Kg
25	trans-1,3-Dichloropropene	ND	20	µg/Kg	60	Surr: 1,2-Dichloroethane-d4	92	(70-130)	%REC
26	1,1,2-Trichloroethane	ND	20	µg/Kg	61	Surr: Toluene-d8	108	(70-130)	%REC
27	Toluene	ND	20	µg/Kg	62	Surr: 4-Bromofluorobenzene	100	(70-130)	%REC
28	1,3-Dichloropropane	ND	20	µg/Kg					
29	Dibromochloromethane	ND	20	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg					
31	Tetrachloroethene	ND	20	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg					
33	Chlorobenzene	ND	20	µg/Kg					

Sample results were calculated on a wet weight basis. ND = Not Detected

34 Ethylberizene

35 m,p-Xylene

Roger Scholl

ND

ND

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20 µg/Kg

20 µg/Kg

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6/2/10

**Report Date** 



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### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052504-04A Client I.D. Number: SB03GW17052510

HDR | E2M

Job:

2365 Iron Point Road

NTD

Folsom, CA 95630

Sampled: 05/25/10 14:25 Received: 05/25/10 Extracted: 05/28/10 Analyzed: 05/28/10

#### Volatile Organics by GC/MS EPA Method SW8260B

				A INICUI	JU S W	(8200B			
	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	imit
1	Dichlorodifluoromethane	ND	1.0	µg/L	36	Bromoform	ND	1.0	µg/L
2	Chloromethane	ND	4.0	μg/L	37	Styrene	ND	1.0	µg/L
3	Vinyl chloride	ND	1.0	µg/L	38	o-Xylene	ND	1.0	µg/L
4	Chloroethane	ND	1.0	µg/L	39	1,1,2,2-Tetrachloroethane	ND	1.0	µg/L
5	Bromomethane	ND	4.0	µg/L	40	1,2,3-Trichloropropane	ND	4.0	µg/L
6	Trichlorofluoromethane	ND	1.0	µg/L	41	Isopropylbenzene	ND	1.0	µg/L
7	1,1-Dichloroethene	ND	1.0	µg/L	42	Bromobenzene	ND	1.0	µg/L
8	Dichloromethane	ND	4.0	µg/L	43	n-Propylbenzene	ND	1.0	µg/L
9	trans-1,2-Dichloroethene	ND	1.0	µg/L	44	4-Chlorotoluene	ND	1.0	µg/L
10	1,1-Dichloroethane	ND	1.0	µg/L	45	2-Chlorotoluene	ND	1.0	µg/L
11	cis-1,2-Dichloroethene	ND	1.0	µg/L	46	1,3,5-Trimethylbenzene	ND	1.0	µg/L
12	Bromochloromethane	ND	1.0	µg/L	47	tert-Butylbenzene	ND	1.0	µg/L
13	Chloroform	ND	1.0	µg/L	48	1,2,4-Trimethylbenzene	ND	1.0	µg/L
14	2,2-Dichloropropane	ND	1.0	µg/L	49	sec-Butylbenzene	ND	1.0	µg/L
15	1,2-Dichloroethane	ND	1.0	µg/L	50	1,3-Dichlorobenzene	ND	1.0	µg/L
16	1,1,1-Trichloroethane	ND	1.0	µg/L	51	1,4-Dichlorobenzene	ND	1.0	µg/L
17	1,1-Dichloropropene	ND	1.0	µg/L	52	4-Isopropyltoluene	ND	1.0	µg/L
18	Carbon tetrachloride	ND	1.0	µg/L	53	1,2-Dichlorobenzene	ND	1.0	µg/L
19	Benzene	ND	1.0	µg/L	54	n-Butylbenzene	ND	1.0	µg/L
20	Dibromomethane	ND	1.0	µg/L	55	1,2-Dibromo-3-chloropropane (DBC		6.0	µg/L
21	1,2-Dichloropropane	ND	1.0	µg/L	56	1,2,4-Trichlorobenzene	ND	4.0	µg/L
22	Trichloroethene	ND	1.0	µg/L	57	Naphthalene	ND	4.0	µg/L
23	Bromodichloromethane	ND	1.0	µg/L	58	Hexachlorobutadiene	ND	4.0	µg/L
24	cis-1,3-Dichloropropene	ND	1.0	µg/L	59	1,2,3-Trichlorobenzene	ND	4.0	µg/L
25	trans-1,3-Dichloropropene	ND	1.0	µg/L	60	Surr: 1,2-Dichloroethane-d4	124	(70-130)	%REC
26	1,1,2-Trichloroethane	ND	1.0	µg/L	61	Surr: Toluene-d8	92	(70-130)	%REC
27	Toluene	ND	1.0	µg/L	62	Surr: 4-Bromofluorobenzene	110	(70-130)	%REC
28	1,3-Dichloropropane	ND	1.0	µg/L					
29	Dibromochloromethane	ND	1.0	µg/L					
30	1,2-Dibromoethane (EDB)	ND	2.0	µg/L					
31	Tetrachloroethene	ND	1.0	µg/L					
32	1,1,1,2-Tetrachloroethane	ND	1.0	µg/L					
33	Chlorobenzene	ND	1.0	µg/L					

Some Reporting Limits were increased due to sample foaming.

ND

ND

ND = Not Detected

34 Ethylbenzene

35 m,p-Xylene

Roger Scholl

Kandy Saulmer

1.0

1.0

µg/L

µg/L

Walter Hirihm

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

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6/2/10

**Report Date** 



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

Alpha Analytical, Inc.

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#### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052504-05A Client I.D. Number: SS01SENA052510

Sampled:	05/25/10 09:25
Received:	05/25/10
Extracted:	05/28/10
Analyzed:	05/28/10

### Volatile Organics by GC/MS EPA Method SW8260B

				1 IVICUIC		02000			
	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND	20	µg/Kg
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/Kg
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	µg/Kg
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	µg/Kg
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	µg/Kg
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND	20	µg/Kg
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/Kg
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chiorotoluene	ND	20	µg/Kg
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/Kg
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/Kg
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	µg/Kg
13	Chioroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND	20	µg/Kg
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butylbenzene	ND	20	µg/Kg
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND	20	µg/Kg
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND	20	µg/Kg
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-Isopropyltoluene	ND	20	µg/Kg
18	Carbon tetrachloride	ND	20	µg/Kg	53	1,2-Dichlorobenzene	ND	20	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	20	µg/Kg
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	120	µg/Kg
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND	80	µg/Kg
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND	80	µg/Kg
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND	80	µg/Kg
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND	80	µg/Kg
25	trans-1,3-Dichloropropene	ND	20	µg/Kg	60	Surr: 1,2-Dichloroethane-d4	96	(70-130)	%REC
26	1,1,2-Trichloroethane	ND	20	µg/Kg	61	Surr: Toluene-d8	106	(70-130)	%REC
27	Toluene	ND	20	µg/Kg	62	Surr: 4-Bromofluorobenzene	98	(70-130)	%REC
28	1,3-Dichloropropane	ND	20	µg/Kg					
29	Dibromochloromethane	ND	20	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg					
31	Tetrachloroethene	ND	20	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg					
33	Chloroberizerie	ND	20	µg/Kg					
34	Ethylbenzene	ND	20	µg/Kg					
35	m,p-Xylene	ND	20	µg/Kg					

Sample results were calculated on a wet weight basis. ND = Not Detected

Roger Scholl

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.



**Report Date** 

Page 1 of 1



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Job: NTD Alpha Analytical Number: E2M10052504-06A

HDR | E2M

2365 Iron Point Road

Folsom, CA 95630

Client I.D. Number: SS02SENA052510

Sampled: 05/25/10 10:25 Received: 05/25/10 Extracted: 05/28/10 Analyzed: 05/28/10

### Volatile Organics by GC/MS EPA Method SW8260B

				I moule		02002			
	Compound C	oncentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	20	µg/Kg	36	Bromoform	ND	20	µg/Kg
2	Chloromethane	ND	80	µg/Kg	37	Styrene	ND	20	µg/Kg
3	Vinyl chloride	ND	20	µg/Kg	38	o-Xylene	ND	20	µg/Kg
4	Chloroethane	ND	20	µg/Kg	39	1,1,2,2-Tetrachloroethane	ND	20	µg/Kg
5	Bromomethane	ND	80	µg/Kg	40	1,2,3-Trichloropropane	ND	80	µg/Kg
6	Trichlorofluoromethane	ND	20	µg/Kg	41	Isopropylbenzene	ND	20	µg/Kg
7	1,1-Dichloroethene	ND	20	µg/Kg	42	Bromobenzene	ND	20	µg/Kg
8	Dichloromethane	ND	80	µg/Kg	43	n-Propylbenzene	ND	20	µg/Kg
9	trans-1,2-Dichloroethene	ND	20	µg/Kg	44	4-Chlorotoluene	ND	20	µg/Kg
10	1,1-Dichloroethane	ND	20	µg/Kg	45	2-Chlorotoluene	ND	20	µg/Kg
11	cis-1,2-Dichloroethene	ND	20	µg/Kg	46	1,3,5-Trimethylbenzene	ND	20	µg/Kg
12	Bromochloromethane	ND	20	µg/Kg	47	tert-Butylbenzene	ND	20	µg/Kg
13	Chloroform	ND	20	µg/Kg	48	1,2,4-Trimethylbenzene	ND	20	µg/Kg
14	2,2-Dichloropropane	ND	20	µg/Kg	49	sec-Butyibenzene	ND	20	µg/Kg
15	1,2-Dichloroethane	ND	20	µg/Kg	50	1,3-Dichlorobenzene	ND	20	µg/Kg
16	1,1,1-Trichloroethane	ND	20	µg/Kg	51	1,4-Dichlorobenzene	ND	20	µg/Kg
17	1,1-Dichloropropene	ND	20	µg/Kg	52	4-Isopropyltoluene	ND	20	µg/Kg
18	Carbon tetrachloride	ND	20	µg/Kg	53	1,2-Dichlorobenzene	ND	20	µg/Kg
19	Benzene	ND	20	µg/Kg	54	n-Butylbenzene	ND	20	µg/Kg
20	Dibromomethane	ND	20	µg/Kg	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	120	µg/Kg
21	1,2-Dichloropropane	ND	20	µg/Kg	56	1,2,4-Trichlorobenzene	ND	80	µg/Kg
22	Trichloroethene	ND	20	µg/Kg	57	Naphthalene	ND	80	µg/Kg
23	Bromodichloromethane	ND	20	µg/Kg	58	Hexachlorobutadiene	ND	80	µg/Kg
24	cis-1,3-Dichloropropene	ND	20	µg/Kg	59	1,2,3-Trichlorobenzene	ND	80	µg/Kg
25	trans-1,3-Dichloropropene	ND	20	µg/Kg	60	Surr: 1,2-Dichloroethane-d4	95	(70-130)	%REC
26	1,1,2-Trichloroethane	ND	20	µg/Kg	61	Surr: Toluene-d8	105	(70-130)	%REC
27	Toluene	ND	20	µg/Kg	62	Surr: 4-Bromofluorobenzene	100	(70-130)	%RÉC
28	1,3-Dichloropropane	ND	20	µg/Kg					
29	Dibromochloromethane	ND	20	µg/Kg					
30	1,2-Dibromoethane (EDB)	ND	80	µg/Kg					
31	Tetrachloroethene	ND	20	µg/Kg					
32	1,1,1,2-Tetrachloroethane	ND	20	µg/Kg					
33	Chlorobenzene	ND	20	µg/Kg					

Sample results were calculated on a wet weight basis. ND = Not Detected

34 Ethylbenzene

35 m,p-Xylene

Roger Scholl

ND

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

20 µg/Kg

20 µg/Kg

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/2/10

Report Date Page 1 of 1



Job:

2365 Iron Point Road Folsom, CA 95630

NTD

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### ANALYTICAL REPORT

Attn:	Clayton Mokri
Phone:	(916) 852-7792
Fax:	(916) 852-7836

Alpha Analytical Number: E2M10052504-07A Client I.D. Number: TB01GWNA052510

Sampled:	05/25/10 08:00
Received:	05/25/10
Extracted:	05/27/10
Analyzed:	05/27/10

### Volatile Organics by GC/MS EPA Method SW8260B

				A INICUI	JUSW	8200D			
	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	mit
1	Dichlorodifluoromethane	ND	1.0	µg/L	36	Bromoform	ND	1.0	µg/L
2	Chloromethane	ND	2.0	µg/L	37	Styrene	ND	1.0	µg/L
3	Vinyl chloride	ND	1.0	µg/L	38	o-Xylene	ND	1.0	µg/L
4	Chloroethane	ND	1.0	µg/L	39	1,1,2,2-Tetrachloroethane	ND	1.0	µg/L
5	Bromomethane	ND	2.0	µg/L	40	1,2,3-Trichloropropane	ND	2.0	µg/L
6	Trichlorofluoromethane	ND	1.0	μg/L	41	Isopropylbenzene	ND	1.0	µg/L
7	1,1-Dichloroethene	ND	1.0	µg/L	42	Bromobenzene	ND	1.0	µg/L
8	Dichloromethane	ND	2.0	µg/L	43	n-Propylbenzene	ND	1.0	µg/L
9	trans-1,2-Dichloroethene	ND	1.0	µg/L	44	4-Chlorotoluene	ND	1.0	µg/L
10	1,1-Dichloroethane	ND	1.0	µg/L	45	2-Chlorotoluene	ND	1.0	µg/L
11	cis-1,2-Dichloroethene	ND	1.0	µg/L	46	1,3,5-Trimethylbenzene	ND	1.0	µg/L
12	Bromochloromethane	ND	1.0	µg/L	47	tert-Butylbenzene	ND	1.0	µg/L
13	Chloroform	ND	1.0	µg/L	48	1,2,4-Trimethylbenzene	ND	1.0	µg/L
14	2,2-Dichloropropane	ND	1.0	µg/L	49	sec-Butylbenzene	ND	1.0	µg/L
15	1,2-Dichloroethane	ND	1.0	µg/L	50	1,3-Dichlorobenzene	ND	1.0	µg/L
16	1,1,1-Trichloroethane	ND	1.0	µg/L	51	1,4-Dichlorobenzene	ND	1.0	µg/L
17	1,1-Dichloropropene	ND	1.0	µg/L	52	4-Isopropyltoluene	ND	1.0	µg/L
18	Carbon tetrachloride	ND	1.0	µg/L	53	1,2-Dichlorobenzene	ND	1.0	µg/L
19	Benzene	ND	1.0	µg/L	54	n-Butylbenzene	ND	1.0	µg/L
20	Dibromomethane	ND	1.0	µg/L	55	1,2-Dibromo-3-chloropropane (DBC	P) ND	3.0	µg/L
21	1,2-Dichloropropane	ND	1.0	µg/L	56	1,2,4-Trichlorobenzene	ND	2.0	µg/L
22	Trichloroethene	ND	1.0	µg/L	57	Naphthalene	ND	2.0	µg/L
23	Bromodichloromethane	ND	1.0	µg/L	58	Hexachlorobutadiene	ND	2.0	µg/L
24	cis-1,3-Dichloropropene	ND	1.0	µg/L	59	1,2,3-Trichlorobenzene	ND	2.0	µg/L
25	trans-1,3-Dichloropropene	ND	1.0	µg/L	60	Surr: 1,2-Dichloroethane-d4	126	(70-130)	%REC
26	1,1,2-Trichloroethane	ND	1.0	µg/L	61	Surr: Toluene-d8	92	(70-130)	%REC
27	Toluene	ND	1.0	µg/L	62	Surr: 4-Bromofluorobenzene	109	(70-130)	%REC
28	1,3-Dichloropropane	ND	1.0	µg/L					
29	Dibromochloromethane	ND	1.0	µg/L					
30	1,2-Dibromoethane (EDB)	ND	2.0	µg/L					
31	Tetrachloroethene	ND	1.0	µg/L					
32	1,1,1,2-Tetrachloroethane	ND	1.0	µg/L					
33	Chlorobenzene	ND	1.0	µg/L					
34	Ethylbenzene	ND	1.0	µg/L					
~ -				·					

ND = Not Detected

35 m,p-Xylene

Roger Scholl

ND

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

1.0

µg/L

Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

6/2/10

Report Date Page 1 of 1



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

# VOC Sample Preservation Report

Work Order: E2M10052504	Job: NTD			
Alpha's Sample ID	Client's Sample ID	Matrix	pН	
10052504-04A	SB03GW17052510	Aqueous	2	
10052504-07A	TB01GWNA052510	Aqueous	2	

## 6/2/10 Report Date



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

<b>Date:</b> 02-Jun-10	QC Summary Report									<b>Work Orde</b> 10052504	
Method Blan File ID: 21			Туре М	Ba	est Code: El atch ID: 243	38	hod 300.0	-		05/26/2010 14:03	
Sample ID:	MB-24338	Units : mg/L			_1_1005264			Prep		05/26/2010 12:49	<b>•</b> •
Analyte		Result	PQL		SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qual
Fluoride		ND	0.25								
Chloride Nitrite (NO2) - I	N	ND ND	0.5 0.25								
Nitrate (NO3) -		ND	0.25								
Sulfate (SO4)		ND	0.20								
Laboratory	Fortified Blank		Type L	FB Te	est Code: El	PA Met	hod 300.0				
File ID: 22				Ba	atch ID: 243	38		Analy	sis Date:	05/26/2010 14:21	
Sample ID:	LFB-24338	Units : mg/L		Run ID: IC	1_100526	4		Prep	Date:	05/26/2010 12:49	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qual
Fluoride		4.59	0.25	5		92	90	110			
Chloride		51.5	0.5	50		103	90	110			
Nitrite (NO2) -		4.85	0.25			97	90	110			
Nitrate (NO3) -	N	5.07	0.25			101	90	110			
Sulfate (SO4)		103	0.5	100		103	90	110			
Sample Mat	rix Spike		Type L	FM Te	est Code: El	PA Met	hod 300.0				
File ID: 34				Ba	atch ID: 243	38		,		05/26/2010 18:03	
Sample ID:	10052504-04ALFM	Units : mg/L			_1_100526/			Prep		05/26/2010 12:49	
Analyte	····	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qual
Fluoride		8.85	0.25	10	0	88	80	120			
Chloride		173	0.5		79.84	93	80	120		·	
Nitrite (NO2) -		10.3	0.25		0	103	80	120			
Nitrate (NO3) - Sulfate (SO4)	<sup>1</sup> N	10.3 339	0.25 0.5		0 155.4	103 92	80 80	120 120			
File ID: 35	rix Spike Duplicate		Type L	•	est Code: El atch ID: 243		noa 300.0		sis Date <sup>.</sup>	05/26/2010 18:22	
Sample ID:	10052504-04ALFMD	Units : mg/L			_1_1005264	-		Prep		05/26/2010 12:49	
Analyte		Result	PQL				LCL(ME)	•		/al %RPD(Limit)	Qual
Fluoride	······	8.75	0.25		0	87	80	120	8.845		
Chloride		176	0.20		79.84	96	80	120	172.9	· · ·	
Nitrite (NO2) -	N	9.36	0.25		0	94	80	120	10.3	· · /	
Nitrate (NO3) -	N	10.5	0.25	-	0	105	80	120	10.28	3 2.6(15)	
Sulfate (SO4)		345	0.5	200	155.4	95	80	120	339.1	1 1.6(15)	

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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<b>Date:</b> 02-Jun-10	(	<b>Work Order:</b> 10052504						
Method Blank File ID: 10052810.D		Type: MI		est Code: EPA Meth atch ID: 24347	nod SW8(		05/28/2010 14:18	
Sample ID: MBLK-24347	Units : µg/Kg	g F	Run ID: EC	CD_1_100527B		Prep Date:	05/27/2010 15:43	
Analyte	Result	PQL	SpkVal	SpkRefVal %REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qua
alpha-BHC	ND	1.7						
gamma-BHC (Lindane)	ND	1.7						
beta-BHC	ND	1.7						
delta-BHC	ND	1.7						
Heptachlor	ND	1.7						
Aldrin	ND	1.7						
Heptachlor epoxide	ND	1.7						
Endosulfan I	ND	1.7						
4,4'-DDE	ND	3.3						
Dieldrin	ND	3.3						
Endrin	ND	3.3						
4,4´-DDD	ND	3.3						
Endosulfan II	ND	3.3						
Endrin aldehyde	ND	3.3						
4,4´-DDT	ND	3.3						
Endosulfan sulfate	ND	3.3						
Methoxychlor	ND	17						
Endrin ketone	ND	3.3						
Toxaphene	ND	170						
Chlordane (Technical)	ND	33						
Surr: Tetrachloro-m-xylene	18.3		20	92	30	130		
Surr: Decachlorobiphenyl	19.2		20	96	34	142		
Laboratory Control Spike		Type: LC		est Code: EPA Meth	nod SW8(			
File ID: 10052811.D			Ba	atch ID: 24347		Analysis Date:	05/28/2010 14:30	
Sample ID: LCS-24347	Units : µg/Kg	g F	Run ID: EC	CD_1_100527B		Prep Date:	05/27/2010 15:43	
Analyte	Result	PQL	SpkVal	SpkRefVal %REC	LCL(ME)	UCL(ME) RPDRef	/al %RPD(Limit)	Qua
alpha-BHC	16.9	1.7	20	85	62	130		
gamma-BHC (Lindane)	18.9	1.7	20	95	61	130		
beta-BHC	19.4	1.7	20	97	52	130		
delta-BHC	17.8	1.7	20	89	59	130		
Heptachlor	18.8	1.7	20	94	64	130		
Aldrin	18.4	1.7	20	92	58	130		
Heptachlor epoxide	19.8	1.7	20	99	59	130		
Endosulfan I	10.8	1,7	20	54	38	130		
4,4'-DDE	18.3	3.3	20	92	70	130		
Dieldrin	17.6	3.3	20	88	68	130		
Endrin	18.2	3.3	20	91	41	130		
4,4´-DDD	19.9	3.3	20	99.6	62	130		
Endosulfan II	13.2	3.3	20	66	51	130		
4,4'-DDT	17.9	3.3	20	90	66	130		
Endosulfan sulfate	19	3.3	20	95	70	130		
Methoxychlor	20	17	20	100	68	130		
Endrin ketone	20.3	3.3	20	<b>1</b> 01	62	130		
Comment of the second s								
Surr: Tetrachloro-m-xylene Surr: Decachlorobiphenyl	18.9 19.5		20 20	95 98	30 34	130 142		

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QC Summary Report								Work Order: 10052504			
	Type: LCSD Test Code: EPA Method SW8							8081A			
		B	atch ID: 24347			Analy	sis Date:	05/28/2010 14:41			
Units : ua/Ka		Run ID: <b>F(</b>	CD 1 100527B			Prep	Date:	05/27/2010 15:43			
									Qua		
		· · ·									
								• •			
								• •			
								• •			
					-						
			-	-							
			-					• •			
20.9	3.3		1	04	62						
13.5	3.3	20	6	67	51						
18.9	3.3	20	ç	95	66	130	17.9	5.7(20)			
19.6	3.3	20	9	98	70	130	19.03	3.1(20)			
20.7	17	20	1	04	68	130	20.01	3.4(20)			
20.5	3.3	20	1	02	62	130	20.28	3 1.0(20)			
18		20	g	90	30	130					
19		20	ç	95	34	142					
	Type: M	S T	est Code: EPA	Method	I SW80	)81A					
		Ba	atch ID: 24347			Analy	sis Date:	05/28/2010 16:37			
Units : µg/Kg	<b>)</b>	Run ID: EC	CD_1_100527B			Prep	Date:	05/27/2010 15:43			
Result	PQL	SpkVal	SpkRefVal %F	REC LC	L(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua		
18.6	5.1	20	0 9	3	22	130					
19.8											
18.2				)1							
17.4		-									
	-		-	-							
		-		_							
				-					M2		
									1112		
15.8											
5 X	51	20	0 2	29	20	141					
14.9	9.9	20		4	20	130					
	9.9	20 20 20	8	74 81 95	20 30 34	130 130 142					
	Units : µg/Kg Result 17.4 19.5 19.5 18.3 18.9 19.1 20.6 11.7 19 18 18.8 20.9 13.5 18.9 19.6 20.7 20.5 18 19 Units : µg/Kg Result 18.6 19.8	Type: LC           Type: LC           Units : µg/Kg           Result         PQL           17.4         1.7           19.5         1.7           19.5         1.7           18.3         1.7           19.1         1.7           20.6         1.7           11.7         1.7           19         3.3           18         3.3           18.8         3.3           20.9         3.3           13.5         3.3           19.6         3.3           20.7         17           20.5         3.3           18.9         3.3           19.6         3.3           20.7         17           20.5         3.3           18.9         3.3           19.6         3.3           19.6         3.3           19.7         17           20.5         3.3           18.9         3.3           18.5         1           19.8         5.1           18.5         1           17.4         5.1           18.51 <td>Type: LCSD         Translow           Units: µg/Kg         Run ID: EC           Result         PQL         SpkVal           17.4         1.7         20           19.5         1.7         20           19.5         1.7         20           18.3         1.7         20           18.3         1.7         20           19.5         1.7         20           18.3         1.7         20           19.1         1.7         20           11.7         10         20.6           11.7         10         20           11.7         1.7         20           11.7         1.7         20           11.7         1.7         20           11.7         1.7         20           11.7         1.7         20           11.7         1.7         20           11.7         1.7         20           11.7         1.7         20           11.7         1.7         20           20.5         3.3         20           18.8         3.3         20           19         20         20</td> <td>Type: LCSD         Test Code: EPA Batch ID: 24347           Units:         <math>\mu g/Kg</math>         Run ID: ECD_1_100527B           Result         PQL         SpkVal         SpkRefVal %F           17.4         1.7         20         6           19.5         1.7         20         6           19.5         1.7         20         6           18.3         1.7         20         6           18.9         1.7         20         6           18.9         1.7         20         6           19.1         1.7         20         6           19.3         20         6         6           19         3.3         20         6           18.8         3.3         20         6           18.8         3.3         20         6           18.9         3.3         20         6           19.6         3.3         20         6           20.7         17         20         1           20.5         3.3         20         6           19.6         3.3         20         6           19.6         3.3</td> <td>Type: LCSD         Test Code: EPA Method Batch ID: 24347           Units : µg/Kg         Run ID: ECD_1_100527B           Result         PQL         SpkVal         SpkRefVal %REC LC           17.4         1.7         20         87           19.5         1.7         20         97           19.5         1.7         20         98           18.3         1.7         20         94           19.5         1.7         20         95           20.6         1.7         20         95           20.6         1.7         20         95           18.3         3.20         96         96           13.5         3.3         20         94           20.9         3.3         20         94           20.9         3.3         20         94           20.9         3.3         20         96           19.6         3.3         20         96           19.6         3.3         20         98           20.7         17         20         104           20.5         3.3         20         90           19         20</td> <td>Type: LCSD         Test Code: EPA Method SW80 Batch ID: 24347           Units : µg/Kg         Run ID: ECD_1_100527B           Result         PQL         SpkVal         SpkRefVal         %REC LCL(ME)           17.4         1.7         20         87         62           19.5         1.7         20         97         61           19.5         1.7         20         98         52           18.3         1.7         20         94         64           19.1         1.7         20         95         58           20.6         1.7         20         95         70           18         3.3         20         95         70           18         3.3         20         94         41           20.9         3.3         20         94         41           20.9         3.3         20         94         41           20.9         3.3         20         94         41           20.9         3.3         20         94         41           20.9         3.3         20         95         66           19.6         3.3         20         9</td> <td>Type: LCSD         Test Code: EPA Method SW8081A Batch ID: 24347         Analy Batch ID: 24347         Analy           Units : µg/Kg         Run ID: ECD_1_100527B         Prep           Result         PQL         SpkVal SpkRefVal %REC LCL(ME) UCL(ME)           17.4         1.7         20         97         61         130           19.5         1.7         20         98         52         130           18.3         1.7         20         94         64         130           19.1         1.7         20         95         58         130           19.1         1.7         20         95         70         130           18.9         1.7         20         95         70         130           18.3         1.7         20         95         70         130           18.3         3.20         94         41         130           20.9         3.3         20         94         41         130           20.9         3.3         20         96         66         130           18.8         3.3         20         96         66         130</td> <td>Type: LCSD         Test Code: EPA Method SW8081A Batch ID: 24347         Analysis Date:           Units : µg/Kg         Run ID: ECD_1_100527B         Prep Date:           Result         PQL         SpkVal         SpkRefVal %REC         LCL(ME)         UCL(ME)         RPDRef           17.4         1.7         20         87         62         130         16.9           19.5         1.7         20         97         61         130         18.9'           19.5         1.7         20         92         59         130         17.7'           18.9         1.7         20         94         64         130         18.3'           20.6         1.7         20         103         59         130         17.5'           19         3.3         20         95         70         130         18.3'           11.7         1.7         20         94         41         130         18.2'           20.9         3.3         20         94         130         18.2'         13.1'''           13.5         3.3         20         95         66         130         17.9''''           13.5         3.3</td> <td>UC Summary Report         10052:50           Type: LCSD         Test Code: EPA Method SW8081A           Batch ID: 24347         Analysis Date: 05/28/2010 14:41           Units : µg/Kg         Run ID: ECD_1 100527B         Prep Date: 05/28/2010 14:41           Result         PQL         SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)           17.4         1.7         20         97         61         130         16.9         2.9(20)           19.5         1.7         20         92         59         130         17.75         3.2(20)           18.3         1.7         20         92         59         130         18.7         3.8(20)           20.6         1.7         20         95         58         130         18.3         3.4(20)           11.7         1.7         20         95         58         130         18.3         3.8(20)           20.6         1.7         20         103         59         130         18.3         3.8(20)           11.7         1.7         20         95         56         130         17.7         2.6(20)           11.7         <td< td=""></td<></td>	Type: LCSD         Translow           Units: µg/Kg         Run ID: EC           Result         PQL         SpkVal           17.4         1.7         20           19.5         1.7         20           19.5         1.7         20           18.3         1.7         20           18.3         1.7         20           19.5         1.7         20           18.3         1.7         20           19.1         1.7         20           11.7         10         20.6           11.7         10         20           11.7         1.7         20           11.7         1.7         20           11.7         1.7         20           11.7         1.7         20           11.7         1.7         20           11.7         1.7         20           11.7         1.7         20           11.7         1.7         20           11.7         1.7         20           20.5         3.3         20           18.8         3.3         20           19         20         20	Type: LCSD         Test Code: EPA Batch ID: 24347           Units: $\mu g/Kg$ Run ID: ECD_1_100527B           Result         PQL         SpkVal         SpkRefVal %F           17.4         1.7         20         6           19.5         1.7         20         6           19.5         1.7         20         6           18.3         1.7         20         6           18.9         1.7         20         6           18.9         1.7         20         6           19.1         1.7         20         6           19.3         20         6         6           19         3.3         20         6           18.8         3.3         20         6           18.8         3.3         20         6           18.9         3.3         20         6           19.6         3.3         20         6           20.7         17         20         1           20.5         3.3         20         6           19.6         3.3         20         6           19.6         3.3	Type: LCSD         Test Code: EPA Method Batch ID: 24347           Units : µg/Kg         Run ID: ECD_1_100527B           Result         PQL         SpkVal         SpkRefVal %REC LC           17.4         1.7         20         87           19.5         1.7         20         97           19.5         1.7         20         98           18.3         1.7         20         94           19.5         1.7         20         95           20.6         1.7         20         95           20.6         1.7         20         95           18.3         3.20         96         96           13.5         3.3         20         94           20.9         3.3         20         94           20.9         3.3         20         94           20.9         3.3         20         96           19.6         3.3         20         96           19.6         3.3         20         98           20.7         17         20         104           20.5         3.3         20         90           19         20	Type: LCSD         Test Code: EPA Method SW80 Batch ID: 24347           Units : µg/Kg         Run ID: ECD_1_100527B           Result         PQL         SpkVal         SpkRefVal         %REC LCL(ME)           17.4         1.7         20         87         62           19.5         1.7         20         97         61           19.5         1.7         20         98         52           18.3         1.7         20         94         64           19.1         1.7         20         95         58           20.6         1.7         20         95         70           18         3.3         20         95         70           18         3.3         20         94         41           20.9         3.3         20         94         41           20.9         3.3         20         94         41           20.9         3.3         20         94         41           20.9         3.3         20         94         41           20.9         3.3         20         95         66           19.6         3.3         20         9	Type: LCSD         Test Code: EPA Method SW8081A Batch ID: 24347         Analy Batch ID: 24347         Analy           Units : µg/Kg         Run ID: ECD_1_100527B         Prep           Result         PQL         SpkVal SpkRefVal %REC LCL(ME) UCL(ME)           17.4         1.7         20         97         61         130           19.5         1.7         20         98         52         130           18.3         1.7         20         94         64         130           19.1         1.7         20         95         58         130           19.1         1.7         20         95         70         130           18.9         1.7         20         95         70         130           18.3         1.7         20         95         70         130           18.3         3.20         94         41         130           20.9         3.3         20         94         41         130           20.9         3.3         20         96         66         130           18.8         3.3         20         96         66         130	Type: LCSD         Test Code: EPA Method SW8081A Batch ID: 24347         Analysis Date:           Units : µg/Kg         Run ID: ECD_1_100527B         Prep Date:           Result         PQL         SpkVal         SpkRefVal %REC         LCL(ME)         UCL(ME)         RPDRef           17.4         1.7         20         87         62         130         16.9           19.5         1.7         20         97         61         130         18.9'           19.5         1.7         20         92         59         130         17.7'           18.9         1.7         20         94         64         130         18.3'           20.6         1.7         20         103         59         130         17.5'           19         3.3         20         95         70         130         18.3'           11.7         1.7         20         94         41         130         18.2'           20.9         3.3         20         94         130         18.2'         13.1'''           13.5         3.3         20         95         66         130         17.9''''           13.5         3.3	UC Summary Report         10052:50           Type: LCSD         Test Code: EPA Method SW8081A           Batch ID: 24347         Analysis Date: 05/28/2010 14:41           Units : µg/Kg         Run ID: ECD_1 100527B         Prep Date: 05/28/2010 14:41           Result         PQL         SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)           17.4         1.7         20         97         61         130         16.9         2.9(20)           19.5         1.7         20         92         59         130         17.75         3.2(20)           18.3         1.7         20         92         59         130         18.7         3.8(20)           20.6         1.7         20         95         58         130         18.3         3.4(20)           11.7         1.7         20         95         58         130         18.3         3.8(20)           20.6         1.7         20         103         59         130         18.3         3.8(20)           11.7         1.7         20         95         56         130         17.7         2.6(20)           11.7 <td< td=""></td<>		

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.

Sample data was verified by second column confirmation.



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<b>Date:</b> 02-Jun-10	Ç	<b>Work Order:</b> 10052504								
Method Blank File ID: 10052712.D	······································	Туре: №		est Code: EPA atch ID: 24347		hod SW808		Date:	05/27/2010 20:48	
Sample ID: MBLK-24347	Units : µg/Kg		Run ID: EC	D_1_100527	A		Prep Date	e:	05/27/2010 15:43	
Analyte	Result	PQL	SpkVal	SpkRefVal %	REC	LCL(ME) U	CL(ME) RP	DRef	val %RPD(Limit)	Qual
Aroclor 1016 Aroclor 1221	ND ND	33 33	i							
Aroclor 1232 Aroclor 1242 Aroclor 1248	ND ND ND	33 33 33	i							
Aroclor 1254 Aroclor 1254 Aroclor 1260		33 33 33	i							
Surr: Tetrachloro-m-xylene Surr: Decachlorobiphenyl	19.7 20.7		20 20		98 104	30 34	130 142			
Laboratory Control Spike	-	Type: L	CS Te	est Code: EPA	Met	hod SW808	2			
File ID: 10052713.D			Ва	tch ID: 24347	Α		Analysis I	Date:	05/27/2010 21:00	
Sample ID: LCS-24347	Units : µg/Kg		Run ID: EC	D_1_100527	A		Prep Date	e:	05/27/2010 15:43	
Analyte	Result	PQL	SpkVal	SpkRefVal %	REC	LCL(ME) U	CL(ME) RP	DRef	val %RPD(Limit)	Qual
Aroclor 1232	451	33			113	51	131			
Surr: Tetrachloro-m-xylene	21.1		20		105	30	130			
Surr: Decachlorobiphenyl	22.2		20		111	34	142			
Laboratory Control Spike Duplicate		Type: L		est Code: EPA		hod SW808	_			
File ID: 10052714.D Sample ID: LCSD-24347				itch ID: 24347			-		05/27/2010 21:12	
Sample ID: LCSD-24347 Analyte	Units : µg/Kg			D_1_100527			Prep Date		05/27/2010 15:43	0
	Result	PQL							Val %RPD(Limit)	Qual
Aroclor 1232 Surr: Tetrachloro-m-xvlene	462 20.3	33	400 20		115 102	51 30	131 130	451.4	4 2.2(20)	
Surr: Decachlorobiphenyl	20.5		20		102	30 34	142			
Sample Matrix Spike		Type: N	I <b>S</b> Te	est Code: EPA	Met	hod SW808	2			
File ID: 10052718.D			-	itch ID: 24347				Date:	05/27/2010 21:58	
Sample ID: 10052504-06AMS	Units : µg/Kg			D_1_100527			Prep Date		05/27/2010 15:43	
Analyte	Result	PQL				LCL(ME) U	•		val %RPD(Limit)	Qual
Aroclor 1232	402	33	400	. 0	101	20	147		······································	
Surr: Tetrachloro-m-xylene	18.7		20	-	94	30	130			
Surr: Decachlorobiphenyl	17		20		85	34	142			

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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Date: 02-Jun-10 QC Summary Report							<b>Work Order:</b> 10052504		
Laboratory Control Spike File ID:		Type L		est Code: SM23208 atch ID: W0602AL	3	Analysis Date:	06/02/2010 11:38		
Sample ID: LCS-W0602AL	Units : mg/L		Run ID: W	ETLAB_100602A		Prep Date:	06/02/2010 11:38		
Analyte	Result	PQL	SpkVal	SpkRefVal %REC	LCL(ME	) UCL(ME) RPDRef	Val %RPD(Limit)	Qual	
Alkalinity, Total (As CaCO3 at pH 4.5)	258	10	) 250	103	80	120			

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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<b>Date:</b> 02-Jun-10	(	QC Summary Report											
Method Blank File ID:	······································	Type I		est Code: SI atch ID: W0!		NH3D	Analy	sis Date:	05/21/2010 11:38				
Sample ID: MBLK-W0521AM	Units : mg/L		Run ID: W	ETLAB_100	521F		Prep	Date:	05/21/2010 11:38				
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua			
Nitrogen, Ammonia (As N)	ND	0.1	1										
Laboratory Control Spike		Туре І	_CS T	est Code: SI	M4500-	NH3D							
File ID:			В	atch ID: W0	521 AM		Analy	sis Date:	05/21/2010 11:35				
Sample ID: LCS-W0521AM	Units : mg/L		Run ID: W	ETLAB_100	)521F		Prep	Date:	05/21/2010 11:35				
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qua			
Nitrogen, Ammonia (As N)	5.07	0.1	1 5		101	70	130						
Sample Matrix Spike		Туре І	NS T	est Code: S	M4500-	NH3D							
File ID:			В	atch ID: WO	521 <b>AM</b>		Analy	sis Date:	05/21/2010 11:45				
Sample ID: 10052020-03AMS	Units : <b>mg/L</b>		Run ID: W	ETLAB_100	)521F		Prep	Date:	05/21/2010 11:45				
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	val %RPD(Limit)	Qua			
Nitrogen, Ammonia (As N)	4.72	0.	1 5	0	94	65	138						
Sample Matrix Spike Duplicate		Туре І	NSD T	est Code: S	M4500-	NH3D							
File ID:			В	atch ID: WO	521AM		Analy	sis Date:	05/21/2010 11:51				
Sample ID: 10052020-03AMSD	Units : mg/L		Run ID: W	ETLAB_100	)521F		Prep	Date:	05/21/2010 11:51				
Analyte	Result	PQL				LCL(ME)	UCL(ME)	<b>RPDRef</b>	√al %RPD(Limit)	Qua			
Nitrogen, Ammonia (As N)	4.91	0.1	1 5	0	98	65	138	4.72	4.0(20)				

Comments:



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01-Jun-10	(	<u>2C Su</u>	nmary Report	·			Work Orde 10052504	
Method Blank		Туре МВ	LK Test Code: EP	A Meth	nod SW8270	C		ī
File ID: 10052707.D			Batch ID: 2434	3		Analysis Date:	05/27/2010 19:53	
Sample ID: MBLK-24343	Units : µg/Kg	, R	un ID: MSD_06_1005	27C		Prep Date:	05/27/2010 11:06	
Analyte	Result	PQL	SpkVal SpkRefVal 9	%REC	LCL(ME) U	CL(ME) RPDRef\	/al %RPD(Limit)	Qua
Phenol	ND	660	<u></u>			-		
2-Chlorophenol	ND	660						
Bis(2-chloroethyl)ether 1,3-Dichlorobenzene	ND ND	660 1300						
1,3-Dichlorobenzene	ND	1300						
1,2-Dichlorobenzene	ND	1300						
Bis(2-chloroisopropyl)ether	ND	660						
N-Nitrosodi-n-propylamine	ND	660						
Hexachloroethane	ND	1300						
Nitrobenzene Isophorone	ND ND	660 660						
2-Nitrophenol	ND	660						
2,4-Dimethylphenol	ND	660						
Bis(2-chloroethoxy)methane	ND	660						
2,4-Dichlorophenol	ND	660						
1,2,4-Trichlorobenzene Naphthalene	ND ND	660 660						
4-Chloro-3-methylphenol	ND	1300						
Hexachlorobutadiene	ND	1300						
Hexachlorocyclopentadiene	ND	6600						
2,4,6-Trichlorophenol	ND	660						
2-Chloronaphthalene	ND	660						
Dimethyl phthalate Acenaphthylene	ND ND	660 660						
2.6-Dinitrotoluene	ND	660						
Acenaphthene	ND	660						
2,4-Dinitrophenol	ND	6600						
4-Nitrophenol	ND	3300						
2,4-Dinitrotoluene	ND	660						
Diethyl phthalate Fluorene	ND ND	660 660						
4-Chlorophenyl phenyl ether	ND	660						
4,6-Dinitro-2-methylphenol	ND	6600						
N-Nitrosodiphenylamine	ND	660						
4-Bromophenyl phenyl ether	ND	660						
Hexachlorobenzene Pentachlorophenol	ND ND	660 3300						
Phenanthrene	ND	660						
Anthracene	ND	660						
Di-n-butyl phthalate	ND	3300						
Fluoranthene	ND	660						
Pyrene Rutul bonzul obtibalato	ND ND	660 1200						
Butyl benzyl phthalate Benzo(a)anthracene	ND	1300 660						
3,3'-Dichlorobenzidine	ND	1300						
Chrysene	ND	660						
Bis(2-ethylhexyl)phthalate	ND	3300						
Di-n-octyl phthalate	ND	3300						
Benzo(b)fluoranthene Benzo(k)fluoranthene	ND ND	660 660						
Benzo(a)pyrene	ND	660						
Indeno(1,2,3-cd)pyrene	ND	660						
Dibenz(a,h)anthracene	ND	660						
Benzo(g,h,i)perylene	ND	660	40500	70	67	101		
Surr: 2-Fluorophenol Surr: Phenol-d5	9100 9620		12500 12500	73 77	67 60	131 133		
Surr: Nitrobenzene-d5	9620 4970		6250	80	54	135		
Surr: 2-Fluorobiphenyl	4860		6250	78	70	130		
Surr: 2,4,6-Tribromophenol	9460		12500	76	44	151		
Surr: 4-Terphenyl-d14	4430		6250	71	59	139		



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<b>Date:</b> 01-Jun-10		Ç	C Si	ımmar	y Report	t				Work Order 10052504	
	Control Spike		Type L	CS TO	est Code: EP	A Met	hod SW82	270C			
File ID: 100527					atch ID: 2434	3		Analy	sis Date:	05/27/2010 20:18	
	LCS-24343	Units : µg/Kg			SD_06_1005			Prep		05/27/2010 11:06	
Analyte	200 24040	Result	PQL					-		/al %RPD(Limit)	Qua
-		·			эрккегчаг						<u> </u>
Phenol		4950	660	6250		79	53	130			
2-Chlorophenol 1,4-Dichloroben		4680	660	6250		75 74	70 64	130 130			
N-Nitrosodi-n-pr		4630 4870	1300 660	6250 6250		74 78	04 70	130			
1,2,4-Trichlorob		4830	660	6250		77	58	133			
4-Chloro-3-meth		5230	1300	6250		84	40	140			
Acenaphthene		4880	660	6250		78	70	130			
4-Nitrophenol		21100	3300	25000		84	30	136			
2,4-Dinitrotoluer		5500	660	6250		88	70	130			
Pentachlorophe	enol	20000	3300	25000		80	53	140			
Pyrene		5020	660	6250		80	67	137			
Surr: 2-Fluoroph		9670		12500		77	67	131			
Surr: Phenol-d5 Surr: Nitrobenze	-	10000		12500		80	60	133			
Surr: 2-Fluorobi		5170 5030		6250 6250		83 80	54 70	135 130			
Surr: 2,4,6-Tribr		11400		12500		91	44	150			
Surr: 4-Terphen		4540		6250		73	59	139			
					est Code: EP						
File ID: 100527	Control Spike Duplicate		Type L(		atch ID: 2434		100 3440		eie Dato:	05/27/2010 20:44	
	LCSD-24343	Lipito :						Prep		05/27/2010 11:06	
Analyte	LC30-24343	Units : µg/Kg Result	PQL		SD_06_1005			-		/al %RPD(Limit)	Qua
					Spkreival						
Phenol		5020	660	6250		80	53	130 130	4946 4684		
2-Chlorophenol 1,4-Dichloroben		4750 4600	660	6250 6250		76 74	70 64	130	4664	· · ·	
N-Nitrosodi-n-pr		4840	1300 660	6250		77	70	137	4873		
1,2,4-Trichlorob		4790	660	6250		77	58	133	4833		
4-Chloro-3-meth		5270	1300	6250		84	40	140	5229		
Acenaphthene		4830	660	6250		77	70	130	4884		
4-Nitrophenol		21500	3300	25000		86	30	136	2112	0 1.9(40)	
2,4-Dinitrotolue		5500	660	6250		88	70	130	5498		
Pentachlorophe	enol	20300	3300	25000		81	53	140	1995		
Pyrene		5200	660	6250		83	67	137	5019	3.6(31)	
Surr: 2-Fluoroph		8660		12500		69 70	67 60	131			
Surr: Phenol-d5 Surr: Nitrobenze		9070		12500		73 75	60 54	133 135			
Surr: 2-Fluorobi		4700 4530		6250 6250		75	54 70	130			
Surr: 2,4,6-Tribr		10300		12500		83	44	150			
Surr: 4-Terphen	•	4510		6250		72	59	139			
			Туре М		est Code: EP		hod SW8	700			
Sample Matr File ID: 100527			iype iw	-	atch ID: 2434				sis Data	05/27/2010 22:00	
Sample ID:	10052504-06AMS	Units : µg/Kg						Prep		05/27/2010 11:06	
Analyte	10032304-0041413	Result			SD_06_1005			•		/al %RPD(Limit)	Qua
			PQL	•			-		REDREN		
Phenol 2-Chlorophenol		3670	660	6250	0	59	11	138			
2-Chiorophenoi 1,4-Dichloroben		3510	660	6250	0	56 55	38 60	142 130			M2
		3410	1300	6250	0						M2
N-Nitrosodi-n-pr		3640	660	6250	0	58	62	146			
1,2,4-Trichlorob		3340	660	6250	0	53	58	133			M2
	hylphenol	3500	1300	6250	0	56	10	146			
4-Chloro-3-meth			660	6250	0	58	58 10	138			
Acenaphthene		3610				52	10	149			
Acenaphthene 4-Nitrophenol		13100	3300	25000	0			4 4 2			
Acenaphthene 4-Nitrophenol 2,4-Dinitrotoluer	ne	13100 3870	3300 660	6250	0	62	48	143 162			
Acenaphthene 4-Nitrophenol 2,4-Dinitrotoluer Pentachlorophe	ne	13100 3870 14400	3300 660 3300	6250 25000	0	62 58	48 10	162			
Acenaphthene 4-Nitrophenol 2,4-Dinitrotoluer Pentachlorophe Pyrene	ne enol	13100 3870 14400 3740	3300 660	6250 25000 6250	0	62 58 60	48 10 46	162 152			S54
Acenaphthene 4-Nitrophenol 2,4-Dinitrotoluer Pentachlorophe Pyrene Surr: 2-Fluoroph	ne enol henol	13100 3870 14400 3740 5250	3300 660 3300	6250 25000 6250 12500	0	62 58 60 42	48 10 46 67	162 152 131			
Acenaphthene 4-Nitrophenol 2,4-Dinitrotoluer Pentachlorophe Pyrene Surr: 2-Fluoroph Surr: Phenol-d5	ne enol 5	13100 3870 14400 3740 5250 6130	3300 660 3300	6250 25000 6250 12500 12500	0	62 58 60 42 49	48 10 46 67 60	162 152 131 133			S54
Acenaphthene 4-Nitrophenol 2,4-Dinitrotoluer Pentachlorophe Pyrene Surr: 2-Fluoroph Surr: Phenol-d5 Surr: Nitrobenze	ne enol 5 ene-d5	13100 3870 14400 3740 5250 6130 3060	3300 660 3300	6250 25000 6250 12500 12500 6250	0	62 58 60 42 49 49	48 10 46 67 60 54	162 152 131 133 135			S54 S54 S54
Acenaphthene 4-Nitrophenol 2,4-Dinitrotoluer Pentachlorophe Pyrene Surr: 2-Fluoroph Surr: Phenol-d5 Surr: Nitrobenze Surr: 2-Fluorobi	ne enol 5 ene-d5 iphenyl	13100 3870 14400 3740 5250 6130 3060 3280	3300 660 3300	6250 25000 6250 12500 12500 6250 6250	0	62 58 60 42 49 49 52	48 10 46 67 60 54 70	162 152 131 133 135 130			S54
Acenaphthene 4-Nitrophenol 2,4-Dinitrotoluer Pentachlorophe Pyrene Surr: 2-Fluoroph Surr: Phenol-d5 Surr: Nitrobenze	ne enol 5 ene-d5 iphenyl romophenol	13100 3870 14400 3740 5250 6130 3060	3300 660 3300	6250 25000 6250 12500 12500 6250	0	62 58 60 42 49 49	48 10 46 67 60 54	162 152 131 133 135			S54 S54



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### QC Summary Report

Work Order: 10052504

#### 01-Jun-10 Comments:

Date:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.

S54 = Surrogate recovery was below laboratory acceptance limits.



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<b>Date:</b> 01-Jun-10	(	QC S	ummary	y Report					<b>Work Orde</b> 10052504	
Method Blank File ID: 10052627.D		Type N		est Code: EPA I atch ID: 24334	Meth	od SW82		sis Date:	05/27/2010 03:54	
Sample ID: MBLK-24334	Units : µg/L		Run ID: MS	SD_16_100526	A		Prep [	Date:	05/26/2010 11:56	
Analyte	Result	PQL				LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua
Phenol	ND	10								
2-Chlorophenol	ND	10								
2-Nitrophenol	ND	10								
2,4-Dimethylphenol	ND	10								
2,4-Dichlorophenol 4-Chloro-3-methylphenol	ND ND	10 20								
2,4,6-Trichlorophenol	ND	20								
2,4-Dinitrophenol	ND	100								
4-Nitrophenol	ND	50								
4,6-Dinitro-2-methylphenol	ND	100								
Pentachlorophenol	ND	50					400			
Surr: 2-Fluorophenol Surr: Phenol-d5	82.3 59.5		200 200		41 30	41 25	130 130			
Surr: 2,4,6-Tribromophenol	129		200	-	50 64	61	138			
Laboratory Control Spike		Type L		est Code: EPA		od SW82				
File ID: 10052628.D				atch ID: 24334			Analys	sis Date:	05/27/2010 04:19	
Sample ID: LCS-24334	Units : µg/L			SD_16_100526			Prep (		05/26/2010 11:56	
Analyte	Result	PQL	SpkVal	SpkRefVal %F	REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qual
Phenol	34.4	10	) 100		34	20	130			
2-Chlorophenol	64.3	10		-	64	58	130			
4-Chloro-3-methylphenol	67.8 129	20 50			68 32	52 20	130 130			
4-Nitrophenol Pentachlorophenol	301	50		-	52 75	20 47	132			
Surr: 2-Fluorophenol	93.4		200		47	41	130			
Surr: Phenol-d5	71.2		200	3	36	25	130			
Surr: 2,4,6-Tribromophenol	177		200	8	88	61	138			
Laboratory Control Spike Duplicate		Туре Ц		est Code: EPA	Meth	od SW82		-i- Data	05/07/2040 04.45	
File ID: 10052629.D				atch ID: 24334					05/27/2010 04:45	
Sample ID: LCSD-24334	Units : µg/L	501		SD_16_100526			Prep (		05/26/2010 11:56	Qua
Analyte	Result	PQL						34.42	Val %RPD(Limit)	
Phenol 2-Chlorophenol	33.3 63.3	10 10			33 63	20 58	130 130	64.2	· · ·	
4-Chloro-3-methylphenol	70	20			70	52	130	67.8		
4-Nitrophenol	110	50			28	20	130	128.9	9 15.6(40)	
Pentachlorophenol	279	50			70	47	132	301	7.6(33)	
Surr: 2-Fluorophenol	90.8		200		45	41	130 130			
Surr: Phenol-d5 Surr: 2,4,6-Tribromophenol	66.6 154		200 200		33 77	25 61	130			
Sample Matrix Spike		Туре 🛚		est Code: EPA	Meth	od SW82	270C			
File ID: 10052632.D				atch ID: 24334			Analy	sis Date:	05/27/2010 06:01	
Sample ID: 10052124-01AMS	Units : µg/L		Run ID: M	SD_16_100526	6A		Prep I	Date:	05/26/2010 11:56	
Analyte	Result	PQL	SpkVal	SpkRefVal %F	REC	LCL(ME)	UCL(ME)	RPDRef	val %RPD(Limit)	Qua
Phenol	27.6	1(			28	10	130			
2-Chlorophenol	58.5	10		-	58	40	130			
4-Chloro-3-methylphenol	59.2	20			59 21	42 10	130 130			
4-Nitrophenol Pentachlorophenol	85.5 260	50 50			21 65	33	155			
Surr: 2-Fluorophenol	77.6	J	200		39	41	130			S54
Surr: Phenol-d5	54.9		200		27	25	130			
Surr: 2,4,6-Tribromophenol	144		200		72	61	138			



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### QC Summary Report

Work Order:

10052504

Date: 01-Jun-10 Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

S54 = Surrogate recovery was below laboratory acceptance limits.



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<b>Date:</b> 02-Jun-10	(	QC Si	ummar	y Repor	t			<b>Work Orde</b> 10052504	
Method Blank File ID: 052610.B\021SMPL.D\		Туре: М		est Code: EF atch ID: 2433		hod SW60	20 / SW6020A Analysis Date:	05/26/2010 13:03	
Sample ID: MB-24333	Units : mg/L		Run ID: IC	P/MS_1005	26A		Prep Date:	05/26/2010 10:15	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qua
Boron (B)	ND	0.1							
Sodium (Na)	ND	0.5							
Chromium (Cr) Manganese (Mn)	ND	0.005							
Iron (Fe)	ND ND	0.005 0.3							
Nickel (Ni)	ND	0.01							
Copper (Cu)	ND	0.01							
Zinc (Zn)	ND	0.1							
Arsenic (As) Selenium (Se)	ND	0.005							
Silver (Ag)	ND ND	0.005 0.005							
Cadmium (Cd)	ND	0.005							
Barium (Ba)	ND	0.005							
Mercury (Hg)	ND	0.001							
Lead (Pb)	ND	0.005							
Laboratory Control Spike		Type: L(	CS Te	est Code: EF	PA Met	hod SW60	20 / SW6020A		
File ID: 052610.B\022_LCS.D\			Ba	atch ID: 2433	33		Analysis Date:	05/26/2010 13:09	
Sample ID: LCS-24333	Units : mg/L		Run ID: IC	P/MS_10052	26A		Prep Date:	05/26/2010 10:15	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qua
Boron (B)	0.231	0.1	0.25		92	74	132		
Sodium (Na)	50.5	0.5	50		101	80	118		
Chromium (Cr) Manganese (Mn)	0.249	0.005	0.25		99.8	80	124		
Iron (Fe)	2.49 51.9	0.005 0.3	2.5 50		99.5 104	83 83	120 119		
Nickel (Ni)	0.253	0.01	0.25		101	83	123		
Copper (Cu)	0.256	0.01	0.25		103	85	123		
Zinc (Zn)	0.258	0.1	0.25		103	82	123		
Arsenic (As)	0.244	0.005	0.25		97	85	118		
Selenium (Se) Silver (Ag)	0.245 0.26	0.005 0.005	0.25 0.25		98 104	85 79	118 118		
Cadmium (Cd)	0.255	0.005	0.25		104	85	121		
Barium (Ba)	2.52	0.005	2.5		101	85	132		
Mercury (Hg)	0.005	0.001	0.005		100	70	122		
Lead (Pb)	0.251	0.005	0.25		101	85	120	· · · · ·	
Sample Matrix Spike		Type: M	S Te	est Code: EF	PA Met	hod SW60	20 / SW6020A		
File ID: 052610.B\025SMPL.D\				atch ID: 2433			-	05/26/2010 13:26	
Sample ID: 10052503-02AMS	Units : mg/L			P/MS_10052			Prep Date:	05/26/2010 10:15	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	Val %RPD(Limit)	Qual
Boron (B)	0.302	0.1	0.25	0	121	63	150		
Sodium (Na) Chromium (Cr)	61.3	0.5	50	8.325	106	61	135		
Manganese (Mn)	0.271 2.57	0.005 0.005	0.25 2.5	0.01109 0.01089	104 102	70 70	133 130		
Iron (Fe)	53.9	0.003	2.5 50	0.7181	102	70	130		
Nickel (Ni)	0.264	0.01	0.25	0.1101	106	70	132		
Copper (Cu)	0.265	0.01	0.25	0	106	70	131		
Zinc (Zn)	0.292	0.1	0.25	0	117	65	143		
Arsenic (As) Selenium (Se)	0.259	0.005	0.25	0	103	70	130		
Selenium (Se) Silver (Ag)	0.259 0.267	0.005 0.005	0.25 0.25	0 0	104 107	70 70	131 130		
Cadmium (Cd)	0.264	0.005	0.25	0	107	70	130		
Barium (Ba)	2.83	0.005	2.5	0.1708	107	70	143		
Mercury (Hg)	0.00485	0.001	0.005	0	97	68	130		
Lead (Pb)	0.259	0.005	0.25	0	104	70	130		



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<b>Date:</b> 02-Jun-10	(	QC Su	mmar	y Repor	t				<b>Work Ord</b> 10052504	
Sample Matrix Spike Duplicate		Type: MS	SD To	est Code: El	PA Met	hod SW60	)20 / SW60	)20A		
File ID: 052610.B\026SMPL.D\			Ba	atch ID: 243	33		Analys	sis Date: 05	5/26/2010 13:32	
Sample ID: 10052503-02AMSD	Units : mg/L	F	Run ID: IC	P/MS_1005	26A		Prep I	Date: 05	6/26/2010 10:15	
Analyte	Result	PQL				LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qua
Boron (B)	0.312	0.1	0.25	0	125	63	150	0.3016	3.2(20)	
Sodium (Na)	63.9	0.5	50	8.325	111	61	135	61.25	4.3(20)	
Chromium (Cr)	0.28	0.005	0.25	0.01109	108	70	133	0.2706	3.4(20)	
Manganese (Mn)	2.66	0.005	2.5	0.01089	106	70	130	2.569	3.4(20)	
Iron (Fe)	55.7	0.3	50	0.7181	110	70	130	53.88	3.4(20)	
Nickel (Ni)	0.273	0.01	0.25	0	109	70	132	0.264	3.5(20)	
Copper (Cu)	0.274	0.01	0.25	0	110	70	131	0.2652	3.3(20)	
Zinc (Zn)	0.301	0.1	0.25	0	120	65	143	0.292	3.0(20)	
Arsenic (As)	0.27	0.005	0.25	0	108	70	130	0.2586	4.2(20)	
Selenium (Se)	0.269	0.005	0.25	0	108	70	131	0.2593	3.6(20)	
Silver (Ag)	0.28	0.005	0.25	0	112	70	130	0.2671	4.9(20)	
Cadmium (Cd)	0.277	0.005	0.25	0	111	70	130	0.264	4.9(20)	
Barium (Ba)	2.98	0.005	2.5	0.1708	112	70	143	2.834	5.0(20)	
Mercury (Hg)	0.00504	0.001	0.005	0	101	68	130	0.004854		
Lead (Pb)	0.269	0.005	0.25	Ō	108	70	130	0.2592	3.7(20)	

#### **Comments:**



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<b>Date:</b> 02-Jun-10			QC Su	Immary	y Repor	t				<b>Work Order:</b> 10052504	
	1k ).B\056SMPL.D\		Туре: М		est Code: EF atch ID: 2433		thod SW60			05/26/2010 16:24	
Sample ID:	MB-24335	Units : <b>mg/</b>	Kg	Run ID: <b>IC</b> I	P/MS_10052	26C		Prep	Date:	05/26/2010 12:03	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	CLCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua
Chromium (Cr)		ND	1								
Arsenic (As)		ND	1								
Selenium (Se)		ND	1								
Silver (Ag)		ND	1								
Cadmium (Cd)		ND	1								
Barium (Ba) Mercury (Hg)		ND	1								
Lead (Pb)		ND ND	0.2 1								
	Cant							00 / 014/01	020 4		
	Control Spike ).B\057_LCS.D\		Type: LC		est Code: EF atch ID: 2433					05/00/00 46.00	
Sample ID:	LCS-24335		K.							05/26/2010 16:30	
•	LC3-24335	Units : mg/			P/MS_10052			Prep		05/26/2010 12:03	0
Analyte		Result	PQL		SpkRetVal				KPURet\	/al %RPD(Limit)	Qua
Chromium (Cr) Arsenic (As)		24.2	1	25		97	75	120			
Selenium (Se)		26.1	1	25		105	80	120			
Silver (Ag)		27.1	1	25		109	80 62	120			
Cadmium (Cd)		27.9 26.7	1	25 25		112 107	62 80	132 120			
Barium (Ba)		268	1	250		107	78	120			
Mercury (Hg)		0.448	0.2	0.5		90	68	140			
Lead (Pb)		27	1	25		108	80	122			
Sample Mat	rix Spike		Type: M	S Te	est Code: EF	A Met	hod SW60	20 / SW60	020A		
	).B\061SMPL.D\		<b>,</b>		atch ID: 2433					05/26/2010 16:56	
Sample ID:	10052504-01AMS	Units : mg/	Kg		P/MS_10052			Prep		05/26/2010 12:03	
Analyte		Result	PQL				LCL(ME)	UCL(ME)	RPDRef√	/al %RPD(Limit)	Qua
Chromium (Cr)		45	1	25	19.41	102	50	150			
Arsenic (As)		37.8	1	25	11.57	105	60	130			
Selenium (Se)		26.7	1	25	0	107	69	130			
Silver (Ag)		29.3	1	25	0	117	62	132			
Cadmium (Cd)		28.7	1	25	0	115	70	130			
Barium (Ba) Mercury (Hg)		540	1	250	269.4	108	58	150			
Lead (Pb)		0.496 36.4	0.2 1	0.5 25	0 8.969	99 110	65 68	150 141			
	rix Spike Duplicate		Type: M		est Code: EP	_		· · · · · · ·			
	B\062SMPL.D\		iype. Mi		itch ID: 2433					05/26/2010 17:02	
Sample ID:	10052504-01AMSD	Units : mg/	Ka		P/MS_10052			Prep I		05/26/2010 12:03	
Analyte		Result	PQL				LCL(ME)	•		/al %RPD(Limit)	Qua
		47.3	1	25	19.41	111	50	150	45.02		
Chromium (Cr)		40.4	1	25	11.57	115	60	130	37.78		
Arsenic (As)			4	25	0	108	69	130	26.65		
Arsenic (As) Selenium (Se)		26.9		20							
Arsenic (As) Selenium (Se) Silver (Ag)		29.7	1	25	0	119	62	132	29.34	1.2(20)	
Arsenic (As) Selenium (Se) Silver (Ag) Cadmium (Cd)		29.7 29	1	25 25		119 116	62 70	130	28.69	1.0(20)	
Arsenic (As) Selenium (Se) Silver (Ag) Cadmium (Cd) Barium (Ba)		29.7 29 643	1 1	25 25 250	0 0 269.4	119 116 150	62 70 58	130 150	28.69 540	1.0(20) 17.5(20)	
Arsenic (As) Selenium (Se) Silver (Ag) Cadmium (Cd)		29.7 29	1	25 25	0 0	119 116	62 70	130	28.69	1.0(20) 17.5(20) 7.3(20)	

**Comments:** 



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<b>Date:</b> 02-Jun-10	(	QC S	umma	ry Re	por	t				<b>Work Ord</b> 10052504	
Method Blank File ID:		Туре 🛚		Test Cod Batch ID:			NORGC /		H3D /sis Date:	06/01/2010 12:38	
Sample ID: MBLK-W0601TK	Units : mg/L		Run ID:	WETLAB	_100	601C		Prep	Date:	06/01/2010 12:38	
Analyte	Result	PQL	SpkV	al SpkRe	efVal	%REC	LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qua
Nitrogen, Kjeldahl, Total	ND	0.25	5								
Laboratory Control Spike		Туре L	.CS	Test Cod	le: SN	4500-	NORGC /				
File ID:				Batch ID:		•••••		Analy	sis Date:	06/01/2010 12:35	
Sample ID: LCS-W0601TK	Units : mg/L		Run ID:	WETLAB	_100	601C		Prep	Date:	06/01/2010 12:35	
Analyte	Result	PQL	SpkV	al SpkRe	efVal '	%REC	LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qua
Nitrogen, Kjeldahl, Total	4.95	0.25	5	5		99	65	135			
Sample Matrix Spike		Туре М	AS	Test Cod	le: SN	4500-	NORGC /	SM4500N	H3D		
File ID:				Batch ID:	W06	01TK		Analy	sis Date:	06/01/2010 12:50	
Sample ID: 10051921-01AMS	Units : mg/L		Run ID:	WETLAB	_100	601C		Prep	Date:	06/01/2010 12:50	
Analyte	Result	PQL	SpkV	al SpkRe	efVal	%REC	LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qua
Nitrogen, Kjeldahl, Total	33	1.3	}	5	25	160	55	142			М3
Sample Matrix Spike Duplicate		Туре 🛚	ISD	Test Cod	e: SN	14500-	NORGC /	SM4500N	H3D		
File ID:				Batch ID:	W06	01 <b>TK</b>		Analy	sis Date:	06/01/2010 12:53	
Sample ID: 10051921-01AMSD	Units : mg/L		Run ID:	WETLAB	_100	601C		Prep	Date:	06/01/2010 12:53	
Analyte	Result	PQL					LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qua
Nitrogen, Kjeldahl, Total	28	1.3		5	25	60	55	142	33	16.4(20)	

#### **Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

 $M_3$  = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.



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<b>Date:</b> 04-Jun-10	QC Summary Report Work Order: 10052504
Method Blank File ID:	Type: MBLK Test Code: EPA Method 1664A Batch ID: W0602OG Analysis Date: 06/02/2010 00:00
Sample ID: MBLK-W0602OG	Units : mg/L Run ID: WETLAB_100602C Prep Date: 06/02/2010 00:00
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qu
Oil & Grease, HEM	ND 5
Laboratory Control Spike File ID:	Type: LCS Test Code: EPA Method 1664A Batch ID: W0602OG Analysis Date: 06/02/2010 00:00
Sample ID: LCS-W0602OG	Units : mg/L Run ID: WETLAB_100602C Prep Date: 06/02/2010 00:00
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qu
Oil & Grease, HEM	39.5 5 40 99 78 114
Sample Matrix Spike File ID:	Type: MS       Test Code: EPA Method 1664A         Batch ID: W0602OG       Analysis Date: 06/02/2010 00:00
Sample ID: 10052504-04AMS	Units : mg/L Run ID: WETLAB_100602C Prep Date: 06/02/2010 00:00
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qu
Oil & Grease, HEM	40.5 5 40 0 101 78 114

#### **Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

HEM = Hexane Extractable Material



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<b>Date:</b> 02-Jun-10		QC Summary Report								
Laboratory Control Spike File ID:		Type: L		est Code: EPA Met atch ID: S0601PH	hod SW9		06/01/2010 15:15			
Sample ID: LCS-S0601PH	Units : <b>pH</b> I	Units	Run ID: WE	ETLAB_100601B		Prep Date:	06/01/2010 15:15			
Analyte	Result	PQL	SpkVal	SpkRefVal %REC	LCL(ME	) UCL(ME) RPDRef	Val %RPD(Limit)	Qual		
рН	4.94	1.7	7 5	99	90	110				

#### **Comments:**



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<b>Date:</b> 02-Jun-10		QC Summary Report							
Laboratory Control Spike File ID:		Type: L		est Code: EPA Met atch ID: W0526PH	hod 150.2	2 / SM4500HB / SW Analysis Date	/9040C : 05/26/2010 11:03		
Sample ID: LCS-W0526PH	Units : pH	Units	Run ID: WI	ETLAB_100526A		Prep Date:	05/26/2010 11:03		
Analyte	Result	PQL	SpkVal	SpkRefVal %REC	LCL(ME)	UCL(ME) RPDRet	Val %RPD(Limit)	Qual	
рН	4.99	1.7	7 5	99.8	90	110			

#### **Comments:**



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<b>Date:</b> 02-Jun-10	(	QC S	ummary	Repor	t				<b>Work Orde</b> 10052504	
Method Blank File ID:		Туре 🛛		st Code: El		hod 365.3			06/02/2010 00:00	
Sample ID: MBLK-W0602TP	Units : mg/L		Run ID: WE	TLAB_100	602B		Prep	Date:	06/02/2010 00:00	
Analyte	Result	PQL	SpkVal S	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qua
Phosphorus, Total (As P)	ND	0.1	1							
Laboratory Control Spike		Туре І	-CS Tes	st Code: EF	PA Met	hod 365.3	/ SM4500	PE		
File ID:			Bat	ch ID: <b>W06</b>	502TP		Analy	sis Date:	06/02/2010 00:00	
Sample ID: LCS-W0602TP	Units : <b>mg/L</b>		Run ID: WE	TLAB_100	602B		Prep	Date:	06/02/2010 00:00	
Analyte	Result	PQL	SpkVal S	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Phosphorus, Total (As P)	0.972	0.	1 1		97	73	127			
Sample Matrix Spike		Туре І	MS Tes	st Code: El	PA Met	hod 365.3	/ SM4500	PE		
File ID:			Bat	ch ID: <b>W06</b>	602TP		Analy	sis Date:	06/02/2010 00:00	
Sample ID: 10052849-01AMS	Units : mg/L	-	Run ID: WE	TLAB_100	602B		Prep	Date:	06/02/2010 00:00	
Analyte	Result	PQL	SpkVal S	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Phosphorus, Total (As P)	1.08	0.1	1 1	0	108	73	127			
Sample Matrix Spike Duplicate		Type I	<b>NSD</b> Tes	st Code: El	PA Met	hod 365.3	/ SM4500	PE		
File ID:			Bat	ch ID: <b>W06</b>	502TP		Analy	sis Date:	06/02/2010 00:00	
Sample ID: 10052849-01AMSD	Units : mg/L		Run ID: WE	TLAB_100	602B		Prep	Date:	06/02/2010 00:00	
Analyte	Result	PQL	SpkVal S	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Phosphorus, Total (As P)	1.1	0.1	1 1	0	110	73	127	1.08	1.8(20)	

#### **Comments:**



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<b>Date:</b> 02-Jun-10	QC Summary Report							
Method Blank File ID: Sample ID: MBLK-W0525DS		26/2010 00:00 26/2010 00:00						
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %							
Solids, Total Dissolved (TDS)	ND 10							
Laboratory Control Spike File ID:	Type LCS     Test Code: SM2540C       Batch ID: W0525DS     Analysis Date: 05/2							
Sample ID: LCS-W0525DS Analyte	Units : mg/L Run ID: WETLAB_100525A Prep Date: 05/2 Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %	2 <b>6/2010 00:00</b> %RPD(Limit) Qua						
Solids, Total Dissolved (TDS)	91 10 100 91 80 120							

Comments:



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<b>Date:</b> 01-Jun-10		QC S	ummar	y Repor	t				<b>Work Orde</b> 10052504	
<b>Method Blank</b> File ID: <b>7A05271072.D</b>		Туре 🕯		est Code: E atch ID: 243		hod SW8(		/sis Date:	05/30/2010 15:26	
Sample ID: MBLK-24358	Units : mg/	Kg	Run ID: FI	D_7_10052	8 <b>B</b>		Prep	Date:	05/28/2010 15:05	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qua
TPH-E (DRO) TPH-E (ORO)	ND ND	1( 1(	)							
Surr: Nonane	6.72		6		112	67	156			
Laboratory Control Spike		Туре І	LCS T	est Code: E	PA Met	hod SW8(				
File ID: <b>7A05271073.D</b>			B	atch ID: 243	58		Analy	sis Date:	05/30/2010 15:52	
Sample ID: LCS-24358	Units : mg/	Kg		D_7_10052			•	Date:	05/28/2010 15:05	
Analyte	Result	PQL	SpkVai	SpkRefVal	%REC	LCL(ME)	UCL(ME	RPDRef	Val %RPD(Limit)	Qua
TPH-E (DRO)	105	Į.	5 100		105	70	130			
Surr: Nonane	6.42		6		107	67	156		·	
Sample Matrix Spike		Туре 🖡	VIS T	est Code: E	PA Met	hod SW8	)15B / E			
File ID: 7A05271085.D			B	atch ID: 243	58		Anal	sis Date:	05/30/2010 21:13	
Sample ID: 10052840-01AMS	Units : mg/	Kg		D_7_10052			•	Date:	05/28/2010 15:05	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME	) RPDRef	Val %RPD(Limit)	Qua
TPH-E (DRO)	112	ę	5 100	7.082		51	141			
Surr: Nonane	6.5		6		108	67	156			
Sample Matrix Spike Duplicate		Туре 🛛	VISD T	est Code: E	PA Met	hod SW8	)15B / E			
File ID: 7A05271086.D			В	atch ID: 243	58		Anal	ysis Date:	05/30/2010 21:39	
Sample ID: 10052840-01AMSD	Units : mg/	Kg	Run ID: FI	D_7_10052	8B		Prep	Date:	05/28/2010 15:05	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME	) RPDRef	Val %RPD(Limit)	Qua
TPH-E (DRO) Surr: Nonane	113 7.75	ļ	5 100 6	7.082	106 129	51 67	141 156	111.	7 1.4(40)	

#### **Comments:**



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<b>Date:</b> 01-Jun-10	(	QC S	ummar	y Repor	t				<b>Work Ord</b> 10052504	
Method Blank File ID: 2A05211067.D	· · · · · · · · · · · · · · · · · · ·	Туре 🛚		est Code: El atch ID: 243		hod SW8(		/sis Date:	05/26/2010 13:44	
Sample ID: MBLK-24337	Units : mg/L		Run ID: FI	D_2_10052	6A		Prep	Date:	05/26/2010 12:20	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
TPH-E (DRO) TPH-E (ORO)	ND ND	0.5 0.5	5							
Surr: Nonane	0.112		0.15		75	57	147			<u> </u>
Laboratory Control Spike		Type L	.CS Te	est Code: El	PA Met	hod SW8	)15B / E			
File ID: 2A05211069.D			Ba	atch ID: 243	37		Analy	sis Date:	05/26/2010 14:34	
Sample ID: LCS-24337	Units : mg/L		Run ID: FI	D_2_10052	6A		Prep	Date:	05/26/2010 12:20	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
TPH-E (DRO) Surr: Nonane	2.37 0.126	0.05	5 2.5 0.15		0 84	67 57	130 147			
Sample Matrix Spike		Type N	AS Te	est Code: El	PA Met	hod SW8	)15B / E			
File ID: 2A05211095.D			Ba	atch ID: 243	37		Analy	sis Date:	05/27/2010 16:16	
Sample ID: 10052521-03AMS	Units : mg/L		Run ID: FI	D 2 10052	3A		Prep	Date:	05/26/2010 12:20	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
TPH-E (DRO) Surr: Nonane	10.5 0.242	0.05	5 10 0.15	1.24	93 161	49 57	150 147			S55
Sample Matrix Spike Duplicate		Туре М	ASD Te	est Code: El	PA Met	hod SW80	)15B / E			
File ID: 2A05211096.D			Ва	atch ID: 243	37		Analy	sis Date:	05/27/2010 16:41	
Sample ID: 10052521-03AMSD	Units : mg/L		Run ID: FI	D_2_10052	5A		Prep	Date:	05/26/2010 12:20	
Analyte	Result	PQL				LCL(ME)	UCL(ME)	RPDRef	val %RPD(Limit)	Qua
TPH-E (DRO) Surr: Nonane	9.93 0.205	0.05		1.24	87 137	49 57	150 147	10.5		

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

S55 = Surrogate recovery was above laboratory acceptance limits.



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Method Blank         Type         MBL           File ID: C:\HPCHEM\MS06\DATA\100602\10060217.D         Sample ID:         MBLK MS06S4340B         Units : mg/Kg         Ru           Analyte         Result         PQL         PQL         TPH-P (GRO)         ND         10           Surr: 1,2-Dichloroethane-d4         0.25         0.186         0.186         0.186	Batch ID: MS06S4340B         Analysis Date:         06/02/2010 15:57           un ID: MSD_06_100602B         Prep Date:         06/02/2010 15:57	Qual
Bile ID: C:\HPCHEM\MS06\DATA\100602\10060217.D           Sample ID:         MBLK MS06S4340B         Units : mg/Kg         Ru           Analyte         Result         PQL           TPH-P (GRO)         ND         10           Surr: 1,2-Dichloroethane-d4         0.25	Batch ID: MS06S4340B         Analysis Date:         06/02/2010 15:57           un ID: MSD_06_100602B         Prep Date:         06/02/2010 15:57           SpkVal         SpkRefVal %REC         LCL(ME)         UCL(ME)         RPDRefVal %RPD(Limit)         C	<u>Q</u> ual
Sample ID:         MBLK MS06S4340B         Units : mg/Kg         Ru           Analyte         Result         PQL           TPH-P (GRO)         ND         10           Surr: 1,2-Dichloroethane-d4         0.25	SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)	Qual
AnalyteResultPQLTPH-P (GRO)ND10Surr: 1,2-Dichloroethane-d40.25	SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) (	Qual
Surr: 1,2-Dichloroethane-d4 0.25		
Surr: 1,2-Dichloroethane-d4 0.25	0.2 125 70 130	
Surr: Toluene-d8 0.190		
	0.2 93 70 130	
Surr: 4-Bromofluorobenzene 0.212	0.2 106 70 130	
Laboratory Control Spike Type LCS	Test Code: EPA Method SW8015	-
File ID: C:\HPCHEM\MS06\DATA\100602\10060219.D	Batch ID: MS06S4340B Analysis Date: 06/02/2010 16:47	
Sample ID: LCS MS06S4340B Units : mg/Kg Ru	un ID: MSD_06_100602B Prep Date: 06/02/2010 16:47	
Analyte Result PQL	SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) 0	Qual
TPH-P (GRO) 16.6 2	16 104 70 139	-
Surr: 1,2-Dichloroethane-d4 0.509	0.4 127 70 130	
Surr: Toluene-d8 0.371	0.4 93 70 130	
Surr: 4-Bromofluorobenzene 0.425	0.4 106 70 130	
Sample Matrix Spike Type MS	Test Code: EPA Method SW8015	
File ID: C:\HPCHEM\MS06\DATA\100602\10060220.D	Batch ID: MS06S4340B Analysis Date: 06/02/2010 17:11	
Sample ID: 10052504-03AGS Units : mg/Kg Ru	un ID: MSD_06_100602B Prep Date: 06/02/2010 17:11	
Analyte Result PQL	SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) 0	Qual
TPH-P (GRO) 15.5 2	16 0 97 57 147	-
Surr: 1,2-Dichloroethane-d4 0.524	0.4 131 70 130 S	55
Surr: Toluene-d8 0.359	0.4 90 70 130	
Surr: 4-Bromofluorobenzene 0.442	0.4 111 70 130	
Sample Matrix Spike Duplicate Type MSI	D Test Code: EPA Method SW8015	-
File ID: C:\HPCHEM\MS06\DATA\100602\10060221.D	Batch ID: MS06S4340B Analysis Date: 06/02/2010 17:36	
Sample ID: 10052504-03AGSD Units : mg/Kg Ru	un ID: MSD_06_100602B Prep Date: 06/02/2010 17:36	
		Qual
TPH-P (GRO) 15.6 2	16 0 98 57 147 15.47 1.1(20)	-
Surr: 1,2-Dichloroethane-d4 0.521	0.4 130 70 130	
Surr: Toluene-d8 0.362	0.4 91 70 130	
Surr: 4-Bromofluorobenzene 0.446	0.4 112 70 130	

#### **Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

S55 = Surrogate recovery was above laboratory acceptance limits.



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<b>Date:</b> 01-Jun-10	(	QC SI	ummary	/ Report					Work Orde 10052504	
Method Blank File ID: 10052705.D Sample ID: MBLK MS09W0527B Analyte	Units : <b>mg/L</b> Result	Type M	Ba Run ID: <b>MS</b>	st Code: <b>EP</b> tch ID: <b>MS09</b> 5 <b>D_09_1005</b> SpkRefVal %	W052 27A	27B		05/2	7/2010 18:28 7/2010 18:28 RPD(Limit)	Qual
TPH-P (GRO) Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	ND 0.0114 0.0095 0.0104	0.5		<u> </u>	114 95 104	70 70 70	130 130 130			
Laboratory Control Spike File ID: 10052704.D Sample ID: GLCS MS09W0527A	Units : mg/L	Type L	Ba	st Code: EP tch ID: MS09	W052				7/2010 18:06 7/2010 18:06	
Analyte	Result	PQL				LCL(ME)	UCL(ME) RPDR	efVal %	RPD(Limit)	Qual
TPH-P (GRO) Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	0.374 0.0116 0.00946 0.0104	0.05	0.4 0.01 0.01 0.01	<u></u>	94 116 95 104	70 70 70 70 70	130 130 130 130 130			
Sample Matrix Spike	· · · · · · · · · · · · · · · · · · ·	Туре N	I <b>S</b> Te	st Code: EP	A Met	hod SW80	15			
File ID: 10052720.D			Ba	tch ID: MS09	W052	27B	,		8/2010 00:07	
Sample ID: 10052521-01AGS Analyte	Units : <b>mg/L</b> Result	PQL		5 <b>D_09_1005</b> 2 SpkRefVal %		LCL(ME)	Prep Date: UCL(ME) RPDR		8/2010 00:07	Qual
TPH-P (GRO) Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	1.93 0.0538 0.0473 0.0494	0.25		0	96 108 95 99	58 70 70 70 70	135 130 130 130			
Sample Matrix Spike Duplicate		Туре N	ISD Te	est Code: EP	A Met	hod SW80	15			
File ID: 10052721.D				itch ID: MS09		27B	•		8/2010 00:30	
Sample ID: 10052521-01AGSD	Units : mg/L			SD_09_1005			Prep Date:		8/2010 00:30	0
Analyte	Result	PQL					UCL(ME) RPDR			Qual
TPH-P (GRO) Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8 Surr: 4-Bromofluorobenzene	1.78 0.0539 0.0479 0.0504	0.25	2 0.05 0.05 0.05	0	89 108 96 101	58 70 70 70	135 1.9 130 130 130 130	926	8.0(20)	

#### Comments:



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<b>Date:</b> 08-Jun-10		Ç	C Sur	nma	ry Report				<b>Work Ord</b> 10052504	
Method Bla			Туре <b>МВ</b> І	LK	Test Code: EPA	Metho	od SW82	60B	<u></u>	
	CHEM\MS06\DATA\100602\1	0060217.D			Batch ID: MS06	S4340A	۱	Analysis Date	: 06/02/2010 15:57	
Sample ID:	MBLK MS06S4340A	Units : µg/Kg			MSD_06_10060			Prep Date:	06/02/2010 15:57	
Analyte		Result	PQL	SpkVa	al SpkRefVal %	REC L	CL(ME)	UCL(ME) RPDRe	fVal %RPD(Limit)	Qual
Dichlorodifluor		ND	20		·					
Chloromethan Vinyl chloride	e	ND	40							
Chloroethane		ND ND	20 20							
Bromomethan	e	ND	20 40							
Trichlorofluoro		ND	20							
1,1-Dichloroet Dichlorometha		ND	20							
trans-1,2-Dich		ND ND	40 20							
1,1-Dichloroet		ND	20							
cis-1,2-Dichlor		ND	20							
Bromochlorom	lethane	ND	20							
Chloroform 2,2-Dichloropr	onane	ND ND	20 20							
1,2-Dichloroet		ND	20							
1,1,1-Trichloro		ND	20							
1,1-Dichloropr		ND	20							
Carbon tetrach Benzene	nloride	ND	20							
Dibromometha	ane	ND ND	20 20							
1,2-Dichloropr	-	ND	20							
Trichloroethen		ND	20							
Bromodichloro cis-1,3-Dichlor		ND	20							
trans-1,3-Dich		ND ND	20 20							
1,1,2-Trichloro		ND	20							
Toluene		ND	20							
1,3-Dichloropr	-	ND	20							
Dibromochloro 1,2-Dibromoet		ND ND	20 40							
Tetrachloroeth		ND	20							
1,1,1,2-Tetrac		ND	20							
Chlorobenzen	e	ND	20							
Ethylbenzene m.p-Xylene		ND ND	20							
Bromoform		ND	20 20							
Styrene		ND	20							
o-Xylene		ND	20							
1,1,2,2-Tetracl 1,2,3-Trichloro		ND	20							
Isopropylbenz		ND ND	40 20							
Bromobenzen	e	ND	20							
n-Propylbenze		ND	20							
4-Chlorotoluer 2-Chlorotoluer	-	ND ND	20							
1,3,5-Trimethy		ND	20 20							
tert-Butylbenze	ene	ND	20							
1,2,4-Trimethy		ND	20							
sec-Butylbenz 1,3-Dichlorobe		ND	20							
1,4-Dichlorobe		ND ND	20 20							
4-Isopropyltolu		ND	20							
1,2-Dichlorobe		ND	20							
n-Butylbenzen		ND	20							
1,2-Dibromo-3	-chloropropane (DBCP) benzene	ND ND	60 40							
Naphthalene		ND	40 40							
Hexachlorobut		ND	40							
1,2,3-Trichloro		ND	40	<i>.</i>	-	405		100		
Surr: 1,2-Dichl Surr: Toluene-		250 186		20 20		125 93	70 70	130 130		
Surr: 4-Bromot		212		200		93 106	70 70	130		
				20	~					



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<b>Date:</b> 08-Jun-10		Ç	QC Si	ımmar	y Repor	t				<b>Work Ord</b> 10052504	
	Control Spike		Type L	CS Te	est Code: El	PA Met	hod SW82	260B			
File ID: C:\HP	CHEM\MS06\DATA\100602\	10060218.D		Ba	atch ID: MS	)6S434	0A	Analys	is Date: 0	6/02/2010 16:22	
Sample ID:	LCS MS06S4340A	Units : µg/Kg		Run ID: M	SD_06_100	602B		Prep D	ate: 0	6/02/2010 16:22	
Analyte		Result	PQL				CL(ME)	•		l %RPD(Limit)	Qua
1,1-Dichloroett	2000	303			opiaitoritai						
Benzene	lelle	303	20			76	10 70	143 136			
Trichloroethen	e	586	10 20	400 400		95 146	70	138			L51
Toluene	-	341					70	135			201
Chlorobenzene		330	10 20	400 400		85 82	70	135	· ·		
Ethylbenzene	-	358	20 10	400		82 90	70	135			
m,p-Xylene		341	10	400		90 85	70	143			
o-Xylene		340	10	400		85	70	143			
Surr: 1,2-Dichle	oroethane-d4	519	10	400		130	70	130			
Surr: Toluene-		379		400		95	70	130			
Surr: 4-Bromof		446		400		112	70	130			
Sample Mat	rix Snike		Туре М		est Code: El						
	CHEM\MS06\DATA\100607\1		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		atch ID: MS				is Date: 0	6/07/2010 19:46	
Sample ID:	10052504-03AMS	Units : µg/Kg		Run ID <sup>,</sup> M	SD_06_100	602B		Prep D		6/07/2010 19:46	
Analyte	· · · · · · · · · · · · · · · · · · ·	Result	PQL					•		I %RPD(Limit)	Qual
							· · · · ·	. ,	AF DICEI Va		
1,1-Dichloroeth Benzene	iene	344	20	400	0	86	10	143			
Trichloroethen	2	502	10	400	0	125	57	143			
Toluene	e	471	20	400	0	118	52	154			
Chlorobenzene		478	10	400	0	119	53	142			
Ethylbenzene	-	444 450	20	400	0	111	55	142			
m,p-Xylene		450 482	10 10	400 400	0	113 121	56 53	145 154			
o-Xylene		488	10	400	0	122	60	148			
Surr: 1,2-Dichle	oroethane-d4	359	10	400	0	90	70	130			
Surr: Toluene-o		411		400		103	70	130			
Surr: 4-Bromof	luorobenzene	406		400		102	70	130			
Sample Mat	rix Spike Duplicate		Туре М		est Code: El						
File ID: C:\HP(	CHEM\MS06\DATA\100604\1		ype w		atch ID: MS(				is Date: 0	6/04/2010 16:56	
Sample ID:	10052504-03AMSD	Units : µg/Kg			SD_06_100			Prep D		6/04/2010 16:56	
Analyte		Result	PQL				LCL(ME)			8 %RPD(Limit)	Qual
1,1-Dichloroeth	nene	549	20	400	0	137	10	143	344.4	45.9(20)	R5
Benzene		436	10	400	0	109	57	143	501.6	14.1(20)	
Trichloroethene	e	437	20	400	Ō	109	52	154	471.1	7.5(20)	
Toluene		403	10	400	Ō	101	53	142	477.6	16.9(20)	
Chlorobenzene	)	409	20	400	0	102	55	142	444.4	8.3(20)	
Ethylbenzene		410	10	400	0	103	56	145	450.3	9.3(20)	
m,p-Xylene		438	10	400	0	109	53	154	482.1	9.6(20)	
o-Xylene		422	10	400	0	105	60	148	488	14.6(20)	
Surr: 1,2-Dichk		442		400		110	70	130			
Surr: Toluene-o		392		400		98	70	130			
Surr: 4-Bromof	luorobenzene	400		400		100	70	130			
Comments:	and <u>and an </u>			·							

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

.

L51 = Analyte recovery was above acceptance limits for the LCS, but was acceptable in the MS/MSD.

R5 = MS/MSD RPD exceeded the laboratory control limit. Recovery met acceptance criteria.



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<b>Date:</b> 01-Jun-10	(	QC Sur	nmary Report			Work Orde 10052504	
Method Blank File ID: 10052705.D		Туре <b>МВ</b> І	K Test Code: EPA Me Batch ID: MS09W0			05/27/2010 18:28	
Sample ID: MBLK MS09W0527A Analyte	Units : <b>µg/L</b> Result		n ID: <b>MSD_09_100527A</b> SpkVal SpkRefVal %RE		Prep Date:	05/27/2010 18:28	Qual
Dichlorodifluoromethane	ND	1		<u> </u>		/	
Chloromethane Vinyl chloride	ND ND	2 1					
Chloroethane	ND	1					
Bromomethane	ND	2					
Trichlorofluoromethane	ND	1					
1,1-Dichloroethene	ND	1					
Dichloromethane trans-1.2-Dichloroethene	ND ND	2 1					
1,1-Dichloroethane	ND	1					
cis-1,2-Dichloroethene	ND	1					
Bromochloromethane	ND	1					
Chloroform	ND	1					
2,2-Dichloropropane 1,2-Dichloroethane	ND	1					
1.1.1-Trichloroethane	ND ND	1					
1,1-Dichloropropene	ND	1					
Carbon tetrachloride	ND	1					
Benzene	ND	1					
Dibromomethane	ND	1					
1,2-Dichloropropane Trichloroethene	ND ND	1					
Bromodichloromethane	ND	1					
cis-1,3-Dichloropropene	ND	1					
trans-1,3-Dichloropropene	ND	1					
1,1,2-Trichloroethane	ND	1					
Toluene 1,3-Dichloropropane	ND ND	1 1					
Dibromochloromethane	ND	1					
1,2-Dibromoethane (EDB)	ND	2					
Tetrachloroethene	ND	1					
1,1,1,2-Tetrachloroethane	ND	1					
Chlorobenzene	ND	1 1					
Ethylbenzene m,p-Xylene	ND ND	1					
Bromoform	ND	1					
Styrene	ND	1					
o-Xylene	ND	1					
1,1,2,2-Tetrachloroethane	ND	1					
1,2,3-Trichloropropane Isopropylbenzene	ND ND	2 1					
Bromobenzene	ND	1					
n-Propylbenzene	ND	1					
4-Chlorotoluene	ND	1					
2-Chlorotoluene 1,3,5-Trimethylbenzene	ND	1 1					
tert-Butylbenzene	ND ND	1					
1,2,4-Trimethylbenzene	ND	1					
sec-Butylbenzene	ND	1					
1,3-Dichlorobenzene	ND	1					
1,4-Dichlorobenzene	ND	1 1					
4-Isopropyltoluene 1,2-Dichlorobenzene	ND ND	1					
n-Butylbenzene	ND	1					
1,2-Dibromo-3-chloropropane (DBCP)	ND	3					-
1,2,4-Trichlorobenzene	ND	2					
Naphthalene	ND	2					
Hexachlorobutadiene 1,2,3-Trichlorobenzene	ND ND	2 2					
Surr: 1,2-Dichloroethane-d4	11.4	2	10 114	70	130		
Surr: Toluene-d8	9.5		10 95	70	130		
Surr: 4-Bromofluorobenzene	10.4		10 104	1 70	130		



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<b>Date:</b> 01-Jun-10	(	QC Si	ımmar	y Repor	t				<b>Work Orde</b> 10052504	
Laboratory Control Spike		Type L	CS Te	est Code: El	PA Met	hod SW82	260B			
File ID: 10052703.D			Ba	tch ID: MS	)9W052	27 <b>A</b>	Analy	sis Date: (	5/27/2010 17:44	
Sample ID: LCS MS09W0527A	Units : µg/L			SD_09_100			Prep I	Date: (	5/27/2010 17:44	
Analyte	Result	PQL				LCL(ME)			I %RPD(Limit)	Qual
				Spriterval						
1,1-Dichloroethene	10.3	1	10		103	80	120			
Benzene	9.14	0.5	10		91 95	70 70	130 130			
Trichloroethene Toluene	9.45 8.63	1	10 10		95 86	70 80	130			
Chlorobenzene	9.34	0.5 1	10		93	80 70	130			
Ethylbenzene	9.66	0.5	10		97	80	120			
m,p-Xylene	9.33	0.5	10		93	70	130			
o-Xylene	9.52	0.5	10		95	70	130			
Surr: 1.2-Dichloroethane-d4	11.6	0.0	10		116	70	130			
Surr: Toluene-d8	9.34		10		93	70	130			
Surr: 4-Bromofluorobenzene	10.7		10		107	70	130			
Sample Matrix Spike		Туре М	S Te	est Code: E	PA Met	hod SW8	260B			
File ID: 10052718.D		•••		atch ID: MS	)9W05	27 <b>A</b>	Analy	sis Date: (	5/27/2010 23:22	
Sample ID: 10052521-01AMS	Units : µg/L		Run ID: M	SD_09_100	527Å		Prep	Date: (	5/27/2010 23:22	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVa	al %RPD(Limit)	Qual
1,1-Dichloroethene	40.8	2.5	50	0	82	60	130			
Benzene	39	1.3	50	0	78	67	130			
Trichloroethene	39.4	2.5	50	0	79	69	130			
Toluene	37.7	1.3	50	0	75	66	130			
Chlorobenzene	41.7	2.5	50	0	83	70	130			
Ethylbenzene	41	1.3	50	0	82	68	130			
m,p-Xylene	40.2	1.3	50	0	80	64 70	130 130			
o-Xylene Surr: 1.2-Dichloroethane-d4	41.7 57.2	1.3	50 50	U	83 114	70	130			
Surr: Toluene-d8	57.2 46.7		50 50		93	70	130			
Surr: 4-Bromofluorobenzene	50.5		50		101	70	130			
		<b>T</b>							· · · · · · · · · · · · · · · · · · ·	
Sample Matrix Spike Duplicate File ID: 10052719.D		Туре М		est Code: E atch ID: <b>MS</b>				cie Dato: (	)5/27/2010 23:44	
Sample ID: 10052521-01AMSD	Units : µg/L			SD_09_100			Prep		05/27/2010 23:44	
Analyte	Result	PQL							al %RPD(Limit)	Qua
1.1-Dichloroethene	43.2	2.5	50 Spk val		86	60	130	40.84	5.7(20)	
Benzene	43.2	∠.5 1.3	50 50	0	80	67	130	38.97	3.0(20)	
Trichloroethene	40.1	2.5	50	0	82	69	130	39.42	4.4(20)	
Toluene	39	1.3	50	ŏ	78	66	130	37.68	3.3(20)	
Chlorobenzene	43	2.5	50	Ő	86	70	130	41.74	3.0(20)	
Ethylbenzene	42.6	1.3	50	Ō	85	68	130	41	3.8(20)	
m,p-Xylene	42	1.3	50	Ō	84	64	130	40.21	4.4(20)	
o-Xylene	43.5	1.3	50	0	87	70	130	41.71	4.1(20)	
Surr: 1,2-Dichloroethane-d4	55.9		50		112	70	130			
Surr: Toluene-d8	47		50		94	70	130			
Surr: 4-Bromofluorobenzene	50.4		50		101	70	130			

**Comments:** 

3249 Fitzgerald Road Rancho Cordova, CA 95742

June 02, 2010

CLS Work Order #: CTE0951 COC #:

Reyna Vallejo Alpha Analytical, Inc.-Sparks 255 Glendale Ave.; Suite 21 Sparks, NV 89431

#### Project Name: E2M10052504

Enclosed are the results of analyses for samples received by the laboratory on 05/27/10 09:00. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness. Any comments and exceptions are addressed under the Notes and Definitions section.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D. Laboratory Director

### Page 2 of 7

Alpha Analytical, IncSparks 255 Glendale Ave.; Suite 21 Sparks, NV 89431	Project: E2M10052504 Project Number: E2M10052504 Project Manager: Reyna Vallejo	CLS Work Order #: CTE0951 COC #:

### Chlorinated Herbicides by EPA Method 8151A

Analyte	Result	porting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E2M10052504-05A (SS01SENA052510)	(CTE0951-02) Soil	Samp	led: 05/2	25/10 09:25	Receive	d: 05/27/10 0	9:00		QRL-
2,4-D (2,4-Dichlorophenoxyacetic	ND	0.25	mg/kg	5	CT03823	05/28/10	06/02/10	EPA 8151A	
acid) Dalapon	ND	50			"	"	11	11	
-	ND	5.0		"		"	11		
2,4-DB	ND	0.50				n 11	"		
Dicamba	ND	0.050					11	11	
Dichloroprop	ND	0.50	"			11	"		
Dinoseb	ND	0.050	и	"	11	17			
MCPA	ND	10	"	"	"	11	**	U.	
МСРР	ND	10	11	"	**	"	"		
Pentachlorophenol	ND	0.050	"	"	"	"	n	27	
2,4,5-T	ND	0.050	**	11	"	"	n	"	
2,4,5-TP (Silvex)	ND	0.050	n	"	11	"	n		
Surrogate: 2,4-DCAA		118 %	50	)-150	n	u	"	"	
E2M10052504-06A (SS02SENA052510)	(CTE0951-03) Soil	Samp	led: 05/2	25/10 10:25	Receive	d: 05/27/10 (	9:00		QRL-
2,4-D (2,4-Dichlorophenoxyacetic	ND	0.25	mg/kg	5	СТ03823	05/28/10	06/02/10	EPA 8151A	
acid) Dalapon	ND	5.0		11	17		"	11	
2,4-DB	ND	0.50		u	**		11	11	
Dicamba	ND	0.050		11	"	"	"	11	
Dichloroprop	ND	0.050		"	"	"	"	11	
Dinoseb	ND	0.050		"	"		"	11	
MCPA		0.030		"	"	"		H	
мсра	ND					11	"	11	
Pentachlorophenol	ND	10			n	"		**	
-	ND	0.050				"	11	,	
2,4,5-T	ND	0.050		"	"				
2,4,5-TP (Silvex)	ND	0.050				#			
Surrogate: 2,4-DCAA		81 %	50	0-150	"	n	"	"	

CA DOHS ELAP Accreditation/Registration Number 1233

06/02/10 14:14

Page 3 of 7		06/02/10 14:14
Alpha Analytical, IncSparks 255 Glendale Ave.; Suite 21 Sparks, NV 89431	Project: E2M10052504 Project Number: E2M10052504 Project Manager: Reyna Vallejo	CLS Work Order #: CTE0951 COC #:

### **Conventional Chemistry Parameters by APHA/EPA Methods**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
E2M10052504-04A (SB03GW170	)52510) (CTE0951-01) V	Water Sar	npled: (	05/25/10 1	4:25 Rece	eived: 05/27/	10 09:00		
Cyanide (total)	ND	0.0050	mg/L	1	CT03897	06/02/10	06/02/10	SM4500-CN E	

Page 4 of 7		06/02/10 14:14
Alpha Analytical, IncSparks 255 Glendale Ave.; Suite 21 Sparks, NV 89431	Project: E2M10052504 Project Number: E2M10052504 Project Manager: Reyna Vallejo	CLS Work Order #: CTE0951 COC #:

### Chlorinated Herbicides by EPA Method 8151A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CT03823 - EPA 8151A										
Blank (CT03823-BLK1)				Prepared:	05/28/10	Analyzed	: 06/02/10			
2,4-D (2,4-Dichlorophenoxyacetic acid)	ND	0.050	mg/kg							
Dalapon	ND	1.0	н							
2,4-DB	ND	0.10								
Dicamba	ND	0.010	н							
Dichloroprop	ND	0.10	11							
Dinoseb	ND	0.010	"							
МСРА	ND	2.0	n							
MCPP	ND	2.0								
Pentachlorophenol	ND	0.010	"							
2,4,5-T	ND	0.010	н							
2,4,5-TP (Silvex)	ND	0.010	"							
Surrogate: 2,4-DCAA	0.0320		"	0.0500		64	50-150			
LCS (CT03823-BS1)				Prepared:	05/28/10	Analyzed	: 06/02/10			
Dicamba	0.0161	0.010	mg/kg	0.0250		64	50-150			
Dichloroprop	0.0205	0.10	"	0.0250		82	50-150			
Surrogate: 2,4-DCAA	0.0353		"	0.0500		71	50-150			
LCS Dup (CT03823-BSD1)				Prepared:	05/28/10	Analyzed	: 06/02/10			
Dicamba	0.0155	0.010	mg/kg	0.0250		62	50-150	4	30	
Dichloroprop	0.0195	0.10	"	0.0250		78	50-150	5	30	
Surrogate: 2,4-DCAA	0.0368		"	0.0500		74	50-150			
Matrix Spike (CT03823-MS1)	So	urce: CTE09	84-03	Prepared:	05/28/10	Analyzed	: 06/02/10			
Dicamba	0.0127	0.010	mg/kg	0.0250	ND	51	50-150	,		
Dichloroprop	0.0226	0.10	"	0.0250	ND	90	50-150			
Surrogate: 2,4-DCAA	0.0479		"	0.0500		96	50-150			

Page 5 of 7		06/02/10 14:14
Alpha Analytical, IncSparks 255 Glendale Ave.; Suite 21 Sparks, NV 89431	Project: E2M10052504 Project Number: E2M10052504 Project Manager: Reyna Vallejo	CLS Work Order #: CTE0951 COC #:

### Chlorinated Herbicides by EPA Method 8151A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch CT03823 - EPA 8151A										
Matrix Spike Dup (CT03823-MSD1)	So	urce: CTE09	84-03	Prepared:	05/28/10	Analyzed	: 06/02/10			
Dicamba	0.0143	0.010	mg/kg	0.0250	ND	57	50-150	12	30	
Dichloroprop	0.0289	0.10	н	0.0250	ND	116	50-150	24	30	
Surrogate: 2,4-DCAA	0.0538			0.0500		108	50-150			

# $C \text{ALIFORNIA} \ L \text{ABORATORY} \ S \text{ERVICES}$

Page 6 of 7		06/02/10 14:14
Alpha Analytical, IncSparks 255 Glendale Ave.; Suite 21 Sparks, NV 89431	Project: E2M10052504 Project Number: E2M10052504 Project Manager: Reyna Vallejo	CLS Work Order #: CTE0951 COC #:

### Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
		Dinit	01110	Dever	result		Diritio		2000	
Batch CT03897 - General Preparatio	n									
Blank (CT03897-BLK1)				Prepared	& Analyz	ed: 06/02/	10			
Cyanide (total)	ND	0.0050	mg/L							
LCS (CT03897-BS1)				Prepared	& Analyz	ed: 06/02/	10			
Cyanide (total)	0.0894	0.0050	mg/L	0.100		89	75-125			
LCS Dup (CT03897-BSD1)				Prepared	& Analyza	ed: 06/02/	10			
Cyanide (total)	0.0931	0.0050	mg/L	0,100	<b>-</b>	93	75-125	4	25	
Matrix Spike (CT03897-MS1)	Sou	irce: CTE09	51-01	Prepared	& Analyze	ed: 06/02/	10			
Cyanide (total)	0.0983	0.0050	mg/L	0.100	ND	98	75-125			
Matrix Spike Dup (CT03897-MSD1)	Sou	irce: CTE09	51-01	Prepared	& Analyza	ed: 06/02/	10			
Cyanide (total)	0.100	0.0050	mg/L	0.100	ND	100	75-125	2	25	

# $C \text{ALIFORNIA} \ L \text{ABORATORY} \ S \text{ERVICES}$

Page 7 d	of 7		06/02/10 14:14
255 Gle	Analytical, IncSparks ndale Ave.; Suite 21 NV 89431	Project: E2M10052504 Project Number: E2M10052504 Project Manager: Reyna Vallejo	CLS Work Order #: CTE0951 COC #:
		Notes and Definitions	
QRL-5	The sample was diluted due to the reporting limits.	presence of high levels of non-target analytes or n	natrix interference resulting in elevated
DET	Analyte DETECTED		
ND	Analyte NOT DETECTED at or above	e the reporting limit	
NR	Not Reported		
dry	Sample results reported on a dry weig	ht basis	
RPD	Relative Percent Difference		



FAX 714/538-1209

CLIENT	Alpha Analytical, Inc. ATTN: Reyna Vallejo	(11338)	LAB REQUES	ST 255509
	255 Glendale Avenue Suite 21		REPORTED	06/04/2010
	Sparks, NV 89431-5778		RECEIVED	05/27/2010

PROJECT W.O. #E2M10052504

SUBMITTER Client

COMMENTS

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

Order No. 1083119 1083120 Client Sample Identification E2M10052504-04A Laboratory Method Blank

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

ASSOCIATED LABORATORIES by,

/Edward S. Behare/PH.D. Vice President

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

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Lab request 255509 cover, page 1 of 1

Order #: 1083119 Matrix: WATER Date Sampled: 05/25/2010 Time Sampled: 14:25	Client Sample ID: E2M10	052504-04A			
Analyte		Result	DLR	Units	Date/Analyst
9065 Total Phenolics		<u> </u>			
Total Phenolics	1	ND	0.005	mg/L	06/03/10 HK
Order #: 1083120 Matrix: WATER	Client Sample ID: Laborat	ory Method Blank			
Analyte		Result	DLR	Units	Date/Analyst
9065 Total Phenolics					
Total Phenolics	I	ND	0.005	mg/L	06/03/10 HK

7

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



ASSOCIATED LABORATORIES

#### ASSOCIATED LABORATORIES QA REPORT FORM

QC Sample: LR 255328

Matrix: WATER

Prep. Date: June 3, 2010

Analysis Date: June 3, 2010

ID#'s in Batch: LR 255045, 255220, 255328, 255410, 255509, 255615, 255616, 255627, 255655

### MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
PHENOLICS	420.1/5530/9065		0.20	0.205	0.200	103	100	2

ND = Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate %REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS	Ξ	80-120
RPD LIMITS	-	20

### PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS			<u></u>	
Value	Result	True	%Rec	L.Limit	<b>H.Limit</b>
ND	0.080	0.08	100	80%	120%

Value = Preparation Blank Value LCS Result = Lab Control Sample Result True = True Value of LCS L.Limit / H.Limit = LCS Control Limits

Logged in by: ntro dcox izabuth -dCox Alpha Analytical, Inc. 5.25.10 1745

Print Name

Company

Date/Time

Signatu

Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Keno Inp Blank S/17/10									თ	0	05/25/10 1 08:00	AQ 05/2		TB01GWNA052510	E2M10052504-07A T
Sample container has a sample time of 10:05 logged in per COC.	sam					As, Ba, Cd, Cr, Pb, Hg, Ag, Se			J		05/25/10 1 10:25	SO 05/2 10		SS02SENA052510	E2M10052504-06A S
		-		+1KN)	+TKN)	al an ann an			ۍ ا		05/25/10 1 09:25	SO 05/2		SS01SENA052510	E2M10052504-05A S
	PH.		×	N-Total (NO2+NO3	N-Total N-Total N-Total NO2+NO3 =(NO2+NO3		Special List	Total Cyanide	U		14:15 05/25/10 12 14:25		~	SB03GW17052510	
		Pr				As, Ba, Cd, Cr, Pb, Hg, Ag, Se As, Ba, Cd,			თ თ	0 0	05/25/10 1 13:55 05/25/10 1	SO 05/2 10 50 05/2		SB0313SO052510 SB0317SO052510	E2M10052504-02A S
						As, Ba, Cd, Cr, Pb, Hg, Ag, Se			თ	0	05/25/10 1 13:30	SO 05/2		SB0302SO052510	E2M10052504-01A S
Sample Remarks	PH '¥	PH_S	OG_HEM_		N_TKN_W N_TOTAL_ W	)	METALS_A	CYANIDE_T METALS_A METALS_S	es TAT	No. of Bottles Alpha Sub	on	Collecti Matrix Date	z	Client Sample ID	Alpha C Sample ID S
										yates	With Surrog	/S/MSD	(, LCS, 1	= Final Rpt, MBLK, LCS, MS/MSD With Surrogates	QC Level : S3
aived Date Printed 10 25-May-2010	D Required : Yes Sampled by : Jacob Ruffing <u>Cooler Temp</u> <u>Samples Received</u> <u>4 °C</u> 25-May-2010		EDD Kequired : Yes Sampled by : Jaco <u>Cooler Temp</u> <u>4 °C</u>	EDI								·· NTD	Job :	с, с	2365 Iron Point Road Suite 300 Folsom, CA 95630 PO : Client's COC # : 32516
			•		com	clayton.mokri@hdrinc.com	clayton.mo	x 204	(916) 852-7792	(9	Clayton Mokri	Clay			HDR   E2M
						Idress	EMail Address	ber	Phone Number		Report Attention	Repo			Client:
WorkOrder : E2M10052504 Report Due By : 5:00 PM On : 02-Jun-2010	WorkOrder:E2M10052504 eport Due By:5:00 PM On:02-	der : ] By : 5:	rkOro rt Due l	Wo		• 89431-5778	<b>al, Inc</b> ks, Nevada 1 775) 355-04	Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406	<b>pha A</b> venue, Su 15) 355-10	Alj Glendale A TEL: (7)	255			12	9563 S. Kingston Ct. Englewood, CO 80112
۲.			Z		ORD	ECO	DY F	CHAIN-OF-CUSTODY RECORD	F-CU	N-O	CHA				E2M

Logged in by: signature dCox 77 lizabeth **Print Name** dCox Alpha Analytical, Inc. Company 525.10 1745 Date/Time

Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Elling Information :		CHA	N-C	CHAIN-OF-CUSTODY RECO	USTC	A A d (	REC	JRD		Z <			
9563 S. Kingston Ct.			A	.lpha ∕	halyti	Alpha Analytical, Inc.			¥	רעקע ערקע	10r · ]	F)M1	UnrkOrder · F2M10052504
Englewood, CO 80112		25	5 Glendal TEL:	ndale Avenue, Suite TEL: (775) 355-1044	uite 21 Spa 044 FAX:	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406	89431-577 406	8	Repo	ort Due	By: 5:	00 PM	Report Due By : 5:00 PM On : 02-Jun-2010
Client:	Ŗ	Report Attention		Phone Number	¥ i	EMail Address	dress						
HDR   E2M	0	Clayton Mokri		(916) 852-7792	1792 x 204	clayton.mokri@hdrinc.com	) kri@hdrin	c.com					
2365 Iron Point Road			A COLOR OF PROVIDE						EI	D Requi	EDD Required : Yes		
Suite 300 Folsom CA 95630										Sampled	Sampled by : Jacob Ruffing	b Ruffin	U.Y.
PO										Cooler Temp		Samples Received	Received Date Printed
Client's COC #: 32516	Job : NTD	9								4°C	Õ	25-May-2010	-2010 25-May-2010
QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates	_CS, MS/MS	D With Surro	ogates										
								<b>Requested Tests</b>	ed Tests				
-	Matrix C	g	-	Sottles	S_W S_W	PHENOLIC PHOSPHOR S_W US_W	TDS_W	TPH/E_S	TPH/E_W	TPH/P_S	TPH/P_W	VOC_S	Comple Domarka
E2M10052504-01A SB0302SO052510	so	05/25/10 13:30	د 	0 5				TPH/E_N		GAS-N		8260_N	
E2M10052504-02A SB0313SO052510	so	05/25/10 13:55	<u>د</u>	0				TPH/E_N		GAS-N		8260_N	
E2M10052504-03A SB0317SO052510	so	05/25/10 14:15	د	0 5				TPH/E_N		GAS-N		8260_N	
E2M10052504-04A SB03GW17052510	AQ	05/25/10 14:25	12	 	×	Total	TDS		TPH/E_N		GAS-N		
E2M10052504-05A SS01SENA052510	so	05/25/10 09:25	<b>د</b>	 ວ				TPH/E_N				8260_N	
E2M10052504-06A SS02SENA052510	so	05/25/10 10:25	<b>د</b>	 ຫ	7			TPH/E_N				8260_N	Sample container has a sample time of 10:05 logged in per COC.
E2M10052504-07A TB01GWNA052510	AQ	05/25/10 08:00	<b>د</b>	0 5						-			Reno Trip Blank 5/17/10

**Comments:** Samples brought in by client. Frozen ice. Total Cyanide and 8151 subbed to CLS. H2SO4 split was created from 1 Liter unpreseved amber for sample -04A for Phenolics to be subbed to Associated Labs. Only 1 brass tube was provided for sample -06A : therefore appropriate alioquot was taken and subbed to CLS for 8151.

Logged in by: Chipbeth Odcex Print Name Elizabuth Adcox Alpha Analytical, Inc. Company 5:25-10 1745 Date/Time

Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information : E2M			CHA	Í.	-OF	-CU	[STO]	CHAIN-OF-CUSTODY RECORD	Z Z	Page: <b>#</b> of 4
9563 S. Kingston Ct.					Alpł	la Ai	nalytic	Alpha Analytical, Inc.	WorkOrder :	WorkOrder : E2M10052504
Englewood, CO 80112	2		2	55 Glenc TE	lale Ave L: (775)	nue, Suit 355-104	e 21 Spark 4 FAX: (7	255 Glendale Avenue, Suite 21 Sparks, Nevada 89451-5778 TEL: (775) 355-1044 FAX: (775) 355-0406	<b>Report Due By : 5</b>	Report Due By : 5:00 PM On : 02-Jun-2010
Client:		על	Report Attention		Pho	Phone Number	ber	EMail Address		
HDR   E2M			Clayton Mokri		(916	) 852-779	(916) 852-7792 x 204	clayton.mokri@hdrinc.com		
2365 Iron Point Road		[						And a state of the	EDD Required : Yes	85
Suite 300									Sampled by : Jacob Ruffing	cob Ruffing
Folsom, CA 95630									Cooler Temp	Samples Received Date Printed
PO:										
Client's COC #: 32516	or	Job : N	NTD						4°C	
QC Level : S3 =	Final Rpt, MBLK, LCS, MS/MSD With Surrogates	MS/M	SD With Sur	rogates						
			-					Requested Tests	Tests	
Alpha Client	ent	~	Collection	No. of Bottles	Bottles		VOC_W			
Sample ID Sau	Sample ID	Matrix	Matrix Date /	Alpha	Sub	TAT				Sample Remarks
E2M10052504-01A SB	SB0302SO052510	So	05/25/10 13:30	د	0	თ				-
E2M10052504-02A SB	SB0313SO052510	so	05/25/10 13:55	<b>د</b>	0	ப		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·
E2M10052504-03A SB	SB0317SO052510	so	05/25/10 14:15	<b>_</b>	0	СЛ	10.00			
E2M10052504-04A SB	SB03GW17052510	ð	05/25/10 14:25	12	-	U	8260_N		-	
E2M10052504-05A SS	SS01SENA052510	SO	05/25/10 09:25	<u>د</u>	-	თ			· · · · · · · · · · · · · · · · · · ·	
E2M10052504-06A SS	SS02SENA052510	SO	05/25/10 10:25	د	<u>د</u>	сл				Sample container has a sample time of 10:05 logged in per COC.
E2M10052504-07A TB01GWNA052510	01GWNA052510	Ą	05/25/10 08:00	<b></b>	0	СЛ	8260_N			Reno Trip Blank 5/17/10

Comments: Associated Labs. Only 1 brass tube was provided for sample -06A : therefore appropriate alioquot was taken and subbed to CLS for 8151. Samples brought in by client. Frozen ice. Total Cyanide and 8151 subbed to CLS. H2SO4 split was created from 1 Liter unpreseved amber for sample -04A for Phenolics to be subbed to

Logged in by: Chapterth Clark Print Name Klizabath Adcox Alpha Analytical, Inc. Company 5.25.10 MS Date/Time

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Billing Information:		Alpha Analytical, Inc		Samples Collected From Which State? AZ CA NV X WA	e? ℃☆ DOD Site
Address Englewood CO		Sparks, Nevada 89431-5778 Phone (775) 355-1044 Fax (775) 355-0406	0	OTHER	Page # of
City, State, Zip Fax Fax				Analyses Required	
Consultant/ Client Name	Job #	Job Name N-T	D WINY /		✓ Data Validation Level: III or IV
Address	-las 1	Report Attention / Project Manager	260 94-4	che chec	
City, State, Zip	Email:		ma	#a+	EDD/EDF? YES NO
	Phone:	Mobile:	$\mathcal{R}$	A. 61 A 61 10	Global D #
ŭ 0	nly) Sample Description	TAT	RC		REMARKS
E2m10052505	NSB03	OZSOBSISIO St	× ×		
	02/SG03135005	052510	× X X ×		
	03 580 317500	750052510	XXX		
1425 AQ	530	3==GW17052510		×	
c975 SO 379		Ø52510		×.	
1025 1 50 50 50 50 50 50 50 50 50 50 50 50 50	$\sim$	52510		X	
6500 5/15 A	-DITBOIGWNADSZSIP	52510 V	×		
ADDITIONAL INSTRUCTIONS:					
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action (NAC 445.0636 (c) (2)). Sampled By:	ticity of this sample. I am aware Sampled By:	that tampering with or intentionally	mislabeling the sample location, date o	r time of collection is consid	ered fraud and may be
ne n	HDRferm	Received by: (Signature/Affiliation)	Adver Ald	(~ D#: 25-10	Time: COD
Relinquished by: (Signature/Affiliation)		Received by: (Signature/Affiliation)		Date:	Time:
Relinquished by: (Signature/Affiliation)		Received by: (Signature/Affiliation)		Date:	Time:
*Key: AQ - Aqueous SO - Soil WA -	WA - Waste OT - Other A	AR - Air **: L-Liter V-Voa	a S-Soil Jar O-Orbo T-Tedlar	dlar B-Brass P-Plastic	astic OT-Other
of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.	amples received by the laborate	myements are made. mazardous a ry with this coc. The liability of the	and the returned to chern or usp aboratory is limited to the amount pair	d for the report.	The report for the analysis

G Veras



Table 2 Groundwater Sample Analyses for the NTD

	(			1425		
				25/5		
	SB-10					Sample
	SB10	2012	SB06	SB03	SBUZ	
	GW 3	GW	GW	GW	GW	Sample I
	Date	Date		1	Date	0
	e X	e ×	e ×	e×	e ×	ТРН-9, ВТЕХ, VOCs (8260)
	×	×	×	×	×	ТРН-d, ТРН-то (8015)
	×	×	×	×	×	(6 M
	×	×	×	×	×	Nitrate, Nitrite, Sulfate, Chloride, Flouride (300.0)
	×	×	×	×	×	Total Nitrogen (calculation)
	×	×	×	×	×	Ammonia (4500-NH3D)
	×	×	×	×	×	pH (150.2) and Field Measurement
;;	×	×	×	×	×	Total P (265.3)
,	×	×	×	×	×	TDS (2540C)
	×	×	×	×	×	Phenol (8270)
~	×	×	×	×	×	Phenolic compounds (9065)
~		×	×	×	×	Alkalinity (2320B)
		×	×	×	×	Oil & Grease (1664)

Note: fields with "?" need to be replaced with depth determined in the field Metals = Arsenic, barium, boron, cadmium, chromium (total), copper, cyanide, iron, lead, manganese, mercury, nickel, selenium, sodium, silver zinc

	1025	STRO	
	1075 SS-2 SB03	SS-1	Sample Location 55 & Sample ID
2055	SB03	-1 6802-	i o Ze
		SE	Sample I
	SE NA Date	SE NA Date	0
	×	×	VOCs (8260)
	×	×	Sediment S TPH-d, TPH-mo (8015)
	×	×	Table 3 Sample Anal RCRA 8 Metals (6020)
	×	×	Table 3       Table 3       Sediment Sample Analysis for the NTD       TPH-d,     RCRA 8     pesticides       TPH-mo     Metals     and PCBs       (8015)     (6020)     (8081/8082)
	×	×	OP Pesticides (8151)
	×	×	SVOCs (8270)
	×	×	Chlorinated herbicides (8151)

Table 4       CA/QC Sample Analysis for the NTD       TPH-d,     TPH-d,       VOCs     TPH-mo       Sample ID     (8260)     (8015)	on Sample ID	EB EB01 GW NA Date X	TB TB01 GW NA Date X	TB TB02 GW NA Date X		- 1
ā	19360	(020)				
	(8260)		×	××	×××	××××
	(6020)	100000	X X	X	×	X

A

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## **APPENDIX C**

Disposal Facility Letters of Acceptance



**Waste Management** 4333 E Jefferson Ave. Fresno, CA 93725 (559) 834-9151

January 30, 2012

TO:	Mr. Clayton	Mokri
	HDR Inc.	

FROM: Jason Hirsch

## SUBJECT: North Truckee Drain Realignment

I have reviewed the data table for the above profile. The soil is within the limits of Lockwood Regional Landfill for disposal in the bioremediation area. The soils for bioremediation must contain greater than 300 mg/kg gasoline, 600 mg/kg diesel or 600 mg/kg oil. Soil must be relatively clean of debris for acceptance. The remaining soil can be sent for cover. Cover soil must be relatively clean of debris as well.

Prior to receipt of waste a profile signed by the generator will need to be completed and approved. After Waste Management Inc. approves the profile: all loads must be scheduled 48 hours in advance due to high VOC notification requirements. Please contact Waste Management Inc. to schedule the loads. The profile number must be referenced for schedule and delivery.

Sincerely.

Jun thit

Jason Hirsch Waste Acceptance Manager Waste Management Inc.



#### Clayton,

For the TPH contaminated soil from the City of Sparks, the contamination levels in the data table you provided are within Recology's acceptance criteria. Unfortunately, the samples are out of date (over a year old) and as per our criteria, an insufficient number of samples were initially tested to properly characterize the amount of soil in the entire project.

For projects over 10,000cy we would like one 4:1 composite sample for every 1,000cy of material; however, since you have already provided 28 discrete boring samples throughout the project site one 4:1 composite sample for every 1,500cy will sufficiently characterize the 40,000cy of soil. At that sampling frequency 27 composite samples (spanning the representative depths and distance of the excavation area) would be needed (rather than 40). To err on the side of caution taking 28-30 composite samples will get more soil approved in the event that the excavation yields more soil than was originally anticipated. Along with the laboratory analyses for the new composite samples (with results for: TPHg, TPHd, TPHo and VOCs), I will also need the actual laboratory analyses for the data table that has already been provided. This should include the chain of custody and quality control/quality assurance.

As long as the contamination levels for the new samples come back in line with the contamination levels of the boring samples in the data table, I will be able to approve the contaminated soil for disposal at either the Ostrom Road or Hay Road facility.

If you have any questions feel free to call or email me.

Thank you, Christine O'Dea Compliance Specialist

Recology™ Environmental Solutions, Inc. 235 N. First Street | Dixon, CA 95620 Office: 707.693.2106 | Mobile: 707.235.2586 | Fax: 707.678.5148 codea@recology.com WASTE ZERO

Administrative Office: 235 North First Street | Dixon, CA 95620-3027 | T: 800.208.2371 | F: 707.678.5148 Site Location: 5900 Ostrom Rd | Wheatland, CA 95692-9458 | T: 530.743.6321 | F: 530.743.8649



# Sampling Requirements and Acceptance Criteria

Recology Hay Road 6426 Hay Road Vacaville, CA 95687 Recology Ostrom Road 5900 Ostrom Road Wheatland, CA 95692

Revised: December 2010

## Recology™ WASTE ZERO Sampling Requirements and Acceptance Criteria

#### **Sampling Requirements**

Project Size Yards Per	Cubic Yards per 4:1 Composite Sample
0 - 2,499 cy	250 cy
2,500 - 4,999 cy	375 су
5,000 - 7,499 cy	500 cy
7,500 cy - 10,000 cy	750 cy
>10,000 cy	1000 cy

Discrete samples are assigned a sampling frequency of 50 cubic yards per sample. The sampling frequency for 4:1 composite samples is found on the table above. Recology reserves the right to require the generator to perform additional analytical testing. Please contact Recology to confirm sampling requirements and required testing. Analytical results must originate from a CELAP certified laboratory. A Recology waste disposal application and final laboratory results, including QA/QC and Chain-of-Custody, must be submitted prior to approval.

#### Soil Analysis Guidelines

Contaminant	Required Analyses	EPA Methods
Gasoline, Leaded	TPH – Gasoline BTEX Total Lead	EPA 5030/8015 EPA 8020/8260 TTLC-Lead
Gasoline, Unleaded	TPH – Gasoline BTEX	EPA 5030/8015 EPA 8020/8260
Diesel	TPH – Diesel BTEX	EPA 3550/8015 EPA 8020/8260
Jet Fuel (A, A-1, B, JP- 1,4,5,6,8)	TPH - Jet Fuel ( <i>A, A-1, B, JP- 1,4,5,6,8)</i> BTEX	EPA 3550 or 5030/8015 EPA 8020/8260
Motor Oil	TPH – Motor Oil BTEX	EPA 3550/8015 EPA 8020/8260
Hydraulic Oil	TPH – Hydraulic Oil BTEX	EPA 3550/8015 EPA 8020/8260
Bunker Oil	TPH – Bunker Oil BTEX	EPA 3550/8015 EPA 8020/8260
Fuel Oil	TPH – Fuel Oil BTEX	EPA 3550/8015 EPA 8020/8260
Kerosene	TPH – Kerosene BTEX	EPA 3550/8015 EPA 8020/8260
Waste Oil	TPH – Waste Oil TPH – Diesel TPH – Gasoline VOC's SVOC's Luft 5 Metals (Cd, Cr, Pb, Ni, Zn) PCB's Dioxins (if PCP's are detected)	EPA 3550/8015 EPA 3550/8015 EPA 5030/8015 EPA 8260 EPA 8270 TTLC – Metals EPA 8080 EPA 8280

Please contact Recology to obtain waste stream specific sampling requirements.

## **Recology**<sup>™</sup> WASTE ZERO Sampling Requirements and Acceptance Criteria

Metals Acceptance Criteria (CCR Title 22)							
METAL	TTLC (mg/kg)	STLC Threshold (10x STLC)	STLC (mg/l)				
Antimony (Sb)	500	150	15				
Arsenic (As)	500	50	5				
Barium (Ba)	10,000	1,000	100				
Beryllium (Be)	75	7.5	0.75				
Cadmium (Cd)	100	10	1				
Chromium (Cr)	2,500	50	560/5				
Cobalt (Co)	8,000	800	80				
Copper (Cu)	2,500	250	25				
Lead (Pb)	1,000	50	5				
Mercury (Hg)	20	2	0.2				
Molybdenum (Mo)	3,500	3,500	350				
Nickel (Ni)	2,000	200	20				
Selenium (Se)	100	10	1				
Silver (Ag)	500	50	5				
Thallium (TI)	700	70	7				
Vanadium (Va)	2,400	240	24				
Zinc (Zn)	5,000	2,500	250				

Total concentrations cannot equal or exceed the TTLC values. If total concentrations exceed 10x's the STLC, a WET (Waste Extraction Test) is required. Soluble concentration from the WET cannot equal or exceed the STLC values.

Total Petroleum Hydrocarbons
Acceptance Criteria

TPH Range	Threshold
Gasoline	>8,000 mg/kg
Diesel	>8,000 mg/kg
Jet Fuel	>8,000 mg/kg
Motor Oil	>25,000 mg/kg
Hydraulic Oil	>25,000 mg/kg
Bunker Oil	>25,000 mg/kg
Fuel Oil	>25,000 mg/kg
TRPH	>25,000 mg/kg
Oil & Grease	>25,000 mg/kg

Ignitibility and toxicity testing is required if the constituents above exceed the listed threshold.

## **RCI & Toxicity Acceptance Criteria** (CCR Title 22)

Non-Reactive
$pH \ge 2.0 \text{ or } pH \le 12.5$
Flash Point ≥140°F (60°C)
Acute Aquatic 96-hour
$LC_{50} \ge 500 mg/l$

(Reactivity) (Corrosivity) (Ignitability) (Toxicity)

## **Potentially Toxic Substances** (CCR Title 22)

Substance	TCLP (mg/l)	STLC (mg/l)	TTLC (mg/kg)
Aldrin	N/A	0.14	1.4
Benzene	0.5	N/A	N/A
Chlordane	0.03	0.25	2.5
DDT, DDE,DDD	N/A	0.1	1
2,4-Dichlorophenoxyacetic Acid	10	10	100
Dieldrin	N/A	0.8	8
Dioxin (2,3,7,8,-TCDD)	N/A	0.001	0.01
Endrin	0.02	0.02	0.2
Heptachlor	0.008	0.47	4.7
Kepone	N/A	2.1	21
Lead Compounds, Organic	N/A	N/A	13
Lindane	0.4	0.4	4
Methoxychlor	10	10	100
Mirex	N/A	2.1	21
Pentachlorophenol	100	1.7	17
PCB's	N/A	5	50
Toxaphene	0.5	0.5	5
TCE	0.5	204	2040
2,4,5- Trichlorophenoxypropionic	1	1	10

Acid

Total concentrations cannot equal or exceed the TTLC values. If total concentrations exceed 20x's the TCLP, a TCLP is required. Soluble concentration from the WET cannot equal or exceed the STLC values. Soluble concentration from the TCLP cannot equal or exceed the TCLP values.

## **Special Acceptance Provisions**

Soil must be > 50% solids with no free liquids

Sludge from a wastewater treatment plant must be >15% solids for secondary treated sludge and >20% solids for primary treated sludge.

## APPENDIX D

Dewatering Estimates Technical Memorandum

## **DEWATERING ESTIMATES**

## North Truckee Drain Realignment Project

January 6, 2011

Reviewed by: Charlie O'Neill, CEM

Prepared by: Christopher D. Trumbull, P.E.

## Introduction

The North Truckee Drain Realignment Project (Project) will consist of realigning the existing drainage and installation of approximately 2½ miles of box culvert from immediately northwest of the I-80/Sparks Boulevard interchange to the Truckee River (Figure 1). The box culverts will be installed approximately 11 to 20 feet below existing grades (varying with surface topography) with excavations depths extending to approximately 4,375 to 4,379 feet above mean sea level (amsl). In order to install the box culverts, it is anticipated that the static groundwater elevation in the shallow water table aquifer will need to be lowered to facilitate "dry" conditions. This memorandum assumes construction dewatering will be accomplished with well points installed along the alignment of the excavation.

The following tasks were completed as part of this project:

- Review of previously prepared documents to identify estimates of horizontal permeability,
- Perform gradation analysis on samples collected from shallow aquifer materials,
- Derive permeability estimates from the gradation analysis performed on aquifer materials,
- Perform a slug test in three existing groundwater monitoring wells,
- Stimate required groundwater extraction rates to achieve "dry" conditions, and
- Prepare this technical memorandum.

## **Existing Geotechnical Reports**

The following reports were reviewed by HDR for historical groundwater elevation data, soil permeability values, and other geotechnical information.

Geotechnical Investigation Report (Kleinfelder, 2009). This report presents the results from a geotechnical investigation performed in support of the Project. The primary tasks included soil sample collection from 15 exploratory borings advanced along the proposed Project area, gradation analysis of these soil samples, and conversion of three soil borings to groundwater monitoring wells.

- Fourth Quarter, 2007 Ground-Water Monitoring Report (BAI, 2008). This report documents the quarterly groundwater monitoring activities conducted by Broadbent and Associates, Inc. (BAI) at the Washoe County School District site located at 1850 Kleppe Lane in Sparks, Nevada. This report presents the historical groundwater elevation data collected from shallow groundwater monitoring wells.
- Seepage Analysis of the Truckee River West Bank Embankment, (HDR, 2010a). In this report HDR presents hydraulic conductivity values of soil where the box culverts penetrate the embankment and subsurface soil at the east end of the Project area.

Review of information presented in these documents indicates that fill material underlain by Tahoe Outwash deposits (sands and gravels) generally extended to depths of approximately 15 feet below ground surface (bgs) along the alignment. During the 2009 geotechnical investigation performed by Kleinfelder, static groundwater depths along the existing North Truckee Drain were measured between 14½ and 34½ feet below existing grades (4,372 to 4,380 feet amsl). Review of the groundwater elevation data presented in the BAI *Fourth Quarter, 2007 Ground-Water Monitoring Report* indicates a maximum static groundwater elevation of 4,388 feet amsl recorded in January 2008 at the Washoe County School District Site.

The applicable soil permeability data reported in the Kleinfelder and HDR reports was analyzed. These reports indicate a horizontal permeability  $(k_h)$  range of  $1 \times 10^{-2}$  to  $4 \times 10^{-3}$  centimeters per second (cm/sec) in the sandy and gravelly soils of the water table aquifer.

For the purposes of this dewatering estimation it was approximated that the static groundwater elevation will need to be lowered approximately five feet to facilitate "dry" conditions. As depicted on Figure 1, the groundwater elevation decreases from west to east, therefore less dewatering will be required on the eastern portion of the excavation.

## Permeability Testing

In October 2010, HDR performed geotechnical laboratory and field slug testing to help establish a range of potential permeability values for materials to be dewatered. These test programs are summarized in the paragraphs below.

In May 2010 HDR performed a subsurface investigation in the Project area, which included the collection of soil and groundwater samples for analytical laboratory analysis (HDR, 2010b). The purpose of the May 2010 investigation was to evaluate potential contaminants in soil and groundwater that could restrict disposal options during construction. Although the intent of the May 2010 investigation was not geotechnical, six samples from that investigation were tested to evaluate material gradation by ASTM D422 at AMEC's geotechnical laboratory. The samples selected and analyzed by this method were recovered from borings advanced in Larkin Circle and collected from 10 and 17 feet bgs. The soil lithology of these samples (sand and silty sand) is representative of the water table aquifer materials. The laboratory gradation report for these samples is provided in Appendix A.

On October 1, 2010 HDR performed a slug test at the three existing monitoring wells (B-03 (MW), B-07 (MW), and B-11 (MW)) installed by Kleinfelder, with locations depicted on Figure 1. The slug tests were performed in general accordance with the procedures in USEPA SOP 2046 (Appendix B). Rising and falling slug tests were performed in each well to obtain a reliable average permeability for each well. Due to the quantity of data obtained from the slug test, the raw data is not attached, but a summary is presented in the following section.

## Analyses

Permeability values for the soil in the Project area were based on gradation analysis performed on samples collected in 2009 and 2010 by Kleinfelder and HDR, respectively and the October 2010 slug test. To estimate the aquifer permeability from the samples, HDR utilized methods presented in the following documents; *Permeability Values for Seepage Analysis of Levees in the Natomas Basin, Predicting the Saturated Hydraulic Conductivity of Sand and gravel Using Effective Diameter and Void Ration* (Chapuis, 2004), and *Journal of Geotechnical and Geoenvironmental Engineering* (Carrier, 2003). Following these procedures, HDR calculated the horizontal permeability (K<sub>h</sub>) for soil samples collected from the water table aquifer. The soil sample locations are presented on Figure 1, and the results from this analysis are presented in Table 1 below. The horizontal permeability ranges from  $2x10^{-1}$  to  $3x10^{-4}$ .

Boring	Depth	Material	k <sub>h</sub> (cm/sec)
B-01	20.5	Poorly Graded Gravel with Silt and Sand	1 x10 <sup>-3</sup>
B-04	15.5	Poorly Graded Sand	2x10 <sup>-1</sup> to 3 x10 <sup>-3</sup>
B-07	25.0	Poorly Graded Gravel with Silt and Sand	1 x10 <sup>-3</sup>
B-08	20.5	Silty Sand with Gravel	3 x10-4
SB-08	10.0	Sand with Silt	3 x10 <sup>-4</sup>
SB-08	17.0	Sand	1 x10 <sup>-3</sup>
SB-09	10.0	Silty Sand	1 x10 <sup>-4</sup>
SB-09	17.0	Sand with Silt	3 x10 <sup>-4</sup>
SB-10	10.0	Silty Sand	1 x10 <sup>-4</sup>
SB-10	17.0	Silty Sand with Silt	3 x10 <sup>-4</sup>

 Table 1. Horizontal Permeability Values - Laboratory Testing-Based

A summary of the October 1, 2010 slug test results, utilizing the Hvorslev analysis procedure (Hvorsley, 1951) to convert the raw data to  $K_h$  values, are presented below in Table 2.

Well	Water	k <sub>h</sub> (cm/sec)	Well	Water	k <sub>h</sub> (cm/sec)	Well	Water	k <sub>h</sub> (cm/sec)
B-03	Rising	2.4 x10 <sup>-2</sup>	B-07	Falling	1.3 x10 <sup>-2</sup>	B-11	Rising	6.7 x10 <sup>-2</sup>
B-03	Falling	1.7 x10 <sup>-2</sup>	B-07	Rising	2.7 x10 <sup>-2</sup>	B-11	Falling	1.8 x10 <sup>-2</sup>
B-03	Rising	4.3 x10 <sup>-2</sup>	B-07	Falling	1.3 x10 <sup>-2</sup>	B-11	Rising	3.0 x10 <sup>-2</sup>
B-03	Falling	2.8 x10 <sup>-2</sup>	B-07	Rising	3.1 x10 <sup>-2</sup>	B-11	Falling	1.7 x10 <sup>-2</sup>
B-03	Rising	1.4 x10 <sup>-2</sup>	B-07	Falling	6.8 x10 <sup>-3</sup>	B-11	Rising	2.1 x10 <sup>-2</sup>
B-03	Falling	2.8 x10 <sup>-2</sup>	B-07	Rising	3.3 x10 <sup>-2</sup>	B-11	Falling	1.5 x10 <sup>-2</sup>
B-03	Rising	1.9 x10 <sup>-2</sup>	B-07	Falling	6.2 x10 <sup>-3</sup>	B-11	Rising	3.0 x10 <sup>-2</sup>
B-03	Falling	1.9 x10 <sup>-2</sup>	B-07	Average	1.9 x10 <sup>-2</sup>	B-11	Falling	1.4 x10 <sup>-2</sup>
B-03	Average	2.5 x10 <sup>-2</sup>				B-11	Average	2.6 x10 <sup>-2</sup>

#### Table 2. Horizontal Permeability Values - Slug Testing-Based

## Permeability Summary

Considering the results of the laboratory and slug test analyses, the slug tests provide the best representation of permeability. Because the slug tests were performed in the stratum to be dewatered and at the approximate depth of dewatering, it is HDR's opinion that these results are representative of permeability conditions along North Truckee Drain alignment. Therefore, HDR recommends a  $K_h$  of  $3x10^{-2}$  cm/sec be used for dewatering calculations and estimated daily volume.

## **Daily Flow Estimation**

The  $K_h$  value of  $3x10^{-2}$  cm/sec was used to estimate a daily flow, using the outlined procedures in *Construction Dewatering and Groundwater Control* (Powers, 1981). Due to the limited depth of explorations, the depth of a lower confining aquifer was not found; therefore HDR assumed a depth of 40 feet for the lower confining aquifer and the bottom of the well points. HDR assumed a drawdown depth at each well point to be no more than 30 feet. The depth to groundwater was assumed to be 15 feet below existing grades.

A sensitivity approach was taken, using the information above, well spacing of 200 feet, and well diameters of 24 to 36 inches (typical well sizes that dewatering contractors might use) to arrive at the combination of dewatering parameters to lower the groundwater at least 5 feet along the entire alignment.

Based on our analysis, the flow for the dewatering scenario discussed above, could be up to about 250,000 gallons per day from each well point. These values will likely be reduced as pumping continues.

## Mass Loading Estimates

Groundwater samples were collected from the three existing monitoring wells B-03 (MW), B-07 (MW), and B-11 (MW) in February, April, and September 2010. The September 2010 *Groundwater and Surface Water Sampling Results* report is provided in Appendix C. This report presents the analytical results of groundwater samples collected from three monitoring wells and surface water samples collected from the North Truckee Drain. The samples were analyzed at a laboratory with respect to the discharge limitations of the Truckee River and Truckee Meadows Water Reclamation Facility (TMWRF). In general, most analyte concentrations were consistent among the wells sampled; however, the nitrate, sulfate, and chloride concentrations did vary between sample locations. For example these analytes were generally detected at a lower concentration in well B-11 (MW), located furthest to the east, than in the other wells; therefore it can be expected that the pounds removed of these compounds will decrease as the project nears the Truckee River.

Mass loading was estimated based on the approximate gallons of groundwater extracted per well per day and the maximum detected concentration of each analyte. These results are summarized in Table 3 below.

	Po	ounds per Da	ау	
Total Nitrogen	Nitrate	Nitrite	Sulfate	Chloride
2.34	2.33	0.01	40.77	37.86
	Ро	unds per Da	ау	
Ammonia as Nitrogen	TDS	TSS	Phosphorus	Sodium
			0.35	58.24
	2.34 Ammonia as Nitrogen	Total NitrogenNitrate2.342.33PoAmmonia as NitrogenTDS	Total Nitrogen     Nitrate     Nitrite       2.34     2.33     0.01       Pounds per Date	2.342.330.0140.77Pounds per DayAmmonia as NitrogenTDSTSSPhosphorus

#### Table 3. Estimated Mass Loading

Notes: TDS = Total dissolved solids, TSS = total suspended solids

## Closing

The estimates presented above are based on certain conditions and rely on assumptions made on limited data. Should aquifer conditions or well point construction details vary from the assumptions made herein, the mass loading and dewatering estimates will change. Should the extraction well depth increase beyond 40 feet bgs mass loading and volume estimates will need to be increased accordingly. Therefore, consideration should be given to limiting the depth of well point to 40 feet bgs and the drawdown depth at each well point to 30 feet bgs.

Construction dewatering with well points will draw the groundwater down in an approximate radial fashion in all directions. HDR's intent was to evaluate scenarios capable of lowering the shallow groundwater surface elevation at least 5 feet over the entire alignment. Should the contractor wish to dewater in stages, the data presented above could be used to estimate the appropriate spacing of the well points and the approximate distance from the well point to achieve the "dry" conditions.

Dewatering of the aquifer materials reduces pore pressure in the soil structure and could lead to settlement of soil that supports structures, roadways, embankments, etc. Consideration should be given to evaluating the potential effects of groundwater removal on the surrounding area. A more conclusive approach to quantifying the potential effects of groundwater removal would require more study.

The parameters developed and dewatering estimates presented herein should be used only for estimating purposes. This document is not intended to be used for design of the dewatering system. The dewatering contractor should arrive at its own conclusions and design the dewatering system based on its own assumptions. The dewatering contractor should install and evaluate test wells, prior to installation of all production wells, to confirm the actual flow quantities, drawdown depths, and recovery rates.

Please contact us at 916-817-4700 if you have any questions or comments.

## JURAT

"I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances."

Lalie ONell

Charles O'Neill, CEM 2054, Exp. March 1, 2011

## References

BAI, 2008, Fourth Quarter, 2007 Ground-Water Monitoring Report Washoe County School District Getto Transportation Facility 1850 Kleppe Lane, February

Carrier, 2003, *Goodbye, Hazen: Hello, Kozeny-Carman,* Journal of Geotechnical and Geoenvironmental Engineering, Vol. 129 (No. 11), November

Chapuis, 2004, *Predicting the Saturated Hydraulic Conductivity of Sand and Gravel Using Effective Diameter and Void Ratio*, Canadian Geotechnical Journal, September

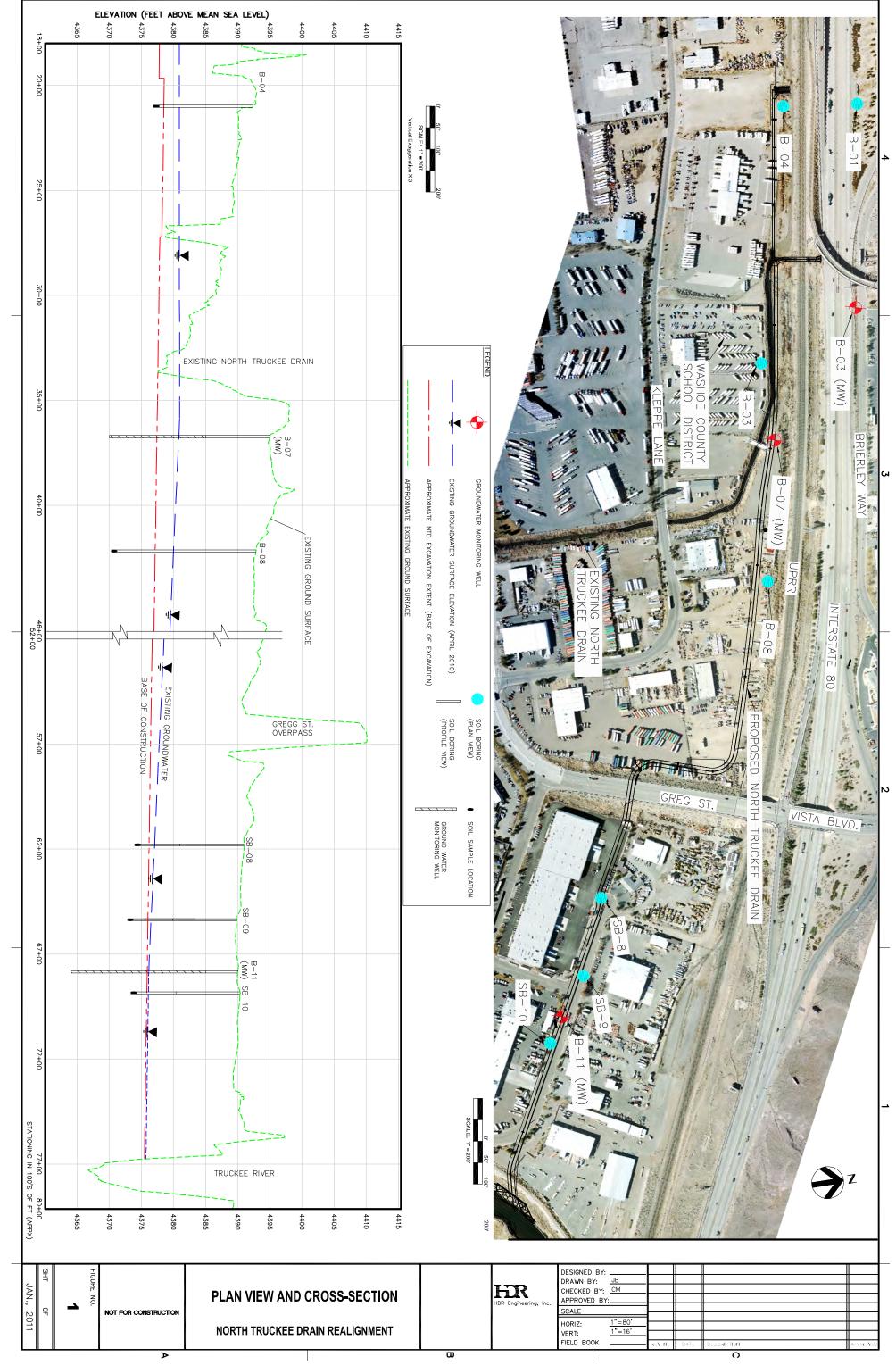
HDR, 2010a, Seepage Analysis of the Truckee River West bank Embankment, January

HDR, 2010b, Report of Sampling and Analysis, July

Hvorslev, 1951, Time Lag and Soil Permeability in Ground-Water Observations,

Kleinfelder, 2009, Geotechnical Investigation Report, November

Powers, 1981, Construction Dewatering and Groundwater Control



Appendix A

Laboratory Gradation Report

## Laboratory Report Report ID: 108536



10/14/2010

ALP-855

J. Ruffing

Alpha Analytical Attn: Reyna Vallejo 255 Glendale Avenue Suite 21 Sparks, NV 89431

Date: Client: Taken by: PO #:

Dear Reyna Vallejo,

It is the policy of Sierra Environmental Monitoring, Inc to strictly adhere to a comprehensive Quality Assurance Plan that insures the data presented in this report are both accurate and precise. Sierra Environmental Monitoring, Inc. maintains accreditation in the State of Nevada (NV-15) and the State of California (ELAP 2526).

The data presented in this report were obtained from the analysis of samples received under a chain of custody. Unless otherwise noted below, samples were received in good condition, properly preserved and within the hold time for the requested analyses. Any anomalies associated with the analysis of the samples have been flagged with appropriate explanation in the Analysis Report section of this Laboratory Report.

General Comments:

- There are no general comments for this report.

Individual Sample Comments:

- There are no specific comments that are associated with these samples.

Approved By:

Sierra Environmental Monitoring, Inc.

assumes all liability for the further distribution of the report or its contents.

This report is applicable only to the sample received by the laboratory. The liability of the laboratory is limited to the amount paid for this report. This report is for the exclusive use of the client to whom it is addressed and upon the condition that the client

John Kobza, Ph.D. Laboratory Director Page 1 of 4 1135 Financial Blvd. Reno, NV 89502-2348 Phone (775) 857-2400 FAX (775) 857-2404 sem@sem-analytical.com

John C. Seher Special Consultant Quality Assurance Manager

Date:

10/14/2010

## Laboratory Report Report ID: 108536



Sierra Environmental Monitoring, Inc.

Alpha Analytical Attn: Reyna Vallejo 255 Glendale Avenue Suite 21 Sparks, NV 89431

ASTM

 Date:
 10/14/2010

 Client:
 ALP-855

 Taken by:
 J. Ruffing

 PO #:
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## Analysis Report

Sample ID:	Cus	tomer Sample ID	- 1	Date Samp	led Time Sa	mpled Date	Received
S201009-1639	E2M1005274	2-03 - SB0810S00	052710	5/27/201	0 11:25	AM 9/2	7/2010
Parameter	Method	Result	Units	Reporting Limit	Analyst	Date Analyzed	Data Flag
Sieve Analysis	ASTM	See Report	%		Seher	10/13/2010	
Sample ID:	Cus	tomer Sample ID		Date Samp	led Time Sa	mpled Date	Received
S201009-1640	E2M10052742	2-04 - SB0817SO	052710	5/27/2010	0 11:35	AM 9/2	7/2010
Parameter	Method	Result	Units	Reporting Limit	Analyst	Date Analyzed	Data Flag
Sieve Analysis	ASTM	See Report	%		Seher	10/13/2010	-
Sample ID:	Cus	tomer Sample ID		Date Samp	led Time Sa	mpled Date	Received
S201009-1641	E2M10052742	2-06 - SB0910SO0	052710	5/27/2010	0 10:20	AM 9/2	7/2010
Parameter	Method	Result	Units	Reporting Limit	Analyst	Date Analyzed	Data Flag
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Sample ID:	Cue	tomer Sample ID		Date Samp	led Time Sa	mulad Data	Received
S201009-1642		2-07 - SB0917SO		5/27/2010			7/2010
Parameter	Method	Result	Units	Reporting Limit	Analyst	Date Analyzed	Data Flag

Sieve Analysis

Page 2 of 4 1135 Financial Blvd. Reno, NV 89502-2348 Phone (775) 857-2400 FAX (775) 857-2404 sem@sem-analytical.com

%

See Report

John C. Seher Special Consultant Quality Assurance Manager

10/13/2010

Seher

## Laboratory Report Report ID: 108536



Sierra Environmental Monitoring, Inc.

Alpha Analytical Attn: Reyna Vallejo 255 Glendale Avenue Suite 21 Sparks, NV 89431 
 Date:
 10/14/2010

 Client:
 ALP-855

 Taken by:
 J. Ruffing

 PO #:
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## Analysis Report

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Parameter	Method	Result	Units	Reporting Limit	Analyst	Date Analyz	
S201009-1644	E2M10052742	2-10 - SB1017SO0	52710	5/27/201	10 8:05	AM 9	9/27/2010
Sample ID:	Cus	tomer Sample ID		Date Sam	pled Time Sa	mpled Da	te Received
Sieve Analysis	ASTM	See Report	%	_	Seher	10/13/20	10
Parameter	Method	Result	Units	Reporting Limit	Analyst	Date Analyz	
S201009-1643	E2M10052742	2-09 - SB1010SO0	52710	5/27/201	10 7:50	AM 9	9/27/2010
Sample ID:	Cust	tomer Sample ID		Date Sam	pled Time Sa	impled Da	te Received

Data Flag Legend:

Page 3 of 4 1135 Financial Blvd. Reno, NV 89502-2348 Phone (775) 857-2400 FAX (775) 857-2404 sem@sem-analytical.com

John C. Seher Special Consultant Quality Assurance Manager

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Page 4 of 4 1135 Financial Blvd. Reno, NV 89502-2348 Phone (775) 857-2400 FAX (775) 857-2404 sem@sem-analytical.com

John C. Seher Special Consultant Quality Assurance Manager

Sierra Environmental Monitoring, Inc. 1135 Financial Blvd. Reno, NV 89502	02	Repor	Report 108536	36												
Sieve Analysis - ASTM D422			Mas	Mass (grams) Retained on	ms) Re	stained	on		Total	Percent		Per	Percent Passing	sing		
Sample ID No Client Sample ID	Total Mass	#16	#30	#40	#50	#100	0	Pan	Recovered Recovered	Recovered	#16	#30	#40	共50	#100	#200
1010-1639 E2M10052742-03 - SB0810SO052710	2710 300.66	1.36	0.43	0.47	3.54	3.54 113.66 120.28	120.28	60.24	299.98	99.8%	99.55%	99.40%	99.40% 99.25% 98.07%	98.07%	60.18%	20.08%
1010-1639 ditto, #200 washed	300.66	1.36	0.43	0.47	3.54	113.66 106.75	106.75	73.77	299.98	99.8%	99.55%	99.40%	99.40% 99.25% 98.07%	98.07%		
1010-1640 E2M10052742-04 - SB0817SO052710	2710 350.45	88,37	14,14	26,46	63.89	98.72	29.09	26.53	347.20	99.1%	74.55%		70.48% 62.85% 44.45%	44.45%	16.02%	7.64%
1010-1640 ditto, #200 washed	350.45	88.37	14.14	26.46	63.89	98.72	26.02	29.60	347.20	99.1%	74.55%	70.48%	70.48% 62.85% 44.45%	44.45%	16.02%	8.53%
1010-1641 E2M10052742-06 - SB0910SO052710	2710 234.22	5.44	2.32	1.11	1.62	38.11	102.36	80.76	231,72	%6'86	97.65%		96.65% 96.17% 95.47% 79.03%	95.47%		34.85%
1010-1641 ditto, #200 washed	234,22	5.44	2.32	1.11	1.62	38,11	93.18	89.94	231.72	98.9%	97.65%	96.65%	97.65% 96.65% 96.17% 95.47% 79.03%	95.47%		38.81%
1010-1642 E2M10052742-07 - SB0917SO052710	2710 337.18	0.76	0.85	7.83	40.70	40.70 166.53	73.37	42.91	332.95	98.7%	99.77%	99.52%	99.52% 97.16%	84.94%	34.92%	12.89%
1010-1642 ditto, #200 washed	337.18	0.76	0.85	7.83	40.70	40.70 166.53	68.99	47.29	332,95	98,7%	99.77%	99.52%	97.16%	84.94%	34.92%	14.20%
1010-1643 E2M10052742-04 - SB01010SO052710	52710 286.97	37.95	7,09	3.17	4.59	1	32.22 113.47	89.79	288.28	100.5%	86.84%	84.38%	83.28%	81.68%	70.51%	31.15%
1010-1643 ditto, #200 washed	286.97	37.95	7.09	3.17	4.59	32.22	89.15	114.11	288.28	100.5%	86.84%	84.38%	83.28%	81.68%	70.51%	39.58%
1010-1644 E2M10052742-04 - SB01017SO052710	52710 304.74	0,07	0.30	2.90	25.60	25.60 154.09	89.53	44,65	317.14	104.1%	99.98%	99.88%	98.97% 90.90%	90.90%	42.31%	14.08%
1010-1644 ditto, #200 washed	304.74	0.07	0.30	2.90	25.60	25.60 154.09	63.85	70.33	317.14	104.1%	99.98%	99.88%	99.98% 99.88% 98.97% 90.90% 42.31%	90.90%	42.31%	22.18%

		SIG	Sieve Openi	ning Size	9	
sieve number	#16	#30	#40	#50	#100	#200
inches	0.0469	0.0234	0.0165	0.0117	0.0059	0.0029
millimeters	1,18	0,600	0.425	0,300	0,150	0.075

amec

October 22, 2010 AMEC Project No. 10-419-00786

Alpha Analytical, Inc. 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

Attention: Ms. Reyna Vallejo

#### Re: MISCELLANEOUS LAB TESTING Particle Size Distribution Reports

We are sending:

\_\_\_\_\_As requested \_\_\_\_\_For your signature \_\_\_\_\_For comment \_\_\_\_\_Under separate cover

Particle Size Distribution Reports, Sample Nos. 1471A through 1471F, sampled on 5-27-10.

Respectfully submitted,

AMEC Earth & Environmental, Inc.

Michael P. Hawe, S.E.T. Laboratory Supervisor

MH/BH/mm

Enclosures

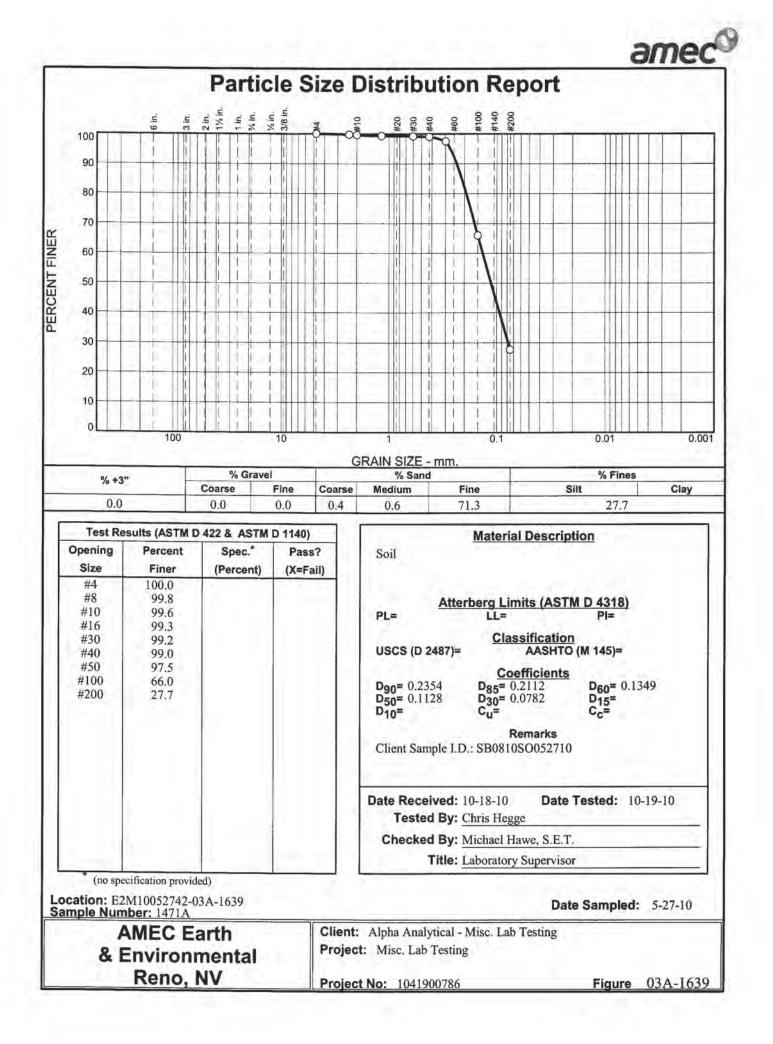
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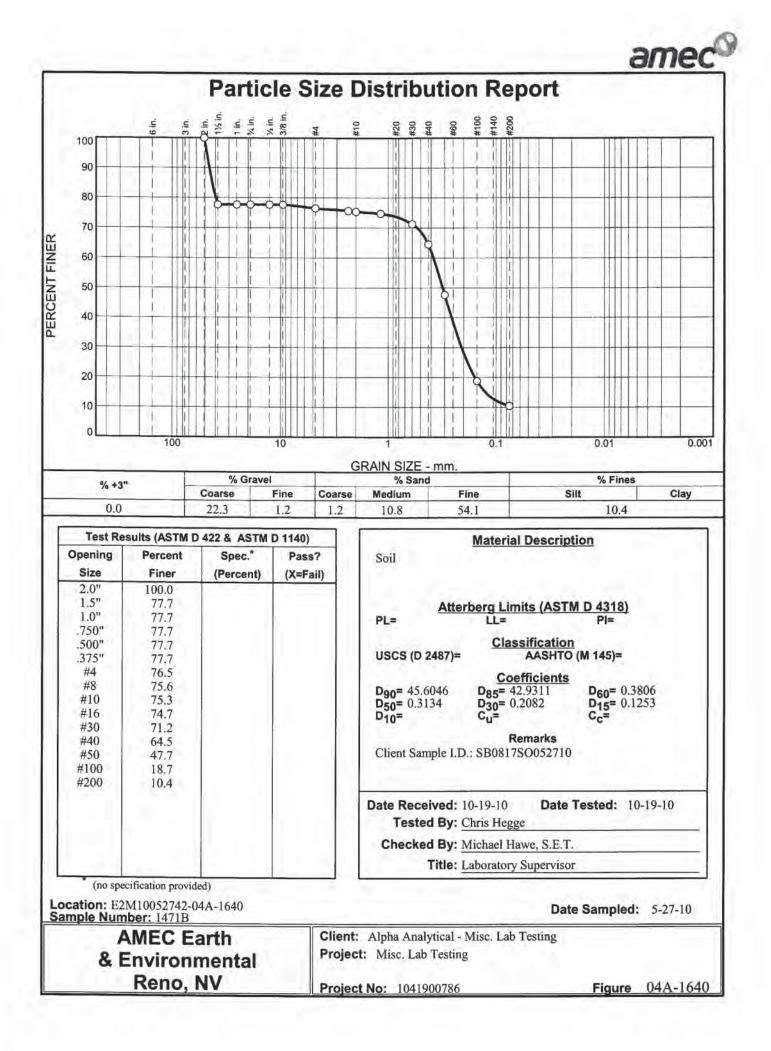
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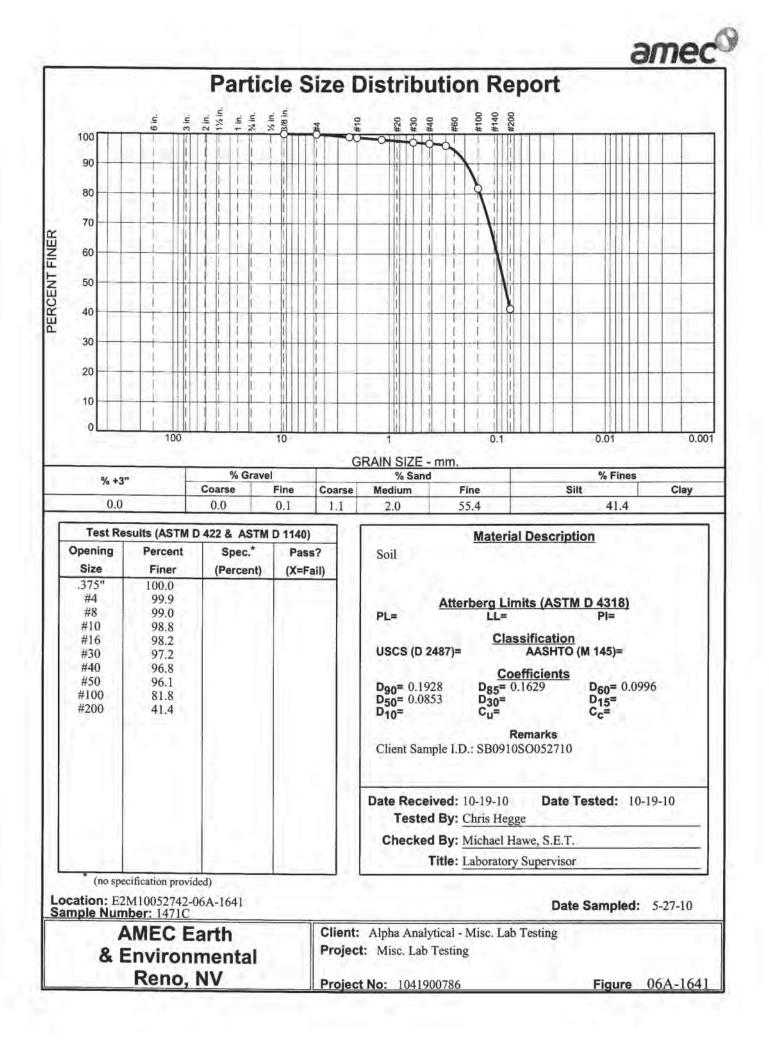
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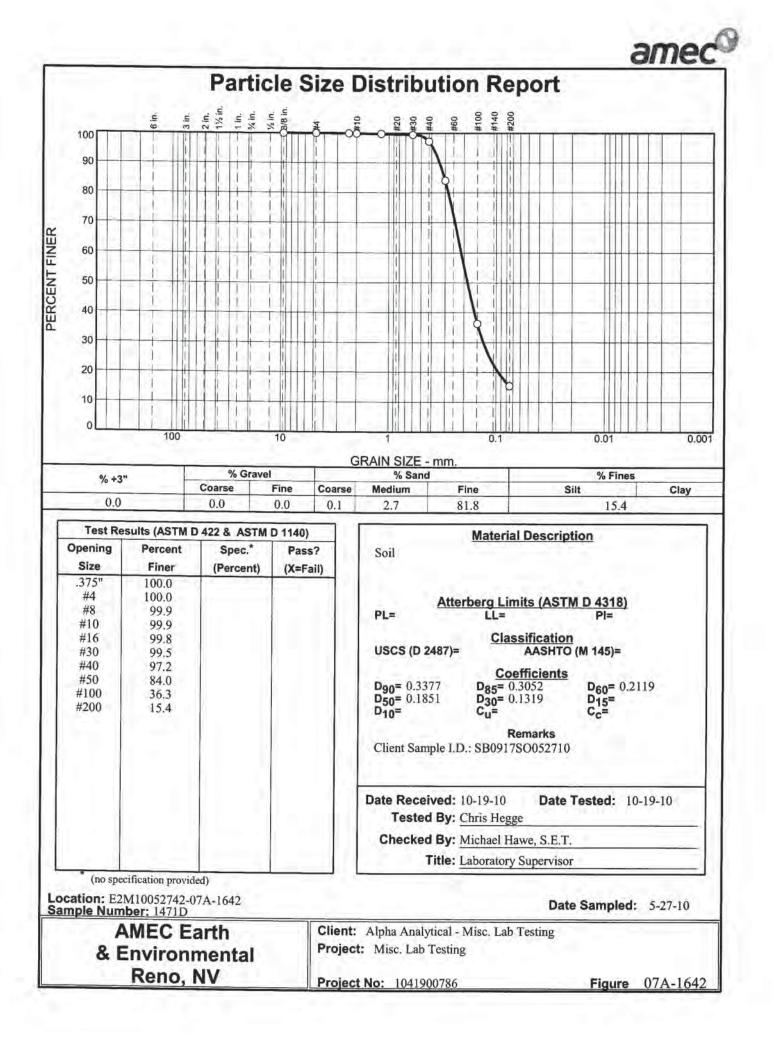
Brenda Hermes, E.I. Project Manager

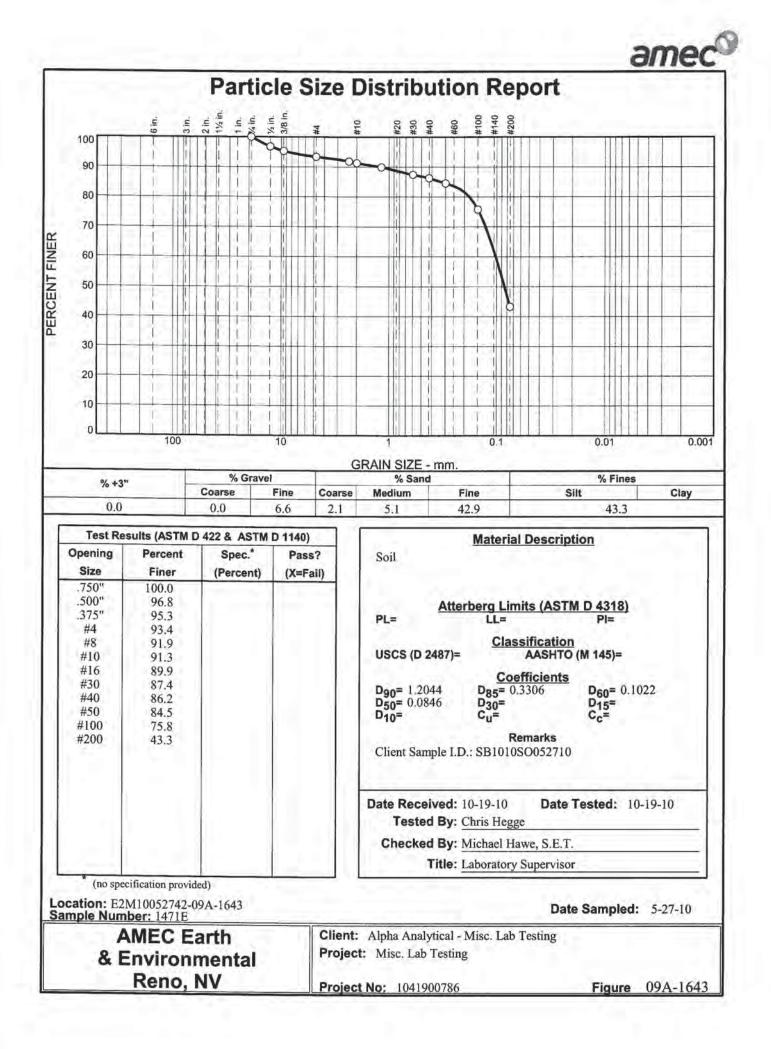
AMEC Earth & Environmental, Inc. 780 Vista Boulevard, Suite 100 Sparks, Nevada USA 89434-6656 Tel + 1 (775) 331-2375 Fax + 1 (775) 331-4153 www.amec.com

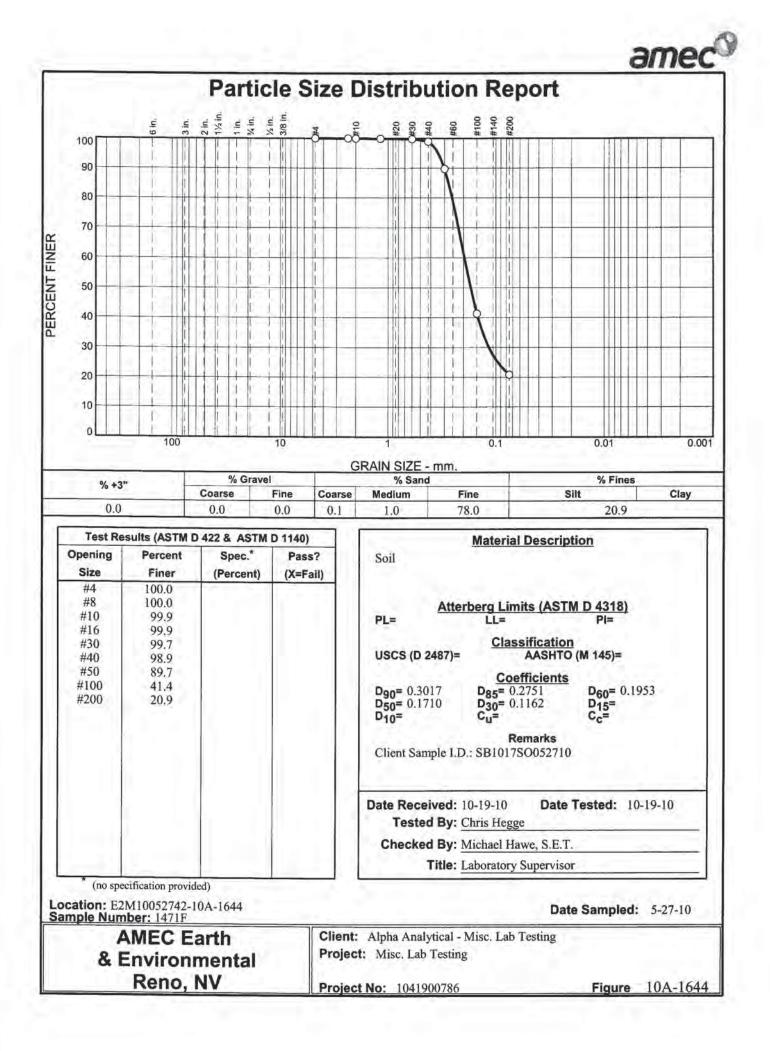








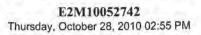




## Work Order Information

AMENDED #4

.



Amended 10/28/10 @ 14:48: Per phone conversation w/ Clayton 10/28/10 @ 14:36 added Ni and Zn to samples -03A, -06A, -09A. EA

Appendix B

USEPA SOP 2046



## **SLUG TESTS**

SOP#: 2046 DATE: 10/03/94 REV. #: 0.0

#### **1.0 SCOPE AND APPLICABILITY**

This procedure is applicable to determine the horizontal hydraulic conductivity of distinct geologic horizons under in-situ conditions. The hydrauli conductivity (K) is an important parameter for modeling the flow of groundwater in an aquifer.

These are standard (i.e. typi cally applicable) operating procedures which may be varied or changed a s required, dependent upon site conditions, equipmen t limitations or lim imtations imposed by the procedure. In all instances, the ultimate procedures employe d should be documented and associated with the fina l report.

Mention of trade names or commercial products does not constitute U.S. Environmental Protection Agency (U.S. EPA) endorsement or recommendation for use.

#### 2.0 METHOD SUMMARY

A slug test involves the instantaneous injection o r withdrawal of a volume or slug of water or soli d cylinder of known volume. This is accomplished by displacing a known volume of water from a well and measuring the artificial fluctuation of the groundwater level.

The primary advantages of us ing slug tests to estimate hydraulic conductivities are numerous. First , estimates can be made in-situ, thereby avoiding errors incurred in laboratory testing of disturbed soi l samples. Second, tests can be performed quickly a t relatively low costs because pumping and observation wells are not required. And lastly, the hydrauli c conductivity of small discrete portions of an aquife r can be estimated (e.g., sand layers in a clay).

#### 3.0 SAMPLE PRESERVATION, CONTAINERS, HANDLING AND STORAGE

This section is not applicable to this standar d operating procedure (SOP).

## 4.0 INTERFERENCES AND POTENTIAL PROBLEMS

Limitations of slug testing include: 1) only the hydraulic conductivity of the area immediatel y surrounding the well is estimated which may not b e representative of the average hydraulic conductivity of the area, and 2) the storage coefficient, S, usuall y cannot be determined by this method.

#### 5.0 EQUIPMENT/APPARATUS

The following equipment is needed to perform slug tests. All equipment which comes in contact with the well should be decontaminated and tested prior t or commencing field activities.

- C Tape measure (subdivided into tenths of feet)C Water pressure transducer
- C Electric water level indicator
- C Weighted tapes
- C Steel tape (subdivided into tenths of feet)
- C Electronic data-logger (if transducer method is used)
- C Stainless steel slug of a known volume
- C Watch or stopwatch with second hand
- C Semi-log graph paper (if required)
- C Water proof ink pen and logbook
- C Thermometer
- C Appropriate references and calculator
- C Electrical tape
- C 21X micrologger
- C Compact portable computer or equivalen t with Grapher installed on the hard disk

#### 6.0 REAGENTS

No che mical reagents are used in this procedure ; however, decontamination solvents may be necessary. If dec ontamination of the slug or equipment i s required, refer to the Sampling Equipmen t Decontamination SOP and the site specific work plan.

## 7.0 **PROCEDURES**

#### 7.1 Field Procedures

The following general procedures may be used t o collect and report slug test data. These procedure s may be modified to reflect site specific conditions:

1. When the slug test is performed using a n electronic data-logger and pressur e transducer, all data will be stored internall y or on computer diskettes or tape. Th e information will be tr ansferred directly to the main computer and analyzed. A compute r printout of the data shal 1 be maintained in the files as documentation.

> If the slug test data is collected and recorded manually, the slug test data form (Figure 1 , Appendix A) will be used to recor d observations. The slug test data form shal 1 be completed as follows:

- C Site ID Identification numbe assigned to the site.
- C Location ID Identification o location being tested.
- C Date The date when the test dat a was collected in this order: year , month, day (e.g., 900131 fo r January 31, 1990).

C Slug volume (ft <sup>3</sup>) - Manufacturer s specification for the known volume or displacement of the slug device.

C Logger - identifies the company or r person responsible for performin g the field measurements.

C Test method - The slug device i s either injected or lowered into th e well or withdrawn or pulled-ou t from the monitor well. Check th e method that is applicable to the test situation being run.

C Comments - Appropriat e

observations or information fo r which no oth er blanks are provided.

- C Elapsed time (min) Cumulativ e time readings from be ginning of test to end of test, in minutes.
- C Depth to water (ft) Depth to water recorded in tenths of feet.
- 2. Decontaminate the transducer and cable.
- Make initial water level measurements o n monitor wells in an upgradient t o downgradient sequence, if possible.
- 4. Before beginning the slug test, information n will be recorded and entered into th e electronic data-logger. The type o f information may vary depending on th e model used. When using different models , consult the operator's manual for the proper r data entry sequence to be used.
- 5. Test wells from least contaminated to mos t contaminated, if possible.
- 6. Determine the static water level in the wel 1 by measuring the depth to water periodically for several minute s and taking the average of the readings.
- 7. Cover sharp edges of the well casing wit h duct tape to protect the transducer cables.
- 8. Install the trans ducer and cable in the well to a depth below the target drawdown estimated for the test but at least two feet from th e bottom of the well. Be sure the depth o f submergence is within the design rang e stamped on the transduc er. Temporarily tape the transducer cable to the well to keep th e transducer at a constant depth.
- 9. Connect the transducer cable to the electronic data-logger.
- 10. Enter the initial water level and transduce r design range into the recording devic e according to manufacturers instructions (the transducer design range will be stamped o n the side of the transd ucer). Record the initial water level on the recording device.

11. "Instantaneously" introduce or remove a

r

f

known volume or slug of water to the well . Another method is to introduce a soli d cylinder of known volume to displace an d raise the water le vel, allow the water level to restabilize and remove the cylinder. It i s important to remove or add the volumes a s quickly as possible because the analysi s assumes an "instantaneous" change i n volume is created in the well.

- 12. At the moment of volume addition o r removal assigned time zero, measure an d record the depth to water and the time at each reading. Depths should be measured to th e nearest 0.01 fo ot. The number of depth-time measurements nec essary to complete the test are variable. It is critical to make as man y measurements as po ssible in the early part of the test. The number and intervals between measurements will be determined fro m earlier previous aquifer tests or evaluations.
- Continue measuring and recordin g depth-time measurements until the wate r level returns to equilibrium conditions or a sufficient number of readings have bee n made to clearly show a trend on a semi-lo g plot of time versus depth.
- 14. Retrieve slug (if applicable).

Note: The time required for a slug test to be completed is a function of the volume of the slug, the hydraulic conductivity of th e formation and the type of well completion . The slug volume s hould be large enough that a s ufficient number of water leve l measurements can be made before the water level returns to equilibrium conditions. The length of the test may range from less than a minute to several hours.

If the well is to be u sed as a monitoring well, precautions should be taken that the wells are not contaminated by material introduced into the well. If water is added to the monitoring well, it should be from an uncontaminate d source and transported in a clean container. Bailers or measuring devices should b e cleaned prior to the test. If tests ar e performed on more than one monitor well , care must be taken to avoid cros s contamination of the wells. Slug tests shall be conducted on relativel y undisturbed wells. If a test is conducted on a well that has recently been pumped for water sampling purposes, the measured water level must be within 0.1 foot of the wate r level prior to sampling. At least one wee k should elapse between the drilling of a well and the performance of a slug test.

#### 7.2 **Post Operation Procedures**

When using an electronic data-logger use th e following procedure:

- 1. Stop logging sequence.
- 2. Print data.
- 3. Send data to computer by telephone.
- 4. Save memory and disconnect battery at the end of the day's activities.
- 5. Review field forms for completeness.

#### 8.0 CALCULATIONS

The simplest interpretation of piezometer recovery is that of Hvorslev (1951). The analysis assumes a homog enous, isotropic medium in which soil an d water are incompressible. Hvorslev's expression for hydraulic conductivity (K) is:

$$K = \frac{r^2 \ln (L/R)}{2 L T_0}$$
 for  $L/R > 8$ 

where:

K	=	hydraulic conductivity [ft/sec]
r	=	casing radius [ft]
L	=	length of open screen (or borehole)
		[ft]
R	=	filter pack (borehole) radius [ft]
$T_{o}$	=	Basic Time Lag [sec]; value of t on
		semi-logarithmic plot of H-h/H-H <sub>0</sub>
		vs. t, where H-h/H-H $_0 = 0.37$
H	=	initial water level prior to remova 1
		of slug
$H_{\theta}$	=	water level at $t = 0$
h	=	recorded water level at $t > 0$

(Hvorslev, 1951; Freeze and Cherry, 1979)

The Bower and Rice method is also commonly use d for K calculations. However, it is much more tim e consuming than the Hvorslev method . Refer to Freeze and C herry or <u>Applied Hydrogeology</u> (Fetter) for a discussion of these methods.

## 9.0 QUALITY ASSURANCE/ QUALITY CONTROL

The following general quality assurance procedure s apply:

- 1. All data must be documented on standar d Chain of Custody records, field data sheets , or within personal/site logbooks.
- All instrumentation must be operated i n accordance with operating instructions a s supplied by the manufacturer, unles s otherwise specified in the work plan . Equipment checkout and calibratio n activities must occur prior t o sampling/operation, and they must b e documented.

The following specific quality assurance activity will apply:

1. Each well should be tested at least twice i n order to compare results.

#### **10.0 DATA VALIDATION**

This section is not applicable to this SOP.

#### **11.0 HEALTH AND SAFETY**

When working with potential hazardouse materials , follow U.S. EPA, OSHA and corporate health an d safety procedures.

#### **12.0 REFERENCES**

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### **APPENDIX** A

### Slug Test Data Form

			Page of
	FIGURE 1.	Slug Test Data Form	
DATE:			
SITE ID:		SLUG VOI	LUME (ft <sup>3</sup> ):
LOCATION ID:		LOGGER:	
TEST METHOD:	S	SLUG INJECTION	SLUG WITHDRAWAL
COMMENTS:			
Time Beginning of Test #1		Time Beginning	g of Test #2
Time End of Test #1		Time End of Te	st #2
ELAPSED TIME (MIN)	DEPTH TO WATER (FT)	ELAPSED TIME (MIN)	DEPTH TO WATER (FT)

Appendix C

September 2010 Groundwater and Surface Water Sampling Results



November 12, 2010

Mr. Danny Rakestraw Manager, NV Environmental and Resources Management Group 7180 Pollock Drive, Suite 200 Las Vegas, NV 89119-9005

# Reference:Groundwater and Surface Water Sampling Results<br/>North Truckee Drain Realignment and Permitting Project, Sparks, Nevada<br/>HDR | e<sup>2</sup>M Project No. 135799

Dear Mr. Rakestraw:

This letter documents procedures performed by engineering-environmental Management, Inc  $(HDR | e^2M)$  and presents the results of laboratory analysis of groundwater samples collected from three monitoring wells (B-03 (MW), B-07 (MW), and B-11 (MW)) and a surface water sample from the North Truckee Drain (NTD), Figure 1. The samples were collected on September 14, 2010.

#### Scope of Work

The following Scope of Work outlines the activities conducted during this sampling event:

- Recorded static groundwater levels in three monitoring wells,
- Collected groundwater samples from the three monitoring wells and a surface water sample from the North Truckee Drain,
- Delivered water samples to Alpha Analytical in Sparks, Nevada,
- Analyzed samples for volatile organic compounds (VOCs), total petroleum hydrocarbons as motor oil (TPH-O), total petroleum hydrocarbons as diesel (TPH-d), chlorides, pH, total phosphates as phosphorous, nitrate, nitrite, total nitrogen, total ammonia, total dissolved solids (TDS), turbidity, color, fecal coliform, E. coli, total suspended solids (TSS), sulfate, sodium, and alkalinity CaCO<sub>3</sub>, and
- Prepared this letter report.

#### **Field Procedures**

On September 14, 2010, static groundwater level measurements were obtained from three groundwater monitoring wells. The depths to groundwater are tabulated on Table 1. Groundwater depths were measured relative to the north side of the well casings using an electronic water level indicator. Prior to taking a measurement, the cap was removed from each well and the water was allowed to equilibrate with atmospheric pressure for approximately 30 minutes. The water level indicator probe was decontaminated after each use by washing it in an Alconox® detergent solution followed by a tap-water rinse. The depth-to-water measurements were recorded on Monitoring Well Sampling Logs, copies of which are included in Appendix A.



Mr. Rakestraw November 12, 2010 Page 2 of 3

Samples from monitoring wells were collected using low-flow sampling protocols. Observations and water quality parameters recorded during purging include turbidity, volume of water purged, purge rate, water level, temperature, pH, specific conductance, temperature, dissolved oxygen, and any other pertinent Site information were recorded on the Monitoring Well Sampling Logs. Purged water is stored at the HDR  $|e^{2}M$  storage shed in five gallon totes pending disposal. Approximately six gallons of groundwater were generated as part of this monitoring event.

On September 14, 2010, a surface water sample was collected from the North Truckee Drain (NTD). The sample was collected from the private bridge located immediately to the south of well B-07 (MW). The sample was collected by lowering a disposable polyethylene bailer from the middle of the bridge into the NTD. The bailer was raised and the NTD sample was decanted into the laboratory-supplied containers.

Groundwater samples were labeled with the project name, sample ID, date, and time the sample was collected. This same information was recorded on a chain-of-custody form. The samples were placed in a cooler chilled with ice, then transported under chain-of-custody procedures to Alpha Analytical.

#### **Discussion of Water Quality Standards**

The laboratory analytical results are presented in Table 1 and the laboratory analytical report is attached as Appendix B. For comparison, the water quality standards (WQS) for the Truckee River Lockwood Bridge control point (NAC 445A.187) are also located on Table 1. NAC 445A.187 is provided as Table 3. Where WQS are not available, HDR |  $e^2M$  used federal drinking water maximum contaminant levels (MCL) as screening levels. As listed on Table 1, WQS violations are either an exceedance of the annual average (A-Avg.), single value (SV), or annual geometric mean (AGM). Table 1 analytical results displayed in bold indicate an exceedence of either the SV or A-Avg.

As displayed on Table 2, standards of water quality are displayed in two columns (requirements to maintain existing higher quality (RMHQ) or water quality standards for beneficial uses). The WQS used on Table 1 are the RMHQs, when available. Telephone conversation with the NDEP indicates that all attempts will be made to maintain the highest water quality of the river. Therefore, unless the receiving water contains analytes in excess of the RMHQs, RMHQs will likely be used as the permitted WQS. However, if the discharger can not meet a specific RMHQ, a formal process does exist where a variance from the RMHQ can be authorized on a case by case basis. This variance will most likely be equivalent to the water quality standards for beneficial uses.

#### Water Quality Results

As indicated on Table 1, WQS exceedences were reported in all wells and the NTD. Groundwater exceedences include dissolved oxygen, total nitrogen, sulfate, chlorides, TDS, color, phosphorous, and sodium. Analytes which exceeded their respective WQS in the NTD sample include dissolved oxygen, total nitrogen, sulfate, chlorides, TDS, phosphorous and sodium.



Mr. Rakestraw November 12, 2010 Page 3 of 3

Sincerely, HDR | e<sup>2</sup>M

Tralie Ovell

Charlie O'Neill, CEM 2054, exp. 3/1/2011

"I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances."

Enclosures:

Table 1- Laboratory Analytical Results Table 2-NAC 445A.187 Figure 1 – Site Plan Appendix A – Monitoring Well Sampling Logs Appendix B – Laboratory Analytical Report

#### Table 1 Depths to Groundwater and Groundwater/Surface Water Analytical Results North Truckee Drain Realignment and Permitting Project Sparks, Nevada

Well ID	Sample Date	Temp	TPH-d	ТРН-О	рН	DO	Total N	Nitrate	Nitrite	Sulfate	Chloride	Ammonia as N	TDS	TSS	Turbidity	Color	F. Coliform	E. Coli	Phosphorus	Sodium	Alkalinity	MTBE	VOCs
Uni	ts	°C	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU	Color units	No./100ml	No./100ml	mg/L	mg/L	mg/L	mg/L	mg/L
B-03 (MW)	02/11/10	16.2	< 0.50	< 0.50	7.2	2.5	15	12	< 0.25	160	230	< 0.10	1000	14000	74	20	<2	<2	1.1	120	430	< 0.001	All ND
	04/08/10	14.3	< 0.50	< 0.50	7.5	4.0	16	16	< 0.25	160	240	0.12	1200	2000	14	10	<2	<2	1.2	210	420	< 0.001	All ND
	09/14/10	19.2	< 0.50	< 0.50	7.1	2.0	14	14	< 0.25	150	89	< 0.10	810	11	6.7	<5	<2	<2	0.21	160	450	< 0.001	All ND
B-07 (MW)	02/11/10	15.2	< 0.50	0.52	7.5	1.2	5.8	3.9	< 0.25	250	160	0.28	1200	20000	59	30	<2	<2	6.3	350	690	< 0.001	All ND
	04/08/10	16.4	< 0.50	< 0.50	7.7	2.6	2.0	1.6	< 0.25	280	260	< 0.10	1700	670	7.9	10	<2	<2	0.60	400	810	< 0.001	All ND
	09/14/10	17.5	< 0.50	< 0.50	7.4	1.3	1.8	1.8	< 0.25	270	250	< 0.10	1400	24	4.2	10	<2	<2	0.35	350	840	< 0.001	All ND
B-11 (MW)	02/11/10	17.4	< 0.50	< 0.50	8.0	<0.1	3.1	< 0.25	< 0.25	49	23	0.99	1400	7200	1900	500	<2	<2	8.8	410	810	< 0.001	All ND
	04/08/10	16.4	< 0.50	< 0.50	8.1	1.8	1.2	< 0.25	< 0.25	61	25	0.25	1100	1200	100	250	<2	<2	2.4	390	790	< 0.001	All ND
	09/14/10	19.7	< 0.50	< 0.50	7.7	2.6	0.89	< 0.25	< 0.25	52	25	< 0.10	890	4	4.0	400	<2	<2	2.7	320	850	< 0.001	All ND
NTD	02/11/10	9.9	< 0.50	< 0.50	8.1	9.2	4.6	0.75	< 0.25	190	73	1.10	670	860	11	15	170	110	8.2	150	320	0.0021	All ND
	04/08/10	14.5	< 0.50	< 0.50	8.1	11	2.4	1.5	< 0.25	170	65	0.24	690	28	1.6	<5	50	50	0.19	100	300	0.0029	All ND
	09/14/10	22.8	< 0.50	< 0.50	8.0	6.9	4.8	0.73	< 0.25	110	42	< 0.10	390	910	15	15	>1600	50	1.0	61	220	< 0.001	All ND
WQS - A	A-Avg.	NE	NE	NE	NE	NE	0.75	NE	NE	40	$\leq 26$	+	211	26	NE	NE	91 A	127	< 0.05	1.6	¥	NE	NE
WQS	- SV	∆0°C	NE	NE	7.1-8.5	≥6.0	1.3 B	2.1	0.5	47	$\leq 30$	+	261	50	11	76	301	411	NE	2.1	NE	NE	NE
MC	L	NE	NE	NE	NE	NE	NE	10	1	NE	$\leq 250$	NE	500	NE	NE	15	0	0	NE	NE	NE	NE	Varies

#### Notes:

- NE not established
- RMHQ Requirements to maintain existing existing higher quality
- NTU nephelometric turbidity units
- PCU platinum cobalt units
- SU Standard units
- mg/L milligrams per liter
- WQS NAC 445A.187 Truckee River at Lockwood Ridge (NRS 445A.425, 445A.520) Water Quality Standards
- Bold Bold values indicate and exceedence of the Federal MCL or WQS
- TPH-d total petroleum hydrocarbons as diesel
- TPH-O total petroleum hydrocarbons as oil
- DO Dissolved Oxygen. WQS indicates that DO should be ≥ 6.0 November March and ≥ 5.0 April October
- Total N Total Nitrogen
- F. Coliform Fecal Coliform
  - No. Number
  - Temp Temperature measured in the field during sample collection.
  - VOCs Volitile organic compounds
  - ND Analyte not detected above laboratory reportign limit
  - MTBE Methyl-tert butyl ether

#### Analytical Methods:

TPH-d	EPA Method SW8015B	Chloride	EPA Method 300.0	
TPH-0	EPA Method SW8015B	Ammonia as N	SM4500-NH3D	
pН	EPA Method 150.2/SM4500HB/SW9040C	TDS	SM2540C	
DO	SM4500OC	TSS	SM2540D	
Total N	Total by calculation	Turbidity	EPA Method 180.1/SM2130B	
Nitrate	EPA Method 300.0	Color	SM2120B	
Nitrite	EPA Method 300.0	F. Coliform	SM9221E	
Sulfate	EPA Method 300.0	E. Coli	SM9221B	
Alaklinity	SM2320B	Phosphorus	EPA Method 365.3/SM4500PE	
VOCs	EPA Method SW8260B	Sodium	EPA Method SW6020/SW6020A	
MTBE	EPA Method SW8260B			

#### WQS Notes:

- SV Single Value
- A-Avg. Annual Average
- AGM Annual geometric mean
- DO Nov. March >= 6.0 Apr. Oct. >=5.0
- + See NAC 445A.118
- ¥ Less than 25% change from natural conditions. Current natural conditions are unknown and likley vary over time.
- A Based on the mininum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not excede a geometric mean of 90 per 100ml nor may more than 10 % of the total samples taken during any 30-day period excede 300 per 100ml
- B Total nitrogen also can not excede the A.-Avg. of 0.75
- E. Coli The WQS standard selected assumes that recreation involving water contact is occurring in the area. If there is no recreation involving water contact the WQS increases to ≤410.

Depths to (	Froundwate	r				
	B-03 (MW)	B-03 (MW)	B-07 (MW)	B-07 (MW)	B-11 (MW)	B-11 (MW)
	DTW (fbtoc)	Elevation (famsl)	DTW (fbtoc)	Elevation (famsl)	DTW (fbtoc)	Elevation (famsl)
TOC Elev.	4	395.3	43	398.2	4	389.9
2/11/2010	13.60	4381.70	17.39	4380.81	13.66	4376.24
4/8/2010	13.45	4381.85	17.05	4381.15	13.13	4376.77
9/14/2010	13.52	4381.78	17.07	4381.13	12.95	4376.95

Note: depths measured in feet below top of casing famsl= feet above mean sea level fbtoc = feet below top of casing

NOTE: The above WQOs are assumming that upstream water does not contain analytes in excess of RMHQs. WQS variance can be granted on a case by case basis.

### Table 2 North Truckee Drain Sparks, NV

#### NAC 445A.187 Truckee River at Lockwood Bridge. (NRS 445A.425, 445A.520)

STANDARDS OF WATER QUALITY Truckee River

Control Point at Lockwood Bridge. The limits of this table apply from the control point at Lockwood to the East McCarran control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum ΔT <sup>a</sup>	$\Delta T = 0^{\circ}C$	$\begin{array}{ccc} NovMar. & : \leq 13^{\circ}C\\ Apr. & : \leq 21^{\circ}C^{e}\\ May & : \leq 22^{\circ}C^{e,f}\\ June-Oct. & : \leq 22^{\circ}C^{e,f}\\ \Delta T \leq 2^{\circ}C & : \leq 23^{\circ}C^{e,f} \end{array}$	Aquatic life <sup>b</sup> and recreation involving contact with the water.
pH Units	7.1 - 8.5	S.V. : 6.5 - 9.0 ΔpH : ±0.5 Max.	Recreation involving contact with the water, <sup>b</sup> propagation of wildlife, <sup>b</sup> aquatic life, irrigation, watering of livestock, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l		S.V. : NovMar. : ≥6.0 AprOct. : ≥5.0	Aquatic life, <sup>b</sup> recreation involving contact with the water, propagation of wildlife, watering of livestock, municipal or domestic supply and recreation not involving contact with the water.
Chlorides - mg/l	A- : ≤26.0 Avg. : ≤30.0 S.V.	S.V. ∶≤250	Municipal or domestic supply, <sup>b</sup> propagation of wildlife, irrigation and watering of livestock.
Total Phosphates (as P) - mg/l	_	A-Avg. : ≤0.05	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Nitrogen Species (N) - mg/l	_	TN A-Avg. : ≤0.75 TN S.V. : ≤1.2 Nitrate S.V. : ≤2.0 Nitrite S.V. : ≤.04	Aquatic life, <sup>b</sup> recreation involving contact with the water, <sup>b</sup> municipal or domestic supply and recreation not involving contact with the water.
Total Ammonia (as N) - mg/l	-	g	Aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l	A- : ≤210.0 Avg. : ≤260.0 S.V.	A-Avg. : ≤500	Municipal or domestic supply, <sup>b</sup> irrigation and watering of livestock.
Turbidity - NTU	-	S.V. :≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V. :≤75	Municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	_	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and propagation of wildlife.
Fecal Coliform - No./100ml	A.G.M. : ≤90.0 S.V.:	≤200/400 <sup>c</sup>	Recreation involving contact with the water, <sup>b</sup> recreation not involving contact with the water, municipal or domestic supply, irrigation, propagation of wildlife and watering of livestock.
E. coli - No./100ml Annual Geometric Mean Single Value		≤126 ≤410	Recreation involving contact with the water <sup>b</sup> and recreation not involving contact with the water.
Suspended Solids - mg/l	A- : ≤25.0 Avg.	S.V. : ≤50	Aquatic life. <sup>b</sup>
Sulfate - mg/l	A- : ≤39.0 Avg. : ≤46.0 S.V.	S.V. ∶≤250	Municipal or domestic supply. <sup>b</sup>
Sodium - SAR	A- $: \le 1.5$ Avg. $: \le 2.0$ S.V.	A-Avg. : ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.

Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard. The  $\Delta T$  of  $\leq 2^{\circ}C$  is only for the Reno and Sparks Joint Wastewater Treatment Plant. The most restrictive beneficial use. a.

b.

The most restrictive beneficial use. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100ml. Increase in color must not be more than 10 PCU above natural conditions. When flows are adequate to induce spawning runs of cui-ui and Lahontan cutthroat trout, the standard is 14°C from April through June. The desired temperature for the protection of juvenile Lahontan cutthroat trout is 21°C, even though that temperature is not attainable at all times. The ambient water quality criteria for ammonia are specified in <u>NAC 445A.118</u>. C. d.

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g.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 42, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93; R099-02, 12-17-2002)



Appendix A

Groundwater Sampling Logs

### MONITORING WELL SAMPLING LOG

SITE NAM	E/LOCATIO	North Truck	ee Drain			-	PROJECT	#:	135799 001
DATE:	9/14/	10				SAMPLER'	S INITIALS:		R
WELL ID:	NTD	-	WELL DIAM	ETER (in):			Bottom of	Channel:	19.5
FLOW RAT	E:					DEPTH TO	WATER (ft):		
PURGE MET	THOD:				-	SAMPLING	METHOD:	Disposable	Bailer
				PURGE M	EASUREMEN	TS			
Time	Liters Purged	Depth to Water (ft)	Temp (C)	рН	SC (mS)	J (ppm)	DO (mg/L)	Turbidity	ORP
163P	· · · · ·	17.09	228	9.05	0.999	0.4	38.7	38.7	143
· · · ·							8.27		
					-				
		-							
					Sample Tin	ne/Date:	1630	- 9/1	4/10
WELL ID:	B-03(MW)			ETER (in):	2		WELL DEPT	ſ₩ (ft)•	26.5
	TERVAL (ft)	-		Imin		- DEPTH TO		13.52	
PURGE MET		ş	low bladder		-	SAMPLING		Poly tubing	
				-					
<u> </u>	Liters	Depth to	Temp			1	DO		
Time	Purged	Water (ft)	(C)	рН	(mS)	JUTDS	(mg/L)	Turbidity	ORP
1125	1	13.52	19.6	7.31	1.21	0.8	0.57	509	189
11 30 1140	2.25	13.52	19.2	7.36	1.21	0.8	0.64	435 466	188
1145	4.75 B	13.52	19.0	7.44	1.21	0.8	0.79	466	182
1150	7.25	13.52	191	7.47	1.20	0.9	0.93	360	180
1210	12	13.52		7-51	1.18	0.4	1.03	115	178
1230	17	13.52	19.2	7.51	1.18	0.8	1.13	50	177
1235	18.25	13.52	19.2	7.51	1.18	0.8	1.17	49	177
17.46	19.50	13-52	19.2	7.52	1.18	0.8	1.17	46	177
						ĝo.	C	(D-t 17	Fadles
	l				l	<u> </u>	Isample IIm	e/Date: (2	50 9/14

۶

SITE NAME	LOCATION	North Truck		DRING WI	ELL SAMF	PLING LO	G PROJECT #	<b>#:</b>	135799 001
DATE:	9/14/1	, 10				SAMPLER'S	INITIALS:	S	C
WELL ID:	B-7(MW)		WELL DIAM	ETER (in):	2		WELL DEPT	Z (ft):	31
SCEENED IN	u∽∕ IT <del>ERVA⊵</del> (ft)	: 25	oml,	Imin		DEPTH TO V	WATER (ft):	17	07
PURGE MET	HOD:	Low f	low bladder	pump		SAMPLING A	AETHOD:	Poly tubing	
				PURGE ME	ASUREMEN	rs			
Time	Liters Purged	Depth to Water (ft)	Temp (C)	рН	SC (mS)	TDS ( <del>ppm)</del> - g <b>4</b> L	DO (mg/L)	Turbidity	ORP
1510 1530 1535 1540	1 E 7.25 8.50	17.07 17.07 17.07 17.07	PT-5 17.6 17.5 17.5	7.76 7.89 7.90 7.91	226 7.14 7.16 7.17	1.4 1.4 1.4 1.4	0.94 0 0	208 52 49 47	94 79 78 77
					Sample Tin	 ne/Date: /	550	9/14	
L	L			L					
	B-11(MW)		WELL DIAM	ETER (in):	2	-	WELL DEPT	Ή (ft):	26.5
F705 SCEENED IN	/ Ra + C ITERVAL (ft)	: 2	SOm	Umin		DEPTH TO V	WATER (ft):	12.95	<b>-</b> :
PURGE MET	HOD:	Low f	low bladder	pump		SAMPLING A	METHOD:	Poly tubing	
			<u></u>	PURGE ME	ASUREMEN	rs			*
Time	Liters Purged	Depth to Water (ft)	Temp (C)	рН	SC (mS)	TDS (ppm)	DO (mg/L)	Turbidity	ORP
1340	1	12.95	22.4	7.86	1.16	0.7	2.14	63.1	-119
1345	3.50	12.95	<u>20.0</u> 19.8	4.85 7.92	1.07	0.7	2.26	23.3	-119
1355	4.75	12.95	20.0	7.98	1.13	0.7	2.61	19.3	-126
1400	4.25	12.95	19.9	8.04	1.15	0.7	$\frac{2.70}{2.73}$	17.3 17.2 17.2	+129 -131 -133
1410	8.50	12.95	11.7	8.12	1.16	0.7	2.73	10.6	
							Sample Tim	e/Date:   내	20 0/14

Appendix B

Laboratory Analytical Report



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

		ANALYT	ICAL R	EPOR	<u>Γ</u>		
HDR   E2M 2365 Iron Point Road Folsom, CA 95630 Job: North Truckee Drain		Phone:	Jacob Ri (916) 85 (916) 85	2-7792			
Alpha Analytical Number: E2M1009150 Client I.D. Number: NTD	1-01A	4 <u></u>			Sampled: 09/14/ Received: 09/14/		
Method Reference : EPA Method 300.0 Analyte	Result	Reporting Limi	t Qual	Units	Date Extracted	Date Analyzed	
Chloride	42	0.50		mg/L	09/15/10 10:23	09/15/10 13:49	
Nitrite (NO2) - N	ND	0.25		mg/L	09/15/10 10:23	09/15/10 13:49	
Nitrate (NO3) - N	0.73	0.25		mg/L	09/15/10 10:23	09/15/10 13:49	
Sulfate (SO4)	110	75		mg/L	09/15/10 10:23	09/15/10 13:49	
Method Reference : SM4500NORGC / SM4500	)-NH3D						
Analyte	Result	Reporting Limi	t Qual	Units	Date Extracted	Date Analyzed	
Nitrogen, Kjeldahl, Total	4.1	0.25		mg/L	09/16/10	09/16/10	L.
Method Reference : Total by Calculation Analyte	Result	Reporting Limi	t Qual	Units	Date Extracted	Date Analyzed	
Total Nitrogen as N	4.8	0.25		mg/L	09/16/10	09/16/10	

ND = Not Detected

Roger Scholl Kandy Sandmer

Walter Hirihan

9/22/10 **Report Date** 



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

		<b>ANALYTIC</b>	AL R	EPORT	-		
HDR   E2M 2365 Iron Point Road Folsom, CA 95630 Job: North Truckee Drain		Phone: (9	16) 85	uffing 52-7792 52-7836			
Alpha Analytical Number: E2M1009150 Client I.D. Number: B-3 (MW)	1-02A				Sampled: 09/14/ Received: 09/14/		
Method Reference : EPA Method 300.0 Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed	
Chloride	89	50		mg/L	09/15/10 10:23	09/15/10 14:08	
Nitrite (NO2) - N	ND	0.25		mg/L	09/15/10 10:23	09/15/10 14:08	
Nitrate (NO3) - N	14	0.25		mg/L	09/15/10 10:23	09/15/10 14:08	
Sulfate (SO4)	150	75		mg/L	09/15/10 10:23	09/15/10 14:08	
Method Reference : SM4500NORGC / SM4500	-NH3D						
Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed	
Nitrogen, Kjeldahl, Total	ND	0.25		mg/L	09/16/10	09/16/10	
Method Reference : Total by Calculation	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed	
Total Nitrogen as N		0.25	_	mg/L	09/16/10	09/16/10	
Total Nitrogen as N	14	0.25		mg/L	09/16/10	09/16/10	

ND = Not Detected

Roger Scholl Kandy Sandmer

Dalter Acrim

9/22/10 **Report Date** 



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

		ANALYTIC	CAL R	EPOR1	-		
HDR   E2M 2365 Iron Point Road Folsom, CA 95630 Job: North Truckee Drain		Phone: (9	1.4	uffing 2-7792 2-7836			
Alpha Analytical Number: E2M100915 Client I.D. Number: B-7 (MW)	501-03A				Sampled: 09/14/ Received: 09/14/		
Method Reference : EPA Method 300.0 Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed	
Chloride	250	50		mg/L	09/15/10 10:23	09/15/10 14:26	
Nitrite (NO2) - N	ND	0.25		mg/L	09/15/10 10:23	09/15/10 14:26	
Nitrate (NO3) - N	1.8	0.25		mg/L	09/15/10 10:23	09/15/10 14:26	
Sulfate (SO4)	270	75		mg/L	09/15/10 10:23	09/15/10 14:26	
Method Reference : SM4500NORGC / SM45 Analyte	00-NH3D Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed	
Nitrogen, Kjeldahl, Total	ND	0.25		mg/L	09/16/10	09/16/10	
Method Reference : Total by Calculation Analyte	Result	Reporting Limit	Qual	Units	Date Extracted	Date Analyzed	
Total Nitrogen as N	1.8	0.25		mg/L	09/16/10	09/16/10	

ND = Not Detected

Roger Scholl Kandy Santur

Walter Airihm

Ø 9/22/10 **Report Date** 



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

			<u>EPORT</u>	ICAL R	<u>ANALYTI</u>		
			2-7792	Jacob Ri (916) 85 (916) 85	Phone: (9		DR   E2M 365 Iron Point Road olsom, CA 95630 ob: North Truckee Drain
		Sampled: 09/14/1 Received: 09/14/1			<u></u>		lpha Analytical Number: E lient I.D. Number: B-11 (M
ed	Date Analyzed	Date Extracted	Units	it Qual	Reporting Limit	300.0 Result	ethod Reference : EPA Metho nalyte
15	09/15/10 14:45	09/15/10 10:23	mg/L		0.50	25	nloride
45	09/15/10 14:45	09/15/10 10:23	mg/L		0.25	ND	itrite (NO2) - N
45	09/15/10 14:45	09/15/10 10:23	mg/L		0.25	ND	itrate (NO3) - N
45	09/15/10 14:45	09/15/10 10:23	mg/L		0.50	52	ılfate (SO4)
						GC / SM4500-NH3D	ethod Reference : SM4500NO
≥d	Date Analyzed	Date Extracted	Units	it Qual	Reporting Limit	Result	nalyte
	09/16/10	09/16/10	mg/L		0.25	0.89	itrogen, Kjeldahl, Total
ed	Date Analyzed	Date Extracted	Units	it Qual	Reporting Limit	ulation Result	ethod Reference : Total by Ca nalyte
	09/16/10	09/16/10	mg/L		0.25	0.89	otal Nitrogen as N
×e	•		Units mg/L	it Qual	Reporting Limit	Result	nalyte

ND = Not Detected

Roger Scholl Kandy Saulmer

Walter Arinhm

C 9/22/10 **Report Date** 



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### ANALYTICAL REPORT

HDR   E2M
2365 Iron Point Road
Folsom, CA 95630

 Attn:
 Jacob Ruffing

 Phone:
 (916) 852-7792

 Fax:
 (916) 852-7836

 Date Received : 09/14/10

Job: North Truckee Drain

#### Alkalinity SM2320B

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NTD Lab ID : E2M10091501-01A Alkalinity, Total (As CaCO3 at pH 4.5) Date Sampled 09/14/10 16:30	220	10 mg/L	09/16/10	09/16/10
Client ID: <b>B-3 (MW)</b> Lab ID : E2M10091501-02A Alkalinity, Total (As CaCO3 at pH 4.5) Date Sampled 09/14/10 12:50	450	10 mg/L	09/16/10	09/16/10
Client ID: <b>B-7 (MW)</b> Lab ID : E2M10091501-03A Alkalinity, Total (As CaCO3 at pH 4.5) Date Sampled 09/14/10 15:50	840	10 mg/L	09/16/10	09/16/10
Client ID: <b>B-11 (MW)</b> Lab ID : E2M10091501-04A Alkalinity, Total (As CaCO3 at pH 4.5) Date Sampled 09/14/10 14:20	850	10 mg/L	09/16/10	09/16/10

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lter A. Da

9/22/10 **Report Date** 



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### **ANALYTICAL REPORT**

### HDR | E2M 2365 Iron Point Road Folsom, CA 95630

Attn: Jacob Ruffing Phone: (916) 852-7792 Fax: (916) 852-7836 Date Received : 09/14/10

Job: North Truckee Drain

		Ammonia as N SM4500-N	-			
	Parameter	Conce	entration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NTD Lab ID : E2M10091501-01A Date Sampled 09/14/10 16:30	Nitrogen, Ammonia (As N)	ND		0.10 mg/L	09/17/10	09/17/10
Client ID: <b>B-3 (MW)</b> Lab ID : E2M10091501-02A Date Sampled 09/14/10 12:50	Nitrogen, Ammonia (As N)	ND		0.10 mg/L	09/17/10	09/17/10
Client ID: <b>B-7 (MW)</b> Lab ID : E2M10091501-03A Date Sampled 09/14/10 15:50	Nitrogen, Ammonia (As N)	ND		0.10 mg/L	09/17/10	09/17/10
Client ID: <b>B-11 (MW)</b> Lab ID : E2M10091501-04A Date Sampled 09/14/10 14:20	Nitrogen, Ammonia (As N)	ND		0.10 mg/L	09/17/10	09/17/10

ND = Not Detected

Roger Scholl

Iter Airihan

9/22/10 **Report Date** 

North Truckee Drain



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### ANALYTICAL REPORT

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 

 Attn:
 Jacob Ruffing

 Phone:
 (916) 852-7792

 Fax:
 (916) 852-7836

 Date Received : 09/14/10

Job: North Truckee Drain

### Metals by ICPMS EPA Method SW6020 / SW6020A

I	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NTD Lab ID : E2M10091501-01A Sodie Date Sampled 09/14/10 16:30	um (Na)	61	0.50 mg/L	09/15/10 13:51	09/15/10
Client ID: <b>B-3 (MW)</b> Lab ID : E2M10091501-02A Sodiu Date Sampled 09/14/10 12:50	um (Na)	160	0.50 mg/L	09/15/10 13:51	09/15/10
Client ID: <b>B-7 (MW)</b> Lab ID : E2M10091501-03A Sodia Date Sampled 09/14/10 15:50	um (Na)	350	0.50 mg/L	09/15/10 13:51	09/15/10
Client ID: <b>B-11 (MW)</b> Lab ID : E2M10091501-04A Sodin Date Sampled 09/14/10 14:20	um (Na)	320	0.50 mg/L	09/15/10 13:51	09/15/10

Roger Scholl Kandy Ma

eter A

 Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager •
 Walter Hinchman, Quality Assurance Officer

 Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com
 Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

 Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

9/22/10

**Report Date** 



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### ANALYTICAL REPORT

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 

 Attn:
 Jacob Ruffing

 Phone:
 (916) 852-7792

 Fax:
 (916) 852-7836

 Date Received : 09/14/10

Job: North Truckee Drain

### pH (Range 1.7 to 12.4) EPA Method 150.1 / SM4500HB / SW9040C

Parameter	Concentration	Reporting	Date	Date
		Limit	Extracted	Analyzed
Client ID: NTD				
Lab ID : E2M10091501-01A pH	8.0	1.7 pH Units	09/15/10 14:00	09/15/10 14:00
Date Sampled 09/14/10 16:30 pH - Temperature	19	1.0 °C	09/15/10 14:00	09/15/10 14:00
Client ID: B-3 (MW)				
Lab ID : E2M10091501-02A pH	7.1	1.7 pH Units	09/15/10 14:03	09/15/10 14:03
Date Sampled 09/14/10 12:50 pH - Temperature	19	1.0 °C	09/15/10 14:03	09/15/10 14:03
Client ID: B-7 (MW)				
Lab ID : E2M10091501-03A pH	7.4	1.7 pH Units	09/15/10 14:06	09/15/10 14:06
Date Sampled 09/14/10 15:50 pH - Temperature	19	1.0 °C	09/15/10 14:06	09/15/10 14:06
Client ID: B-11 (MW)				
Lab ID : E2M10091501-04A pH	7.7	1.7 pH Units	09/15/10 14:09	.09/15/10 14:09
Date Sampled 09/14/10 14:20 pH - Temperature	19	1.0 °C	09/15/10 14:09	

The EPA has established an analytical holding time of 15 minutes for this method as documented in the Methods Update Rule, Federal Register, Vol 72, No 47, March 2007. This holding time will always be exceeded, unless samples are analyzed in the field.

The laboratory performed this analysis in the shortest practical holding time after sample receipt.

Roger Scholl

Kandy Santur.

Walter Hiridman

**Report Date** 



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### ANALYTICAL REPORT

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 

 Attn:
 Jacob Ruffing

 Phone:
 (916) 852-7792

 Fax:
 (916) 852-7836

 Date Received : 09/14/10

Job: North Truckee Drain

Phosphorus EPA Method 365.3 / SM4500PE					
	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NTD Lab ID : E2M10091501-01A Date Sampled 09/14/10 16:30	Phosphorus, Total (As P)	1.0	0.10 mg/L	09/22/10	09/22/10
Client ID: <b>B-3 (MW)</b> Lab ID : E2M10091501-02A Date Sampled 09/14/10 12:50	Phosphorus, Total (As P)	0.21	0.10 mg/L	09/22/10	09/22/10
Client ID: <b>B-7 (MW)</b> Lab ID : E2M10091501-03A Date Sampled 09/14/10 15:50	Phosphorus, Total (As P)	0.35	0.10 mg/L	09/22/10	09/22/10
Client ID: <b>B-11 (MW)</b> Lab ID: E2M10091501-04A Date Sampled 09/14/10 14:20	Phosphorus, Total (As P)	2.7	0.50 mg/L	09/22/10	09/22/10

Roger Scholl eter Al Kandy Sandmer

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

V 9/22/10

**Report Date** 



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### ANALYTICAL REPORT

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 

 Attn:
 Jacob Ruffing

 Phone:
 (916) 852-7792

 Fax:
 (916) 852-7836

 Date Received : 09/14/10

Job: North Truckee Drain

Total	Dissolved	Solids	(TDS
Total	Dissolved	Solids	(TDS

SM2540C

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NTD Lab ID : E2M10091501-01A Date Sampled 09/14/10 16:30	Solids, Total Dissolved (TDS)	390	10 mg/L	09/16/10	09/16/10
Client ID: <b>B-3 (MW)</b> Lab ID : E2M10091501-02A Date Sampled 09/14/10 12:50	Solids, Total Dissolved (TDS)	810	10 mg/L	09/16/10	09/16/10
Client ID: <b>B-7 (MW)</b> Lab ID : E2M10091501-03A Date Sampled 09/14/10 15:50	Solids, Total Dissolved (TDS)	1,400	10 mg/L	09/16/10	09/16/10
Client ID: <b>B-11 (MW)</b> Lab ID : E2M10091501-04A Date Sampled 09/14/10 14:20	Solids, Total Dissolved (TDS)	890	10 mg/L	09/16/10	09/16/10

Roger Scholl Kano

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**e⁄** 9/22/10

**Report Date** 



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

### **ANALYTICAL REPORT**

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 

 Attn:
 Jacob Ruffing

 Phone:
 (916) 852-7792

 Fax:
 (916) 852-7836

 Date Received : 09/14/10

#### Job: North Truckee Drain

### Total Petroleum Hydrocarbons - Extractable (TPH-E) EPA Method SW8015B

		Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID :	NTD					
Lab ID :	E2M10091501-01A	TPH-E (DRO)	ND	0.50 mg/L	09/15/10 09:19	09/15/10
Date Sampled	09/14/10 16:30	TPH-E (ORO)	ND	0.50 mg/L	09/15/10 09:19	09/15/10
		Surr: Nonane	98	(57-147) %REC	09/15/10 09:19	09/15/10
Client ID :	B-3 (MW)					
Lab ID :	E2M10091501-02A	TPH-E (DRO)	ND	0.50 mg/L	09/15/10 09:19	09/15/10
Date Sampled	09/14/10 12:50	TPH-E (ORO)	ND	0.50 mg/L	09/15/10 09:19	09/15/10
		Surr: Nonane	100	(57-147) %REC	09/15/10 09:19	09/15/10
Client ID :	B-7 (MW)					
Lab ID :	E2M10091501-03A	TPH-E (DRO)	ND	0.50 mg/L	09/15/10 09:19	09/16/10
Date Sampled	09/14/10 15:50	TPH-E (ORO)	ND	0.50 mg/L	09/15/10 09:19	09/16/10
		Surr: Nonane	95	(57-147) %REC	09/15/10 09:19	09/16/10
Client ID :	B-11 (MW)					
Lab ID :	E2M10091501-04A	TPH-E (DRO)	ND	0.50 mg/L	09/15/10 09:19	09/16/10
Date Sampled	09/14/10 14:20	TPH-E (ORO)	ND	0.50 mg/L	09/15/10 09:19	09/16/10
		Surr: Nonane	87	(57-147) %REC	09/15/10 09:19	09/16/10

ND = Not Detected

Roger Scholl

9/22/10

**Report Date** 



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### ANALYTICAL REPORT

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 
 Attn:
 Jacob Ruffing

 Phone:
 (916) 852-7792

 Fax:
 (916) 852-7836

 Date Received : 09/14/10

Job: North Truckee Drain

Total Suspended Solids SM2540D					
	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: NTD Lab ID : E2M10091501-01A Date Sampled 09/14/10 16:30	Solids, Total Suspended (TSS)	910	8.3 mg/L	09/17/10	09/17/10
Client ID: <b>B-3 (MW)</b> Lab ID : E2M10091501-02A Date Sampled 09/14/10 12:50	Solids, Total Suspended (TSS)	11	2.5 mg/L	09/17/10	09/17/10
Client ID: <b>B-7 (MW)</b> Lab ID : E2M10091501-03A Date Sampled 09/14/10 15:50	Solids, Total Suspended (TSS)	24	2.5 mg/L	09/17/10	09/17/10
Client ID: <b>B-11 (MW)</b> Lab ID : E2M10091501-04A Date Sampled 09/14/10 14:20	Solids, Total Suspended (TSS)	4.1	2.5 mg/L	09/17/10	. 09/17/10

Roger Scholl

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**Report Date** 



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### ANALYTICAL REPORT

Turbidity

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 
 Attn:
 Jacob Ruffing

 Phone:
 (916) 852-7792

 Fax:
 (916) 852-7836

 Date Received : 09/14/10

Job: North Truckee Drain

EPA Method 180.1 / SM2130B					
	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: <b>NTD</b> Lab ID : E2M10091501-01A Date Sampled 09/14/10 16:30	Turbidity	15	0.10 NTU	09/15/10 14:07	09/15/10 14:07
Client ID: <b>B-3 (MW)</b> Lab ID : E2M10091501-02A Date Sampled 09/14/10 12:50	Turbidity	6.7	0.10 NTU	09/15/10 14:10	09/15/10 14:10
Client ID: <b>B-7 (MW)</b> Lab ID : E2M10091501-03A Date Sampled 09/14/10 15:50	Turbidity	4.2	0.10 NTU	09/15/10 14:12	09/15/10 14:12
Client ID: <b>B-11 (MW)</b> Lab ID : E2M10091501-04A Date Sampled 09/14/10 14:20	Turbidity	4.0	0.10 NTU	09/15/10 14:15	09/15/10 14:15

Roger Scholl Kandy Danlmer

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**Report Date** 

North Truckee Drain



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#### ANALYTICAL REPORT

HDR   E2M	Attn:	Jacob Ruffing
2365 Iron Point Road	Phone:	(916) 852-7792
Folsom, CA 95630	Fax:	(916) 852-7836
Job: North Truckee Drain		

Alpha Analytical Number: E2M10091501-01A Client I.D. Number: NTD

Sampled:	09/14/10 16:30
Received:	09/14/10
Extracted:	09/16/10
Analyzed:	09/16/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting Li	imit
1	Dichlorodifluoromethane	ND	1.0	µg/L	36	m,p-Xylene	ND	1.0	µg/L
2	Chloromethane	ND	2.0	µg/L	37	Bromoform	ND	1.0	µg/L
3	Vinyl chloride	ND	1.0	µg/L	38	Styrene	ND	1.0	µg/L
4	Chloroethane	ND	1.0	µg/L	39	o-Xylene	ND	1.0	µg/L
5	Bromomethane	ND	2.0	µg/L	40	1,1,2,2-Tetrachloroethane	ND	1.0	µg/L
6	Trichlorofluoromethane	ND	1.0	µg/L	41	1,2,3-Trichloropropane	ND	2.0	µg/L
7	1,1-Dichloroethene	ND	1.0	µg/L	42	Isopropylbenzene	ND	1.0	µg/L
8	Dichloromethane	ND	2.0	µg/L	43	Bromobenzene	ND	1.0	µg/L
9	trans-1,2-Dichloroethene	ND	1.0	µg/L	44	n-Propylbenzene	ND	1.0	µg/L
10	Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	45	4-Chlorotoluene	ND	1.0	µg/L
11	1,1-Dichloroethane	ND	1.0	µg/L	46	2-Chlorotoluene	ND	1.0	µg/L
12	cis-1,2-Dichloroethene	ND	1.0	µg/L	47	1,3,5-Trimethylbenzene	ND	1.0	µg/L
13	Bromochloromethane	ND	1.0	µg/L	48	tert-Butylbenzene	ND	1.0	µg/L
14	Chioroform	ND	1.0	µg/L	49	1,2,4-Trimethylbenzene	ND	1.0	µg/L
15	2,2-Dichloropropane	ND	1.0	µg/L	50	sec-Butylbenzene	ND	1.0	µg/L
16	1,2-Dichloroethane	ND	1.0	µg/L	51	1,3-Dichlorobenzene	ND	1.0	µg/L
17	1,1,1-Trichloroethane	ND	1.0	µg/L	52	1,4-Dichlorobenzene	ND	1.0	µg/L
18	1,1-Dichloropropene	ND	1.0	µg/L	53	4-Isopropyltoluene	ND	1.0	µg/L
19	Carbon tetrachloride	ND	1.0	µg/L	54	1,2-Dichlorobenzene	ND	1.0	µg/L
20	Benzene	ND	1.0	µg/L	55	n-Butylbenzene	ND	1.0	µg/L
21	Dibromomethane	ND	1.0	µg/L	56	1,2-Dibromo-3-chloropropane (DBCI	P) ND	3.0	µg/L
22	1,2-Dichloropropane	ND	1.0	µg/L	57	1,2,4-Trichlorobenzene	ND	2.0	µg/L
23	Trichloroethene	ND	1.0	µg/L	58	Naphthalene	ND	2.0	µg/L
24	Bromodichloromethane	ND	1.0	µg/L	59	Hexachlorobutadiene	ND	2.0	µg/L
25	cis-1,3-Dichloropropene	ND	1.0	µg/L	60	1,2,3-Trichlorobenzene	ND	2.0	µg/L
26	trans-1,3-Dichloropropene	ND	1.0	µg/L	61	Surr: 1,2-Dichloroethane-d4	116	(70-130)	%REC
27	1,1,2-Trichloroethane	ND	1.0	µg/L	62	Surr: Toluene-d8	97	(70-130)	%REC
28	Toluene	ND	1.0	µg/L	63	Surr: 4-Bromofluorobenzene	. 91	(70-130)	%REC
29	1,3-Dichloropropane	ND	1.0	µg/L				ζ, ,	
30	Dibromochloromethane	ND	1.0	µg/L					
31	1,2-Dibromoethane (EDB)	ND	2.0	µg/L					
32	Tetrachloroethene	ND	1.0	µg/L					
33	1,1,1,2-Tetrachloroethane	ND	1.0	µg/L					
34	Chlorobenzene	ND	1.0	µg/L					
35	Ethylbenzene	ND	1.0	µg/L					

ND = Not Detected

Roger Scholl

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#### **ANALYTICAL REPORT**

Attn:	Jacob Ruffing
Phone:	(916) 852-7792
Fax:	(916) 852-7836

HDR | E2M 2365 Iron Point Road Folsom, CA 95630 Job: North Truckee Drain

Alpha Analytical Number: E2M10091501-02A Client I.D. Number: B-3 (MW)

Sampled:	09/14/10 12:50
Received:	09/14/10
Extracted:	09/16/10
Analyzed:	09/16/10

#### Volatile Organics by GC/MS EPA Method SW8260B

	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	1.0	µg/L	36	m,p-Xylene	ND	1.0	µg/L
2	Chloromethane	ND	2.0	µg/L	37	Bromoform	ND	1.0	µg/L
3	Vinyl chloride	ND	1.0	µg/L	38	Styrene	ND	1.0	µg/L
4	Chloroethane	ND	1.0	µg/L	39	o-Xylene	ND	1.0	µg/L
5	Bromomethane	ND	2.0	µg/L	40	1,1,2,2-Tetrachloroethane	ND	1.0	µg/L
6	Trichlorofluoromethane	ND	1.0	µg/L	41	1,2,3-Trichloropropane	ND	2.0	µg/L
7	1,1-Dichloroethene	ND	1.0	µg/L	42	Isopropylbenzene	ND	1.0	µg/L
8	Dichloromethane	ND	2.0	µg/L	43	Bromobenzene	ND	1.0	µg/L
9	trans-1,2-Dichloroethene	ND	1.0	µg/L	44	n-Propylbenzene	ND	1.0	µg/L
10	Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	45	4-Chlorotoluene	ND	1.0	µg/L
11	1,1-Dichloroethane	ND	1.0	µg/L	46	2-Chlorotoluene	ND	1.0	µg/L
12	cis-1,2-Dichloroethene	ND	1.0	µg/L	47	1,3,5-Trimethylbenzene	ND	1.0	μg/L
13	Bromochloromethane	ND	1.0	µg/L	48	tert-Butylbenzene	ND	1.0	µg/L
14	Chloroform	ND	1.0	µg/L	49	1,2,4-Trimethylbenzene	ND	1.0	µg/L
15	2,2-Dichloropropane	ND	1.0	µg/L	50	sec-Butylbenzene	ND	1.0	µg/L
16	1,2-Dichloroethane	ND	1.0	µg/L	51	1.3-Dichlorobenzene	ND	1.0	µg/L
17	1,1,1-Trichloroethane	ND	1.0	µg/L	52	1,4-Dichlorobenzene	ND	1.0	µg/L
18	1,1-Dichloropropene	ND	1.0	µg/L	53	4-Isopropyltoluene	ND	1.0	µg/L
19	Carbon tetrachloride	ND	1.0	µg/L	54	1,2-Dichlorobenzene	ND	1.0	µg/L
20	Benzene	ND	1.0	µg/L	55	n-Butylbenzene	ND	1.0	µg/L
21	Dibromomethane	ND	1.0	µg/L	56	1,2-Dibromo-3-chloropropane (DBCI	P) ND	3.0	µg/L
22	1,2-Dichloropropane	ND	1.0	µg/L	57	1,2,4-Trichlorobenzene	ND	2.0	µg/L
23	Trichloroethene	ND	1.0	µg/L	58	Naphthalene	ND	2.0	µg/L
24	Bromodichloromethane	ND	1.0	µg/L	59	Hexachlorobutadiene	ND	2.0	µg/L
25	cis-1,3-Dichloropropene	ND	1.0	µg/L	60	1,2,3-Trichlorobenzene	ND	2.0	µg/L
26	trans-1,3-Dichloropropene	ND	1.0	µg/L	61	Surr: 1,2-Dichloroethane-d4	121	(70-130)	%REC
27	1,1,2-Trichloroethane	ND	1.0	µg/L	62	Surr: Toluene-d8	99	(70-130)	%REC
28	Toluene	ND	1.0	µg/L	63	Surr: 4-Bromofluorobenzene	92	(70-130)	%REC
29	1,3-Dichloropropane	ND	1.0	µg/L				. ,	
30	Dibromochloromethane	ND	1.0	µg/L					
31	1,2-Dibromoethane (EDB)	ND	2.0	µg/L					
32	Tetrachloroethene	ND	1.0	µg/L					
33	1,1,1,2-Tetrachloroethane	ND	1.0	µg/L					
34	Chlorobenzene	ND	1.0	µg/L					
35	Ethylbenzene	ND	1.0	µg/L	i				

ND = Not Detected

Roger Scholl

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

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**Report Date** 

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#### ANALYTICAL REPORT

HDR   E2M	Attn:	Jacob Ruffing
2365 Iron Point Road	Phone:	(916) 852-7792
Folsom, CA 95630	Fax:	(916) 852-7836
Job: North Truckee Drain		

Alpha Analytical Number: E2M10091501-03A Client I.D. Number: B-7 (MW)

Sampled:	09/14/10 15:50
Received:	09/14/10
Extracted:	09/16/10
Analyzed:	09/16/10

#### Volatile Organics by GC/MS EPA Method SW8260B

Compound		Concentration	Reporting	Limit		Compound	Concentration	Reporting Limit	
1	Dichlorodifluoromethane	ND	1.0	µg/L	36	m,p-Xylene	ND	1.0	µg/L
2	Chloromethane	ND	2.0	µg/L	37	Bromoform	ND	1.0	µg/L
3	Vinyl chloride	ND	1.0	µg/L	38	Styrene	ND	1.0	µg/L
4	Chloroethane	ND	1.0	µg/L	39	o-Xylene	ND	1.0	µg/L
5	Bromomethane	ND	2.0	µg/L	40	1,1,2,2-Tetrachloroethane	ND	1.0	µg/L
6	Trichlorofluoromethane	ND	1.0	µg/L	41	1,2,3-Trichloropropane	ND	2.0	μġ/L
7	1,1-Dichloroethene	ND	1.0	µg/L	42	Isopropylbenzene	ND	1.0	µg/L
8	Dichloromethane	ND	2.0	µg/L	43	Bromobenzene	ND	1.0	µg/L
9	trans-1,2-Dichloroethene	ND	1.0	µg/L	44	n-Propylbenzene	ND	1.0	µg/L
10	, , , , , , , , , , , , , , , , , , , ,	ND	1.0	µg/L	45	4-Chlorotoluene	ND	1.0	µg/L
11	1,1-Dichloroethane	ND	1.0	µg/L	46	2-Chlorotoluene	ND	1.0	μg/L
12	cis-1,2-Dichloroethene	ND	1.0	µg/L	47	1,3,5-Trimethylbenzene	ND	1.0	µg/L
13		ND	1.0	µg/L	48	tert-Butylbenzene	ND	1.0	µg/L
14	Chloroform	ND	1.0	µg/L	49	1,2,4-Trimethylbenzene	ND	1.0	µg/L
15	2,2-Dichloropropane	ND	1.0	µg/L	50	sec-Butylbenzene	ND	1.0	µg/L
16	1,2-Dichloroethane	ND	1.0	µg/L	51	1,3-Dichlorobenzene	ND	1.0	µg/L
17		ND	1.0	µg/L	52	1,4-Dichlorobenzene	ND	1.0	µg/L
18	1,1-Dichloropropene	ND	1.0	µg/L	53	4-Isopropyltoluene	ND	1.0	µg/L
19	Carbon tetrachloride	ND	1.0	µg/L	54	1,2-Dichlorobenzene	ND	1.0	µg/L
20	Benzene	ND	1.0	µg/L	55	n-Butylbenzene	ND	1.0	µg/L
21	Dibromomethane	ND	1.0	µg/L	56	1,2-Dibromo-3-chloropropane (DBCF	P) ND	3.0	µg/L
22	1,2-Dichloropropane	ND	1.0	µg/L	57	1,2,4-Trichlorobenzene	ND	2.0	µg/L
23	Trichloroethene	ND	1.0	µg/L	58	Naphthalene	ND	2.0	µg/L
24	Bromodichloromethane	ND	1.0	µg/L	59	Hexachlorobutadiene	ND	2.0	µg/L
25	7 · - · · · · · · · · · · · · · · · · ·	ND	1.0	µg/L	60	1,2,3-Trichlorobenzene	ND	2.0	μg/L
26	trans-1,3-Dichloropropene	ND	1.0	µg/L	61	Surr: 1,2-Dichloroethane-d4	118	(70-130)	
27	1,1,2-Trichloroethane	ND	1.0	µg/L	62	Surr: Toluene-d8	101	(70-130)	
28	Toluene	ND	1.0	µg/L	63	Surr: 4-Bromofluorobenzene	94	(70-130)	
29	1,3-Dichloropropane	ND	1.0	µg/L				, , , , , , , , , , , , , , , , , , ,	
30	Dibromochloromethane	ND	1.0	µg/L					
31	1,2-Dibromoethane (EDB)	ND	2.0	µg/L					
32	Tetrachloroethene	ND	1.0	µg/L					
33	1,1,1,2-Tetrachloroethane	ND	1.0	µg/L					
34	Chlorobenzene	ND	1.0	µg/L					
35	Ethylbenzene	ND	1.0	µg/L					

ND = Not Detected

Roger Scholl

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Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

9/22/10

**Report Date** 

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### ANALYTICAL REPORT

HDR   E2M	Attn:	Jacob Ruffing
2365 Iron Point Road	Phone:	(916) 852-7792
Folsom, CA 95630	Fax:	(916) 852-7836
Job: North Truckee Drain		

Alpha Analytical Number: E2M10091501-04A Client I.D. Number: B-11 (MW)

Sampled:	09/14/10 14:20
Received:	09/14/10
Extracted:	09/16/10
Analyzed:	09/16/10

#### Volatile Organics by GC/MS EPA Method SW8260B

			·	1 WICHN					
	Compound	Concentration	Reporting	Limit		Compound	Concentration	Reporting L	imit
1	Dichlorodifluoromethane	ND	1.0	µg/L	36	m,p-Xylene	ND	1.0	µg/L
2	Chloromethane	ND	2.0	µg/L	37	Bromoform	ND	1.0	µg/L
3	Vinyl chloride	ND	1.0	µg/L	38	Styrene	ND	1.0	µg/L
4	Chloroethane	ND	1.0	µg/L	39	o-Xylene	ND	1.0	µg/L
5	Bromomethane	ND	2.0	µg/L	40	1,1,2,2-Tetrachloroethane	ND	1.0	µg/L
6	Trichlorofluoromethane	ND	1.0	µg/L	41	1,2,3-Trichloropropane	ND	2.0	µg/L
7	1,1-Dichloroethene	ND	1.0	µg/L	42	Isopropylbenzene	ND	1.0	µg/L
8	Dichloromethane	ND	2.0	µg/L	43	Bromobenzene	ND	1.0	μġ/L
9	trans-1,2-Dichloroethene	ND	1.0	µg/L	44	n-Propylbenzene	ND	1.0	µg/L
10	Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	45	4-Chlorotoluene	ND	1.0	µg/L
11	1,1-Dichloroethane	ND	1.0	µg/L	46	2-Chlorotoluene	ND	1.0	µg/L
12	cis-1,2-Dichloroethene	ND	1.0	µg/L	47	1,3,5-Trimethylbenzene	ND	1.0	µg/L
13	Bromochloromethane	ND	1.0	µg/L	48	tert-Butylbenzene	ND	1.0	µg/L
14	Chloroform	ND	1.0	µg/L	49	1,2,4-Trimethylbenzene	ND	1.0	µg/L
15	2,2-Dichloropropane	ND	1.0	µg/L	50	sec-Butylbenzene	ND	1.0	µg/L
16	1,2-Dichloroethane	ND	1.0	µg/L	51	1,3-Dichlorobenzene	ND	1.0	µg/L
17	1,1,1-Trichloroethane	ND	1.0	µg/L	52	1,4-Dichlorobenzene	ND	1.0	µg/L
18	1,1-Dichloropropene	ND	1.0	µg/L	53	4-Isopropyitoluene	ND	1.0	µg/L
19	Carbon tetrachloride	ND	1.0	µg/L	54	1,2-Dichlorobenzene	ND	1.0	µg/L
20	Benzene	ND	1.0	µg/L	55	n-Butylbenzene	ND	1.0	µg/L
21	Dibromomethane	ND	1.0	µg/L	56	1,2-Dibromo-3-chloropropane (DBC	P) ND	3.0	µg/L
22	1,2-Dichloropropane	ND	1.0	µg/L	57	1,2,4-Trichlorobenzene	ND	2.0	µg/L
23	Trichloroethene	ND	1.0	µg/L	58	Naphthalene	ND	2.0	µg/L
24	Bromodichloromethane	ND	1.0	µg/L	59	Hexachlorobutadiene	ND	2.0	µg/L
25	cis-1,3-Dichloropropene	ND	1.0	µg/L	60	1,2,3-Trichlorobenzene	ND	2.0	µg/L
26	trans-1,3-Dichloropropene	ND	1.0	µg/L	61	Surr: 1,2-Dichloroethane-d4	118	(70-130)	%REC
27	1,1,2-Trichloroethane	ND	1.0	µg/L	62	Surr: Toluene-d8	97	(70-130)	%REC
28	Toluene	ND	1.0	µg/L	63	Surr: 4-Bromofluorobenzene	96	(70-130)	%REC
29	1,3-Dichloropropane	ND	1.0	µg/L					
30	Dibromochloromethane	ND	1.0	µg/L					
31	1,2-Dibromoethane (EDB)	ND	2.0	µg/L					
32	Tetrachloroethene	ND	1.0	μg/L					
33	1,1,1,2-Tetrachloroethane	ND	1.0	µg/L					
34	Chlorobenzene	ND	1.0	µg/L					
35	Ethylbenzene	ND	1.0	µg/L					

ND = Not Detected

Roger Scholl

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 736-7522 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise. Alpha Analytical, Inc. currently holds appropriate and available NDEP certifications for the data reported - certification #NV16.

9/22/10

**Report Date** 

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### VOC Sample Preservation Report

#### Work Order: E2M10091501 Job: North Truckee Drain Alpha's Sample ID Client's Sample ID Matrix pН 10091501-01A 2 NTD Aqueous 10091501-02A 2 B-3 (MW) Aqueous 10091501-03A B-7 (MW) 5 Aqueous 10091501-04A 5 B-11 (MW) Aqueous

9/22/10 Report Date

Page 1 of 1



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<b>Date:</b> 17-Sep-10		(	QC Su	immar	y Repor	t		<u> </u>		<b>Work Ord</b> 1009150	
Method Blank File ID: 20			Туре М	Ba	est Code: EF atch ID: 2504	16	hod 300.0	Analy		09/15/2010 11:58	
Sample ID:	MB-25046	Units : <b>mg/L</b> Result	PQL	-	_ <b>1_100915A</b> SpkRefVal		LCL(ME)		Date: ) RPDRef\	09/15/2010 10:23 /al %RPD(Limit)	Qua
Chloride Nitrite (NO2) - N Nitrate (NO3) - N Sulfate (SO4)		ND ND ND ND	0.5 0.25 0.25 0.5								
	ortified Blank		Type Lf	<b>-B</b> Te	est Code: EF	PA Met	hod 300.0				
File ID: 31					itch ID: 2504			•		09/15/2010 15:23	
•	LFB-25046	Units : mg/L		-	_1_100915 <b>A</b>			•	Date:	09/15/2010 10:23	
Analyte	· · · · · · · · · · · · · · · · · · ·	Result	PQL		SpkRefVal				RPDRef∖	/al %RPD(Limit)	Qua
Chloride Nitrite (NO2) - N Nitrate (NO3) - N Sulfate (SO4)		49.9 4.99 5.27 101	0.5 0.25 0.25 0.5	50 5 5 100		99.8 99.8 105 101	90 90 90 90	110 110 110 110			
· · ·			Type Lf		est Code: EF			110			
Sample Matri File ID: 24	іх эріке		Type Lr		atch ID: 2504		100 300.0	Anah	rcie Dato:	09/15/2010 13:12	
	10091503-01ALFM	Units : mg/L			1 100915A			•	Date:	09/15/2010 13:12	
Analyte		Result	PQL	-			LCL(ME)			/al %RPD(Limit)	Qua
Chloride		99.4	0.5	50	70.29	58	80	120			M2
Nitrite (NO2) - N Nitrate (NO3) - N		5.52 12.3	0.25 0.25	5 5	0 8.324	110 79	80 80	120 120			M2
Sulfate (SO4)		172	0.5	100	98.39	74	80	120			M2
Sample Matri	x Spike Duplicate		Type Li	MD Te	est Code: EF	A Met	hod 300.0				
File ID: 25					atch ID: 2504			Analy	sis Date:	09/15/2010 13:31	
Sample ID:	10091503-01ALFMD	Units : mg/L		Run ID: IC	1 100915A	<b>`</b>		Prep	Date:	09/15/2010 10:23	
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	/al %RPD(Limit)	Qua
Chloride		102	0.5	50	70.29	63	80	120	99.4		M2
Nitrite (NO2) - N Nitrate (NO3) - N		5.51 12.6	0.25 0.25	5 5	0 8.324	110 86	80 80	120 120	5.524 12.29	0.2(15)	_
Sulfate (SO4)		176	0.5	100	98.39	78	80	120	172.3		M2

#### **Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.



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Date: 17-Sep-10 QC Summary Report						Work Orde 10091501			
Laboratory Control Spike File ID:		Type L		st Code: <b>S</b> tch ID: <b>W0</b>		5	Analysis Date:	09/16/2010 14:38	
Sample ID: LCS-W0916AL	Units : mg/L		Run ID: WE	TLAB_10	0916C		Prep Date:	09/16/2010 14:38	
Analyte	Result	PQL	SpkVal S	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	/al %RPD(Limit)	Qual
Alkalinity, Total (As CaCO3 at pH 4.5)	295	10	250	-	118	80	120		

#### **Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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<b>Date:</b> 17-Sep-10	QC Summary						Report					
Method Blank File ID:		Туре I		t Code: SN ch ID: W09		NH3D	Analy	sis Date <sup>.</sup>	09/13/2010 09:46			
Sample ID: MBLK-W0913AM	Units : mg/L		Run ID: WE	1			Prep		09/13/2010 09:46			
Analyte	Result	PQL		-		LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua		
Nitrogen, Ammonia (As N)	ND	0.	1									
Laboratory Control Spike	· · · · · · · · · · · · · · · · · · ·	Туре	LCS Tes	t Code: <b>SN</b>	4500-	NH3D						
File ID:			Bate	h ID: <b>W09</b>	13AM		Analy	sis Date:	09/13/2010 09:40			
Sample ID: LCS-W0913AM	Units : mg/L		Run ID: WE	LAB_100	913A		Prep	Date:	09/13/2010 09:40			
Analyte	Result	PQL	SpkVal S	pkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua		
Nitrogen, Ammonia (As N)	4.83	0.	15		97	70	130					
Sample Matrix Spike		Туре І		t Code: SN	-	NH3D						
File ID:			Bate	h ID: <b>W09</b>	13 <b>AM</b>		Analy	sis Date:	09/13/2010 09:53			
Sample ID: 10090320-01AMS	Units : mg/L		Run ID: WE	LAB_100	913A		Prep	Date:	09/13/2010 09:53			
Analyte	Result	PQL	SpkVal S	pkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua		
Nitrogen, Ammonia (As N)	214	1	0 50	180	68	65	138					
Sample Matrix Spike Duplicate		Туре	MSD Tes	t Code: SN	14500-	NH3D						
File ID:			Bate	h ID: <b>W09</b>	13AM		Analy	sis Date:	09/13/2010 09:56			
Sample ID: 10090320-01AMSD	Units : mg/L		Run ID: WE	LAB_100	913A		Prep	Date:	09/13/2010 09:56			
Analyte	Result	PQL	SpkVal S	pkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef\	/al %RPD(Limit)	Qua		
Nitrogen, Ammonia (As N)	202	1	0 50	180	44	65	138	214	5.8(20)	M2		
Commenter		-										

**Comments:** 

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M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.



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<b>Date:</b> 20-Sep-10	QC Summary Report							<b>Work Order:</b> 10091501		
Method Blank		Туре I	MBLK Test	Code: EF	PA Met	thod SW60	20 / SW6	020A		
File ID: 091510.B\019_M.D\			Bato	h ID: <b>250</b> 5	51		Analy	sis Date:	09/15/2010 18:46	
Sample ID: MB-25051	Units : mg/L		Run ID: ICP/	MS_1009 <sup>-</sup>	15A		Prep	Date:	09/15/2010 13:51	
Analyte	Result	PQL	SpkVal S	pkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Sodium (Na)	ND	0.	5							
Laboratory Control Spike	· · · · · · · · · · · · · · · · · · ·	Туре I	LCS Test	Code: EF	PA Met	thod SW60	20 / SW6	020A		
File ID: 091510.B\020_M.D\			Bato	h ID: <b>250</b>	51		Analy	sis Date:	09/15/2010 18:51	
Sample ID: LCS-25051	Units : mg/L		Run ID: ICP/	MS_1009 <sup>-</sup>	15A		Prep	Date:	09/15/2010 13:51	
Analyte	Result	PQL	SpkVal S	pkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Sodium (Na)	52.7	0.	5 50		105	80	120			
Sample Matrix Spike		Туре І	MS Test	Code: EF	A Met	thod SW60	20 / SW6	020A		
File ID: 091510.B\025_SS.D\			Bato	h ID: <b>250</b>	51		Analy	sis Date:	09/15/2010 19:19	
Sample ID: 10091501-01AMS	Units : mg/L		Run ID: ICP/	MS_1009	15A		Prep	Date:	09/15/2010 13:51	
Analyte	Result	PQL	SpkVal S	pkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Sodium (Na)	109	0.	5 50	60.56	96	75	125			
Sample Matrix Spike Duplicate		Type I	MSD Test	Code: El	A Me	thod SW60	20 / SW6	020A		
File ID: 091510.B\026_SS.D\			Bato	h ID: 250	51		Analy	sis Date:	09/15/2010 19:25	
Sample ID: 10091501-01AMSD	Units : mg/L		Run ID: ICP/	MS_1009 <sup>.</sup>	15A		Prep	Date:	09/15/2010 13:51	
Analyte	Result	PQL				LCL(ME)	UCL(ME)	RPDRef	Val %RPD(Limit)	Qua
Sodium (Na)	111	0.	5 50	60.56	100	75	125	108.	5 1.9(20)	

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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<b>Date:</b> 17-Sep-10	QC Summary Report								<b>Work Order:</b> 10091501		
Method Blank File ID:		Туре І				NORGC /	SM4500NH3D		_		
Sample ID: MBLK-W0909TK	Units : mg/L		Run ID: WET	h ID: W09			Prep Date:	ite: 09/09/2010 13:55 09/09/2010 13:55			
Analyte	Result	PQL				LCL(ME)	•	RefVal %RPD(Limit)	Qua		
Nitrogen, Kjeldahl, Total	ND	0.2						·····			
Laboratory Control Spike		Туре L	.CS Test	Code: SI	M4500-	NORGC /	SM4500NH3D				
File ID:			Batc	h ID: <b>W0</b> 9	909TK		Analysis Da	nte: 09/09/2010 13:51			
Sample ID: LCS-W0909TK	Units : mg/L		Run ID: WET	LAB_100	909B		Prep Date:	09/09/2010 13:51			
Analyte	Result	PQL	SpkVal S	pkRefVal	%REC	LCL(ME)	UCL(ME) RPDF	RefVal %RPD(Limit)	Qua		
Nitrogen, Kjeldahl, Total	4.4	0.2	5 5		88	65	135				
Sample Matrix Spike		Туре	NS Test	Code: SI	M4500-	NORGC /	SM4500NH3D	· · · · · · · · ·			
File ID:			Bato	h ID: <b>W0</b> 9	909TK		Analysis Da	ate: 09/09/2010 14:08			
Sample ID: 10090204-01AMS	Units : mg/L		Run ID: WET	LAB_100	909B		Prep Date:	09/09/2010 14:08			
Analyte	Result	PQL	SpkVal S	pkRefVal	%REC	LCL(ME)	UCL(ME) RPDF	RefVal %RPD(Limit)	Qua		
Nitrogen, Kjeldahl, Total	3.59	0.2	5 5	0	72	55	142				
Sample Matrix Spike Duplicate		Туре	NSD Test	Code: SI	M4500-	NORGC /	SM4500NH3D				
File ID:			Bato	h ID: <b>W0</b> 9	909TK		Analysis Da	ate: 09/09/2010 14:10			
Sample ID: 10090204-01AMSD	Units : mg/L		Run ID: WET	LAB_100	909B		Prep Date:	09/09/2010 14:10			
Analyte	Result	PQL		_		LCL(ME)	UCL(ME) RPDP	RefVal %RPD(Limit)	Qua		
Nitrogen, Kjeldahl, Total	4.16	0.2	5 5	0	83	55	142 3	3.59 14.7(20)			

**Comments:** 

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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<b>Date:</b> 16-Sep-10			Work Order: 10091501						
Laboratory Control Spike		9040C							
File ID:			Ba	atch ID: WO	915PH		Analysis Date:	09/15/2010 13:53	
Sample ID: LCS-W0915PH	Units : pH I	Units	Run ID: WI	ETLAB_10	)915E		Prep Date:	09/15/2010 13:53	
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME) RPDRef	/al %RPD(Limit)	Qua
pН	4.99	1.7	5		99.8	90	110		

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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Date: 22-Sep-10	(	QC S	ummary	Repor	t			<b>Work Ord</b> 10091501	
Method Blank		Туре: 🛚	IBLK Test	Code: EF	PA Me	thod 365.3	/ SM4500PE		
File ID:			Batc	h ID: W09	22TP		Analysis Date	e: 09/22/2010 00:00	
Sample ID: MBLK-W0922TP	Units : <b>mg/L</b>		Run ID: WET	LAB_100	922A		Prep Date:	09/22/2010 00:00	
Analyte	Result	PQL	SpkVal Sp	kRefVal	%REC	LCL(ME)	UCL(ME) RPDRe	fVal %RPD(Limit)	Qua
Phosphorus, Total (As P)	ND	0.1							
Laboratory Control Spike		Type: L	.CS Test	Code: EF	PA Met	thod 365.3	/ SM4500PE		
File ID:			Batc	h ID: W09	22TP		Analysis Date	: 09/22/2010 00:00	
Sample ID: LCS-W0922TP	Units : mg/L		Run ID: WET	LAB 100	922A		Prep Date:	09/22/2010 00:00	
Analyte	Result	PQL		_		LCL(ME)	UCL(ME) RPDRe	fVal %RPD(Limit)	Qua
Phosphorus, Total (As P)	0.942	0.1			94	73	127		
Sample Matrix Spike		Туре: М	IS Test	Code: EF	A Met	thod 365.3	/ SM4500PE		
File ID:			Batci	h ID: W09	22TP		Analysis Date	: 09/22/2010 00:00	
Sample ID: 10091542-01AMS	Units : mg/L		Run ID: WET	LAB 100	922A		Prep Date:	09/22/2010 00:00	
Analyte	Result	PQL	SpkVal Sp	kRefVal	%REC	LCL(ME)	UCL(ME) RPDRe	fVal %RPD(Limit)	Qua
Phosphorus, Total (As P)	1.31	0.1	1	0.385	93	73	127		
Sample Matrix Spike Duplicate		Type: N	ISD Test	Code: EF	A Met	hod 365.3	/ SM4500PE		
File ID:			Batcl	1D: W09	22TP		Analysis Date	: 09/22/2010 00:00	
Sample ID: 10091542-01AMSD	Units : mg/L		Run ID: WET	LAB 100	922A		Prep Date:	09/22/2010 00:00	
Analyte	Result	PQL		_		LCL(ME)		fVal %RPD(Limit)	Qua
Phosphorus, Total (As P)	1.27	0.1		0.385	88	73	127 1.3		

#### Comments:



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<b>Date:</b> 17-Sep-10							y Report				
Method Blank File ID:		Туре		est Code: <b>S</b> atch ID: <b>W0</b>		;	Analysis Date:	09/16/2010 00:00			
Sample ID: MBLK-W0914DS	Units : mg/L		Run ID: W	ETLAB_10	0914B		Prep Date:	09/16/2010 00:00			
Analyte	Result	PQL	SpkVal	SpkRefVa	%REC	LCL(ME)	UCL(ME) RPDRef	/al %RPD(Limit)	Qua		
Solids, Total Dissolved (TDS)	ND .	1(	C								
Laboratory Control Spike		Туре I		est Code: S atch ID: W0		;	Analysis Date:	09/16/2010 00:00			
Sample ID: LCS-W0914DS	Units : mg/L		Run ID: W	ETLAB_10	0914B		Prep Date:	09/16/2010 00:00			
Analyte	Result	PQL	SpkVal	SpkRefVa	%REC	LCL(ME)	UCL(ME) RPDRef	/al %RPD(Limit)	Qua		
Solids, Total Dissolved (TDS)	95	1(	0 100		95	80	120				

Comments:



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<b>Date:</b> 17-Sep-10	(	)C Si	ummary ]	Report					<b>Work Orde</b> 10091501	
Method Blank File ID: 7A09141064.D		Туре М		Code: EPA 1 ID: 25045		nod SW80		/sis Date:	09/15/2010 15:09	
Sample ID: MBLK-25045 Analyte	Units : <b>mg/L</b> Result	PQL	Run ID: FID_ SpkVal Sp			LCL(ME)		Date: RPDRef	<b>09/15/2010 09:19</b> Val %RPD(Limit)	Qual
TPH-E (DRO) TPH-E (ORO) Surr: Nonane	ND ND 0.143	0.5 0.5			95	57	147			
Laboratory Control Spike File ID: 7A09141066.D		Type L		Code: EPA 1 ID: 25045		nod SW80		/sis Date:	09/15/2010 16:03	
Sample ID: LCS-25045 Analyte	Units : <b>mg/L</b> Result	PQL	Run ID: FID_ SpkVal Sp	-		LCL(ME)		Date: RPDRef	09/15/2010 09:19 Val %RPD(Limit)	Qual
TPH-E (DRO) Surr: Nonane	2.27 0.142	0.05	2.5 0.15		91 95	67 57	130 147			
Sample Matrix Spike File ID: 7A09141085.D		Туре М		Code: EPA ID: 25045		nod SW80		/sis Date:	09/16/2010 00:26	
Sample ID: 10091501-02AMS Analyte	Units : <b>mg/L</b> Result	PQL	Run ID: <b>FID_</b> SpkVal Sp	-		LCL(ME)	Prep UCL(ME)		09/15/2010 09:19 Val %RPD(Limit)	Qual
TPH-E (DRO) Surr: Nonane	2.29 0.132	0.05	2.5 0.15	•	91 88	49 57	150 147			
Sample Matrix Spike Duplicate File ID: 7A09141086.D		Туре М		Code: EPA	Meti	nod SW80		sis Date:	09/16/2010 00:52	
Sample ID: 10091501-02AMSD Analyte	Units : <b>mg/L</b> Result	PQL	Run ID: FID_	7_100915A		LCL(ME)	Prep	Date:	09/15/2010 09:19 /al %RPD(Limit)	Qual
TPH-E (DRO) Surr: Nonane	2.47 0.118	0.05	2.5 0.15	-	99 79	49 57	150 147	2.287	7 7.5(38)	

#### Comments:



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<b>Date:</b> 17-Sep-10	QC Summary Report	<b>Work Order:</b> 10091501
Method Blank File ID:		/13/2010 00:00
Sample ID: MBLK-W0910SS		(13/2010 00:00
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %	%RPD(Limit) Qua
Solids, Total Suspended (TSS)	ND 2.5	
Laboratory Control Spike	Type LCS Test Code: SM2540D	
File 1D:	Batch ID: W0910SS Analysis Date: 09/	/13/2010 00:00
Sample ID: LCS-W0910SS	Units : mg/L Run ID: WETLAB_100910E Prep Date: 09/	/13/2010 00:00
Analyte	Result PQL SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal	%RPD(Limit) Qua
Solids, Total Suspended (TSS)	76 2.5 100 76 50 140	

#### **Comments:**



255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778 (775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

<b>Date:</b> 16-Sep-10	(	QC S	ummary	y Report			Work Orde 10091501	
Method Blank File ID:		Туре 🛚	Ва	est Code: EPA htch ID: W0915	στυ	Analysis Date:		
Sample ID: MBLK-W0915TU	Units : NTU		Run ID: WI	ETLAB_10091	5D	Prep Date:	09/15/2010 13:57	
Analyte	Result	PQL	SpkVal	SpkRefVal %	REC LCL(ME	) UCL(ME) RPDRef	Val %RPD(Limit)	Qua
Turbidity	ND	0.1	1			·····		
Laboratory Control Spike		Туре І		est Code: EPA			00/45/0040 40.57	
Sample ID: LCS-W0915TU	Units : NTU			itch ID: W0915 ETLAB 10091		Analysis Date: Prep Date:	09/15/2010 13:57 09/15/2010 13:57	
Analyte	Result	PQL	SpkVal	SpkRefVal %	REC LCL(ME	) UCL(ME) RPDRef	Val %RPD(Limit)	Qua
Turbidity	5.18	0.1	1 5	1	04 90	110		

Comments:



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<b>Date:</b> 17-Sep-10	(	QC Summary I	Report	<b>Work Order:</b> 10091501
Method Blank			Code: EPA Method SW8260B	
File ID: <b>10091604.D</b>		Batch	ID: MS12W0916A Analysis Date	: 09/16/2010 09:54
Sample ID: MBLK MS12W0916A	Units : µg/L	Run ID: MSD	12_100916A Prep Date:	09/16/2010 09:54
Analyte	Result	PQL SpkVal Sp	kRefVal %REC LCL(ME) UCL(ME) RPDRef	fVal %RPD(Limit) Qua
Dichlorodifluoromethane	ND	1		
Chloromethane	ND	2		
Vinyl chloride	ND	1		
Chloroethane	ND	1		
Bromomethane	ND	2		
Trichlorofluoromethane 1,1-Dichloroethene	ND	1		
Dichloromethane	ND ND	1 2		
trans-1,2-Dichloroethene	ND	2		
Methyl tert-butyl ether (MTBE)	ND	1		
1,1-Dichloroethane	ND	1		
cis-1,2-Dichloroethene	ND	1		
Bromochloromethane	ND	1		
Chloroform	ND	1		
2,2-Dichloropropane	ND	1		
1,2-Dichloroethane 1,1,1-Trichloroethane	ND	1		
1,1-Dichloropropene	ND	1		
Carbon tetrachloride	ND ND	1		
Benzene	ND	1		
Dibromomethane	ND	1		
1,2-Dichloropropane	ND	1		
Trichloroethene	ND	1		
Bromodichloromethane	ND	1		
cis-1,3-Dichloropropene trans-1,3-Dichloropropene	ND	1		
1,1,2-Trichloroethane	ND ND	1 1		
Toluene	ND	1		
1,3-Dichloropropane	ND	1		
Dibromochloromethane	ND	1		
1,2-Dibromoethane (EDB)	ND	2		
Tetrachloroethene	ND	1		
1,1,1,2-Tetrachloroethane	ND	1		
Chlorobenzene Ethylbenzene	ND	1		
m,p-Xylene	ND ND	1 1		
Bromoform	ND	1		
Styrene	ND	1		
o-Xylene	ND	1		
1,1,2,2-Tetrachloroethane	ND	1		
1,2,3-Trichloropropane	ND	2		
Isopropylbenzene	ND	1		
Bromobenzene n-Propylbenzene	ND	1		
4-Chlorotoluene	ND ND	1 1		
2-Chlorotoluene	ND	1		
1,3,5-Trimethylbenzene	ND	1		
tert-Butylbenzene	ND	1		
1,2,4-Trimethylbenzene	ND	1		
sec-Butylbenzene	ND	1		
1,3-Dichlorobenzene	ND	1		
1,4-Dichlorobenzene 4-Isopropyltoluene	ND ND	1		
1,2-Dichlorobenzene	ND	1 1		
n-Butylbenzene	ND	1		
1,2-Dibromo-3-chloropropane (DBCP)	ND	3		
1,2,4-Trichlorobenzene	ND	2		
Naphthalene	ND	2		
Hexachlorobutadiene	ND	2		
1,2,3-Trichlorobenzene	ND	2		
Surr: 1,2-Dichloroethane-d4 Surr: Toluene-d8	11.5	10	115 70 130 07 70 120	
Surr: 4-Bromofluorobenzene	9.71 9.2	10 10	97 70 130 92 70 130	
	9.2	10	92 70 130	



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<b>Date:</b> 17-Sep-10	(	QC Sun	nmary I	Repor	t				Work Orde 10091501	
Laboratory Control Spike		Type LCS	Test	Code: E	PA Met	hod SW8	260B			
File ID: 10091603.D			Batch	ID: <b>MS</b>	12W091	I6A	Analysis	Date: 0	9/16/2010 09:31	
Sample ID: LCS MS12W0916A	Units : µg/L	Rı	In ID: MSD				Prep Da		9/16/2010 09:31	
Analyte	Result			_		LCL(ME)			1 %RPD(Limit)	Qual
1,1-Dichloroethene	10.5	1	10		105	80	120			
Methyl tert-butyl ether (MTBE)	9.76	0.5	10		98	62	136			
Benzene	9.70 10.5	0.5	10		90 105	62 70	130			
Trichloroethene	10.5	0.5	10		105	70	130			
Toluene	10.0	0.5	10		100	80	120			
Chlorobenzene	10.3	0.5	10		103	70	120			
Ethylbenzene	10.1	0.5	10		103	80	120			
m,p-Xylene	10.1	0.5	10		108	70	130			
o-Xylene	9.52	0.5	10		95	70	130			
Surr: 1,2-Dichloroethane-d4	11.1	0.0	10		111	70	130			
Surr: Toluene-d8	9.63		10		96	70	130			
Surr: 4-Bromofluorobenzene	9.95		10		100	70	130			
Sample Matrix Spike		Type MS	Test	Code: E	PA Met	hod SW82	260B			
File ID: 10091616.D				ID: MS				Date: 0	9/16/2010 14:38	
Sample ID: 10091642-04AMS	Units : µg/L	Ru	in ID: MSD_	12 100	916A		Prep Da	te: 0	9/16/2010 14:38	
Analyte	Result		_			LCL(ME)	UCL(ME) RF	PDRefVa	1 %RPD(Limit)	Qual
1,1-Dichloroethene	55.7	2.5	50	0	111	60	130			
Methyl tert-butyl ether (MTBE)	46.8	1.3	50	0	94	56	141			
Benzene	51	1.3	50	0	102	67	130			
Trichloroethene	52.8	2.5	50	Ō	106	69	130			
Toluene	45.4	1.3	50	0	91	66	130			
Chlorobenzene	49.4	2.5	50	0	99	70	130			
Ethylbenzene	46.8	1.3	50	0	94	68	130			
m,p-Xylene	49.7	1.3	50	0	99	64	130			
o-Xylene	44.8	1.3	50	0	90	70	130			
Surr: 1,2-Dichloroethane-d4	62		50		124	70	130			
Surr: Toluene-d8	46.2		50		92	70	130			
Surr: 4-Bromofluorobenzene	48.5		50		97	70	130			
Sample Matrix Spike Duplicate		Type MSC	Test O	Code: E	PA Met	hod SW82	260B			
File ID: 10091617.D			Batch	ID: <b>MS</b>	12W091	6A	Analysis	Date: 0	9/16/2010 15:01	
Sample ID: 10091642-04AMSD	Units : µg/L	Ru	in ID: MSD_	12_100	916A		Prep Da	te: 0	9/16/2010 15:01	
Analyte	Result	PQL	SpkVal Sp	kRefVal	%REC	LCL(ME)	UCL(ME) RF	PDRefVa	I %RPD(Limit)	Qual
1,1-Dichloroethene	57.6	2.5	50	0	115	60	130	55.71	3.3(20)	
Methyl tert-butyl ether (MTBE)	51.3	1.3	50	0	103	56	141	46.77	9.2(20)	
Benzene	53	1.3	50	0	106	67	130	51	3.9(20)	
Trichloroethene	55.3	2.5	50	0	111	69	130	52.82	4.6(20)	
Toluene	48.5	1.3	50	0	97	66	130	45.38	6.6(20)	
Chlorobenzene	51.8	2.5	50	0	104	70	130	49.36	4.9(20)	
Ethylbenzene	49.7	1.3	50	0	99	68	130	46.75	6.0(20)	
m,p-Xylene	52.8	1.3	50	0	106	64	130	49.74	5.9(20)	
o-Xylene	47.3	1.3	50	0	95	70	130	44.83	5.4(20)	
Surr: 1,2-Dichloroethane-d4	60.9		50		122	70	130			
Surr: Toluene-d8	46.8		50		94	70	130			
Surr: 4-Bromofluorobenzene	47.9		50		96	70	130			
Commonte										

#### Comments:



Alpha Analytical Attn: Reyna Vallejo 255 Glendale Avenue Suite 21 Sparks, NV 89431 
 Date:
 9/20/2010

 Client:
 ALP-855

 Taken by:
 J. Ruffing

 PO #:
 Comparison

Dear Reyna Vallejo,

It is the policy of Sierra Environmental Monitoring, Inc to strictly adhere to a comprehensive Quality Assurance Plan that insures the data presented in this report are both accurate and precise. Sierra Environmental Monitoring, Inc. maintains accreditation in the State of Nevada (NV-15) and the State of California (ELAP 2526).

The data presented in this report were obtained from the analysis of samples received under a chain of custody. Unless otherwise noted below, samples were received in good condition, properly preserved and within the hold time for the requested analyses. Any anomalies associated with the analysis of the samples have been flagged with appropriate explanation in the Analysis Report section of this Laboratory Report.

General Comments:

- There are no general comments for this report.

Individual Sample Comments:

- There are no specific comments that are associated with these samples.

Approved By:

Sierra Environmental Monitoring, Inc

This report is applicable only to the sample received by the laboratory. The liability of the laboratory is limited to the amount paid for this report. This report is for the exclusive use of the client to whom it is addressed and upon the condition that the client assumes all liability for the further distribution of the report or its contents.

Page 1 of 4 1135 Financial Blvd. Reno, NV 89502-2348 Phone (775) 857-2400 FAX (775) 857-2404 sem@sem-analytical.com

John C. Seher Special Consultant Quality Assurance Manager

Date:

9/20/2010



Alpha Analytical Attn: Reyna Vallejo 255 Glendale Avenue Suite 21 Sparks, NV 89431 
 Date:
 9/20/2010

 Client:
 ALP-855

 Taken by:
 J. Ruffing

 PO #:
 Comparison

### Analysis Report

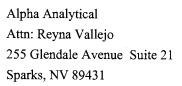
Sample ID:	<b>Customer Sample ID</b>			Date San	pled Time Sa	mpled Date I	Received
S201009-0872	E2M100	91501-01 - NT	D	9/14/20	4:30	PM 9/15	5/2010
Parameter	Method	Result	Units	Reporting Limit	Analyst	Date Analyzed	Data Flag
Color Apparent	SM 2120 B	15	Color Units	5	Pacheco	9/10/2010	
E. coli MPN	SM 9221 F	50	mpn/100ml	2	Kobza	9/15/2010	
Fecal Coliform MPN	SM 9221 E	>1600	mpn/100ml	2	Kobza	9/15/2010	
Oxygen Dissolved - Winkler	SM 4500 O C	6.9	mg/L	0.1	Kobza	9/15/2010	Hr

Sample ID:	Customer Sample ID			Date Sam	pled Time Sa	impled Date R	leceived
S201009-0873	E2M100915	501-02 - B-3 (I	MW)	9/14/202	10 12:50	PM 9/15	/2010
Parameter	Method	Result	Units	Reporting Limit	Analyst	Date Analyzed	Data Flag
Color Apparent	SM 2120 B	<5	Color Units	5	Pacheco	9/10/2010	
E. coli MPN	SM 9221 F	<2	mpn/100ml	2	Kobza	9/15/2010	
Fecal Coliform MPN	SM 9221 E	<2	mpn/100ml	2	Kobza	9/15/2010	
Oxygen Dissolved - Winkler	SM 4500 O C	2.0	mg/L	0.1	Kobza	9/15/2010	Hr

Sample ID:	Customer Sample ID			Date Sam	pled Time Sa	mpled Date	Date Received	
S201009-0874	E2M100915	501-03 - B-7 (I	MW)	9/14/202	10 3:50	PM 9/	5/2010	
Parameter	Method	Result	Units	Reporting Limit	Analyst	Date Analyzeo	Data Flag	
Color Apparent	SM 2120 B	10	Color Units	5	Pacheco	9/10/2010		
E. coli MPN	SM 9221 F	<2	mpn/100ml	2	Kobza	9/15/2010		
Fecal Coliform MPN	SM 9221 E	<2	mpn/100ml	2	Kobza	9/15/2010		
Oxygen Dissolved - Winkler	SM 4500 O C	1.3	mg/L	0.1	Kobza	9/15/2010	Hr	

Page 2 of 4 1135 Financial Blvd. Reno, NV 89502-2348 Phone (775) 857-2400 FAX (775) 857-2404 sem@sem-analytical.com

John C. Seher Special Consultant Quality Assurance Manager



 Date:
 9/20/2010

 Client:
 ALP-855

 Taken by:
 J. Ruffing

 PO #:
 Comparison

Sierra

Environmental Monitoring, Inc.

### Analysis Report

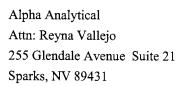
Sample ID:				Date Sam	pled Time Sa	mpled Date	Received
S201009-0875				9/14/201	10 2:20	PM 9/1	9/15/2010
Parameter	Method	Result	Units	Reporting Limit	Analyst	Date Analyzed	Data Flag
Color Apparent	SM 2120 B	400	Color Units	5	Pacheco	9/10/2010	
E. coli MPN	SM 9221 F	<2	mpn/100ml	2	Kobza	9/15/2010	
Fecal Coliform MPN	SM 9221 E	<2	mpn/100ml	2	Kobza	9/15/2010	
Oxygen Dissolved - Winkler	SM 4500 O C	2,6	mg/L	0.1	Kobza	9/15/2010	Hr

Data Flag Legend:

Hr - Sample was received beyond holding time for this parameter and analyzed per client's request.

Page 3 of 4 1135 Financial Blvd. Reno, NV 89502-2348 Phone (775) 857-2400 FAX (775) 857-2404 sem@sem-analytical.com

John C. Seher Special Consultant Quality Assurance Manager



	Sierra Environmental Monitoring, Inc.
Date:	9/20/2010
Client:	ALP-855
Taken by:	J. Ruffing

**PO #:** 

rameter		LCS, %	MS, %	 MSD, %	RPD, %	Method Blan
		Recovery	Recovery	Recovery	<i>NI D</i> , 70	
ygen Dissol	ved - Winkler				0.00	
Legend:	LCS- Laboratory RPD- Relative Per	Control Standard cent Difference	MS- M	atrix Spike	MSD- Matrix S	pike Duplicate
			:			
			!			

Page 4 of 4 1135 Financial Blvd. Reno, NV 89502-2348 Phone (775) 857-2400 FAX (775) 857-2404 sem@sem-analytical.com

Date/Time		Alpha Analytical, Inc.	Alb		-Arnx	-	8	Eliza			dcox	A	5	Clapbeth	n by:	Logged in by:
Samples brought in by client. Frozen ice. Samples received 9/14/10 kept cold and secure until login on 9/15/10. Per Tara's conversation w/ Jacob 9/14/10 @ 16:55 it is o.k to run analyses outside of hold time. Samples received after the 4:30 pm cutoff : time therefore one day added to TAT. DO, Color, Fecal Coliform, and E. Coli subbed to SEM. Logged in per previous workorders. Trip. Blank received and placed on hold by lab.	10 @ 16:55 it is Logged in per pi	acob 9/14/10 d to SEM. Lo Company	<u>sation w/ J</u> <u>Coli subbe</u>	<u>ra's conver</u> m, and E. (	/10. Per Ta ecal Colifor	login on 9/15/ DO, Color, Fi Print Name	<u>re until log</u> ) TAT. DC Pri	<u>yld and secu</u> day added to	' <u>10 kept co</u> efore one (	<u>ved 9/14/</u> time ther	<u>n cutoff :</u>	<u>n ice. Samı</u> <u>the 4:30 pn</u> <u>y lab.</u>	ent. Frozen ice eived after the 1 on hold by lal Signatur	Samples brought in by client. Frozen ice. Samples received 9/14/10 kept cold and secure until of hold time. Samples received after the 4:30 pm cutoff : time therefore one day added to TAT. Blank received and placed on hold by lab.	<u>Sam</u> of he <u>Blan</u>	Comments:
Reno Trip Blank 8/24/10			Hold						<u>с</u> л	0		09/14/10 00:00	AQ	Trip Blank		E2M10091501-05A
	N-Total =(N02+N03 +TKN)/ S04, Cl	Na		Color	Fecal Coliform/ E. Coli	NH3	Alk	N-Total =(N02+N03 +TKN)/ SO4, Cl	<u>ບ</u>	4	9	09/14/10 14:20	ÂQ	B-11 (MW)		E2M10091501-04A
	N-Total =(N02+N03 +TKN)/ SO4, Cl	Za		Color	Fecal Coliform/ E. Coli		Alk	N-Total =(N02+N03 +TKN)/ SO4, Cl	<u></u> Сл	4	<u>و</u>	09/14/10 15:50	ÂQ	B-7 (MW)		E2M10091501-03A
	=(N02+N03 +TKN)/ S04, Cl				Coliform/ E. Coli		ļ ļ	=(NO2+NO3 +TKN)/ SO4, Cl	U U	+	ď	09/14/10 12:50	Ž			
	N-Total =(N02+N03 +TKN) SO4, Cl	Na Na		Color	Fecal Coliform/ E. Coli			N-Total =(NO2+NO3 +TKN)/ \$04, Cl		4	o 9	09/14/10 16:30				E2M10091501-01A
Sample Remarks	N_TKN_W	METALS_A Q	НОГВ	COLOR	COLIFORM	⊼	ALKALINIT /	300_0_W	s TAT	No. of Bottles Alpha Sub		Collection Matrix Date	Matrix	Client Sample ID	Client Sampl	Alpha Sample ID
				d Tests	Requested Tests					S. S.	Surrogate	ASD With S	CS, MS/N	Final Rpt, MBLK, LCS, MS/MSD With Surrogates	11	QC Level: S3
10 15-Sep-2010	14-Sep-2010	4°C	4								kee Drai	North Truckee Drain	Job : I		: none	Client's COC # :
zeived Date Printed	Sampled by : Jacob Ruffing <u>Cooler Temp</u> <u>Samples Received</u>	d by : Jax <u>Temp</u>	Sampled by : <u>Cooler Temp</u>												\$95630	Folsom, CA 95630 PO :
	ŝ	ired : Ye	EDD Required : Yes	Ц											oint Road	2365 Iron Point Road Suite 300
	È				:.com	ng@hdrin(	jacob.ruffing@hdrinc.com	×	(916) 852-7792	(91	ing	Jacob Ruffing	[			HDR   E2M
						dress	EMall Address	ber	Phone Number	말	ontion	Report Attention	ı <b>—</b>			Client:
WorkOrder: E2M10091501 Report Due By: 5:00 PM On: 22-Sep-2010	WorkOrder: E2M10091501 eport Due By: 5:00 PM On: 22	rder : By : 5	orkO1 ort Due	W Repo	78	89431-577 106	lytical, Inc. Sparks, Nevada 894 FAX: (775) 355-0406		Alpha An: endale Avenue, Suite TEL: (775) 355-1044	Alp mdale Av TEL: (775	255 Gl				igston Ct. CO 80112	9563 S. Kingston Ct. Englewood, CO 80112
			Z <													

-	ny ical, Inc.	Company Alpha Analytical, Inc.	Alpł	×	Idicox	Name	Zarbeth	Eliza			lcex	Signature	Sign	Clapk	by:	Logged in by:
Samples brought in by client. Frozen ice. Samples received 9/14/10 kept cold and secure until login on 9/15/10. Per Tara's conversation w/ Jacob 9/14/10 @ 16:55 it is o.k. to run analyses outside of hold time. Samples received after the 4:30 pm cutoff : time therefore one day added to TAT. DO, Color, Fecal Coliform, and E. Coli subbed to SEM. Logged in per previous workorders. Trip Blank received and placed on hold by lab.	l0 @ 16:55 it i	<u>icob 9/14/1</u> I to SEM.	sation w/ Ja Coli subbed	a's conver m, and E. (	0. Per Tat cal Colifor	1 on 9/15/) Color, Fe	re until logi ) TAT. DO	old and secu day added to	<u>10 kept cc</u> efore one	time ther	nples rece	n ice. Sam the 4:30 p <u>y lab.</u>	nt. Froze vived after on hold b	Samples brought in by client. Frozen ice. Samples received 9/14/10 kept cold and secure unti of hold time. Samples received after the 4:30 pm cutoff : time therefore one day added to TAT. Blank received and placed on hold by lab.	<u>Sarr</u> <u>of h</u> Blar	Comments:
Reno Trip Blank 8/24/10									G	0		09/14/10 00:00	AQ	Trip Blank		E2M10091501-05A
	Turbidity	TDS/TSS	TPH/E_N	TDS/TSS	Total	PH	8	N-Total =(NO2+NO3 +TKN)/ SO4, Cl		4	9	09/14/10 14:20	ã	B-11 (MW)		E2M10091501-04A
	Turbidity	TDS/TSS	TPH/E_N	TDS/TSS	Total	PH	8	N-Total =(NO2+NO3 +TKN)/ SO4, Cl	Ċſ	4	9	09/14/10 15:50	Â	B-7 (MW)	1	E2M10091501-03A
	Turbidity	TDS/TSS	TPH/E_N	TDS/TSS	Total	PH	8	N-Total =(NO2+NO3 +TKN)/ SO4, Cl	თ	4	9	09/14/10 12:50	å	B-3 (MW)	1 1	E2M10091501-02A
	Turbidity	TDS/TSS	TPH/E_N	TDS/TSS	Total	pH	8	N-Total =(NO2+NO3 +TKN)/ SO4, Cl	თ	4	9	09/14/10 16:30	A		1A NTD	E2M10091501-01A
Sample Remarks	TURBIDITY	TSS_W	TPH/E_W	TDS_W	PHOSPHO RUS_W	PH_W	OXYGEN_D	W_TOTALO	TAT	No. of Bottles Alpha Sub	~	Collection x Date	Matrix	Client Sample ID	Client Sampl	Alpha Sample ID
	-			d Tests	<b>Requested Tests</b>		-							רווזמו העין, אוטבה, בכס, אוסראסט אוונו סטווטענופט	<u></u>	
010 15-Sep-2010	14-Sep-2010	4°C	4			and a second					kee Dra	North Truckee Drain		Eisol Dat MDI K I	none	
	Samples Received	Temp	Cooler Temp													PO :
	Sampled by : Jacob Ruffing	1 by : Jac	Sampled												5630	Folsom, CA 95630
	5	ired : Ye	EDD Required : Yes	EI									,		nt Road	2365 Iron Point Road
					com	g@hdrinc	jacob.ruffing@hdrinc.com	×	(916) 852-7792	(91	fing	Jacob Ruffing				HDR   E2M
						dress	EMail Address	<b>4</b>	Phone Number	Ph	tention	Report Attention				Client:
Report Due By: 5:00 PM On: 22-Sep-2010	:00 PM (	By:5	ort Due	Repo	~	9431-577; 06	EXPERIENCE FAX: (775) 355-0406	2	endale Avenue, Suite : TEL: (775) 355-1044	endale Av TEL: (77:	255 GI			N	0 8011	Englewood, CO 80112
N015N1	IN V	-101-					al, Inc	Alpha Analytical, Inc	ha A	Alp		(			ston Ct.	ezm 9563 S. Kingston Ct.
raye. Jorj			<b> </b>		)RD	ECC	DY R	CHAIN-OF-CUSTODY RECORD		<b>~</b> -0	IAI	C				EoM

5 it is o.k. to run analyses outside per previous workorders. Trip Date/Time	Company	Print Name				Signature	Sigr	>	
<u>it is o.k. to run analyses outside</u> per previous workorders. Trip									
it is o.k. to run analyses outside ner previous workorders. Trip	THIN CHILD CON DECODE TO DECISION TO DECESSION		one only according to the second s			by lab.	placed on hold l	Blank received and placed on hold by lab.	
	Samples brought in by client. Frozen ice. Samples received 9/14/10 kept cold and secure until login on 9/15/10. Per Tara's conversation w/ Jacob 9/14/10 @ 16:55. It is o.k. to run analyses outside of hold time. Samples received after the 4:30 nm cutoff : time therefore one day added to TAT. DO, Color, Fecal Coliform, and E. Coli subbed to SEM. Logged in per previous workorders. Trip.	ecure until login on <u>9/15/10. Per Tau</u> ed to TAT. DO. Color. Fecal Colifor	pt cold and so one dav adde	<u>d 9/14/10 ke</u> me therefore	<u>oles receive</u> n cutoff : tii	en ice. Samp r the 4:30 pm	by client. Froza s received after	Samples brought in of hold time. Sample	Comments:
	mb continuention w/ lanch 0/11/10 @ 16-55								
-	-	-	-	-	-	00.00			-
Reno Trip Blank 8/24/10				05	<b></b>	09/14/10	ΑQ	Trip Blank	E2M10091501-05A
			8260/MTBE _N	4 5	9	09/14/10 14:20	AQ	B-11 (MW)	E2M10091501-04A B-11 (MW)
			8260/MT BE _N	4	9	09/14/10 15:50	AQ	B-7 (MW)	E2M10091501-03A B-7 (MW)
			8260/MTBE_N	4	9			B-3 (MW)	E2M10091501-02A B-3 (MW)
			8260/MTBE	4 7	9	09/14/10 16:30	AQ	NTD	E2M10091501-01A NTD
Sample Remarks				Sub TAT	~	x Date	Matrix	Sample ID	Sample ID
	ed Tests	Requested Tests	VOC_W	Bottles	No. of Bottles	Collection		Client	Alpha
					urrogates	VSD With S	-K, LCS, MS/N	= Final Rpt, MBLK, LCS, MS/MSD With Surrogates	QC Level: S3
14-Sep-2010 15-Sep-2010	4 °C 14-Se				(ee Drain	North Truckee Drain	Job :	ē	Client's COC #: none
Samples Received Date Printed	Cooler Temp Samples								PO:
ng	Sampled by : Jacob Ruffing							0	Folsom, CA 95630
	EDD Required : Yes						-	oad	2365 Iron Point Road
		jacob.ruffing@hdrinc.com	(916) 852-7792 x	(916) 85	ng	Jacob Ruffing			HDR   E2M
		EMail Address	lumber	Phone Number	-	<b>Report Attention</b>			Client:
10091501 1 On: 22-Sep-2010	WorkOrder: EZM10091501 Report Due By: 5:00 PM On: 22-Sep-2010	255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778 TEL: (775) 355-1044 FAX: (775) 355-0406	Suite 21 Sp -1044 FAX	1 <b></b>	255 Gleno TE			0112	Englewood, CO 80112
		Alnha Analytical Inc.	Anglut	Alnha				Ct.	9563 S. Kingston Ct.
Fage: 2013		CHAIN-OF-CUSTODY RECORD	USTO	-OF-(	AIN	СН			E2M

Matrix Type: AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Distribution: White - Lab; Pink - Originator		Relinquished by:	Refinquished by:	Relinquished by:						B-11(MW)	B-7(MW)	B-3(MW)	NTD	Sample Designation		Project Address:		Project Name: N	Project #:	Fax Number: 916.817.4747	916.817.4700	2365 Iron Point Road Suite 300	Company / Address:	Project Contact (Hardcopy or PDF To): Jacob Ruffing	E
Pink - Originator														signation				North Truckee Drain	P.O. #			oad Suite 300	s: HDR e²M	rdcopy or PDF 1	
				Ň						$\mathbf{F}$			9/14/0	Date		Sampling		ij						o);	
	9/14/10	Date	Date	Date						1420	1250	(250)	1630	Time 40 ml V0	24	ling	ماد	S	9 8	Б. П			S		
	õ			the second	 -									Sleeve	JA		Jacob Ruffing Sampler Signature:	Sampler Print Name	Bill to: e <sup>3</sup> M-Accounts Payable 9563 S Kingston Ct. Ste. 200, Englewood, CO 80112	EDF Deliverable To (Email Address): jacob.ruffing@hdrinc.com			Sampling Company Log Code:	California EDF Report?	2365 Iron Point Road, Suite 300 Folsom, CA 95630 Phone: 916.817.4700 Fax: 916.852.7836
	Z	Time	Time	Time 1655										Poly		Container	er Si	er Pr	e²M. King;	Jeilve . ruffi			ing C	nia E	n, C/ 916 16.8
	4			ہ ک	 <u> </u>		<u> </u>						ļ	Glass		ainer	ng gnatu	int N	e²M-Accounts Payable Kingston Ct. Ste. 200, E	rable ng@			omp	р Г	<sup>9</sup> oint 3.817 52.78
1	$\Sigma$	Received by Laboratory:	Received by:	Received by:	 									Tedlar			re:	ame:	unts F	) hdri			any l	Repo	Roac 330 336
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