

March 22, 2012

Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6540

**RECEIVED**

By Alameda County Environmental Health 2:44 pm, Nov 13, 2015

SUBJECT: Report Statement  
Quarterly Groundwater Monitoring Report #2  
Former Oakland Truck Center Site  
8099 South Coliseum Way  
Oakland, California  
CASE # RO0001389  
Facility Global ID# T0600101692

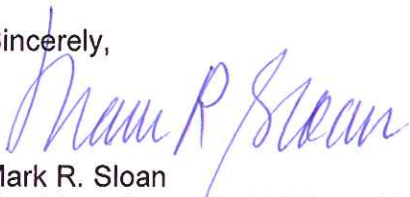
To Whom It May Concern:

Argonaut Holdings, LLC (Argonaut), is the owner of the property located at 8099 South Coliseum Way in Oakland, California. Attached please find the second quarterly groundwater monitoring report for the property located at 8099 South Coliseum Way in Oakland, California.

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

If you have any questions please contact Marilyn Dedyne at 313-506-9461, or our authorized agent, Chuck Dittmar of ARCADIS at (810)-225-1966.

Sincerely,



Mark R. Sloan  
President, Argonaut Holdings, LLC

## **Leaking Underground Storage Tank Site Quarterly Monitoring Report #2**

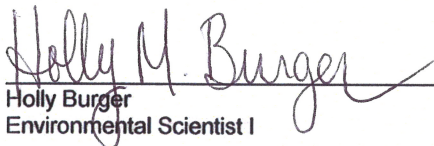
Former Oakland Truck Center  
8099 South Coliseum Way  
Oakland, California 94621  
Case ID RO-0001389

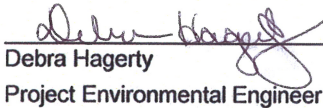
Field Work Dates: March 21 and 22, 2011

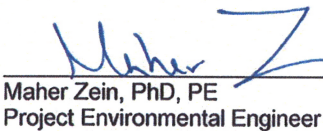
**Prepared on Behalf of Argonaut  
Holdings, Inc.**

**Prepared for the Alameda County  
Health Care Services Agency**

ARCADIS

  
Holly Burger  
Environmental Scientist I

  
Debra Hagerty  
Project Environmental Engineer

  
Maher Zein, PhD, PE  
Project Environmental Engineer



**Leaking Underground Storage  
Tank Site Quarterly Monitoring  
Report #2**

Former Oakland Truck Center  
Oakland, CA

Field Work Dates: March 21 and  
22, 2011

Prepared on Behalf of:  
Argonaut Holdings, Inc.

Prepared for:  
Alameda County Health Care Services  
Agency

Prepared by:  
ARCADIS  
10559 Citation Drive, Suite 100  
Brighton, Michigan 48116  
Tel 810.229.8594  
Fax 810.229.8837

Our Ref.:  
B0064601.0000.00008

Date:  
August 3, 2011

*This document is intended only for the use  
of the individual or entity for which it was  
prepared and may contain information that  
is privileged, confidential and exempt from  
disclosure under applicable law. Any  
dissemination, distribution or copying of  
this document is strictly prohibited.*

<b>1. Introduction</b>	<b>1</b>
<b>2. Background</b>	<b>2</b>
2.1 Site and Surrounding Area Description	2
2.2 Site Assessment History	2
2.3 Geology and Hydrology	3
2.3.1 Regional Geology	3
2.3.2 Site Geology	3
2.3.3 Hydrology	4
2.4 Previously Approved Remedial Approach	4
<b>3. Investigation Activities</b>	<b>6</b>
3.1 Pre-Field Activities	6
3.1.1 Groundwater Sampling	6
3.1.2 Analytical Methods	6
3.1.3 Quality Assurance / Quality Control	7
3.1.4 Decontamination Procedures	7
3.1.5 Analytical Results	7
3.2.6.1 TPH	8
3.2.6.2 VOCs	8
3.2.6.3 Intrinsic Bioremediation/Natural Attenuation	8
3.2 Data Evaluation	9
<b>4. Conclusions and Recommendations</b>	<b>10</b>
4.1 Conclusions	10
4.2 Recommendations	10
<b>References</b>	<b>12</b>

**Appendices**

- A Figures
- B Tables
- C Analytical Reports

## 1. Introduction

On behalf of Argonaut Holdings, Inc., ARCADIS U.S., Inc. (ARCADIS) is submitting this *Leaking Underground Storage Tank Site Quarterly Monitoring Report #2* for the Former Oakland Truck Center (hereafter referred to as the "Site") located in Oakland, California (Figure 1). One 500-gallon used oil underground storage tank (UST), one 1,000-gallon used oil UST, one 2,000-gallon unleaded gasoline UST, and one 2,000-gallon diesel fuel UST were installed in 1980 in two separate excavations west of the Main Site Building. According to previous reports (Clayton, 1993), the four USTs were removed on August 5, 1993. Based on analytical results from soil samples collected during UST removal activities, a UST Unauthorized Release/Contamination Site Report was filed with the Alameda County Health Care Services Agency (ACHCSA) on August 10, 1993. In June 2007, the ACHCSA approved a monitored natural attenuation approach and requested quarterly sampling and monitoring of the existing groundwater monitoring wells. The purpose of the subsequent investigation was to evaluate groundwater quality at the Site to support the efforts to pursue closure of the open Leaking Underground Storage Tank (LUST) Case ID RO-0001389 as requested by the ACHCSA in June 2007. In October 2010, quarterly monitoring of the site monitoring wells was initiated in order to pursue closure of the LUST case. The results presented in this report represent the data collected during the first quarter of 2011 (the second quarterly monitoring event).

## 2. Background

Site description, assessment history, geologic and hydrogeologic settings, and previous remedial activities performed at the Site are discussed in the following subsections. Please refer to Figure 2 for the locations of the monitoring wells.

### 2.1 Site and Surrounding Area Description

The Site is an active new and used truck dealership and service facility located at 8099 South Coliseum Way in Oakland, California. It currently consists of two buildings: the Main Site Building and the Used Truck Center Trailer, situated on approximately 6.38 acres of land. Based on historical information, one former building existed on the eastern portion of the Site. The former building was owned and occupied by the California Department of Transportation (Caltrans) and was utilized as a maintenance facility.

The Site is zoned C-36/S-4, regional commercial. It is anticipated that future use of the Site will consist of commercial facilities. The Site is bounded by South Coliseum Way to the north and by Caltrans property to the east, south, and west. Surrounding properties are comprised of commercial uses. Based on a search of local and regional water agency records performed by Environmental Data Resources (EDR), there are no public supply wells within one mile of the Site. The nearest potential receptor is the San Leandro Bay, which is located approximately 3,500 feet west of the Site.

### 2.2 Site Assessment History

As mentioned earlier, four USTs were installed in 1980 in two separate excavations west of the Main Site Building. According to previous reports (Clayton, 1993), the four USTs were removed on August 5, 1993. Based on analytical results from soil samples collected during UST removal activities, a UST Unauthorized Release/Contamination Site Report was filed with ACHCSA on August 10, 1993. This report identified corroded, leaky pipes and overfilling of the USTs as the main sources of site-related constituents of concern (COCs). Impacted soils surrounding the USTs were excavated and disposed of off-site.

Several subsurface investigations, hydrogeologic evaluations, a risk assessment, and a remediation feasibility study were conducted by Fluor Daniel GTI (FD-GTI) in 1993, 1995, 1996, and 1997 (please refer to the references section for a list of previous reports for historical investigations) prior to Phase II Environmental Site Assessment (ESA) activities completed by ARCADIS (operating as Encore Environmental

Consortium, LLC, or EEC) in April 2008. Residual impacts to the soil in the vicinity of the former USTs were noted to be primarily of higher molecular weight total petroleum hydrocarbons (TPHs) and polynuclear aromatic hydrocarbons (PAHs). During the 1995 FD-GTI site investigation, several soil borings were advanced throughout the Site. Free phase hydrocarbon product was reportedly observed in soil boring SB-3, located near the oil/water separator east of the Main Site Building; consequently, a groundwater sample was not collected from this boring. However, a product sample was collected and analyzed for a hydrocarbon screen. TPH as mineral spirits was detected at 590,000 milligrams per kilogram (mg/kg) for the product sample collected from SB-3.

In addition, the investigations indicated the presence of a potential off-site source located to the east-southeast. Soil borings SB-7, SB-8, and SB-9 (installed by EEC in 2008) and SB-7A, SB-8A, SB-8A1, and SB-9A (installed by EEC in October 2010), all advanced in the southeastern portion of the Site, demonstrated that there does not appear to be an on-site source at this portion of the Site and that the impact observed in this area of the Site appears to have originated from the Caltrans property located immediately adjacent to the eastern and southeastern Site boundary. According to previous EEC reports, the Caltrans property is reported on the LUST and Contaminated Sites (CS) databases. Based on the general north-northwest groundwater flow direction at the Site (Figure 3), contaminant releases from this adjacent property would likely impact the Site.

## 2.3 Geology and Hydrology

### 2.3.1 Regional Geology

According to the United States Department of Agriculture's (USDA) Soil Conservation Service (SCS), regional data indicate that the surface soil texture in the area of the Site is variable. The soil component name is URBAN LAND. The soil hydrologic group and soil drainage classification are not reported. Soils do not meet the requirements for a hydric soil. The shallow and deeper soil types in the vicinity of the Site were not reported in the EDR report. Underlying the surface, shallow and deeper soils are bedrock deposits classified as Cenozoic Era, Quaternary System, and Quaternary Series.

### 2.3.2 Site Geology

During previous subsurface investigations, the soils encountered at the Site consisted primarily of fill material of sand, gravel, and clay from ground surface to approximately



9 feet below ground surface (bgs) and grayish-blue clay from approximately 9 to 20 feet bgs, with some interbedded sand and gravel layers throughout the top 20 feet.

### 2.3.3 Hydrology

In March 2011, groundwater levels in the eleven (11) site monitoring wells ranged from 2.02 to 8.78 feet below the top of casing (10.48 and 3.66 feet above mean sea level, respectively). According to the Aquifer Characterization Report prepared by FD-GTI on May 14, 1996, the aquifer material is comprised of a 4-foot thick sand and gravel bed located approximately between 12 and 18 feet bgs. These materials are most likely discontinuous stream channel deposits. Groundwater flow beneath the Site was previously reported to the north under a gradient of approximately 0.01 feet per foot. Based on water level measurements from the March 2011 groundwater monitoring event, the current groundwater flow is to the north-northwest.

A 24-hour constant rate pumping test was conducted at monitoring well MW-2 in April 1996 by FD-GTI to determine aquifer hydraulic properties; including hydraulic conductivity, transmissivity, storability, and specific yield. The aquifer properties ranged from 317 gallons per day per square foot (gpd/ft<sup>2</sup>) (42 feet per day [ft/d]) to 733 gpd/ft<sup>2</sup> (98 ft/d) for hydraulic conductivity; 1,270 gallons per day per foot (gpd/ft) (170 square feet per day [ft<sup>2</sup>/d]) to 2,930 gpd/ft (392 ft<sup>2</sup>/d) for transmissivity; 0.006 to 0.00006 for storability; and 4 to 5 gallons per minute (gpm) for specific yield with a 5-foot drawdown in MW-2. The relatively high hydraulic conductivity values measured during the pump test were representative of the sand and gravel layer observed at some of the groundwater monitoring well locations at the Site. FD-GTI concluded that the presence of finer grained layers would significantly affect groundwater flow at the Site.

## 2.4 Previously Approved Remedial Approach

The risk assessment completed by FD-GTI in January 1997 included a remedial approach for the Site that consisted of intrinsic bioremediation and monitoring (termed “monitored natural attenuation”). FD-GTI also proposed placing a deed restriction against constructing buildings in the vicinity of MW-3, based on the observed benzene concentrations that exceeded the calculated Site Specific Target Level (SSTL). In June 2007, the ACHCSA approved the monitored natural attenuation approach and requested quarterly sampling and monitoring of the eight then-existing groundwater monitoring wells (MW-1 through MW-8). Requirements included monitoring bioremediation parameters such as dissolved oxygen (DO), oxidation-reduction potential (ORP), nitrate, sulfate, alkalinity, and ferrous iron, in addition to benzene, toluene, ethylbenzene, and xylenes (collectively known as BTEX), TPH as diesel (TPH-

d), TPH as motor oil (TPH-o), and TPH as gasoline (TPH-g). ACHCSA also requested sampling at the drainage ditch located adjacent to the downgradient site boundary. In July 2009, ARCADIS collected two sediment samples, SW-2 and SW-3 from the ditch located at the northwestern portion of the Site. In addition, a surface water sample was collected from SW-3. TPH-o and TPH were detected in SW-2 at 300 mg/kg and 41 mg/kg, respectively. TPH-o was detected in SW-3 at 420 mg/kg. TPH was not detected in the surface water or sediment samples collected from SW-3. The detected concentrations did not exceed the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Commercial Soil or Surface Water Environmental Screening Levels (ESLs). Volatile organic compounds (VOCs) were not detected above laboratory reporting limits in sediment samples SW-2 and SW-3 and surface water sample SW-3.

### 3. Investigation Activities

The following subsections present pre-field activities, groundwater monitoring activities, analytical results, and data evaluation.

#### 3.1 Pre-Field Activities

Pursuant to the Code of Federal Regulations (CFR), Title 29, Section 1910.120 and the California Code of Regulations (CCR) Title 8, Section 5192, ARCADIS prepared a site-specific Health and Safety Plan (HASP) prior to the initial monitoring event to address health and safety concerns related to the groundwater monitoring activities conducted at the Site. The HASP was developed to identify and control potential hazards in order to minimize exposures of workers involved in the environmental assessment activities to site-related COCs. Pre-field activities included coordinating field work with the client, analytical laboratory, and Site personnel; and review of the monitoring plan and the HASP prior to mobilizing to the Site.

##### 3.1.1 Groundwater Sampling

ARCADIS mobilized to the Site on March 21 and 22, 2011 to measure depth to groundwater and to collect groundwater samples from the eleven (11) existing groundwater wells. Groundwater was encountered between 2.02 and 8.78 feet bgs (10.48 and 3.86 feet above mean sea level) in the monitoring wells during this monitoring event. Please refer to Figure 3 for a Potentiometric Surface Map.

Low flow sampling techniques using a peristaltic pump and dedicated polyethylene tubing were utilized to collect groundwater samples from each of the monitoring wells. Groundwater samples were collected in preserved laboratory-supplied containers, stored on ice, and shipped overnight to ESC Lab Sciences in Mt. Juliet, Tennessee for analysis. During well purging, the following groundwater measurements were recorded: depth to water, depth to bottom of the well, pH, temperature, ORP, DO, turbidity, and specific conductivity. Field data of each groundwater monitoring well are summarized in Table 1.

##### 3.1.2 Analytical Methods

Groundwater analyses were selected based on the potential source(s) of contamination (used oil, unleaded gasoline, and diesel fuel). Each collected groundwater samples were analyzed for TPH-Low Fraction and TPH-DRO (C10-C22,

C22-C32, and C32-C40) by Environmental Protection Agency (EPA) Method 8015 and VOCs by EPA Method 8260B. In addition, groundwater samples from MW-1 through MW-11 were analyzed for alkalinity by Standard Method (SM) 2320B, sulfate and nitrogen by EPA Method 9056, phosphate by EPA Method 365.1, and ferrous iron by SM Fe-3500.

### 3.1.3 Quality Assurance / Quality Control

ARCADIS employed quality assurance/quality control (QA/QC) procedures in accordance with the ARCADIS Field Health and Safety Handbook (August 2010) and ARCADIS Procedures which detail standard operating procedures (SOPs) for the primary field activities. Related QA/QC guidance and procedures were employed for the following activities:

- Data recording / field books,
- Groundwater sample collection for laboratory analysis,
- Sample handling and shipping,
- Usage and calibration of field instruments, and
- Equipment decontamination.

### 3.1.4 Decontamination Procedures

Prior to sampling, all non-disposable sampling equipment was decontaminated using a phosphate-free detergent solution, and then rinsed with tap water. Disposable sampling equipment (including Nitrile gloves, plastic bags, and groundwater sample collection polyethylene tubing) was disposed of outside the sampling area in order to prevent cross-contamination of groundwater samples. Decontamination fluids were stored in 55-gallon Department of Transportation-approved drums for subsequent off-site disposal.

### 3.1.5 Analytical Results

Laboratory analytical results for the collected groundwater samples are summarized in Table 2. Groundwater TPH-DRO and detected VOCs concentrations are presented on Figure 4. Groundwater TPH concentrations were compared to the SFRWQCB ESLs. Cleanup criteria for VOCs are based on City of Oakland Risk-Based Screening Level (RSBLs), SFRWQCB ESLs, and California Department of Public Health (DPH) Maximum Contaminant Levels (MCLs) for groundwater. An MCL is defined as the

highest concentration of a contaminant that is allowed in drinking water. The groundwater analytical results are discussed below.

#### 3.2.6.1 TPH

TPH Low Fraction was not detected above the laboratory reporting limits in the collected groundwater samples.

TPH-DRO C10-C22 was detected at concentrations ranging between 0.20 milligrams per liter (mg/L) (MW-11) and 2.5 mg/L (MW-6), exceeding the 0.21 mg/L SFRWQCB ESL in all of the monitored wells, with the exception of MW-11. TPH-DRO C22-C32 was detected at concentrations ranging between 0.11 mg/L (MW-10) and 0.83 mg/L (MW-6), exceeding the 0.21 mg/L SFRWQCB ESL in the groundwater samples collected from monitoring wells MW-1, MW-4, MW-5, MW-6, MW-7, and MW-9. Only monitoring wells MW-5 and MW-6 had detections of TPH-DRO C32-C40 at 0.089 mg/L (estimated concentration) and 0.11 mg/L, respectively. The detected concentrations in monitoring wells MW-5 and MW-6 did not exceed the 0.21 mg/L SFRWQCB ESL for TPH-DRO C32-C40.

#### 3.2.6.2 VOCs

None of the VOCs analyzed for were detected above the laboratory detection limits in the groundwater samples collected from monitoring wells MW-1, MW-3, MW-8, MW-9, MW-10, and MW-11. VOCs were detected in monitoring wells MW-2, MW-4, MW-5, MW-6, and MW-7; however, all measured concentrations were below applicable SFRWQCB ESLs, California DPH MCLs, and City of Oakland RBSLs for Ingestion of Groundwater. VOCs detected during this monitoring event included cyclohexane, methyl tert-butyl ether (MTBE), 1,2,4-trimethyl benzene, and tert-butyl alcohol (TBA). MTBE was detected in the groundwater samples collected from MW-2 (1.8 micrograms per liter [ $\mu\text{g/L}$ ]), MW-5 (3.9  $\mu\text{g/L}$ ), MW-6 (8.3  $\mu\text{g/L}$ ), and MW-7 (0.65  $\mu\text{g/L}$ , estimated concentration). 1,2,4-trimethylbenzene was detected in one well (MW-4) at an estimated concentration of 0.33  $\mu\text{g/L}$ . TBA was detected in one well (MW-6) at an estimated concentration of 2.2  $\mu\text{g/L}$ . Cyclohexane was detected in one well (MW-7) at an estimated concentration of 0.70  $\mu\text{g/L}$ . Monitoring wells MW-5 and MW-6 are located in the vicinity of the former gasoline and diesel USTs.

#### 3.2.6.3 Intrinsic Bioremediation/Natural Attenuation

As mentioned earlier, groundwater samples were also analyzed for alkalinity, sulfate, nitrogen, phosphate, and ferrous iron to determine if natural attenuation was occurring

at the Site. In addition, pH, specific conductivity, ORP, turbidity, and DO were monitored during groundwater monitoring well purging. Alkalinity in the monitoring wells ranged from 200 mg/L (MW-8) to 1,700 mg/L (MW-1). Ferrous iron concentrations ranged from 0.83 mg/L (MW-3) to 39 mg/L (MW-6). Sulfate concentrations ranged from non-detect (MW-1, MW-5, MW-6, and MW-7) to 260 mg/L (MW-11). Phosphate concentrations ranged from 0.29 mg/L (MW-5) to 5.9 mg/L (MW-9). Nitrate (as nitrogen) was detected in only two monitoring wells at concentrations of 0.11 mg/L (MW-4) and 0.20 mg/L (MW-11). DO concentrations ranged from 0.11 mg/L (MW-3, MW-4, and MW-5) to 0.57 mg/L (MW-10). pH ranged from 6.47 (MW-6) to 7.63 (MW-2). Specific conductivity ranged from 0.0461 Siemens per meter (S/m) (MW-8) to 1.0102 S/m (MW-2). ORP ranged from -123.5 millivolts (mV) (MW-3) to -16.9 mV (MW-6). Turbidity was measured as stable (0.00 Nephelometric Turbidity Units, NTU) at monitoring wells (MW-1, MW-2, MW-3, MW-6, MW-7, MW-8, and MW-9) to 95.82 NTU (MW-4).

### 3.2 Data Evaluation

Analytical data collected during the groundwater investigation activities were compared to historical data to identify any concentration trends in groundwater and to obtain an overall status of the impact to groundwater at the Site.

Historical groundwater analytical results indicated that, based on the majority of the samples which contained total dissolved solids (TDS) concentrations in excess of 3,000 mg/L, the shallow groundwater under the Site was not suitable for drinking water use. The groundwater samples collected for these quarterly monitoring events were not analyzed for TDS.

The bioremediation parameter data indicated that intrinsic bioremediation is occurring at the Site. The iron data was not taken into consideration as an indication of microbial activity because the analyses were performed close to the analytical methods' holding times and; therefore, there is some uncertainty in this data. However, the relatively low nitrate, sulfate, and phosphate concentrations throughout the Site are likely due to assimilation and use to support microbial growth in the areas with previously higher impacts. In addition, the lower pH and DO concentrations in areas of higher TPH concentrations relative to other areas on the Site are also indicative of increased microbial activity in these areas. As the microorganisms aerobically biodegrade the organic COCs, they utilize DO (lowering DO levels in the groundwater) and generate slightly acidic waste byproducts (lowering the pH).

When compared to the first groundwater sampling event (performed during the fourth quarter of 2010 [ARCADIS, Quarterly Monitoring Report #1, June 10, 2011]), the TPH concentrations in the groundwater monitoring wells collected during the second quarterly sampling event are lower. The detections of MTBE in monitoring wells MW-5 and MW-6, which were above applicable criteria during the first quarterly sampling event, decreased to below the applicable criteria during the second quarterly sampling event.

#### 4. Conclusions and Recommendations

The purpose of this groundwater investigation was to assess the current groundwater conditions at the Site to support the efforts to pursue closure of open LUST Case ID RO-0001389.

##### 4.1 Conclusions

The eleven groundwater monitoring wells at the Site were sampled for VOCs, TPH, and intrinsic bioremediation parameters. TPH and VOCs were detected in several of the groundwater monitoring wells, at concentrations which indicate a decreasing overall trend, with no constituents above criteria in MW-11, and VOCs (including MTBE) below criteria in all monitoring wells. The TPH constituents detected at low concentrations in several of the groundwater samples are likely weathered residual components of the petroleum products released to the subsurface in the past, and are an indication of intrinsic bioremediation occurring at the Site. Based on the results of this site investigation, ARCADIS concludes that intrinsic bioremediation has been occurring at the Site. The Site is capped with asphalt and concrete, and the current and future land use is commercial. No drinking water supply wells are located on-site or within one mile of the Site, and on-site TDS data previously collected in 2009 indicate that the groundwater on Site is not suitable for use as drinking water.

##### 4.2 Recommendations

Based on the results of this site investigation and the anticipated future use of the Site for commercial or light industrial purposes, ARCADIS recommends continuing quarterly groundwater monitoring for the next two quarters to continue to evaluate trends in TPH and VOC concentrations along with the bioremediation parameters, monitored during this sampling event. Should the trends in TPH and VOC concentrations remain stable or decrease over the proposed quarterly monitoring period, ARCADIS will recommend applying for a "Low Risk Closure" status for the Site, and will request a "No Further Action" letter from the ACHCSA for the Site. The "Low Risk Closure" status may

include a deed notice or land use restriction based on the conditions documented from previous assessments and during the quarterly groundwater monitoring at the Site.



**References**

State of California Water Resources Control Board, UST Program Tank Permit Application Information, GMC Truck Center, 8099 South Coliseum Way, Oakland, California; November 15, 1989.

Clayton Environmental Consultants (Clayton), Phase I Level II ESA, GMC Truck, 8099 Coliseum Way, California; August 6, 1993.

Clayton, Phase I ESA, GMC Truck, 8099 Coliseum Way, Oakland, California; August 26, 1993.

Groundwater Technology, Inc. (GTI), Work Plan for Further Assessment, GMC Truck Center, 8099 South Coliseum Way, Oakland, California; January 26, 1995.

Fluor Daniel GTI (FD-GTI), Report of Sampling and Analysis of Activities, GMC Truck Center, 8099 South Coliseum Way, Oakland, California; April 12, 1996.

FD-GTI, Aquifer Characterization Report, GMC Truck Center, 8099 South Coliseum Way, Oakland, California; May 14, 1996.

FD-GTI, Risk-Based Corrective Action of Soil and Groundwater, General Motors Corporation White Truck Center, 8099 Coliseum Way, Oakland, California; January 9, 1997, revised March 1997.

ARCADIS U.S., Inc. (ARCADIS), Phase I ESA, Oakland Truck Center, 8099 South Coliseum Way, Oakland, California; March 24, 2008.

ARCADIS, Phase II ESA, Oakland Truck Center, 8099 South Coliseum Way, Oakland, California; June 19, 2008.

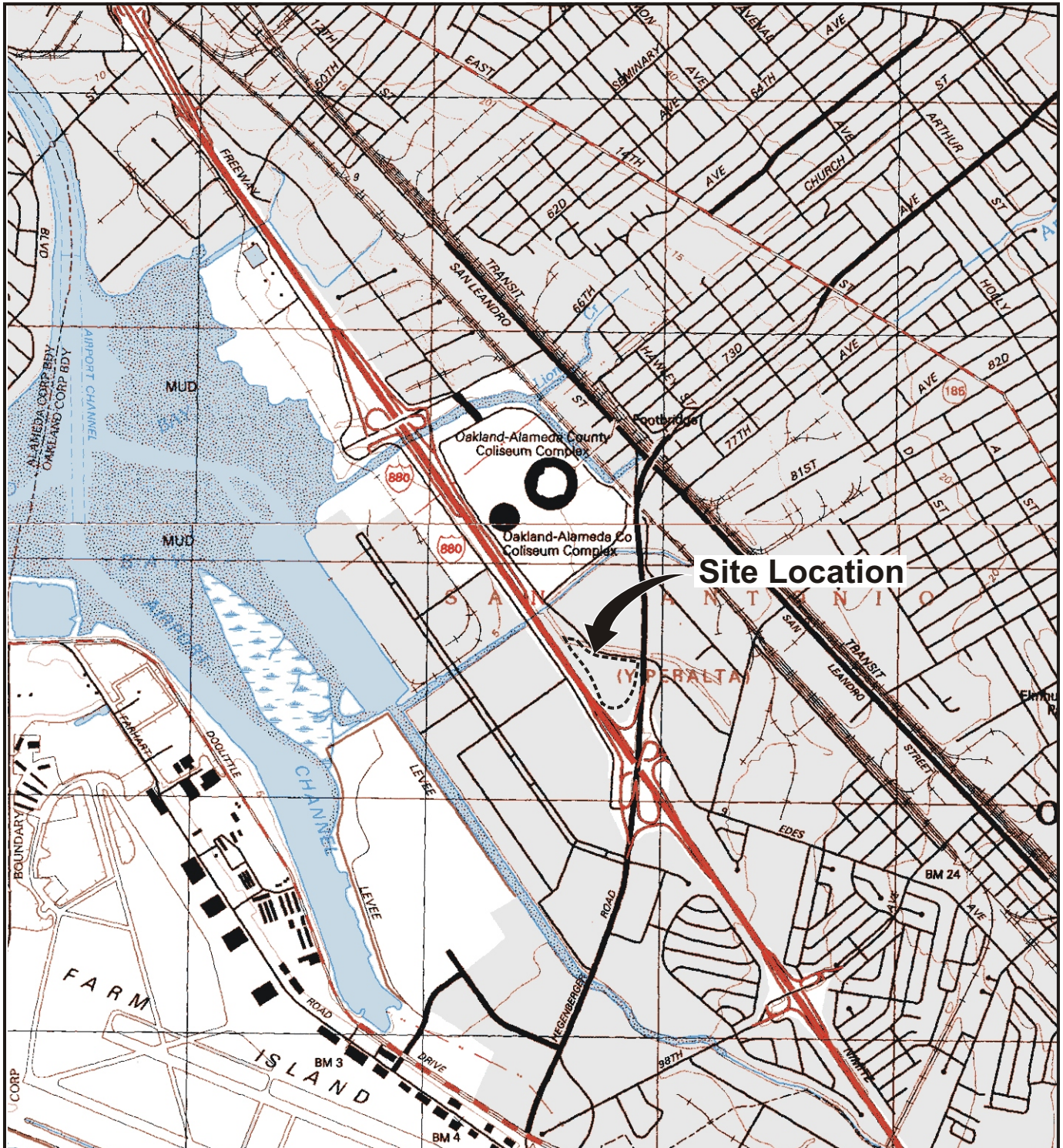
ARCADIS Field Method Guidelines Manual; latest revision August 2010.

ARCADIS Health and Safety Plan. For Activities at Oakland Truck Center, 8099 South Coliseum Way, Oakland, California; October 2010.

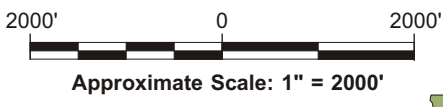
ARCADIS, Quarterly Monitoring Report #1, Former Oakland Truck Center, 8099 South Coliseum Way, Oakland, CA 94621, Case ID RO-0001389; June 10, 2011.

Appendix A

Figures

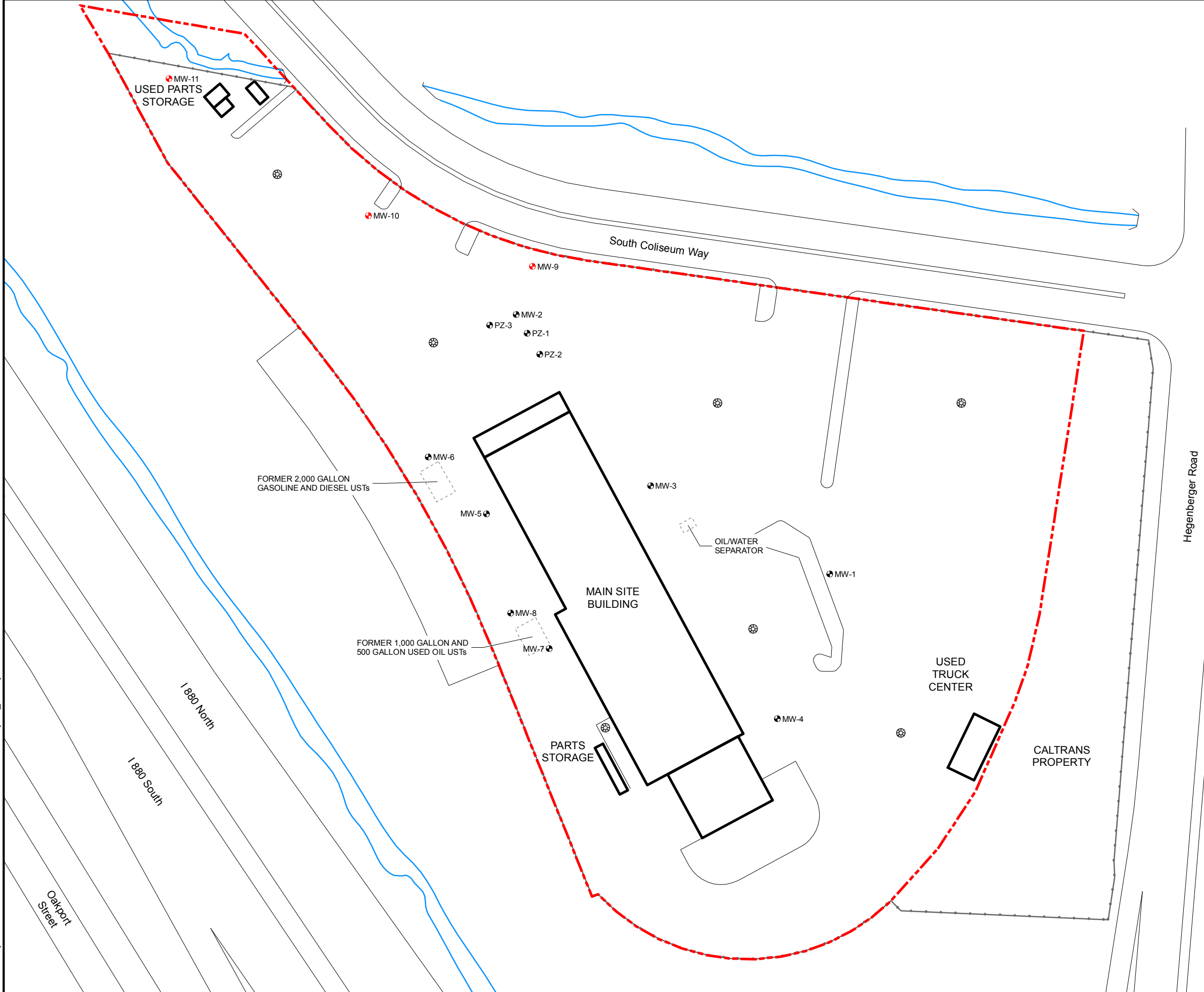


REFERENCE: BASE MAP USGS 7.5 MIN. QUADS. OAKLAND EAST, CA. 1997, AND SAN LEANDRO, CA. 1993.









FORMER OAKLAND TRUCK CENTER 8099 SOUTH COLISEUM WAY OAKLAND, CA 94621	
<b>SITE LOCATION MAP</b>	
	FIGURE <b>1</b>

05/17/2011 SYRACUSE-141ENV.D.J.HOWES  
B0064601/0000/00008/CDR/64601N01.CDR

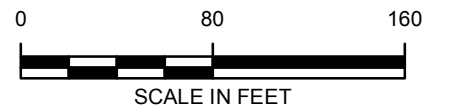


**LEGEND**

-  MONITORING WELL (ARCADIS; JULY 2009)
-  MONITORING WELL LOCATION (FLOUR; MARCH 1996)
-  STORMWATER DRAIN
-  DITCH
-  FENCE
-  PROPERTY BOUNDARY

**NOTE:**

MONITORING WELL LOCATIONS (MW-1 THROUGH MW-11) WERE SURVEYED ON JULY 28, 2009.



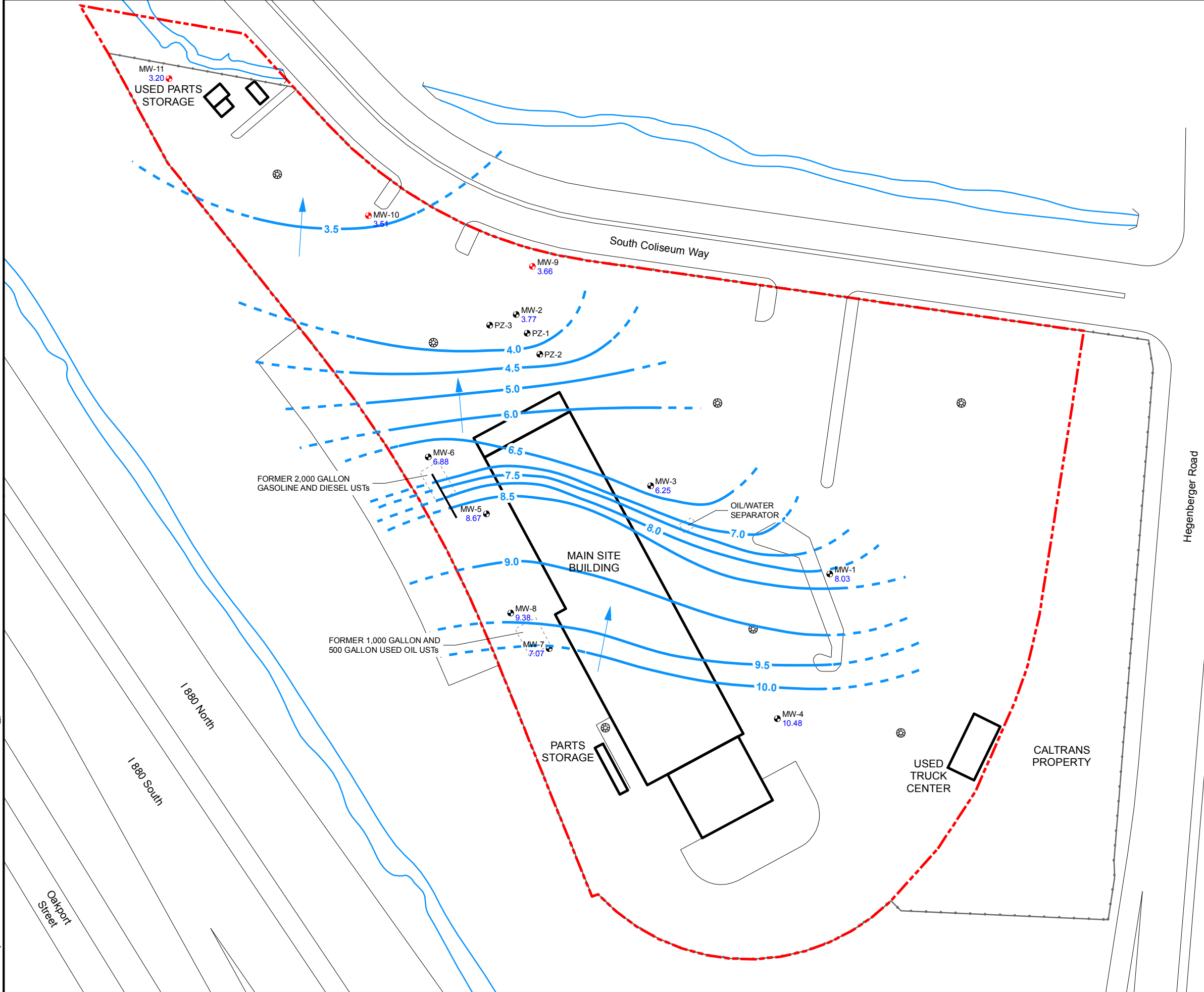
FORMER OAKLAND TRUCK CENTER  
8099 SOUTH COLISEUM WAY  
OAKLAND, CALIFORNIA 94621

**SITE MAP SHOWING  
MONITORING WELL LOCATIONS**



FIGURE

**2**

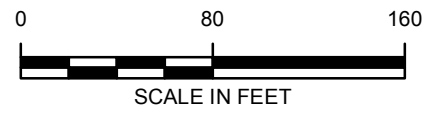


**LEGEND**

- MONITORING WELL (ARCADIS; JULY 2009)
- MONITORING WELL LOCATION (FLOUR; MARCH 1996)
- STORMWATER DRAIN
- DITCH
- FENCE
- PROPERTY BOUNDARY
- POTENTIOMETRIC ELEVATION CONTOUR
- INFERRED POTENTIOMETRIC ELEVATION CONTOUR
- 6.25** GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- GROUNDWATER FLOW DIRECTION

**NOTE:**

1. SOIL BORING LOCATIONS ARE APPROXIMATE.
2. MONITORING WELL LOCATIONS (MW-1 THROUGH MW-11) WERE SURVEYED ON JULY 28, 2009.



FORMER OAKLAND TRUCK CENTER  
8099 SOUTH COLISEUM WAY  
OAKLAND, CALIFORNIA 94621

**POTENTIOMETRIC SURFACE MAP - MARCH 2011**



PROJECT NUMBER: B006460  
CITY: NOVI DIV/GROUP: ENV DB: PIC: PM: TM: TR:  
G:\GIS\Project Files\GeneralMotors\Oakland\Documents\201103\_potentiometric surface.mxd

1880 North  
1880 South  
Oakport Street

Hegenberger Road

South Coliseum Way

USED PARTS STORAGE

FORMER 2,000 GALLON GASOLINE AND DIESEL USTs

FORMER 1,000 GALLON AND 500 GALLON USED OIL USTs

MAIN SITE BUILDING

PARTS STORAGE

OIL/WATER SEPARATOR

USED TRUCK CENTER

CALTRANS PROPERTY



**LEGEND**

- MONITORING WELL (ARCADIS; JULY 2009)
- MONITORING WELL LOCATION (FLOUR; MARCH 1996)
- STORMWATER DRAIN
- DITCH
- FENCE
- PROPERTY BOUNDARY
- J ESTIMATED VALUE ABOVE THE METHOD DETECTION LIMIT AND BELOW THE REPORTING LIMIT
- <0.033 ANALYTE NOT DETECTED AT OR ABOVE THE INDICATED LABORATORY REPORTING LIMIT

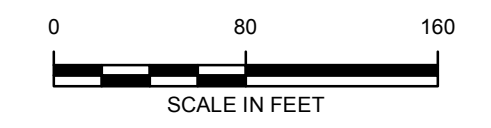
**NOTES:**

ONLY VOCs DETECTED ABOVE SCREENING CRITERIA ARE INCLUDED

**BOLD** VALUES INDICATE ANALYTE CONCENTRATIONS EXCEEDING SAN FRANCISCO BAY REGIONAL WATER QUALITY CONTROL BOARD ENVIRONMENTAL SCREENING LEVELS FOR GROUNDWATER.

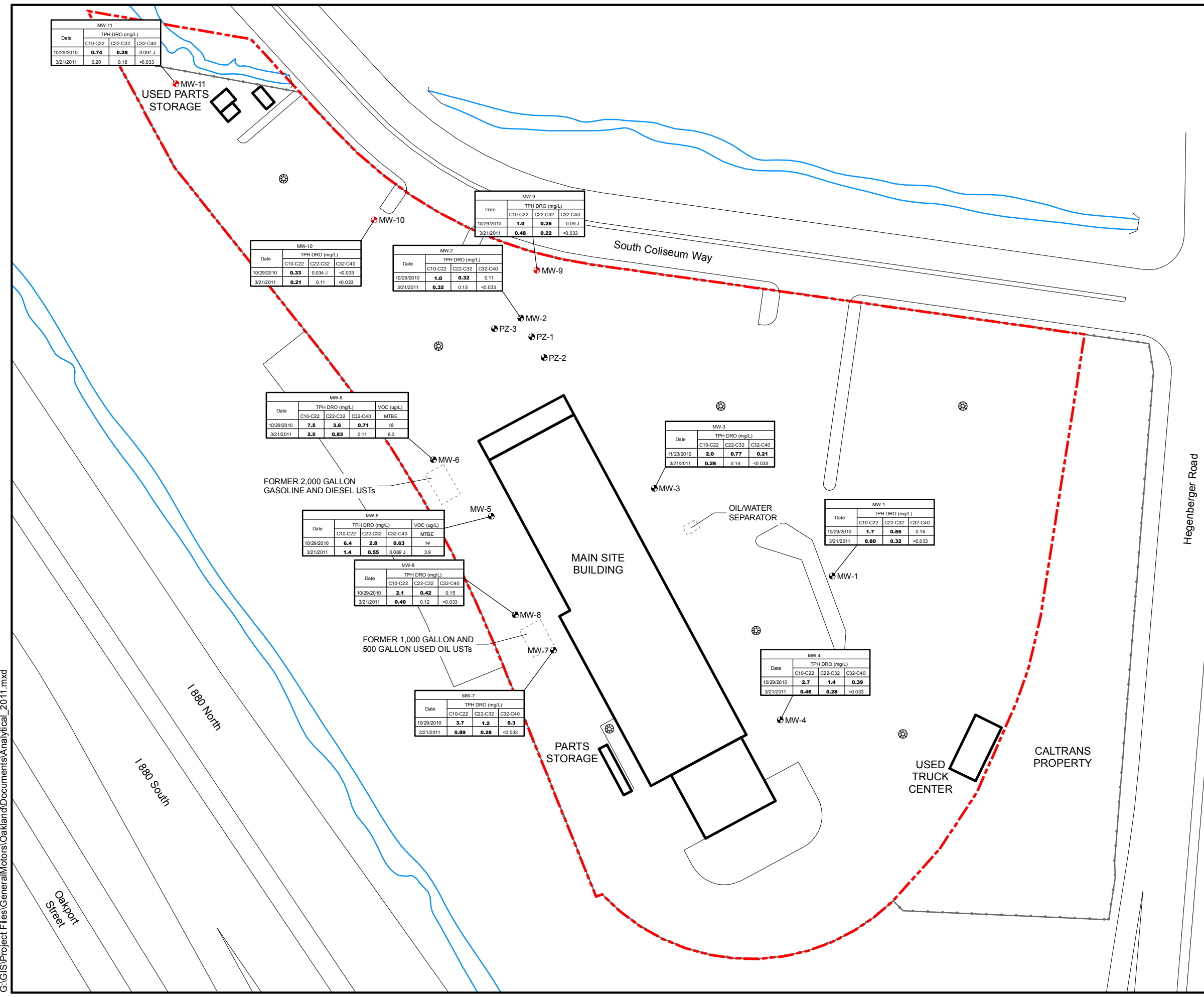
*ITALICIZED* VALUES INDICATE ANALYTE CONCENTRATIONS EXCEEDING CALIFORNIA DEPARTMENT OF HEALTH SERVICES DRINKING WATER MAXIMUM CONTAMINANT LEVELS AND OAKLAND TIER 1 RISK-BASED SCREENING LEVELS FOR INJECTION OF GROUNDWATER (COMMERCIAL/INDUSTRIAL).

	TPH			VOC (ug/L)
	C10-C22	C22-C32	C32-C40	MTBE
San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels for Groundwater	0.21	0.21	0.21	---
California Department of Health Services Drinking Water Maximum Contaminant Levels (MCLs)	---	---	---	13
Oakland Tier I RBSLs for Ingestion of Groundwater (Commercial/ Industrial)	---	---	---	13



FORMER OAKLAND TRUCK CENTER  
8099 SOUTH COLISEUM WAY  
OAKLAND, CALIFORNIA 94621

**TPH & VOC GROUNDWATER CONCENTRATIONS EXCEEDING SCREENING CRITERIA**



Appendix B

Tables

**TABLE 1  
FIELD DATA**

**FORMER OAKLAND TRUCK CENTER  
8099 S. COLISEUM WAY  
OAKLAND, CALIFORNIA 94621**

Well ID	Date	TOC (ft amsl)	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)	Depth to Bottom (ft btoc)	Temperature (°C)	pH	DO (mg/L)	Specific Conductivity (S/m)	Turbidity (NTU)	ORP (mV)
MW-1	10/29/2010	12.46	6.33	6.13	20.35	22.21	7.10	0.25	0.3778	NM	-110.5
	3/21/2011	12.37	8.60	3.77	20.03	18.42	7.63	0.19	1.0102	0.00	-93.7
MW-2	10/29/2010	12.37	8.42	3.95	20.07	21.90	7.31	0.23	0.6697	NM	-133.2
	3/21/2011	12.37	8.60	3.77	20.03	18.42	7.63	0.19	1.0102	0.00	-93.7
MW-3	10/29/2010	13.06	7.49	5.57	20.30	NM	NM	NM	NM	NM	NM
	11/22/2010	13.03	7.22	5.81	20.25	20.54	7.11	0.25	0.3769	NM	-113.9
	3/21/2011	13.03	6.78	6.25	20.29	18.28	7.38	0.11	0.8159	0.00	-123.5
MW-4	10/29/2010	12.50	4.15	8.35	18.00	23.03	7.00	0.19	0.2160	NM	-129.8
	3/21/2011	12.50	2.02	10.48	17.95	17.27	6.70	0.11	0.1192	95.82	-69.8
MW-5	10/29/2010	13.38	8.16	5.22	17.10	24.47	7.05	0.15	0.3459	NM	-89.1
	3/21/2011	13.38	4.71	8.67	17.12	19.04	6.75	0.11	0.1768	16.71	-46.3
MW-6	10/29/2010	12.33	7.38	4.95	17.95	22.31	6.71	0.15	0.3366	NM	-106.4
	3/22/2011	12.33	5.45	6.88	17.93	15.50	6.47	0.31	0.2434	0.00	-16.9
MW-7	10/29/2010	13.17	7.82	5.35	18.10	22.87	6.85	0.12	0.2251	NM	-110.1
	3/21/2011	13.17	6.10	7.07	18.05	18.49	6.62	0.12	0.1175	0.00	-85.7
MW-8	10/29/2010	12.64	6.74	5.90	20.22	23.08	6.93	0.18	0.1129	NM	-101.1
	3/21/2011	12.64	3.26	9.38	20.20	18.69	6.50	0.12	0.0461	0.00	-105.5
MW-9	10/29/2010	12.44	8.58	3.86	20.25	21.17	7.10	0.29	0.6523	NM	-126.6
	3/21/2011	12.44	8.78	3.66	20.11	18.08	7.08	0.17	0.6669	0.00	-93.2
MW-10	10/29/2010	11.49	7.66	3.83	20.25	22.94	7.32	0.25	0.6652	NM	-139.7
	3/21/2011	11.49	7.98	3.51	19.95	18.29	7.19	0.57	0.7225	2.78	-115.1
MW-11	10/29/2010	10.93	7.21	3.72	18.30	22.02	6.81	0.25	0.8981	NM	-64.0
	3/21/2010	10.93	7.73	3.20	17.94	17.55	6.84	0.39	0.9718	42.21	-54.9

**Notes:**

Monitoring wells MW-1 through MW-11 were surveyed on July 28, 2009.

amsl = above mean sea level

btoc = below top of casing

°C = degrees Celsius

DO = dissolved oxygen

ft = feet

mg/L = milligrams per liter

mV = millivolts

NA = not available

NM = not measured

NTU = Nephelometric turbidity units

ORP = oxidation-reduction potential

S/m = Siemens per meter

TOC = top of casing



TABLE 2  
GROUNDWATER ANALYTICAL RESULTS

FORMER OAKLAND TRUCK CENTER  
8099 SOUTH COLISEUM WAY  
OAKLAND, CALIFORNIA 94621

Well ID	Date Collected	TPH Low Fraction (EPA Method 8015B) mg/L	TPH DRO (EPA Method 8015B)			VOCs (EPA Method 8260)										Other Parameters				
			C10-C22 mg/L	C22-C32 mg/L	C32-C40 mg/L	Acetone µg/L	1,1-Dichloroethene µg/L	cis-1,2-Dichloroethene µg/L	Cyclohexane µg/L	Methyl tert-butyl ether µg/L	1,2,4-Trimethylbenzene µg/L	Vinyl chloride µg/L	tert-Butyl alcohol µg/L	Other Target VOCs µg/L	Alkalinity (SM 2320B) mg/L	Phosphate (EPA Method 365.1) mg/L	Sulfate (EPA Method 9056) mg/L	Nitrate as Nitrogen (EPA Method 9056) mg/L	Ferrous Iron (SM 3500 Fe-) mg/L	
SFRWQCB ESLs for Groundwater		0.21	0.21	0.21	0.21	1,500	25	590	NC	1,800	NC	3.8	NC	various	NC	NC	NC	NC	NC	
California Department of Public Health MCLs		NC	NC	NC	NC	NC	NC	NC	NC	13	NC	0.5	NC	various	NC	NC	NC	1	NC	
Oakland Tier I RBLS for Ingestion of Groundwater (Commercial/Industrial)		NC	NC	NC	NC	10,000	6	6	NC	13	NC	0.5	NC	various	NC	NC	NC	NC	NC	
MW-1	10/29/2010	<0.04	<b>1.7 Y4</b>	<b>0.55 Y4</b>	0.16 Y4	<16	<0.41	<0.34	NS	<0.63	<0.18	<0.34	NS	ND	1,800	3.7	<0.46	<0.041	74	
MW-1	3/21/2011	<0.04	<b>0.80 Y1</b>	<b>0.32 Y1</b>	<0.033 Y1	<16	<0.41	<0.34	<0.36	<0.63	<0.18	<0.34	<1.5	ND	1,700	3.6	<0.46	<0.041	19	
MW-2	10/29/2010	<0.04	<b>1.0 Y4</b>	<b>0.32 Y4</b>	0.11 Y4	<16	0.56 J	<0.34	NS	4.1	<0.18	0.37 J	NS	ND	1,300	2.2	23	<0.041	1.1	
MW-2	3/21/2011	<0.04	<b>0.32 Y1</b>	0.15 Y1	<0.033 Y1	<16	<0.41	<0.34	<0.36	1.8	<0.18	<0.34	<1.5	ND	960	1.6	150	<0.041	1.1	
MW-3	11/23/2010	<0.04	<b>2.0 Y4</b>	<b>0.77 Y4</b>	<b>0.21 Y4</b>	<16	<0.41	<0.34	NS	<0.63	<0.18	<0.34	NS	ND	1,200	6.2	14	<0.041	0.91	
MW-3	3/21/2011	<0.04	<b>0.26 Y1</b>	0.14 Y1	<0.033 Y1	<16	<0.41	<0.34	<0.36	<0.63	<0.18	<0.34	<1.5	ND	1,300	5.5	190	<0.041	0.83	
MW-4	10/29/2010	<0.04	<b>2.7 Y1</b>	<b>1.4 Y4</b>	<b>0.39 Y4</b>	<16	<0.41	1.0	NS	<0.63	<0.18	<0.34	NS	ND	810	2.4	<0.46	<0.041	39	
MW-4	3/21/2011	<0.04	<b>0.46 Y1</b>	<b>0.28 Y1</b>	<0.033 Y1	<16	<0.41	<0.34	<0.36	<0.63	0.33 J	<0.34	<1.5	ND	540	0.94	9.2	0.11	2.9	
MW-5	10/29/2010	<0.04	<b>6.4 Y1</b>	<b>2.8 Y4</b>	<b>0.63 Y4</b>	<16	<0.41	<0.34	NS	<b>14</b>	<0.18	<0.34	NS	ND	1,700	1.6	<0.46	<0.041	--	
MW-5	3/21/2011	<0.04	<b>1.4 Y1</b>	<b>0.55 Y1</b>	0.089 J Y1	<16	<0.41	<0.34	<0.36	3.9	<0.18	<0.34	<1.5	ND	870	0.29	<0.46	<0.041	5.6	
MW-6	10/29/2010	<0.04	<b>7.5 Y1</b>	<b>3.6 Y4</b>	<b>0.71 Y4</b>	<16	<0.41	<0.34	NS	<b>18</b>	<0.18	<0.34	NS	ND	1,400	3.0	<0.46	<0.041	45	
MW-6	3/22/2011	<0.04	<b>2.5 Y1</b>	<b>0.83 Y1</b>	0.11 Y1	<16	<0.41	<0.34	<0.36	8.3	<0.18	<0.34	2.2 J	ND	1,000	2.1	<0.46	<0.041	39	
MW-7	10/29/2010	<0.04	<b>3.7 Y1</b>	<b>1.2 Y4</b>	<b>0.30 Y4</b>	<16	<0.41	<0.34	NS	2.4	<0.18	<0.34	NS	ND	1,200	2.2	<0.46	<0.041	32	
MW-7	3/21/2011	<0.04	<b>0.89 Y1</b>	<b>0.28 Y1</b>	<0.033 Y1	<16	<0.41	<0.34	0.70 J	0.65	<0.18	<0.34	<1.5	ND	580	1.8	<0.46	<0.041	18	
MW-8	10/29/2010	<0.04	<b>2.1 Y1</b>	<b>0.42 Y1</b>	0.15 Y1	<16	<0.41	<0.34	NS	1.7	<0.18	<0.34	NS	ND	490	0.87	<0.46	<0.041	16	
MW-8	3/21/2011	<0.04	<b>0.40 Y1</b>	0.12 Y1	<0.033 Y1	<16	<0.41	<0.34	<0.36	<0.63	<0.18	<0.34	<1.5	ND	200	0.36	13	<0.041	5.3	
MW-9	10/29/2010	<0.04	<b>1.0 Y1</b>	<b>0.25 Y1</b>	0.09 J Y1	<16	<0.41	<0.34	NS	<0.63	<0.18	<0.34	NS	ND	970	6.2	120	<0.041	7.9	
MW-9	3/21/2011	<0.04	<b>0.48 Y1</b>	<b>0.22 Y1</b>	<0.033 Y1	<16	<0.41	<0.34	<0.36	<0.63	<0.18	<0.34	<1.5	ND	910	5.9	140	<0.041	7.9	
MW-10	10/29/2010	<0.04	<b>0.33 Y1</b>	0.034 J Y1	<0.033	<16	<0.41	<0.34	NS	<0.63	<0.18	<0.34	NS	ND	920	6.0	120	<0.041	8	
MW-10	3/21/2011	<0.04	<b>0.21 Y1</b>	0.11 Y1	<0.033 Y1	<16	<0.41	<0.34	<0.36	<0.63	<0.18	<0.34	<1.5	ND	820	5.0	170	<0.041	8.3	
MW-11	10/29/2010	<0.04	<b>0.74 Y4</b>	<b>0.28 Y4</b>	0.097 J Y4	<16	<0.41	<0.34	NS	<0.63	<0.18	<0.34	NS	ND	910	5.6	180	<0.041	5.7	
MW-11	3/21/2011	<0.04	0.20 Y4	0.18 Y1	<0.033 Y1	<16	<0.41	<0.34	<0.36	<0.63	<0.18	<0.34	<1.5	ND	780	4.5	260	0.20	7.5	

Notes:

Cleanup Criteria Exceedances are bolded.

-- = not analyzed

Cal EPA = California Environmental Protection Agency

DRO = diesel range organics

EPA = U.S. Environmental Protection Agency

ESLs = Environmental Screening Levels

J = estimated concentration, reported above the method detection limit but below the laboratory reporting limit

MCLs = Maximum Contaminant Levels

mg/L = milligrams per liter

µg/L = micrograms per liter

NA = not analyzed

NC = not criteria available

\*Groundwater Cleanup Criteria: TPH concentrations were compared to the SFRWQCB ESLs Groundwater Screening Levels for groundwater not used for drinking water. The ESLs are representative of an expansion of the EPA PRGs (and by default, the Cal EPA California Human Health Screening Levels) and the City of Oakland Screening Levels to reflect the broader Interim Final - November 2007 (revised May 2008) scope of environmental concerns put forth in the Basin Plan.

Cleanup criteria for VOCs are based on EPA Region 9 RSLs and California Department of Public Health MCLs (May 2011).

ND or < = analyte not detected at or above the indicated laboratory reporting limit

NS = not sampled

PRGs = Preliminary Remediation Goals

RBLS = Risk-Based Screening Levels

RSLs = Regional Screening Levels

SFRWQCB = San Francisco Bay Regional Water Quality Control Board

SM = standard method

TPH = total petroleum hydrocarbon

VOCs = volatile organic compounds

Y1 = sample most closely matches the laboratory standard for diesel

Y4 = sample most closely matches the laboratory standard for motor oil

Appendix C

Analytical Reports



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Holly M. Burger, Debra Hagerty  
ARCADIS U.S. GMC  
10559 Citation Dr, Ste 100  
Brighton, MI 48116

## Report Summary

Wednesday March 30, 2011

Report Number: L507407

Samples Received: 03/23/11

Client Project: B0064601.0000.00007

Description: Oakland Truck Center

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

John Hawkins , ESC Representative

### Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140  
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,  
TX - T104704245, OK-9915

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center

ESC Sample # : L507407-01

Sample ID : MW-1

Site ID : 8099 S. COLISEUM WAY O

Collected By : Karl Johnson  
 Collection Date : 03/21/11 12:20

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrate	U	41.	100	ug/l		9056	03/23/11	1
Sulfate	U	460	5000	ug/l		9056	03/23/11	1
Alkalinity	1700000	30000	200000	ug/l		2320B	03/30/11	10
Ferrous Iron	19000	300	1200	ug/l	T8	3500Fe-	03/23/11	25
Phosphorus, Total	3600	26.	100	ug/l		365.1	03/28/11	1
TPH (GC/FID) Low Fraction	U	40.	100	ug/l		8015D/G	03/23/11	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	94.2			% Rec.		8015D/G	03/23/11	1
Diesel Range Organics California								
C10-C22 Hydrocarbons	800	9.7	100	ug/l	Y1	8015	03/28/11	1
C22-C32 Hydrocarbons	320	33.	100	ug/l	Y1	8015	03/28/11	1
C32-C40 Hydrocarbons	U	33.	100	ug/l	Y1	8015	03/28/11	1
Surrogate Recovery o-Terphenyl	67.6			% Rec.		8015	03/28/11	1
Oxygenates								
Acetone	U	16.	50.	ug/l		8260B	03/23/11	1
Benzene	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromodichloromethane	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromoform	U	0.37	1.0	ug/l		8260B	03/23/11	1
Bromomethane	U	1.6	5.0	ug/l		8260B	03/23/11	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	03/23/11	1
Carbon tetrachloride	U	0.20	1.0	ug/l		8260B	03/23/11	1
Chlorobenzene	U	0.30	1.0	ug/l		8260B	03/23/11	1
Chloroethane	U	0.87	5.0	ug/l		8260B	03/23/11	1
Chloroform	U	0.27	5.0	ug/l		8260B	03/23/11	1
Cyclohexane	U	0.36	1.0	ug/l		8260B	03/23/11	1
1,2-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,3-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,4-Dichlorobenzene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethene	U	0.41	1.0	ug/l		8260B	03/23/11	1
cis-1,2-Dichloroethene	U	0.34	1.	ug/l		8260B	03/25/11	1
trans-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloropropane	U	0.39	1.0	ug/l		8260B	03/23/11	1
1,3-Dichloropropane	U	0.28	1.0	ug/l		8260B	03/23/11	1
cis-1,3-Dichloropropene	U	0.25	1.	ug/l		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)

Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-1  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 12:20

ESC Sample # : L507407-01  
 Site ID : 8099 S. COLISEUM WAY O  
 Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,3-Dichloropropene	U	0.24	1.0	ug/l		8260B	03/23/11	1
Ethylbenzene	U	0.22	1.0	ug/l		8260B	03/23/11	1
Hexachloro-1,3-butadiene	U	0.38	1.0	ug/l		8260B	03/23/11	1
n-Hexane	U	0.39	10.	ug/l		8260B	03/23/11	1
Isopropylbenzene	U	0.20	1.0	ug/l		8260B	03/23/11	1
2-Butanone (MEK)	U	3.4	10.	ug/l		8260B	03/23/11	1
Methylene Chloride	U	0.91	5.0	ug/l		8260B	03/23/11	1
4-Methyl-2-pentanone (MIBK)	U	1.7	10.	ug/l		8260B	03/23/11	1
Methyl tert-butyl ether	U	0.63	1.0	ug/l		8260B	03/23/11	1
Naphthalene	U	0.98	5.0	ug/l		8260B	03/23/11	1
Styrene	U	0.24	1.0	ug/l		8260B	03/23/11	1
1,1,1,2-Tetrachloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,1,2,2-Tetrachloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
Tetrachloroethene	U	0.32	1.0	ug/l		8260B	03/23/11	1
Toluene	U	0.32	5.0	ug/l		8260B	03/23/11	1
1,2,3-Trichlorobenzene	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trichlorobenzene	U	0.35	1.0	ug/l		8260B	03/23/11	1
1,1,1-Trichloroethane	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1,2-Trichloroethane	U	0.29	1.0	ug/l		8260B	03/23/11	1
Trichloroethene	U	0.31	1.0	ug/l		8260B	03/25/11	1
1,2,4-Trimethylbenzene	U	0.18	1.0	ug/l		8260B	03/23/11	1
1,3,5-Trimethylbenzene	U	0.33	1.0	ug/l		8260B	03/23/11	1
Vinyl acetate	U	4.0	1.0	ug/l		8260B	03/23/11	1
Vinyl chloride	U	0.34	1.0	ug/l		8260B	03/23/11	1
Xylenes, Total	U	0.86	3.0	ug/l		8260B	03/23/11	1
Volatile Organics								
Di-isopropyl ether	U	0.26	1.0	ug/l		8260B	03/23/11	1
Ethanol	U	12.	100	ug/l		8260B	03/23/11	1
3,3-Dimethyl-1-butanol	U	4.6	100	ug/l		8260B	03/23/11	1
Ethyl tert-butyl ether	U	0.099	1.0	ug/l		8260B	03/23/11	1
t-Amyl Alcohol	U	1.4	5.0	ug/l		8260B	03/23/11	1
tert-Butyl alcohol	U	1.5	50.	ug/l		8260B	03/23/11	1
tert-Butyl Formate	U	2.7	20.	ug/l		8260B	03/23/11	1
tert-Amyl Methyl Ether	U	0.085	1.0	ug/l		8260B	03/23/11	1
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	03/23/11	1
Dibromofluoromethane	120.			% Rec.		8260B	03/23/11	1
4-Bromofluorobenzene	91.5			% Rec.		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)  
 Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-2  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 10:55

ESC Sample # : L507407-02

Site ID : 8099 S. COLISEUM WAY O

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrate	U	41.	100	ug/l		9056	03/23/11	1
Sulfate	150000	2300	25000	ug/l		9056	03/24/11	5
Alkalinity	960000	30000	200000	ug/l		2320B	03/30/11	10
Ferrous Iron	1100	12.	50.	ug/l	T8	3500Fe-	03/23/11	1
Phosphorus, Total	1600	26.	100	ug/l		365.1	03/29/11	1
TPH (GC/FID) Low Fraction	U	40.	100	ug/l		8015D/G	03/23/11	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	91.5			% Rec.		8015D/G	03/23/11	1
Diesel Range Organics California								
C10-C22 Hydrocarbons	320	9.7	100	ug/l	Y1	8015	03/28/11	1
C22-C32 Hydrocarbons	150	33.	100	ug/l	Y1	8015	03/28/11	1
C32-C40 Hydrocarbons	U	33.	100	ug/l	Y1	8015	03/28/11	1
Surrogate Recovery o-Terphenyl	73.9			% Rec.		8015	03/28/11	1
Oxygenates								
Acetone	U	16.	50.	ug/l		8260B	03/23/11	1
Benzene	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromodichloromethane	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromoform	U	0.37	1.0	ug/l		8260B	03/23/11	1
Bromomethane	U	1.6	5.0	ug/l		8260B	03/23/11	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	03/23/11	1
Carbon tetrachloride	U	0.20	1.0	ug/l		8260B	03/23/11	1
Chlorobenzene	U	0.30	1.0	ug/l		8260B	03/23/11	1
Chloroethane	U	0.87	5.0	ug/l		8260B	03/23/11	1
Chloroform	U	0.27	5.0	ug/l		8260B	03/23/11	1
Cyclohexane	U	0.36	1.0	ug/l		8260B	03/23/11	1
1,2-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,3-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,4-Dichlorobenzene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethene	U	0.41	1.0	ug/l		8260B	03/23/11	1
cis-1,2-Dichloroethene	U	0.34	1.	ug/l		8260B	03/23/11	1
trans-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloropropane	U	0.39	1.0	ug/l		8260B	03/23/11	1
1,3-Dichloropropane	U	0.28	1.0	ug/l		8260B	03/23/11	1
cis-1,3-Dichloropropene	U	0.25	1.	ug/l		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)

Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-2  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 10:55

ESC Sample # : L507407-02  
 Site ID : 8099 S. COLISEUM WAY O  
 Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,3-Dichloropropene	U	0.24	1.0	ug/l		8260B	03/23/11	1
Ethylbenzene	U	0.22	1.0	ug/l		8260B	03/23/11	1
Hexachloro-1,3-butadiene	U	0.38	1.0	ug/l		8260B	03/23/11	1
n-Hexane	U	0.39	10.	ug/l		8260B	03/23/11	1
Isopropylbenzene	U	0.20	1.0	ug/l		8260B	03/23/11	1
2-Butanone (MEK)	U	3.4	10.	ug/l		8260B	03/23/11	1
Methylene Chloride	U	0.91	5.0	ug/l		8260B	03/23/11	1
4-Methyl-2-pentanone (MIBK)	U	1.7	10.	ug/l		8260B	03/23/11	1
Methyl tert-butyl ether	1.8	0.63	1.0	ug/l		8260B	03/23/11	1
Naphthalene	U	0.98	5.0	ug/l		8260B	03/23/11	1
Styrene	U	0.24	1.0	ug/l		8260B	03/23/11	1
1,1,1,2-Tetrachloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,1,2,2-Tetrachloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
Tetrachloroethene	U	0.32	1.0	ug/l		8260B	03/23/11	1
Toluene	U	0.32	5.0	ug/l		8260B	03/23/11	1
1,2,3-Trichlorobenzene	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trichlorobenzene	U	0.35	1.0	ug/l		8260B	03/23/11	1
1,1,1-Trichloroethane	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1,2-Trichloroethane	U	0.29	1.0	ug/l		8260B	03/23/11	1
Trichloroethene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trimethylbenzene	U	0.18	1.0	ug/l		8260B	03/23/11	1
1,3,5-Trimethylbenzene	U	0.33	1.0	ug/l		8260B	03/23/11	1
Vinyl acetate	U	4.0	1.0	ug/l		8260B	03/23/11	1
Vinyl chloride	U	0.34	1.0	ug/l		8260B	03/23/11	1
Xylenes, Total	U	0.86	3.0	ug/l		8260B	03/23/11	1
Volatile Organics								
Di-isopropyl ether	U	0.26	1.0	ug/l		8260B	03/23/11	1
Ethanol	U	12.	100	ug/l		8260B	03/23/11	1
3,3-Dimethyl-1-butanol	U	4.6	100	ug/l		8260B	03/23/11	1
Ethyl tert-butyl ether	U	0.099	1.0	ug/l		8260B	03/23/11	1
t-Amyl Alcohol	U	1.4	5.0	ug/l		8260B	03/23/11	1
tert-Butyl alcohol	U	1.5	50.	ug/l		8260B	03/23/11	1
tert-Butyl Formate	U	2.7	20.	ug/l		8260B	03/23/11	1
tert-Amyl Methyl Ether	U	0.085	1.0	ug/l		8260B	03/23/11	1
Surrogate Recovery								
Toluene-d8	99.7			% Rec.		8260B	03/23/11	1
Dibromofluoromethane	119.			% Rec.		8260B	03/23/11	1
4-Bromofluorobenzene	90.7			% Rec.		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)  
 Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center

ESC Sample # : L507407-03

Sample ID : MW-3

Site ID : 8099 S. COLISEUM WAY O

Collected By : Karl Johnson  
 Collection Date : 03/21/11 13:25

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrate	U	41.	100	ug/l		9056	03/23/11	1
Sulfate	190000	2300	25000	ug/l		9056	03/24/11	5
Alkalinity	1300000	60000	400000	ug/l		2320B	03/30/11	20
Ferrous Iron	830	12.	50.	ug/l	T8	3500Fe-	03/23/11	1
Phosphorus, Total	5500	52.	200	ug/l		365.1	03/29/11	2
TPH (GC/FID) Low Fraction	U	40.	100	ug/l		8015D/G	03/23/11	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	91.3			% Rec.		8015D/G	03/23/11	1
Diesel Range Organics California								
C10-C22 Hydrocarbons	260	9.7	100	ug/l	Y1	8015	03/28/11	1
C22-C32 Hydrocarbons	140	33.	100	ug/l	Y1	8015	03/28/11	1
C32-C40 Hydrocarbons	U	33.	100	ug/l	Y1	8015	03/28/11	1
Surrogate Recovery o-Terphenyl	74.1			% Rec.		8015	03/28/11	1
Oxygenates								
Acetone	U	16.	50.	ug/l		8260B	03/23/11	1
Benzene	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromodichloromethane	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromoform	U	0.37	1.0	ug/l		8260B	03/23/11	1
Bromomethane	U	1.6	5.0	ug/l		8260B	03/23/11	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	03/23/11	1
Carbon tetrachloride	U	0.20	1.0	ug/l		8260B	03/23/11	1
Chlorobenzene	U	0.30	1.0	ug/l		8260B	03/23/11	1
Chloroethane	U	0.87	5.0	ug/l		8260B	03/23/11	1
Chloroform	U	0.27	5.0	ug/l		8260B	03/23/11	1
Cyclohexane	U	0.36	1.0	ug/l		8260B	03/23/11	1
1,2-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,3-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,4-Dichlorobenzene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethene	U	0.41	1.0	ug/l		8260B	03/23/11	1
cis-1,2-Dichloroethene	U	0.34	1.	ug/l		8260B	03/23/11	1
trans-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloropropane	U	0.39	1.0	ug/l		8260B	03/23/11	1
1,3-Dichloropropane	U	0.28	1.0	ug/l		8260B	03/23/11	1
cis-1,3-Dichloropropene	U	0.25	1.	ug/l		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)

Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24





12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-3  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 13:25

ESC Sample # : L507407-03

Site ID : 8099 S. COLISEUM WAY O

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,3-Dichloropropene	U	0.24	1.0	ug/l		8260B	03/23/11	1
Ethylbenzene	U	0.22	1.0	ug/l		8260B	03/23/11	1
Hexachloro-1,3-butadiene	U	0.38	1.0	ug/l		8260B	03/23/11	1
n-Hexane	U	0.39	10.	ug/l		8260B	03/23/11	1
Isopropylbenzene	U	0.20	1.0	ug/l		8260B	03/23/11	1
2-Butanone (MEK)	U	3.4	10.	ug/l		8260B	03/23/11	1
Methylene Chloride	U	0.91	5.0	ug/l		8260B	03/23/11	1
4-Methyl-2-pentanone (MIBK)	U	1.7	10.	ug/l		8260B	03/23/11	1
Methyl tert-butyl ether	U	0.63	1.0	ug/l		8260B	03/23/11	1
Naphthalene	U	0.98	5.0	ug/l		8260B	03/23/11	1
Styrene	U	0.24	1.0	ug/l		8260B	03/23/11	1
1,1,1,2-Tetrachloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,1,2,2-Tetrachloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
Tetrachloroethene	U	0.32	1.0	ug/l		8260B	03/23/11	1
Toluene	U	0.32	5.0	ug/l		8260B	03/23/11	1
1,2,3-Trichlorobenzene	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trichlorobenzene	U	0.35	1.0	ug/l		8260B	03/23/11	1
1,1,1-Trichloroethane	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1,2-Trichloroethane	U	0.29	1.0	ug/l		8260B	03/23/11	1
Trichloroethene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trimethylbenzene	U	0.18	1.0	ug/l		8260B	03/23/11	1
1,3,5-Trimethylbenzene	U	0.33	1.0	ug/l		8260B	03/23/11	1
Vinyl acetate	U	4.0	1.0	ug/l		8260B	03/23/11	1
Vinyl chloride	U	0.34	1.0	ug/l		8260B	03/23/11	1
Xylenes, Total	U	0.86	3.0	ug/l		8260B	03/23/11	1
Volatile Organics								
Di-isopropyl ether	U	0.26	1.0	ug/l		8260B	03/23/11	1
Ethanol	U	12.	100	ug/l		8260B	03/23/11	1
3,3-Dimethyl-1-butanol	U	4.6	100	ug/l		8260B	03/23/11	1
Ethyl tert-butyl ether	U	0.099	1.0	ug/l		8260B	03/23/11	1
t-Amyl Alcohol	U	1.4	5.0	ug/l		8260B	03/23/11	1
tert-Butyl alcohol	U	1.5	50.	ug/l		8260B	03/23/11	1
tert-Butyl Formate	U	2.7	20.	ug/l		8260B	03/23/11	1
tert-Amyl Methyl Ether	U	0.085	1.0	ug/l		8260B	03/23/11	1
Surrogate Recovery								
Toluene-d8		100.		% Rec.		8260B	03/23/11	1
Dibromofluoromethane		120.		% Rec.		8260B	03/23/11	1
4-Bromofluorobenzene		97.5		% Rec.		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)  
 Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center

ESC Sample # : L507407-04

Sample ID : MW-4

Site ID : 8099 S. COLISEUM WAY O

Collected By : Karl Johnson  
 Collection Date : 03/21/11 15:20

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrate	110	41.	100	ug/l		9056	03/23/11	1
Sulfate	9200	460	5000	ug/l		9056	03/23/11	1
Alkalinity	540000	6000	40000	ug/l		2320B	03/30/11	2
Ferrous Iron	2900	59.	250	ug/l	T8	3500Fe-	03/23/11	5
Phosphorus, Total	940	26.	100	ug/l		365.1	03/29/11	1
TPH (GC/FID) Low Fraction	U	40.	100	ug/l		8015D/G	03/23/11	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	93.1			% Rec.		8015D/G	03/23/11	1
Diesel Range Organics California								
C10-C22 Hydrocarbons	460	9.7	100	ug/l	Y1	8015	03/28/11	1
C22-C32 Hydrocarbons	280	33.	100	ug/l	Y1	8015	03/28/11	1
C32-C40 Hydrocarbons	U	33.	100	ug/l	Y1	8015	03/28/11	1
Surrogate Recovery o-Terphenyl	73.5			% Rec.		8015	03/28/11	1
Oxygenates								
Acetone	U	16.	50.	ug/l		8260B	03/23/11	1
Benzene	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromodichloromethane	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromoform	U	0.37	1.0	ug/l		8260B	03/23/11	1
Bromomethane	U	1.6	5.0	ug/l		8260B	03/23/11	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	03/23/11	1
Carbon tetrachloride	U	0.20	1.0	ug/l		8260B	03/23/11	1
Chlorobenzene	U	0.30	1.0	ug/l		8260B	03/23/11	1
Chloroethane	U	0.87	5.0	ug/l		8260B	03/23/11	1
Chloroform	U	0.27	5.0	ug/l		8260B	03/23/11	1
Cyclohexane	U	0.36	1.0	ug/l		8260B	03/23/11	1
1,2-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,3-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,4-Dichlorobenzene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethene	U	0.41	1.0	ug/l		8260B	03/23/11	1
cis-1,2-Dichloroethene	U	0.34	1.	ug/l		8260B	03/23/11	1
trans-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloropropane	U	0.39	1.0	ug/l		8260B	03/23/11	1
1,3-Dichloropropane	U	0.28	1.0	ug/l		8260B	03/23/11	1
cis-1,3-Dichloropropene	U	0.25	1.	ug/l		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)

Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-4  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 15:20

ESC Sample # : L507407-04

Site ID : 8099 S. COLISEUM WAY O

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,3-Dichloropropene	U	0.24	1.0	ug/l		8260B	03/23/11	1
Ethylbenzene	U	0.22	1.0	ug/l		8260B	03/23/11	1
Hexachloro-1,3-butadiene	U	0.38	1.0	ug/l		8260B	03/23/11	1
n-Hexane	U	0.39	10.	ug/l		8260B	03/23/11	1
Isopropylbenzene	U	0.20	1.0	ug/l		8260B	03/23/11	1
2-Butanone (MEK)	U	3.4	10.	ug/l		8260B	03/23/11	1
Methylene Chloride	U	0.91	5.0	ug/l		8260B	03/23/11	1
4-Methyl-2-pentanone (MIBK)	U	1.7	10.	ug/l		8260B	03/23/11	1
Methyl tert-butyl ether	U	0.63	1.0	ug/l		8260B	03/23/11	1
Naphthalene	U	0.98	5.0	ug/l		8260B	03/23/11	1
Styrene	U	0.24	1.0	ug/l		8260B	03/23/11	1
1,1,1,2-Tetrachloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,1,2,2-Tetrachloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
Tetrachloroethene	U	0.32	1.0	ug/l		8260B	03/23/11	1
Toluene	U	0.32	5.0	ug/l		8260B	03/23/11	1
1,2,3-Trichlorobenzene	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trichlorobenzene	U	0.35	1.0	ug/l		8260B	03/23/11	1
1,1,1-Trichloroethane	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1,2-Trichloroethane	U	0.29	1.0	ug/l		8260B	03/23/11	1
Trichloroethene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trimethylbenzene	0.33	0.18	1.0	ug/l	J	8260B	03/23/11	1
1,3,5-Trimethylbenzene	U	0.33	1.0	ug/l		8260B	03/23/11	1
Vinyl acetate	U	4.0	1.0	ug/l		8260B	03/23/11	1
Vinyl chloride	U	0.34	1.0	ug/l		8260B	03/23/11	1
Xylenes, Total	U	0.86	3.0	ug/l		8260B	03/23/11	1
Volatile Organics								
Di-isopropyl ether	U	0.26	1.0	ug/l		8260B	03/23/11	1
Ethanol	U	12.	100	ug/l		8260B	03/23/11	1
3,3-Dimethyl-1-butanol	U	4.6	100	ug/l		8260B	03/23/11	1
Ethyl tert-butyl ether	U	0.099	1.0	ug/l		8260B	03/23/11	1
t-Amyl Alcohol	U	1.4	5.0	ug/l		8260B	03/23/11	1
tert-Butyl alcohol	U	1.5	50.	ug/l		8260B	03/23/11	1
tert-Butyl Formate	U	2.7	20.	ug/l		8260B	03/23/11	1
tert-Amyl Methyl Ether	U	0.085	1.0	ug/l		8260B	03/23/11	1
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	03/23/11	1
Dibromofluoromethane	117.			% Rec.		8260B	03/23/11	1
4-Bromofluorobenzene	97.0			% Rec.		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)  
 Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-5  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 17:10

ESC Sample # : L507407-05

Site ID : 8099 S. COLISEUM WAY O

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrate	U	41.	100	ug/l		9056	03/23/11	1
Sulfate	U	460	5000	ug/l		9056	03/23/11	1
Alkalinity	870000	30000	200000	ug/l		2320B	03/30/11	10
Ferrous Iron	5600	59.	250	ug/l	T8	3500Fe-	03/23/11	5
Phosphorus, Total	290	26.	100	ug/l		365.1	03/29/11	1
TPH (GC/FID) Low Fraction	U	40.	100	ug/l		8015D/G	03/23/11	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	91.9			% Rec.		8015D/G	03/23/11	1
Diesel Range Organics California								
C10-C22 Hydrocarbons	1400	9.7	100	ug/l	Y1	8015	03/28/11	1
C22-C32 Hydrocarbons	550	33.	100	ug/l	Y1	8015	03/28/11	1
C32-C40 Hydrocarbons	89.	33.	100	ug/l	JY1	8015	03/28/11	1
Surrogate Recovery o-Terphenyl	78.0			% Rec.		8015	03/28/11	1
Oxygenates								
Acetone	U	16.	50.	ug/l		8260B	03/23/11	1
Benzene	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromodichloromethane	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromoform	U	0.37	1.0	ug/l		8260B	03/23/11	1
Bromomethane	U	1.6	5.0	ug/l		8260B	03/23/11	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	03/23/11	1
Carbon tetrachloride	U	0.20	1.0	ug/l		8260B	03/23/11	1
Chlorobenzene	U	0.30	1.0	ug/l		8260B	03/23/11	1
Chloroethane	U	0.87	5.0	ug/l		8260B	03/23/11	1
Chloroform	U	0.27	5.0	ug/l		8260B	03/23/11	1
Cyclohexane	U	0.36	1.0	ug/l		8260B	03/23/11	1
1,2-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,3-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,4-Dichlorobenzene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethene	U	0.41	1.0	ug/l		8260B	03/23/11	1
cis-1,2-Dichloroethene	U	0.34	1.	ug/l		8260B	03/23/11	1
trans-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloropropane	U	0.39	1.0	ug/l		8260B	03/23/11	1
1,3-Dichloropropane	U	0.28	1.0	ug/l		8260B	03/23/11	1
cis-1,3-Dichloropropene	U	0.25	1.	ug/l		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)

Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-5  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 17:10

ESC Sample # : L507407-05

Site ID : 8099 S. COLISEUM WAY O

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,3-Dichloropropene	U	0.24	1.0	ug/l		8260B	03/23/11	1
Ethylbenzene	U	0.22	1.0	ug/l		8260B	03/23/11	1
Hexachloro-1,3-butadiene	U	0.38	1.0	ug/l		8260B	03/23/11	1
n-Hexane	U	0.39	10.	ug/l		8260B	03/23/11	1
Isopropylbenzene	U	0.20	1.0	ug/l		8260B	03/23/11	1
2-Butanone (MEK)	U	3.4	10.	ug/l		8260B	03/23/11	1
Methylene Chloride	U	0.91	5.0	ug/l		8260B	03/23/11	1
4-Methyl-2-pentanone (MIBK)	U	1.7	10.	ug/l		8260B	03/23/11	1
Methyl tert-butyl ether	3.9	0.63	1.0	ug/l		8260B	03/23/11	1
Naphthalene	U	0.98	5.0	ug/l		8260B	03/23/11	1
Styrene	U	0.24	1.0	ug/l		8260B	03/23/11	1
1,1,1,2-Tetrachloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,1,2,2-Tetrachloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
Tetrachloroethene	U	0.32	1.0	ug/l		8260B	03/23/11	1
Toluene	U	0.32	5.0	ug/l		8260B	03/23/11	1
1,2,3-Trichlorobenzene	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trichlorobenzene	U	0.35	1.0	ug/l		8260B	03/23/11	1
1,1,1-Trichloroethane	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1,2-Trichloroethane	U	0.29	1.0	ug/l		8260B	03/23/11	1
Trichloroethene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trimethylbenzene	U	0.18	1.0	ug/l		8260B	03/23/11	1
1,3,5-Trimethylbenzene	U	0.33	1.0	ug/l		8260B	03/23/11	1
Vinyl acetate	U	4.0	1.0	ug/l		8260B	03/23/11	1
Vinyl chloride	U	0.34	1.0	ug/l		8260B	03/23/11	1
Xylenes, Total	U	0.86	3.0	ug/l		8260B	03/23/11	1
Volatile Organics								
Di-isopropyl ether	U	0.26	1.0	ug/l		8260B	03/23/11	1
Ethanol	U	12.	100	ug/l		8260B	03/23/11	1
3,3-Dimethyl-1-butanol	U	4.6	100	ug/l		8260B	03/23/11	1
Ethyl tert-butyl ether	U	0.099	1.0	ug/l		8260B	03/23/11	1
t-Amyl Alcohol	U	1.4	5.0	ug/l		8260B	03/23/11	1
tert-Butyl alcohol	U	1.5	50.	ug/l		8260B	03/23/11	1
tert-Butyl Formate	U	2.7	20.	ug/l		8260B	03/23/11	1
tert-Amyl Methyl Ether	U	0.085	1.0	ug/l		8260B	03/23/11	1
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	03/23/11	1
Dibromofluoromethane	115.			% Rec.		8260B	03/23/11	1
4-Bromofluorobenzene	99.3			% Rec.		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)  
 Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-6  
 Collected By : Karl Johnson  
 Collection Date : 03/22/11 09:10

ESC Sample # : L507407-06

Site ID : 8099 S. COLISEUM WAY O

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrate	U	41.	100	ug/l		9056	03/23/11	1
Sulfate	U	460	5000	ug/l		9056	03/23/11	1
Alkalinity	1000000	30000	200000	ug/l		2320B	03/30/11	10
Ferrous Iron	39000	300	1200	ug/l	T8	3500Fe-	03/23/11	25
Phosphorus, Total	2100	26.	100	ug/l		365.1	03/29/11	1
TPH (GC/FID) Low Fraction	U	40.	100	ug/l		8015D/G	03/23/11	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	94.1			% Rec.		8015D/G	03/23/11	1
Diesel Range Organics California								
C10-C22 Hydrocarbons	2500	9.7	100	ug/l	Y1	8015	03/28/11	1
C22-C32 Hydrocarbons	830	33.	100	ug/l	Y1	8015	03/28/11	1
C32-C40 Hydrocarbons	110	33.	100	ug/l	Y1	8015	03/28/11	1
Surrogate Recovery o-Terphenyl	73.8			% Rec.		8015	03/28/11	1
Oxygenates								
Acetone	U	16.	50.	ug/l		8260B	03/23/11	1
Benzene	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromodichloromethane	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromoform	U	0.37	1.0	ug/l		8260B	03/23/11	1
Bromomethane	U	1.6	5.0	ug/l		8260B	03/23/11	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	03/23/11	1
Carbon tetrachloride	U	0.20	1.0	ug/l		8260B	03/23/11	1
Chlorobenzene	U	0.30	1.0	ug/l		8260B	03/23/11	1
Chloroethane	U	0.87	5.0	ug/l		8260B	03/23/11	1
Chloroform	U	0.27	5.0	ug/l		8260B	03/23/11	1
Cyclohexane	U	0.36	1.0	ug/l		8260B	03/23/11	1
1,2-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,3-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,4-Dichlorobenzene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethene	U	0.41	1.0	ug/l		8260B	03/23/11	1
cis-1,2-Dichloroethene	U	0.34	1.	ug/l		8260B	03/23/11	1
trans-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloropropane	U	0.39	1.0	ug/l		8260B	03/23/11	1
1,3-Dichloropropane	U	0.28	1.0	ug/l		8260B	03/23/11	1
cis-1,3-Dichloropropene	U	0.25	1.	ug/l		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)

Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-6  
 Collected By : Karl Johnson  
 Collection Date : 03/22/11 09:10

ESC Sample # : L507407-06

Site ID : 8099 S. COLISEUM WAY O

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,3-Dichloropropene	U	0.24	1.0	ug/l		8260B	03/23/11	1
Ethylbenzene	U	0.22	1.0	ug/l		8260B	03/23/11	1
Hexachloro-1,3-butadiene	U	0.38	1.0	ug/l		8260B	03/23/11	1
n-Hexane	U	0.39	10.	ug/l		8260B	03/23/11	1
Isopropylbenzene	U	0.20	1.0	ug/l		8260B	03/23/11	1
2-Butanone (MEK)	U	3.4	10.	ug/l		8260B	03/23/11	1
Methylene Chloride	U	0.91	5.0	ug/l		8260B	03/23/11	1
4-Methyl-2-pentanone (MIBK)	U	1.7	10.	ug/l		8260B	03/23/11	1
Methyl tert-butyl ether	8.3	0.63	1.0	ug/l		8260B	03/23/11	1
Naphthalene	U	0.98	5.0	ug/l		8260B	03/23/11	1
Styrene	U	0.24	1.0	ug/l		8260B	03/23/11	1
1,1,1,2-Tetrachloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,1,2,2-Tetrachloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
Tetrachloroethene	U	0.32	1.0	ug/l		8260B	03/23/11	1
Toluene	U	0.32	5.0	ug/l		8260B	03/23/11	1
1,2,3-Trichlorobenzene	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trichlorobenzene	U	0.35	1.0	ug/l		8260B	03/23/11	1
1,1,1-Trichloroethane	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1,2-Trichloroethane	U	0.29	1.0	ug/l		8260B	03/23/11	1
Trichloroethene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trimethylbenzene	U	0.18	1.0	ug/l		8260B	03/23/11	1
1,3,5-Trimethylbenzene	U	0.33	1.0	ug/l		8260B	03/23/11	1
Vinyl acetate	U	4.0	1.0	ug/l		8260B	03/23/11	1
Vinyl chloride	U	0.34	1.0	ug/l		8260B	03/23/11	1
Xylenes, Total	U	0.86	3.0	ug/l		8260B	03/23/11	1
Volatile Organics								
Di-isopropyl ether	U	0.26	1.0	ug/l		8260B	03/23/11	1
Ethanol	U	12.	100	ug/l		8260B	03/23/11	1
3,3-Dimethyl-1-butanol	U	4.6	100	ug/l		8260B	03/23/11	1
Ethyl tert-butyl ether	U	0.099	1.0	ug/l		8260B	03/23/11	1
t-Amyl Alcohol	U	1.4	5.0	ug/l		8260B	03/23/11	1
tert-Butyl alcohol	2.2	1.5	50.	ug/l	J	8260B	03/23/11	1
tert-Butyl Formate	U	2.7	20.	ug/l		8260B	03/23/11	1
tert-Amyl Methyl Ether	U	0.085	1.0	ug/l		8260B	03/23/11	1
Surrogate Recovery								
Toluene-d8	99.4			% Rec.		8260B	03/23/11	1
Dibromofluoromethane	114.			% Rec.		8260B	03/23/11	1
4-Bromofluorobenzene	96.0			% Rec.		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)  
 Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-7  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 16:10

ESC Sample # : L507407-07

Site ID : 8099 S. COLISEUM WAY O

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrate	U	41.	100	ug/l		9056	03/23/11	1
Sulfate	U	460	5000	ug/l		9056	03/23/11	1
Alkalinity	580000	30000	200000	ug/l		2320B	03/30/11	10
Ferrous Iron	18000	300	1200	ug/l	T8	3500Fe-	03/23/11	25
Phosphorus, Total	1800	26.	100	ug/l		365.1	03/29/11	1
TPH (GC/FID) Low Fraction	U	40.	100	ug/l		8015D/G	03/23/11	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	94.1			% Rec.		8015D/G	03/23/11	1
Diesel Range Organics California								
C10-C22 Hydrocarbons	890	9.7	100	ug/l	Y1	8015	03/28/11	1
C22-C32 Hydrocarbons	280	33.	100	ug/l	Y1	8015	03/28/11	1
C32-C40 Hydrocarbons	U	33.	100	ug/l	Y1	8015	03/28/11	1
Surrogate Recovery o-Terphenyl	74.4			% Rec.		8015	03/28/11	1
Oxygenates								
Acetone	U	16.	50.	ug/l		8260B	03/23/11	1
Benzene	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromodichloromethane	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromoform	U	0.37	1.0	ug/l		8260B	03/23/11	1
Bromomethane	U	1.6	5.0	ug/l		8260B	03/23/11	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	03/23/11	1
Carbon tetrachloride	U	0.20	1.0	ug/l		8260B	03/23/11	1
Chlorobenzene	U	0.30	1.0	ug/l		8260B	03/23/11	1
Chloroethane	U	0.87	5.0	ug/l		8260B	03/23/11	1
Chloroform	U	0.27	5.0	ug/l		8260B	03/23/11	1
Cyclohexane	0.70	0.36	1.0	ug/l	J	8260B	03/23/11	1
1,2-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,3-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,4-Dichlorobenzene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethene	U	0.41	1.0	ug/l		8260B	03/23/11	1
cis-1,2-Dichloroethene	U	0.34	1.	ug/l		8260B	03/23/11	1
trans-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloropropane	U	0.39	1.0	ug/l		8260B	03/23/11	1
1,3-Dichloropropane	U	0.28	1.0	ug/l		8260B	03/23/11	1
cis-1,3-Dichloropropene	U	0.25	1.	ug/l		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)

Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24





12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-7  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 16:10

ESC Sample # : L507407-07

Site ID : 8099 S. COLISEUM WAY O

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,3-Dichloropropene	U	0.24	1.0	ug/l		8260B	03/23/11	1
Ethylbenzene	U	0.22	1.0	ug/l		8260B	03/23/11	1
Hexachloro-1,3-butadiene	U	0.38	1.0	ug/l		8260B	03/23/11	1
n-Hexane	U	0.39	10.	ug/l		8260B	03/23/11	1
Isopropylbenzene	U	0.20	1.0	ug/l		8260B	03/23/11	1
2-Butanone (MEK)	U	3.4	10.	ug/l		8260B	03/23/11	1
Methylene Chloride	U	0.91	5.0	ug/l		8260B	03/23/11	1
4-Methyl-2-pentanone (MIBK)	U	1.7	10.	ug/l		8260B	03/23/11	1
Methyl tert-butyl ether	0.65	0.63	1.0	ug/l	J	8260B	03/23/11	1
Naphthalene	U	0.98	5.0	ug/l		8260B	03/23/11	1
Styrene	U	0.24	1.0	ug/l		8260B	03/23/11	1
1,1,1,2-Tetrachloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,1,2,2-Tetrachloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
Tetrachloroethene	U	0.32	1.0	ug/l		8260B	03/23/11	1
Toluene	U	0.32	5.0	ug/l		8260B	03/23/11	1
1,2,3-Trichlorobenzene	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trichlorobenzene	U	0.35	1.0	ug/l		8260B	03/23/11	1
1,1,1-Trichloroethane	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1,2-Trichloroethane	U	0.29	1.0	ug/l		8260B	03/23/11	1
Trichloroethene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trimethylbenzene	U	0.18	1.0	ug/l		8260B	03/23/11	1
1,3,5-Trimethylbenzene	U	0.33	1.0	ug/l		8260B	03/23/11	1
Vinyl acetate	U	4.0	1.0	ug/l		8260B	03/23/11	1
Vinyl chloride	U	0.34	1.0	ug/l		8260B	03/23/11	1
Xylenes, Total	U	0.86	3.0	ug/l		8260B	03/23/11	1
Volatile Organics								
Di-isopropyl ether	U	0.26	1.0	ug/l		8260B	03/23/11	1
Ethanol	U	12.	100	ug/l		8260B	03/23/11	1
3,3-Dimethyl-1-butanol	U	4.6	100	ug/l		8260B	03/23/11	1
Ethyl tert-butyl ether	U	0.099	1.0	ug/l		8260B	03/23/11	1
t-Amyl Alcohol	U	1.4	5.0	ug/l		8260B	03/23/11	1
tert-Butyl alcohol	U	1.5	50.	ug/l		8260B	03/23/11	1
tert-Butyl Formate	U	2.7	20.	ug/l		8260B	03/23/11	1
tert-Amyl Methyl Ether	U	0.085	1.0	ug/l		8260B	03/23/11	1
Surrogate Recovery								
Toluene-d8	99.7			% Rec.		8260B	03/23/11	1
Dibromofluoromethane	111.			% Rec.		8260B	03/23/11	1
4-Bromofluorobenzene	91.6			% Rec.		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)  
 Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-8  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 14:25

ESC Sample # : L507407-08

Site ID : 8099 S. COLISEUM WAY O

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrate	U	41.	100	ug/l		9056	03/23/11	1
Sulfate	13000	460	5000	ug/l		9056	03/23/11	1
Alkalinity	200000	3000	20000	ug/l		2320B	03/30/11	1
Ferrous Iron	5300	59.	250	ug/l	T8	3500Fe-	03/23/11	5
Phosphorus, Total	360	26.	100	ug/l		365.1	03/29/11	1
TPH (GC/FID) Low Fraction	U	40.	100	ug/l		8015D/G	03/23/11	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	91.4			% Rec.		8015D/G	03/23/11	1
Diesel Range Organics California								
C10-C22 Hydrocarbons	400	9.7	100	ug/l	Y1	8015	03/28/11	1
C22-C32 Hydrocarbons	120	33.	100	ug/l	Y1	8015	03/28/11	1
C32-C40 Hydrocarbons	U	33.	100	ug/l	Y1	8015	03/28/11	1
Surrogate Recovery o-Terphenyl	74.2			% Rec.		8015	03/28/11	1
Oxygenates								
Acetone	U	16.	50.	ug/l		8260B	03/23/11	1
Benzene	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromodichloromethane	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromoform	U	0.37	1.0	ug/l		8260B	03/23/11	1
Bromomethane	U	1.6	5.0	ug/l		8260B	03/23/11	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	03/23/11	1
Carbon tetrachloride	U	0.20	1.0	ug/l		8260B	03/23/11	1
Chlorobenzene	U	0.30	1.0	ug/l		8260B	03/23/11	1
Chloroethane	U	0.87	5.0	ug/l		8260B	03/23/11	1
Chloroform	U	0.27	5.0	ug/l		8260B	03/23/11	1
Cyclohexane	U	0.36	1.0	ug/l		8260B	03/23/11	1
1,2-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,3-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,4-Dichlorobenzene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethene	U	0.41	1.0	ug/l		8260B	03/23/11	1
cis-1,2-Dichloroethene	U	0.34	1.	ug/l		8260B	03/23/11	1
trans-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloropropane	U	0.39	1.0	ug/l		8260B	03/23/11	1
1,3-Dichloropropane	U	0.28	1.0	ug/l		8260B	03/23/11	1
cis-1,3-Dichloropropene	U	0.25	1.	ug/l		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)

Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-8  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 14:25

ESC Sample # : L507407-08

Site ID : 8099 S. COLISEUM WAY O

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,3-Dichloropropene	U	0.24	1.0	ug/l		8260B	03/23/11	1
Ethylbenzene	U	0.22	1.0	ug/l		8260B	03/23/11	1
Hexachloro-1,3-butadiene	U	0.38	1.0	ug/l		8260B	03/23/11	1
n-Hexane	U	0.39	10.	ug/l		8260B	03/23/11	1
Isopropylbenzene	U	0.20	1.0	ug/l		8260B	03/23/11	1
2-Butanone (MEK)	U	3.4	10.	ug/l		8260B	03/23/11	1
Methylene Chloride	U	0.91	5.0	ug/l		8260B	03/23/11	1
4-Methyl-2-pentanone (MIBK)	U	1.7	10.	ug/l		8260B	03/23/11	1
Methyl tert-butyl ether	U	0.63	1.0	ug/l		8260B	03/23/11	1
Naphthalene	U	0.98	5.0	ug/l		8260B	03/23/11	1
Styrene	U	0.24	1.0	ug/l		8260B	03/23/11	1
1,1,1,2-Tetrachloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,1,2,2-Tetrachloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
Tetrachloroethene	U	0.32	1.0	ug/l		8260B	03/23/11	1
Toluene	U	0.32	5.0	ug/l		8260B	03/23/11	1
1,2,3-Trichlorobenzene	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trichlorobenzene	U	0.35	1.0	ug/l		8260B	03/23/11	1
1,1,1-Trichloroethane	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1,2-Trichloroethane	U	0.29	1.0	ug/l		8260B	03/23/11	1
Trichloroethene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trimethylbenzene	U	0.18	1.0	ug/l		8260B	03/23/11	1
1,3,5-Trimethylbenzene	U	0.33	1.0	ug/l		8260B	03/23/11	1
Vinyl acetate	U	4.0	1.0	ug/l		8260B	03/23/11	1
Vinyl chloride	U	0.34	1.0	ug/l		8260B	03/23/11	1
Xylenes, Total	U	0.86	3.0	ug/l		8260B	03/23/11	1
Volatile Organics								
Di-isopropyl ether	U	0.26	1.0	ug/l		8260B	03/23/11	1
Ethanol	U	12.	100	ug/l		8260B	03/23/11	1
3,3-Dimethyl-1-butanol	U	4.6	100	ug/l		8260B	03/23/11	1
Ethyl tert-butyl ether	U	0.099	1.0	ug/l		8260B	03/23/11	1
t-Amyl Alcohol	U	1.4	5.0	ug/l		8260B	03/23/11	1
tert-Butyl alcohol	U	1.5	50.	ug/l		8260B	03/23/11	1
tert-Butyl Formate	U	2.7	20.	ug/l		8260B	03/23/11	1
tert-Amyl Methyl Ether	U	0.085	1.0	ug/l		8260B	03/23/11	1
Surrogate Recovery								
Toluene-d8		99.5		% Rec.		8260B	03/23/11	1
Dibromofluoromethane		117.		% Rec.		8260B	03/23/11	1
4-Bromofluorobenzene		94.8		% Rec.		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)  
 Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-9  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 11:30

ESC Sample # : L507407-09  
 Site ID : 8099 S. COLISEUM WAY O  
 Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrate	U	41.	100	ug/l		9056	03/23/11	1
Sulfate	140000	930	10000	ug/l		9056	03/24/11	2
Alkalinity	910000	30000	200000	ug/l		2320B	03/30/11	10
Ferrous Iron	7900	59.	250	ug/l	T8	3500Fe-	03/23/11	5
Phosphorus, Total	5900	52.	200	ug/l		365.1	03/29/11	2
TPH (GC/FID) Low Fraction	U	40.	100	ug/l		8015D/G	03/23/11	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	92.9			% Rec.		8015D/G	03/23/11	1
Diesel Range Organics California								
C10-C22 Hydrocarbons	480	9.7	100	ug/l	Y1	8015	03/28/11	1
C22-C32 Hydrocarbons	220	33.	100	ug/l	Y1	8015	03/28/11	1
C32-C40 Hydrocarbons	U	33.	100	ug/l	Y1	8015	03/28/11	1
Surrogate Recovery o-Terphenyl	70.3			% Rec.		8015	03/28/11	1
Oxygenates								
Acetone	U	16.	50.	ug/l		8260B	03/23/11	1
Benzene	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromodichloromethane	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromoform	U	0.37	1.0	ug/l		8260B	03/23/11	1
Bromomethane	U	1.6	5.0	ug/l		8260B	03/23/11	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	03/23/11	1
Carbon tetrachloride	U	0.20	1.0	ug/l		8260B	03/23/11	1
Chlorobenzene	U	0.30	1.0	ug/l		8260B	03/23/11	1
Chloroethane	U	0.87	5.0	ug/l		8260B	03/23/11	1
Chloroform	U	0.27	5.0	ug/l		8260B	03/23/11	1
Cyclohexane	U	0.36	1.0	ug/l		8260B	03/23/11	1
1,2-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,3-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,4-Dichlorobenzene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethene	U	0.41	1.0	ug/l		8260B	03/23/11	1
cis-1,2-Dichloroethene	U	0.34	1.	ug/l		8260B	03/23/11	1
trans-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloropropane	U	0.39	1.0	ug/l		8260B	03/23/11	1
1,3-Dichloropropane	U	0.28	1.0	ug/l		8260B	03/23/11	1
cis-1,3-Dichloropropene	U	0.25	1.	ug/l		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)

Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-9  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 11:30

ESC Sample # : L507407-09

Site ID : 8099 S. COLISEUM WAY O

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,3-Dichloropropene	U	0.24	1.0	ug/l		8260B	03/23/11	1
Ethylbenzene	U	0.22	1.0	ug/l		8260B	03/23/11	1
Hexachloro-1,3-butadiene	U	0.38	1.0	ug/l		8260B	03/23/11	1
n-Hexane	U	0.39	10.	ug/l		8260B	03/23/11	1
Isopropylbenzene	U	0.20	1.0	ug/l		8260B	03/23/11	1
2-Butanone (MEK)	U	3.4	10.	ug/l		8260B	03/23/11	1
Methylene Chloride	U	0.91	5.0	ug/l		8260B	03/23/11	1
4-Methyl-2-pentanone (MIBK)	U	1.7	10.	ug/l		8260B	03/23/11	1
Methyl tert-butyl ether	U	0.63	1.0	ug/l		8260B	03/23/11	1
Naphthalene	U	0.98	5.0	ug/l		8260B	03/23/11	1
Styrene	U	0.24	1.0	ug/l		8260B	03/23/11	1
1,1,1,2-Tetrachloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,1,2,2-Tetrachloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
Tetrachloroethene	U	0.32	1.0	ug/l		8260B	03/23/11	1
Toluene	U	0.32	5.0	ug/l		8260B	03/23/11	1
1,2,3-Trichlorobenzene	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trichlorobenzene	U	0.35	1.0	ug/l		8260B	03/23/11	1
1,1,1-Trichloroethane	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1,2-Trichloroethane	U	0.29	1.0	ug/l		8260B	03/23/11	1
Trichloroethene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trimethylbenzene	U	0.18	1.0	ug/l		8260B	03/23/11	1
1,3,5-Trimethylbenzene	U	0.33	1.0	ug/l		8260B	03/23/11	1
Vinyl acetate	U	4.0	1.0	ug/l		8260B	03/23/11	1
Vinyl chloride	U	0.34	1.0	ug/l		8260B	03/23/11	1
Xylenes, Total	U	0.86	3.0	ug/l		8260B	03/23/11	1
Volatile Organics								
Di-isopropyl ether	U	0.26	1.0	ug/l		8260B	03/23/11	1
Ethanol	U	12.	100	ug/l		8260B	03/23/11	1
3,3-Dimethyl-1-butanol	U	4.6	100	ug/l		8260B	03/23/11	1
Ethyl tert-butyl ether	U	0.099	1.0	ug/l		8260B	03/23/11	1
t-Amyl Alcohol	U	1.4	5.0	ug/l		8260B	03/23/11	1
tert-Butyl alcohol	U	1.5	50.	ug/l		8260B	03/23/11	1
tert-Butyl Formate	U	2.7	20.	ug/l		8260B	03/23/11	1
tert-Amyl Methyl Ether	U	0.085	1.0	ug/l		8260B	03/23/11	1
Surrogate Recovery								
Toluene-d8		100.		% Rec.		8260B	03/23/11	1
Dibromofluoromethane		117.		% Rec.		8260B	03/23/11	1
4-Bromofluorobenzene		93.6		% Rec.		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)  
 Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-10  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 08:50

ESC Sample # : L507407-10  
 Site ID : 8099 S. COLISEUM WAY O  
 Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrate	U	41.	100	ug/l	T8	9056	03/23/11	1
Sulfate	170000	2300	25000	ug/l		9056	03/24/11	5
Alkalinity	820000	30000	200000	ug/l		2320B	03/30/11	10
Ferrous Iron	8300	59.	250	ug/l	T8	3500Fe-	03/23/11	5
Phosphorus, Total	5000	26.	100	ug/l		365.1	03/29/11	1
TPH (GC/FID) Low Fraction	U	40.	100	ug/l		8015D/G	03/23/11	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	92.6			% Rec.		8015D/G	03/23/11	1
Diesel Range Organics California								
C10-C22 Hydrocarbons	210	9.7	100	ug/l	Y1	8015	03/28/11	1
C22-C32 Hydrocarbons	110	33.	100	ug/l	Y1	8015	03/28/11	1
C32-C40 Hydrocarbons	U	33.	100	ug/l	Y1	8015	03/28/11	1
Surrogate Recovery o-Terphenyl	75.1			% Rec.		8015	03/28/11	1
Oxygenates								
Acetone	U	16.	50.	ug/l		8260B	03/23/11	1
Benzene	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromodichloromethane	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromoform	U	0.37	1.0	ug/l		8260B	03/23/11	1
Bromomethane	U	1.6	5.0	ug/l		8260B	03/23/11	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	03/23/11	1
Carbon tetrachloride	U	0.20	1.0	ug/l		8260B	03/23/11	1
Chlorobenzene	U	0.30	1.0	ug/l		8260B	03/23/11	1
Chloroethane	U	0.87	5.0	ug/l		8260B	03/23/11	1
Chloroform	U	0.27	5.0	ug/l		8260B	03/23/11	1
Cyclohexane	U	0.36	1.0	ug/l		8260B	03/23/11	1
1,2-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,3-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,4-Dichlorobenzene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethene	U	0.41	1.0	ug/l		8260B	03/23/11	1
cis-1,2-Dichloroethene	U	0.34	1.	ug/l		8260B	03/23/11	1
trans-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloropropane	U	0.39	1.0	ug/l		8260B	03/23/11	1
1,3-Dichloropropane	U	0.28	1.0	ug/l		8260B	03/23/11	1
cis-1,3-Dichloropropene	U	0.25	1.	ug/l		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)

Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-10  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 08:50

ESC Sample # : L507407-10

Site ID : 8099 S. COLISEUM WAY O

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,3-Dichloropropene	U	0.24	1.0	ug/l		8260B	03/23/11	1
Ethylbenzene	U	0.22	1.0	ug/l		8260B	03/23/11	1
Hexachloro-1,3-butadiene	U	0.38	1.0	ug/l		8260B	03/23/11	1
n-Hexane	U	0.39	10.	ug/l		8260B	03/23/11	1
Isopropylbenzene	U	0.20	1.0	ug/l		8260B	03/23/11	1
2-Butanone (MEK)	U	3.4	10.	ug/l		8260B	03/23/11	1
Methylene Chloride	U	0.91	5.0	ug/l		8260B	03/23/11	1
4-Methyl-2-pentanone (MIBK)	U	1.7	10.	ug/l		8260B	03/23/11	1
Methyl tert-butyl ether	U	0.63	1.0	ug/l		8260B	03/23/11	1
Naphthalene	U	0.98	5.0	ug/l		8260B	03/23/11	1
Styrene	U	0.24	1.0	ug/l		8260B	03/23/11	1
1,1,1,2-Tetrachloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,1,2,2-Tetrachloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
Tetrachloroethene	U	0.32	1.0	ug/l		8260B	03/23/11	1
Toluene	U	0.32	5.0	ug/l		8260B	03/23/11	1
1,2,3-Trichlorobenzene	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trichlorobenzene	U	0.35	1.0	ug/l		8260B	03/23/11	1
1,1,1-Trichloroethane	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1,2-Trichloroethane	U	0.29	1.0	ug/l		8260B	03/23/11	1
Trichloroethene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trimethylbenzene	U	0.18	1.0	ug/l		8260B	03/23/11	1
1,3,5-Trimethylbenzene	U	0.33	1.0	ug/l		8260B	03/23/11	1
Vinyl acetate	U	4.0	1.0	ug/l		8260B	03/23/11	1
Vinyl chloride	U	0.34	1.0	ug/l		8260B	03/23/11	1
Xylenes, Total	U	0.86	3.0	ug/l		8260B	03/23/11	1
Volatile Organics								
Di-isopropyl ether	U	0.26	1.0	ug/l		8260B	03/23/11	1
Ethanol	U	12.	100	ug/l		8260B	03/23/11	1
3,3-Dimethyl-1-butanol	U	4.6	100	ug/l		8260B	03/23/11	1
Ethyl tert-butyl ether	U	0.099	1.0	ug/l		8260B	03/23/11	1
t-Amyl Alcohol	U	1.4	5.0	ug/l		8260B	03/23/11	1
tert-Butyl alcohol	U	1.5	50.	ug/l		8260B	03/23/11	1
tert-Butyl Formate	U	2.7	20.	ug/l		8260B	03/23/11	1
tert-Amyl Methyl Ether	U	0.085	1.0	ug/l		8260B	03/23/11	1
Surrogate Recovery								
Toluene-d8	100.			% Rec.		8260B	03/23/11	1
Dibromofluoromethane	121.			% Rec.		8260B	03/23/11	1
4-Bromofluorobenzene	91.4			% Rec.		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)  
 Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : MW-11  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 09:40

ESC Sample # : L507407-11  
 Site ID : 8099 S. COLISEUM WAY O  
 Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrate	200	41.	100	ug/l	T8	9056	03/23/11	1
Sulfate	260000	2300	25000	ug/l		9056	03/24/11	5
Alkalinity	780000	30000	200000	ug/l		2320B	03/30/11	10
Ferrous Iron	7500	59.	250	ug/l	T8	3500Fe-	03/23/11	5
Phosphorus, Total	4500	26.	100	ug/l		365.1	03/29/11	1
TPH (GC/FID) Low Fraction	U	40.	100	ug/l		8015D/G	03/23/11	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	92.9			% Rec.		8015D/G	03/23/11	1
Diesel Range Organics California								
C10-C22 Hydrocarbons	200	9.7	100	ug/l	Y1	8015	03/28/11	1
C22-C32 Hydrocarbons	180	33.	100	ug/l	Y1	8015	03/28/11	1
C32-C40 Hydrocarbons	U	33.	100	ug/l	Y1	8015	03/28/11	1
Surrogate Recovery o-Terphenyl	75.7			% Rec.		8015	03/28/11	1
Oxygenates								
Acetone	U	16.	50.	ug/l		8260B	03/23/11	1
Benzene	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromodichloromethane	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromoform	U	0.37	1.0	ug/l		8260B	03/23/11	1
Bromomethane	U	1.6	5.0	ug/l		8260B	03/23/11	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	03/23/11	1
Carbon tetrachloride	U	0.20	1.0	ug/l		8260B	03/23/11	1
Chlorobenzene	U	0.30	1.0	ug/l		8260B	03/23/11	1
Chloroethane	U	0.87	5.0	ug/l		8260B	03/23/11	1
Chloroform	U	0.27	5.0	ug/l		8260B	03/23/11	1
Cyclohexane	U	0.36	1.0	ug/l		8260B	03/23/11	1
1,2-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,3-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,4-Dichlorobenzene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethene	U	0.41	1.0	ug/l		8260B	03/23/11	1
cis-1,2-Dichloroethene	U	0.34	1.	ug/l		8260B	03/23/11	1
trans-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloropropane	U	0.39	1.0	ug/l		8260B	03/23/11	1
1,3-Dichloropropane	U	0.28	1.0	ug/l		8260B	03/23/11	1
cis-1,3-Dichloropropene	U	0.25	1.	ug/l		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)

Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24





12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center

ESC Sample # : L507407-11

Sample ID : MW-11

Site ID : 8099 S. COLISEUM WAY O

Collected By : Karl Johnson  
 Collection Date : 03/21/11 09:40

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,3-Dichloropropene	U	0.24	1.0	ug/l		8260B	03/23/11	1
Ethylbenzene	U	0.22	1.0	ug/l		8260B	03/23/11	1
Hexachloro-1,3-butadiene	U	0.38	1.0	ug/l		8260B	03/23/11	1
n-Hexane	U	0.39	10.	ug/l		8260B	03/23/11	1
Isopropylbenzene	U	0.20	1.0	ug/l		8260B	03/23/11	1
2-Butanone (MEK)	U	3.4	10.	ug/l		8260B	03/23/11	1
Methylene Chloride	U	0.91	5.0	ug/l		8260B	03/23/11	1
4-Methyl-2-pentanone (MIBK)	U	1.7	10.	ug/l		8260B	03/23/11	1
Methyl tert-butyl ether	U	0.63	1.0	ug/l		8260B	03/23/11	1
Naphthalene	U	0.98	5.0	ug/l		8260B	03/23/11	1
Styrene	U	0.24	1.0	ug/l		8260B	03/23/11	1
1,1,1,2-Tetrachloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,1,2,2-Tetrachloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
Tetrachloroethene	U	0.32	1.0	ug/l		8260B	03/23/11	1
Toluene	U	0.32	5.0	ug/l		8260B	03/23/11	1
1,2,3-Trichlorobenzene	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trichlorobenzene	U	0.35	1.0	ug/l		8260B	03/23/11	1
1,1,1-Trichloroethane	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1,2-Trichloroethane	U	0.29	1.0	ug/l		8260B	03/23/11	1
Trichloroethene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trimethylbenzene	U	0.18	1.0	ug/l		8260B	03/23/11	1
1,3,5-Trimethylbenzene	U	0.33	1.0	ug/l		8260B	03/23/11	1
Vinyl acetate	U	4.0	1.0	ug/l		8260B	03/23/11	1
Vinyl chloride	U	0.34	1.0	ug/l		8260B	03/23/11	1
Xylenes, Total	U	0.86	3.0	ug/l		8260B	03/23/11	1
Volatile Organics								
Di-isopropyl ether	U	0.26	1.0	ug/l		8260B	03/23/11	1
Ethanol	U	12.	100	ug/l		8260B	03/23/11	1
3,3-Dimethyl-1-butanol	U	4.6	100	ug/l		8260B	03/23/11	1
Ethyl tert-butyl ether	U	0.099	1.0	ug/l		8260B	03/23/11	1
t-Amyl Alcohol	U	1.4	5.0	ug/l		8260B	03/23/11	1
tert-Butyl alcohol	U	1.5	50.	ug/l		8260B	03/23/11	1
tert-Butyl Formate	U	2.7	20.	ug/l		8260B	03/23/11	1
tert-Amyl Methyl Ether	U	0.085	1.0	ug/l		8260B	03/23/11	1
Surrogate Recovery								
Toluene-d8	99.8			% Rec.		8260B	03/23/11	1
Dibromofluoromethane	118.			% Rec.		8260B	03/23/11	1
4-Bromofluorobenzene	91.3			% Rec.		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)

Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : DUP  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 00:00

ESC Sample # : L507407-12

Site ID : 8099 S. COLISEUM WAY O

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Nitrate	U	41.	100	ug/l	T8	9056	03/23/11	1
Sulfate	U	460	5000	ug/l		9056	03/23/11	1
Alkalinity	1000000	30000	200000	ug/l		2320B	03/30/11	10
Ferrous Iron	39000	590	2500	ug/l	T8	3500Fe-	03/23/11	50
Phosphorus, Total	2100	26.	100	ug/l		365.1	03/29/11	1
TPH (GC/FID) Low Fraction	U	40.	100	ug/l		8015D/G	03/23/11	1
Surrogate Recovery-% a,a,a-Trifluorotoluene(FID)	94.2			% Rec.		8015D/G	03/23/11	1
Diesel Range Organics California								
C10-C22 Hydrocarbons	2500	9.7	100	ug/l	Y1	8015	03/28/11	1
C22-C32 Hydrocarbons	880	33.	100	ug/l	Y1	8015	03/28/11	1
C32-C40 Hydrocarbons	140	33.	100	ug/l	Y1	8015	03/28/11	1
Surrogate Recovery o-Terphenyl	78.5			% Rec.		8015	03/28/11	1
Oxygenates								
Acetone	U	16.	50.	ug/l		8260B	03/23/11	1
Benzene	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromodichloromethane	U	0.23	1.0	ug/l		8260B	03/23/11	1
Bromoform	U	0.37	1.0	ug/l		8260B	03/23/11	1
Bromomethane	U	1.6	5.0	ug/l		8260B	03/23/11	1
Carbon disulfide	U	0.28	1.0	ug/l		8260B	03/23/11	1
Carbon tetrachloride	U	0.20	1.0	ug/l		8260B	03/23/11	1
Chlorobenzene	U	0.30	1.0	ug/l		8260B	03/23/11	1
Chloroethane	U	0.87	5.0	ug/l		8260B	03/23/11	1
Chloroform	U	0.27	5.0	ug/l		8260B	03/23/11	1
Cyclohexane	U	0.36	1.0	ug/l		8260B	03/23/11	1
1,2-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,3-Dichlorobenzene	U	0.29	1.0	ug/l		8260B	03/23/11	1
1,4-Dichlorobenzene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
1,1-Dichloroethene	U	0.41	1.0	ug/l		8260B	03/23/11	1
cis-1,2-Dichloroethene	U	0.34	1.	ug/l		8260B	03/23/11	1
trans-1,2-Dichloroethene	U	0.26	1.0	ug/l		8260B	03/23/11	1
1,2-Dichloropropane	U	0.39	1.0	ug/l		8260B	03/23/11	1
1,3-Dichloropropane	U	0.28	1.0	ug/l		8260B	03/23/11	1
cis-1,3-Dichloropropene	U	0.25	1.	ug/l		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)

Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Holly M. Burger, Debra Hagerty  
 ARCADIS U.S. GMC  
 10559 Citation Dr, Ste 100  
 Brighton, MI 48116

March 30, 2011

Date Received : March 23, 2011  
 Description : Oakland Truck Center  
 Sample ID : DUP  
 Collected By : Karl Johnson  
 Collection Date : 03/21/11 00:00

ESC Sample # : L507407-12

Site ID : 8099 S. COLISEUM WAY O

Project # : B0064601.0000.00007

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
trans-1,3-Dichloropropene	U	0.24	1.0	ug/l		8260B	03/23/11	1
Ethylbenzene	U	0.22	1.0	ug/l		8260B	03/23/11	1
Hexachloro-1,3-butadiene	U	0.38	1.0	ug/l		8260B	03/23/11	1
n-Hexane	U	0.39	10.	ug/l		8260B	03/23/11	1
Isopropylbenzene	U	0.20	1.0	ug/l		8260B	03/23/11	1
2-Butanone (MEK)	U	3.4	10.	ug/l		8260B	03/23/11	1
Methylene Chloride	U	0.91	5.0	ug/l		8260B	03/23/11	1
4-Methyl-2-pentanone (MIBK)	U	1.7	10.	ug/l		8260B	03/23/11	1
Methyl tert-butyl ether	8.1	0.63	1.0	ug/l		8260B	03/23/11	1
Naphthalene	U	0.98	5.0	ug/l		8260B	03/23/11	1
Styrene	U	0.24	1.0	ug/l		8260B	03/23/11	1
1,1,1,2-Tetrachloroethane	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,1,2,2-Tetrachloroethane	U	0.25	1.0	ug/l		8260B	03/23/11	1
Tetrachloroethene	U	0.32	1.0	ug/l		8260B	03/23/11	1
Toluene	U	0.32	5.0	ug/l		8260B	03/23/11	1
1,2,3-Trichlorobenzene	U	0.32	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trichlorobenzene	U	0.35	1.0	ug/l		8260B	03/23/11	1
1,1,1-Trichloroethane	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,1,2-Trichloroethane	U	0.29	1.0	ug/l		8260B	03/23/11	1
Trichloroethene	U	0.31	1.0	ug/l		8260B	03/23/11	1
1,2,4-Trimethylbenzene	U	0.18	1.0	ug/l		8260B	03/23/11	1
1,3,5-Trimethylbenzene	U	0.33	1.0	ug/l		8260B	03/23/11	1
Vinyl acetate	U	4.0	1.0	ug/l		8260B	03/23/11	1
Vinyl chloride	U	0.34	1.0	ug/l		8260B	03/23/11	1
Xylenes, Total	U	0.86	3.0	ug/l		8260B	03/23/11	1
Volatile Organics								
Di-isopropyl ether	U	0.26	1.0	ug/l		8260B	03/23/11	1
Ethanol	U	12.	100	ug/l		8260B	03/23/11	1
3,3-Dimethyl-1-butanol	U	4.6	100	ug/l		8260B	03/23/11	1
Ethyl tert-butyl ether	U	0.099	1.0	ug/l		8260B	03/23/11	1
t-Amyl Alcohol	U	1.4	5.0	ug/l		8260B	03/23/11	1
tert-Butyl alcohol	U	1.5	50.	ug/l		8260B	03/23/11	1
tert-Butyl Formate	U	2.7	20.	ug/l		8260B	03/23/11	1
tert-Amyl Methyl Ether	U	0.085	1.0	ug/l		8260B	03/23/11	1
Surrogate Recovery								
Toluene-d8	99.8			% Rec.		8260B	03/23/11	1
Dibromofluoromethane	119.			% Rec.		8260B	03/23/11	1
4-Bromofluorobenzene	88.9			% Rec.		8260B	03/23/11	1

U = ND (Not Detected)  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
 MDL = Minimum Detection Limit = LOD = SQL(TRRP)  
 Note:

The reported analytical results relate only to the sample submitted.  
 This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/30/11 17:23 Printed: 03/30/11 17:24

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L507407-01	WG527467	SAMP	C10-C22 Hydrocarbons	R1627309	Y1
	WG527467	SAMP	C22-C32 Hydrocarbons	R1627309	Y1
	WG527467	SAMP	C32-C40 Hydrocarbons	R1627309	Y1
L507407-02	WG527464	SAMP	Ferrous Iron	R1622809	T8
	WG527467	SAMP	C10-C22 Hydrocarbons	R1627309	Y1
	WG527467	SAMP	C22-C32 Hydrocarbons	R1627309	Y1
L507407-03	WG527467	SAMP	C32-C40 Hydrocarbons	R1627309	Y1
	WG527464	SAMP	Ferrous Iron	R1622809	T8
	WG527467	SAMP	C10-C22 Hydrocarbons	R1627309	Y1
L507407-04	WG527467	SAMP	C22-C32 Hydrocarbons	R1627309	Y1
	WG527467	SAMP	C32-C40 Hydrocarbons	R1627309	Y1
	WG527464	SAMP	Ferrous Iron	R1622809	T8
L507407-05	WG527467	SAMP	C10-C22 Hydrocarbons	R1627309	Y1
	WG527467	SAMP	C22-C32 Hydrocarbons	R1627309	Y1
	WG527467	SAMP	C32-C40 Hydrocarbons	R1627309	Y1
L507407-06	WG527464	SAMP	Ferrous Iron	R1622809	T8
	WG527467	SAMP	C10-C22 Hydrocarbons	R1627309	Y1
	WG527467	SAMP	C22-C32 Hydrocarbons	R1627309	Y1
L507407-07	WG527467	SAMP	C32-C40 Hydrocarbons	R1627309	Y1
	WG527401	SAMP	tert-Butyl alcohol	R1624416	J
	WG527464	SAMP	Ferrous Iron	R1622809	T8
L507407-08	WG527467	SAMP	C10-C22 Hydrocarbons	R1627309	Y1
	WG527467	SAMP	C22-C32 Hydrocarbons	R1627309	Y1
	WG527467	SAMP	C32-C40 Hydrocarbons	R1627309	Y1
L507407-09	WG527464	SAMP	Ferrous Iron	R1622809	T8
	WG527467	SAMP	C10-C22 Hydrocarbons	R1627309	Y1
	WG527467	SAMP	C22-C32 Hydrocarbons	R1627309	Y1
L507407-10	WG527467	SAMP	C32-C40 Hydrocarbons	R1627309	Y1
	WG527464	SAMP	Ferrous Iron	R1622809	T8
	WG527377	SAMP	Nitrate	R1623283	T8
L507407-11	WG527467	SAMP	C10-C22 Hydrocarbons	R1627309	Y1
	WG527467	SAMP	C22-C32 Hydrocarbons	R1627309	Y1
	WG527467	SAMP	C32-C40 Hydrocarbons	R1627309	Y1
L507407-12	WG527464	SAMP	Ferrous Iron	R1622809	T8
	WG527377	SAMP	Nitrate	R1623283	T8
	WG527467	SAMP	C10-C22 Hydrocarbons	R1627309	Y1
	WG527467	SAMP	C22-C32 Hydrocarbons	R1627309	Y1
	WG527467	SAMP	C32-C40 Hydrocarbons	R1627309	Y1
	WG527464	SAMP	Ferrous Iron	R1622809	T8

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
Y1	This sample most closely matches the laboratory standard for Diesel
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

**Accuracy** - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

**Precision** - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

**Surrogate** - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

**TIC** - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed  
03/30/11 at 17:24:34

TSR Signing Reports: 341  
R5 - Desired TAT

Sample: L507407-01 Account: ARCABMI Received: 03/23/11 08:45 Due Date: 03/30/11 00:00 RPT Date: 03/30/11 17:23  
EDD = California GeoTracker  
Sample: L507407-02 Account: ARCABMI Received: 03/23/11 08:45 Due Date: 03/30/11 00:00 RPT Date: 03/30/11 17:23  
EDD = California GeoTracker  
Sample: L507407-03 Account: ARCABMI Received: 03/23/11 08:45 Due Date: 03/30/11 00:00 RPT Date: 03/30/11 17:23  
EDD = California GeoTracker  
Sample: L507407-04 Account: ARCABMI Received: 03/23/11 08:45 Due Date: 03/30/11 00:00 RPT Date: 03/30/11 17:23  
EDD = California GeoTracker  
Sample: L507407-05 Account: ARCABMI Received: 03/23/11 08:45 Due Date: 03/30/11 00:00 RPT Date: 03/30/11 17:23  
EDD = California GeoTracker  
Sample: L507407-06 Account: ARCABMI Received: 03/23/11 08:45 Due Date: 03/30/11 00:00 RPT Date: 03/30/11 17:23  
EDD = California GeoTracker  
Sample: L507407-07 Account: ARCABMI Received: 03/23/11 08:45 Due Date: 03/30/11 00:00 RPT Date: 03/30/11 17:23  
EDD = California GeoTracker  
Sample: L507407-08 Account: ARCABMI Received: 03/23/11 08:45 Due Date: 03/30/11 00:00 RPT Date: 03/30/11 17:23  
EDD = California GeoTracker  
Sample: L507407-09 Account: ARCABMI Received: 03/23/11 08:45 Due Date: 03/30/11 00:00 RPT Date: 03/30/11 17:23  
EDD = California GeoTracker  
Sample: L507407-10 Account: ARCABMI Received: 03/23/11 08:45 Due Date: 03/30/11 00:00 RPT Date: 03/30/11 17:23  
EDD = California GeoTracker  
Sample: L507407-11 Account: ARCABMI Received: 03/23/11 08:45 Due Date: 03/30/11 00:00 RPT Date: 03/30/11 17:23  
EDD = California GeoTracker  
Sample: L507407-12 Account: ARCABMI Received: 03/23/11 08:45 Due Date: 03/30/11 00:00 RPT Date: 03/30/11 17:23  
EDD = California GeoTracker



**YOUR LAB OF CHOICE**

ARCADIS U.S. GMC  
 Holly M. Burger, Debra Hagerty  
 10559 Citation Dr, Ste 100

Brighton, MI 48116

Quality Assurance Report  
 Level II

L507407

12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

March 30, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Ferrous Iron	< .05	mg/l			WG527464	03/23/11 16:17
Nitrate	< .1	mg/l			WG527377	03/23/11 08:23
Sulfate	< 5	mg/l			WG527377	03/23/11 08:23
Nitrate	< .1	mg/l			WG527378	03/23/11 08:20
Sulfate	< 5	mg/l			WG527378	03/23/11 08:20
TPH (GC/FID) Low Fraction	< .1	mg/l			WG527434	03/23/11 14:39
a,a,a-Trifluorotoluene(FID)		% Rec.	94.93	62-128	WG527434	03/23/11 14:39
1,1,1,2-Tetrachloroethane	< .001	mg/l			WG527401	03/23/11 13:39
1,1,1-Trichloroethane	< .001	mg/l			WG527401	03/23/11 13:39
1,1,2,2-Tetrachloroethane	< .001	mg/l			WG527401	03/23/11 13:39
1,1,2-Trichloroethane	< .001	mg/l			WG527401	03/23/11 13:39
1,1-Dichloroethane	< .001	mg/l			WG527401	03/23/11 13:39
1,1-Dichloroethene	< .001	mg/l			WG527401	03/23/11 13:39
1,2,3-Trichlorobenzene	< .001	mg/l			WG527401	03/23/11 13:39
1,2,4-Trichlorobenzene	< .001	mg/l			WG527401	03/23/11 13:39
1,2,4-Trimethylbenzene	< .001	mg/l			WG527401	03/23/11 13:39
1,2-Dichlorobenzene	< .001	mg/l			WG527401	03/23/11 13:39
1,2-Dichloroethane	< .001	mg/l			WG527401	03/23/11 13:39
1,2-Dichloropropane	< .001	mg/l			WG527401	03/23/11 13:39
1,3,5-Trimethylbenzene	< .001	mg/l			WG527401	03/23/11 13:39
1,3-Dichlorobenzene	< .001	mg/l			WG527401	03/23/11 13:39
1,3-Dichloropropane	< .001	mg/l			WG527401	03/23/11 13:39
1,4-Dichlorobenzene	< .001	mg/l			WG527401	03/23/11 13:39
2-Butanone (MEK)	< .01	mg/l			WG527401	03/23/11 13:39
4-Methyl-2-pentanone (MIBK)	< .01	mg/l			WG527401	03/23/11 13:39
Acetone	< .05	mg/l			WG527401	03/23/11 13:39
Benzene	< .001	mg/l			WG527401	03/23/11 13:39
Bromodichloromethane	< .001	mg/l			WG527401	03/23/11 13:39
Bromoform	< .001	mg/l			WG527401	03/23/11 13:39
Bromomethane	< .005	mg/l			WG527401	03/23/11 13:39
Carbon disulfide	< .001	mg/l			WG527401	03/23/11 13:39
Carbon tetrachloride	< .001	mg/l			WG527401	03/23/11 13:39
Chlorobenzene	< .001	mg/l			WG527401	03/23/11 13:39
Chloroethane	< .005	mg/l			WG527401	03/23/11 13:39
Chloroform	< .005	mg/l			WG527401	03/23/11 13:39
cis-1,2-Dichloroethene	< .001	mg/l			WG527401	03/23/11 13:39
cis-1,3-Dichloropropene	< .001	mg/l			WG527401	03/23/11 13:39
Cyclohexane	< .001	mg/l			WG527401	03/23/11 13:39
Di-isopropyl ether	< .001	mg/l			WG527401	03/23/11 13:39
Ethyl tert-butyl ether	< .001	mg/l			WG527401	03/23/11 13:39
Ethylbenzene	< .001	mg/l			WG527401	03/23/11 13:39
Hexachloro-1,3-butadiene	< .001	mg/l			WG527401	03/23/11 13:39
Isopropylbenzene	< .001	mg/l			WG527401	03/23/11 13:39
Methyl tert-butyl ether	< .001	mg/l			WG527401	03/23/11 13:39
Methylene Chloride	< .005	mg/l			WG527401	03/23/11 13:39
n-Hexane	< .01	mg/l			WG527401	03/23/11 13:39
Naphthalene	< .005	mg/l			WG527401	03/23/11 13:39
Styrene	< .001	mg/l			WG527401	03/23/11 13:39
tert-Amyl Methyl Ether	< .001	mg/l			WG527401	03/23/11 13:39
tert-Butyl alcohol	< .05	mg/l			WG527401	03/23/11 13:39
Tetrachloroethene	< .001	mg/l			WG527401	03/23/11 13:39

\* Performance of this Analyte is outside of established criteria.  
 For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



**YOUR LAB OF CHOICE**

ARCADIS U.S. GMC  
 Holly M. Burger, Debra Hagerty  
 10559 Citation Dr, Ste 100

Brighton, MI 48116

Quality Assurance Report  
 Level II

L507407

12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

March 30, 2011

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Toluene	< .005	mg/l			WG527401	03/23/11 13:39
trans-1,2-Dichloroethene	< .001	mg/l			WG527401	03/23/11 13:39
trans-1,3-Dichloropropene	< .001	mg/l			WG527401	03/23/11 13:39
Trichloroethene	< .001	mg/l			WG527401	03/23/11 13:39
Vinyl acetate	< .01	mg/l			WG527401	03/23/11 13:39
Vinyl chloride	< .001	mg/l			WG527401	03/23/11 13:39
Xylenes, Total	< .003	mg/l			WG527401	03/23/11 13:39
4-Bromofluorobenzene		% Rec.	94.42	75-128	WG527401	03/23/11 13:39
Dibromofluoromethane		% Rec.	106.6	79-125	WG527401	03/23/11 13:39
Toluene-d8		% Rec.	99.51	87-114	WG527401	03/23/11 13:39
Sulfate	< 5	mg/l			WG527603	03/24/11 06:49
Sulfate	< 5	mg/l			WG527681	03/24/11 18:22
cis-1,2-Dichloroethene	< .001	mg/l			WG527839	03/25/11 15:39
Trichloroethene	< .001	mg/l			WG527839	03/25/11 15:39
4-Bromofluorobenzene		% Rec.	108.3	75-128	WG527839	03/25/11 15:39
Dibromofluoromethane		% Rec.	95.76	79-125	WG527839	03/25/11 15:39
Toluene-d8		% Rec.	98.39	87-114	WG527839	03/25/11 15:39
Phosphorus, Total	< .1	mg/l			WG527484	03/28/11 09:22
C10-C22 Hydrocarbons	< .1	mg/l			WG527467	03/28/11 11:50
C22-C32 Hydrocarbons	< .1	mg/l			WG527467	03/28/11 11:50
C32-C40 Hydrocarbons	< .1	mg/l			WG527467	03/28/11 11:50
o-Terphenyl		% Rec.	78.51	50-150	WG527467	03/28/11 11:50
Phosphorus, Total	< .1	mg/l			WG527900	03/29/11 14:53
Alkalinity	< 20	mg/l			WG528495	03/30/11 08:59

Analyte	Units	Result	Duplicate		RPD	Limit	Ref Samp	Batch
			Duplicate					
Ferrous Iron	mg/l	1.10	1.10		0	20	L507407-02	WG527464
Ferrous Iron	mg/l	18.0	18.0		2.74	20	L507407-07	WG527464
Nitrate	mg/l	0	0		0	20	L507407-03	WG527377
Sulfate	mg/l	97.0	98.0		0.614	20	L507218-01	WG527378
Sulfate	mg/l	160.	150.		3.28	20	L507407-02	WG527603
Sulfate	mg/l	200.	190.		3.11	20	L507407-03	WG527681
Sulfate	mg/l	230.	233.		0	20	L507512-08	WG527681

\* Performance of this Analyte is outside of established criteria.  
 For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'





**YOUR LAB OF CHOICE**

ARCADIS U.S. GMC  
 Holly M. Burger, Debra Hagerty  
 10559 Citation Dr, Ste 100

Brighton, MI 48116

Quality Assurance Report  
 Level II

L507407

12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

March 30, 2011

Analyte	Units	Duplicate		RPD	Limit	Ref Samp	Batch
		Result	Duplicate				
Phosphorus, Total	mg/l	3.40	3.60	6.30	20	L507407-01	WG527484
Phosphorus, Total	mg/l	0	0	0	20	L507275-01	WG527484
Phosphorus, Total	mg/l	12.0	12.0	3.82	20	L507529-01	WG527900
Phosphorus, Total	mg/l	1.50	1.60	4.47	20	L507407-02	WG527900
Alkalinity	mg/l	200.	200.	0.501	20	L507539-02	WG528495
Alkalinity	mg/l	1900	1900	1.05	20	L507403-07	WG528495

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Ferrous Iron	mg/l	1	0.996	99.6	85-115	WG527464
Nitrate	mg/l	8	8.12	102.	90-110	WG527377
Sulfate	mg/l	40	40.0	100.	90-110	WG527377
Nitrate	mg/l	8	8.22	103.	90-110	WG527378
Sulfate	mg/l	40	39.5	98.8	90-110	WG527378
TPH (GC/FID) Low Fraction	mg/l	5.5	5.47	99.5	70-124	WG527434
a,a,a-Trifluorotoluene(FID)				98.91	62-128	WG527434
1,1,1,2-Tetrachloroethane	mg/l	.025	0.0261	104.	75-134	WG527401
1,1,1-Trichloroethane	mg/l	.025	0.0216	86.4	67-137	WG527401
1,1,2,2-Tetrachloroethane	mg/l	.025	0.0265	106.	72-128	WG527401
1,1,2-Trichloroethane	mg/l	.025	0.0267	107.	79-123	WG527401
1,1-Dichloroethane	mg/l	.025	0.0223	89.1	67-133	WG527401
1,1-Dichloroethene	mg/l	.025	0.0205	82.1	60-130	WG527401
1,2,3-Trichlorobenzene	mg/l	.025	0.0254	102.	63-138	WG527401
1,2,4-Trichlorobenzene	mg/l	.025	0.0245	98.1	65-137	WG527401
1,2,4-Trimethylbenzene	mg/l	.025	0.0251	100.	72-135	WG527401
1,2-Dichlorobenzene	mg/l	.025	0.0264	106.	75-122	WG527401
1,2-Dichloroethane	mg/l	.025	0.0217	86.7	63-137	WG527401
1,2-Dichloropropane	mg/l	.025	0.0228	91.2	74-122	WG527401
1,3,5-Trimethylbenzene	mg/l	.025	0.0251	101.	73-134	WG527401
1,3-Dichlorobenzene	mg/l	.025	0.0268	107.	73-131	WG527401
1,3-Dichloropropane	mg/l	.025	0.0248	99.2	77-119	WG527401
1,4-Dichlorobenzene	mg/l	.025	0.0257	103.	70-121	WG527401
2-Butanone (MEK)	mg/l	.125	0.114	91.0	53-132	WG527401
4-Methyl-2-pentanone (MIBK)	mg/l	.125	0.109	86.9	60-142	WG527401
Acetone	mg/l	.125	0.0959	76.7	48-134	WG527401
Benzene	mg/l	.025	0.0233	93.3	67-126	WG527401
Bromodichloromethane	mg/l	.025	0.0222	89.0	68-133	WG527401
Bromoform	mg/l	.025	0.0253	101.	60-139	WG527401
Bromomethane	mg/l	.025	0.0219	87.6	45-175	WG527401
Carbon disulfide	mg/l	.025	0.0175	69.9	41-148	WG527401
Carbon tetrachloride	mg/l	.025	0.0208	83.1	64-141	WG527401
Chlorobenzene	mg/l	.025	0.0261	104.	77-125	WG527401
Chloroethane	mg/l	.025	0.0240	96.2	49-155	WG527401
Chloroform	mg/l	.025	0.0234	93.5	66-126	WG527401
cis-1,2-Dichloroethene	mg/l	.025	0.0227	90.6	72-128	WG527401
cis-1,3-Dichloropropene	mg/l	.025	0.0218	87.3	73-131	WG527401

\* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



**YOUR LAB OF CHOICE**

ARCADIS U.S. GMC  
 Holly M. Burger, Debra Hagerty  
 10559 Citation Dr, Ste 100

Brighton, MI 48116

Quality Assurance Report  
 Level II

L507407

12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

March 30, 2011

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Di-isopropyl ether	mg/l	.025	0.0193	77.4	63-139	WG527401
Ethylbenzene	mg/l	.025	0.0249	99.7	76-129	WG527401
Hexachloro-1,3-butadiene	mg/l	.025	0.0240	95.9	67-135	WG527401
Isopropylbenzene	mg/l	.025	0.0247	98.8	73-132	WG527401
Methyl tert-butyl ether	mg/l	.025	0.0192	77.0	51-142	WG527401
Methylene Chloride	mg/l	.025	0.0229	91.7	64-125	WG527401
n-Hexane	mg/l	.025	0.0201	80.5	33-167	WG527401
Naphthalene	mg/l	.025	0.0238	95.1	56-145	WG527401
Styrene	mg/l	.025	0.0241	96.6	78-130	WG527401
Tetrachloroethene	mg/l	.025	0.0256	102.	67-135	WG527401
Toluene	mg/l	.025	0.0217	86.7	72-122	WG527401
trans-1,2-Dichloroethene	mg/l	.025	0.0217	86.7	67-129	WG527401
trans-1,3-Dichloropropene	mg/l	.025	0.0224	89.7	66-137	WG527401
Trichloroethene	mg/l	.025	0.0234	93.6	74-126	WG527401
Vinyl acetate	mg/l	.125	0.102	81.9	34-178	WG527401
Vinyl chloride	mg/l	.025	0.0184	73.7	55-153	WG527401
Xylenes, Total	mg/l	.075	0.0751	100.	75-128	WG527401
4-Bromofluorobenzene				96.66	75-128	WG527401
Dibromofluoromethane				103.3	79-125	WG527401
Toluene-d8				97.29	87-114	WG527401
Sulfate	mg/l	40	38.7	96.8	90-110	WG527603
Sulfate	mg/l	40	39.5	98.8	90-110	WG527681
cis-1,2-Dichloroethene	mg/l	.025	0.0293	117.	72-128	WG527839
Trichloroethene	mg/l	.025	0.0283	113.	74-126	WG527839
4-Bromofluorobenzene				100.6	75-128	WG527839
Dibromofluoromethane				105.0	79-125	WG527839
Toluene-d8				98.94	87-114	WG527839
Phosphorus, Total	mg/l	1	0.907	90.7	85-115	WG527484
C10-C22 Hydrocarbons	mg/l	.75	0.816	109.	70-130	WG527467
C22-C32 Hydrocarbons	mg/l	.75	0.602	80.2	70-130	WG527467
o-Terphenyl				71.92	50-150	WG527467
Phosphorus, Total	mg/l	1	0.992	99.2	85-115	WG527900
Alkalinity	mg/l	40	39.4	98.5	85-115	WG528495

Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Ferrous Iron	mg/l	1.01	0.996	101.	85-115	1.40	20	WG527464
Nitrate	mg/l	8.11	8.12	101.	90-110	0.123	20	WG527377
Sulfate	mg/l	40.0	40.0	100.	90-110	0	20	WG527377
Nitrate	mg/l	8.23	8.22	103.	90-110	0.122	20	WG527378

\* Performance of this Analyte is outside of established criteria.  
 For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



**YOUR LAB OF CHOICE**

ARCADIS U.S. GMC  
 Holly M. Burger, Debra Hagerty  
 10559 Citation Dr, Ste 100

Brighton, MI 48116

Quality Assurance Report  
 Level II

L507407

12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

March 30, 2011

Analyte	Units	Laboratory Control		Sample Duplicate	Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Sulfate	mg/l	39.5	39.5	99.0	90-110	0	20	WG527378
TPH (GC/FID) Low Fraction	mg/l	5.91	5.47	107.	70-124	7.63	20	WG527434
a,a,a-Trifluorotoluene(FID)				97.64	62-128			WG527434
1,1,1,2-Tetrachloroethane	mg/l	0.0237	0.0261	95.0	75-134	9.66	20	WG527401
1,1,1-Trichloroethane	mg/l	0.0195	0.0216	78.0	67-137	9.93	20	WG527401
1,1,2,2-Tetrachloroethane	mg/l	0.0227	0.0265	91.0	72-128	15.4	20	WG527401
1,1,2-Trichloroethane	mg/l	0.0242	0.0267	97.0	79-123	9.72	20	WG527401
1,1-Dichloroethane	mg/l	0.0202	0.0223	81.0	67-133	9.56	20	WG527401
1,1-Dichloroethene	mg/l	0.0187	0.0205	75.0	60-130	9.54	20	WG527401
1,2,3-Trichlorobenzene	mg/l	0.0237	0.0254	95.0	63-138	6.97	20	WG527401
1,2,4-Trichlorobenzene	mg/l	0.0230	0.0245	92.0	65-137	6.31	20	WG527401
1,2,4-Trimethylbenzene	mg/l	0.0226	0.0251	90.0	72-135	10.6	20	WG527401
1,2-Dichlorobenzene	mg/l	0.0245	0.0264	98.0	75-122	7.55	20	WG527401
1,2-Dichloroethane	mg/l	0.0194	0.0217	77.0	63-137	11.3	20	WG527401
1,2-Dichloropropane	mg/l	0.0210	0.0228	84.0	74-122	8.00	20	WG527401
1,3,5-Trimethylbenzene	mg/l	0.0226	0.0251	90.0	73-134	10.7	20	WG527401
1,3-Dichlorobenzene	mg/l	0.0234	0.0268	94.0	73-131	13.4	20	WG527401
1,3-Dichloropropane	mg/l	0.0228	0.0248	91.0	77-119	8.57	20	WG527401
1,4-Dichlorobenzene	mg/l	0.0236	0.0257	94.0	70-121	8.79	20	WG527401
2-Butanone (MEK)	mg/l	0.0977	0.114	78.0	53-132	15.2	20	WG527401
4-Methyl-2-pentanone (MIBK)	mg/l	0.0931	0.109	74.0	60-142	15.4	20	WG527401
Acetone	mg/l	0.0821	0.0959	66.0	48-134	15.5	20	WG527401
Benzene	mg/l	0.0213	0.0233	85.0	67-126	9.10	20	WG527401
Bromodichloromethane	mg/l	0.0205	0.0222	82.0	68-133	8.23	20	WG527401
Bromoform	mg/l	0.0228	0.0253	91.0	60-139	10.4	20	WG527401
Bromomethane	mg/l	0.0191	0.0219	76.0	45-175	13.8	20	WG527401
Carbon disulfide	mg/l	0.0156	0.0175	62.0	41-148	11.1	20	WG527401
Carbon tetrachloride	mg/l	0.0193	0.0208	77.0	64-141	7.35	20	WG527401
Chlorobenzene	mg/l	0.0240	0.0261	96.0	77-125	8.25	20	WG527401
Chloroethane	mg/l	0.0211	0.0240	84.0	49-155	13.0	20	WG527401
Chloroform	mg/l	0.0213	0.0234	85.0	66-126	9.08	20	WG527401
cis-1,2-Dichloroethene	mg/l	0.0205	0.0227	82.0	72-128	9.89	20	WG527401
cis-1,3-Dichloropropene	mg/l	0.0201	0.0218	80.0	73-131	8.03	20	WG527401
Di-isopropyl ether	mg/l	0.0173	0.0193	69.0	63-139	11.4	20	WG527401
Ethylbenzene	mg/l	0.0222	0.0249	89.0	76-129	11.6	20	WG527401
Hexachloro-1,3-butadiene	mg/l	0.0228	0.0240	91.0	67-135	5.24	20	WG527401
Isopropylbenzene	mg/l	0.0223	0.0247	89.0	73-132	10.2	20	WG527401
Methyl tert-butyl ether	mg/l	0.0167	0.0192	67.0	51-142	14.1	20	WG527401
Methylene Chloride	mg/l	0.0211	0.0229	84.0	64-125	8.39	20	WG527401
n-Hexane	mg/l	0.0176	0.0201	70.0	33-167	13.2	20	WG527401
Naphthalene	mg/l	0.0221	0.0238	88.0	56-145	7.17	20	WG527401
Styrene	mg/l	0.0222	0.0241	89.0	78-130	8.33	20	WG527401
Tetrachloroethene	mg/l	0.0239	0.0256	95.0	67-135	7.04	20	WG527401
Toluene	mg/l	0.0199	0.0217	80.0	72-122	8.43	20	WG527401
trans-1,2-Dichloroethene	mg/l	0.0196	0.0217	78.0	67-129	10.2	20	WG527401
trans-1,3-Dichloropropene	mg/l	0.0196	0.0224	78.0	66-137	13.2	20	WG527401
Trichloroethene	mg/l	0.0213	0.0234	85.0	74-126	9.45	20	WG527401
Vinyl acetate	mg/l	0.0874	0.102	70.0	34-178	15.8	26	WG527401
Vinyl chloride	mg/l	0.0164	0.0184	66.0	55-153	11.5	20	WG527401
Xylenes, Total	mg/l	0.0680	0.0751	91.0	75-128	9.97	20	WG527401
4-Bromofluorobenzene				94.73	75-128			WG527401
Dibromofluoromethane				100.5	79-125			WG527401
Toluene-d8				98.01	87-114			WG527401

\* Performance of this Analyte is outside of established criteria.  
 For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



**YOUR LAB OF CHOICE**

ARCADIS U.S. GMC  
 Holly M. Burger, Debra Hagerty  
 10559 Citation Dr, Ste 100

Brighton, MI 48116

Quality Assurance Report  
 Level II

L507407

12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

March 30, 2011

Analyte	Units	Laboratory Control Sample Duplicate			Limit	RPD	Limit	Batch
		Result	Ref	%Rec				
Sulfate	mg/l	38.7	38.7	97.0	90-110	0	20	WG527603
Sulfate	mg/l	39.5	39.5	99.0	90-110	0	20	WG527681
cis-1,2-Dichloroethene	mg/l	0.0294	0.0293	118.	72-128	0.270	20	WG527839
Trichloroethene	mg/l	0.0280	0.0283	112.	74-126	0.920	20	WG527839
4-Bromofluorobenzene				100.8	75-128			WG527839
Dibromofluoromethane				102.9	79-125			WG527839
Toluene-d8				98.70	87-114			WG527839
Phosphorus, Total	mg/l	1.08	0.907	108.	85-115	17.4	20	WG527484
C10-C22 Hydrocarbons	mg/l	0.794	0.816	106.	70-130	2.74	20	WG527467
C22-C32 Hydrocarbons	mg/l	0.574	0.602	76.0	70-130	4.66	20	WG527467
o-Terphenyl				68.85	50-150			WG527467
Phosphorus, Total	mg/l	0.991	0.992	99.0	85-115	0.101	20	WG527900

Analyte	Units	Matrix Spike				Limit	Ref Samp	Batch
		MS Res	Ref Res	TV	% Rec			
Ferrous Iron	mg/l	2.47	0.830	1.5	109.	80-120	L507407-03	WG527464
Nitrate	mg/l	4.99	0	5	99.8	80-120	L507407-08	WG527377
Sulfate	mg/l	62.8	13.0	50	99.6	80-120	L507407-08	WG527377
Nitrate	mg/l	6.58	1.20	5	108.	80-120	L507380-01	WG527378
TPH (GC/FID) Low Fraction	mg/l	4.96	0	5.5	90.2	55-109	L507407-01	WG527434
a,a,a-Trifluorotoluene(FID)					95.48	62-128		WG527434
1,1,1,2-Tetrachloroethane	mg/l	0.0250	0	.025	100.	45-152	L507403-03	WG527401
1,1,1-Trichloroethane	mg/l	0.0220	0	.025	88.1	31-161	L507403-03	WG527401
1,1,2,2-Tetrachloroethane	mg/l	0.0243	0	.025	97.3	49-149	L507403-03	WG527401
1,1,2-Trichloroethane	mg/l	0.0249	0	.025	99.4	46-145	L507403-03	WG527401
1,1-Dichloroethane	mg/l	0.0220	0	.025	88.0	30-159	L507403-03	WG527401
1,1-Dichloroethene	mg/l	0.0216	0	.025	86.5	10-162	L507403-03	WG527401
1,2,3-Trichlorobenzene	mg/l	0.0242	0	.025	96.8	32-143	L507403-03	WG527401
1,2,4-Trichlorobenzene	mg/l	0.0249	0	.025	99.6	27-142	L507403-03	WG527401
1,2,4-Trimethylbenzene	mg/l	0.0246	0	.025	98.4	29-153	L507403-03	WG527401
1,2-Dichlorobenzene	mg/l	0.0270	0	.025	108.	40-139	L507403-03	WG527401
1,2-Dichloroethane	mg/l	0.0204	0	.025	81.8	29-167	L507403-03	WG527401
1,2-Dichloropropane	mg/l	0.0222	0	.025	89.0	39-148	L507403-03	WG527401
1,3,5-Trimethylbenzene	mg/l	0.0245	0	.025	98.2	33-149	L507403-03	WG527401
1,3-Dichlorobenzene	mg/l	0.0253	0	.025	101.	32-148	L507403-03	WG527401
1,3-Dichloropropane	mg/l	0.0233	0	.025	93.2	44-142	L507403-03	WG527401
1,4-Dichlorobenzene	mg/l	0.0267	0	.025	107.	32-136	L507403-03	WG527401
2-Butanone (MEK)	mg/l	0.112	0	.125	89.8	32-151	L507403-03	WG527401
4-Methyl-2-pentanone (MIBK)	mg/l	0.0946	0	.125	75.6	40-160	L507403-03	WG527401
Acetone	mg/l	0.0907	0	.125	72.6	25-157	L507403-03	WG527401

\* Performance of this Analyte is outside of established criteria.  
 For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



**YOUR LAB OF CHOICE**

ARCADIS U.S. GMC  
 Holly M. Burger, Debra Hagerty  
 10559 Citation Dr, Ste 100

Brighton, MI 48116

Quality Assurance Report  
 Level II

L507407

12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

March 30, 2011

Analyte	Units	MS Res	Matrix Spike		% Rec	Limit	Ref Samp	Batch
			Ref Res	TV				
Benzene	mg/l	0.0235	0	.025	94.0	16-158	L507403-03	WG527401
Bromodichloromethane	mg/l	0.0213	0	.025	85.1	45-147	L507403-03	WG527401
Bromoform	mg/l	0.0237	0	.025	94.8	38-152	L507403-03	WG527401
Bromomethane	mg/l	0.0209	0	.025	83.7	0-191	L507403-03	WG527401
Carbon disulfide	mg/l	0.0196	0	.025	78.4	10-166	L507403-03	WG527401
Carbon tetrachloride	mg/l	0.0219	0	.025	87.7	22-168	L507403-03	WG527401
Chlorobenzene	mg/l	0.0265	0	.025	106.	33-148	L507403-03	WG527401
Chloroethane	mg/l	0.0252	0	.025	101.	4-176	L507403-03	WG527401
Chloroform	mg/l	0.0227	0	.025	91.0	37-147	L507403-03	WG527401
cis-1,2-Dichloroethene	mg/l	0.0228	0	.025	91.0	29-156	L507403-03	WG527401
cis-1,3-Dichloropropene	mg/l	0.0195	0	.025	78.2	35-148	L507403-03	WG527401
Di-isopropyl ether	mg/l	0.0182	0	.025	72.8	39-160	L507403-03	WG527401
Ethylbenzene	mg/l	0.0250	0	.025	100.	29-150	L507403-03	WG527401
Hexachloro-1,3-butadiene	mg/l	0.0250	0	.025	99.9	28-144	L507403-03	WG527401
Isopropylbenzene	mg/l	0.0248	0	.025	99.0	35-147	L507403-03	WG527401
Methyl tert-butyl ether	mg/l	0.0188	0	.025	75.0	24-167	L507403-03	WG527401
Methylene Chloride	mg/l	0.0228	0	.025	91.2	23-151	L507403-03	WG527401
n-Hexane	mg/l	0.0228	0	.025	91.3	10-176	L507403-03	WG527401
Naphthalene	mg/l	0.0230	0	.025	92.1	24-160	L507403-03	WG527401
Styrene	mg/l	0.0233	0	.025	93.1	38-149	L507403-03	WG527401
Tetrachloroethene	mg/l	0.0272	0	.025	109.	13-157	L507403-03	WG527401
Toluene	mg/l	0.0229	0	.025	91.6	22-152	L507403-03	WG527401
trans-1,2-Dichloroethene	mg/l	0.0289	0.00630	.025	90.5	11-160	L507403-03	WG527401
trans-1,3-Dichloropropene	mg/l	0.0201	0	.025	80.4	33-153	L507403-03	WG527401
Trichloroethene	mg/l	0.0239	0	.025	95.5	18-163	L507403-03	WG527401
Vinyl acetate	mg/l	0.108	0	.125	86.1	0-196	L507403-03	WG527401
Vinyl chloride	mg/l	0.0206	0.00130	.025	77.4	0-179	L507403-03	WG527401
Xylenes, Total	mg/l	0.0770	0	.075	103.	27-151	L507403-03	WG527401
4-Bromofluorobenzene					92.65	75-128		WG527401
Dibromofluoromethane					102.8	79-125		WG527401
Toluene-d8					95.33	87-114		WG527401
Sulfate	mg/l	48.9	0	50	97.8	80-120	L507512-09	WG527681
cis-1,2-Dichloroethene	mg/l	0.0260	0	.025	104.	29-156	L507555-07	WG527839
Trichloroethene	mg/l	0.0435	0	.025	174.*	18-163	L507555-07	WG527839
4-Bromofluorobenzene					105.8	75-128		WG527839
Dibromofluoromethane					82.45	79-125		WG527839
Toluene-d8					102.6	87-114		WG527839
Phosphorus, Total	mg/l	2.51	0	2.5	100.	80-120	L507275-02	WG527484
Phosphorus, Total	mg/l	8.00	5.50	2.5	100.	80-120	L507407-03	WG527900
Alkalinity	mg/l	796.	550.	200	123.*	80-120	L507403-03	WG528495

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Ferrous Iron	mg/l	2.46	2.47	109.	80-120	0.406	20	L507407-03	WG527464
Nitrate	mg/l	4.89	4.99	97.8	80-120	2.02	20	L507407-08	WG527377
Sulfate	mg/l	61.9	62.8	97.8	80-120	1.44	20	L507407-08	WG527377

\* Performance of this Analyte is outside of established criteria.  
 For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



**YOUR LAB OF CHOICE**

ARCADIS U.S. GMC  
 Holly M. Burger, Debra Hagerty  
 10559 Citation Dr, Ste 100

Brighton, MI 48116

Quality Assurance Report  
 Level II

L507407

12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

March 30, 2011

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Nitrate	mg/l	6.55	6.58	107.	80-120	0.457	20	L507380-01	WG527378
TPH (GC/FID) Low Fraction	mg/l	5.32	4.96	96.8	55-109	7.04	20	L507407-01	WG527434
a,a,a-Trifluorotoluene(FID)				96.95	62-128				WG527434
1,1,1,2-Tetrachloroethane	mg/l	0.0245	0.0250	97.9	45-152	2.26	21	L507403-03	WG527401
1,1,1-Trichloroethane	mg/l	0.0215	0.0220	86.1	31-161	2.34	23	L507403-03	WG527401
1,1,2,2-Tetrachloroethane	mg/l	0.0254	0.0243	102.	49-149	4.42	22	L507403-03	WG527401
1,1,2-Trichloroethane	mg/l	0.0249	0.0249	99.4	46-145	0.0200	20	L507403-03	WG527401
1,1-Dichloroethane	mg/l	0.0215	0.0220	86.0	30-159	2.27	21	L507403-03	WG527401
1,1-Dichloroethene	mg/l	0.0203	0.0216	81.0	10-162	6.56	23	L507403-03	WG527401
1,2,3-Trichlorobenzene	mg/l	0.0254	0.0242	102.	32-143	5.03	33	L507403-03	WG527401
1,2,4-Trichlorobenzene	mg/l	0.0257	0.0249	103.	27-142	3.25	30	L507403-03	WG527401
1,2,4-Trimethylbenzene	mg/l	0.0248	0.0246	99.0	29-153	0.630	27	L507403-03	WG527401
1,2-Dichlorobenzene	mg/l	0.0265	0.0270	106.	40-139	1.60	23	L507403-03	WG527401
1,2-Dichloroethane	mg/l	0.0205	0.0204	82.2	29-167	0.470	21	L507403-03	WG527401
1,2-Dichloropropane	mg/l	0.0218	0.0222	87.2	39-148	1.95	20	L507403-03	WG527401
1,3,5-Trimethylbenzene	mg/l	0.0246	0.0245	98.2	33-149	0.0900	26	L507403-03	WG527401
1,3-Dichlorobenzene	mg/l	0.0258	0.0253	103.	32-148	2.12	24	L507403-03	WG527401
1,3-Dichloropropane	mg/l	0.0238	0.0233	95.2	44-142	2.10	20	L507403-03	WG527401
1,4-Dichlorobenzene	mg/l	0.0263	0.0267	105.	32-136	1.37	23	L507403-03	WG527401
2-Butanone (MEK)	mg/l	0.116	0.112	93.2	32-151	3.74	26	L507403-03	WG527401
4-Methyl-2-pentanone (MIBK)	mg/l	0.0994	0.0946	79.5	40-160	5.00	28	L507403-03	WG527401
Acetone	mg/l	0.0882	0.0907	70.6	25-157	2.80	26	L507403-03	WG527401
Benzene	mg/l	0.0235	0.0235	93.8	16-158	0.160	21	L507403-03	WG527401
Bromodichloromethane	mg/l	0.0214	0.0213	85.4	45-147	0.350	20	L507403-03	WG527401
Bromoform	mg/l	0.0242	0.0237	96.7	38-152	1.94	20	L507403-03	WG527401
Bromomethane	mg/l	0.0201	0.0209	80.4	0-191	3.99	35	L507403-03	WG527401
Carbon disulfide	mg/l	0.0190	0.0196	76.0	10-166	3.06	25	L507403-03	WG527401
Carbon tetrachloride	mg/l	0.0212	0.0219	84.7	22-168	3.52	24	L507403-03	WG527401
Chlorobenzene	mg/l	0.0265	0.0265	106.	33-148	0.110	22	L507403-03	WG527401
Chloroethane	mg/l	0.0235	0.0252	93.9	4-176	7.18	27	L507403-03	WG527401
Chloroform	mg/l	0.0227	0.0227	90.8	37-147	0.160	21	L507403-03	WG527401
cis-1,2-Dichloroethene	mg/l	0.0228	0.0228	91.2	29-156	0.200	22	L507403-03	WG527401
cis-1,3-Dichloropropene	mg/l	0.0201	0.0195	80.3	35-148	2.67	21	L507403-03	WG527401
Di-isopropyl ether	mg/l	0.0185	0.0182	73.8	39-160	1.35	21	L507403-03	WG527401
Ethylbenzene	mg/l	0.0250	0.0250	99.8	29-150	0.360	24	L507403-03	WG527401
Hexachloro-1,3-butadiene	mg/l	0.0252	0.0250	101.	28-144	0.780	33	L507403-03	WG527401
Isopropylbenzene	mg/l	0.0245	0.0248	97.9	35-147	1.17	25	L507403-03	WG527401
Methyl tert-butyl ether	mg/l	0.0182	0.0188	72.7	24-167	3.08	22	L507403-03	WG527401
Methylene Chloride	mg/l	0.0224	0.0228	89.7	23-151	1.63	21	L507403-03	WG527401
n-Hexane	mg/l	0.0217	0.0228	86.6	10-176	5.32	23	L507403-03	WG527401
Naphthalene	mg/l	0.0235	0.0230	93.8	24-160	1.88	37	L507403-03	WG527401
Styrene	mg/l	0.0240	0.0233	96.1	38-149	3.22	23	L507403-03	WG527401
Tetrachloroethene	mg/l	0.0263	0.0272	105.	13-157	3.57	24	L507403-03	WG527401
Toluene	mg/l	0.0231	0.0229	92.5	22-152	0.970	22	L507403-03	WG527401
trans-1,2-Dichloroethene	mg/l	0.0279	0.0289	86.5	11-160	3.50	23	L507403-03	WG527401
trans-1,3-Dichloropropene	mg/l	0.0211	0.0201	84.4	33-153	4.86	22	L507403-03	WG527401
Trichloroethene	mg/l	0.0234	0.0239	93.4	18-163	2.18	21	L507403-03	WG527401
Vinyl acetate	mg/l	0.110	0.108	87.7	0-196	1.88	26	L507403-03	WG527401
Vinyl chloride	mg/l	0.0195	0.0206	72.8	0-179	5.65	26	L507403-03	WG527401
Xylenes, Total	mg/l	0.0772	0.0770	103.	27-151	0.250	23	L507403-03	WG527401
4-Bromofluorobenzene				95.63	75-128				WG527401
Dibromofluoromethane				102.5	79-125				WG527401
Toluene-d8				97.62	87-114				WG527401

\* Performance of this Analyte is outside of established criteria.  
 For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



**YOUR LAB OF CHOICE**

ARCADIS U.S. GMC  
 Holly M. Burger, Debra Hagerty  
 10559 Citation Dr, Ste 100

Brighton, MI 48116

Quality Assurance Report  
 Level II

L507407

12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
 1-800-767-5859  
 Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

March 30, 2011

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit	Ref Samp	Batch
			Ref	%Rec					
Sulfate	mg/l	50.5	48.9	101.	80-120	3.22	20	L507512-09	WG527681
cis-1,2-Dichloroethene	mg/l	0.0254	0.0260	102.	29-156	2.14	22	L507555-07	WG527839
Trichloroethene	mg/l	0.0452	0.0435	181.*	18-163	3.91	21	L507555-07	WG527839
4-Bromofluorobenzene				103.6	75-128				WG527839
Dibromofluoromethane				77.08*	79-125				WG527839
Toluene-d8				100.4	87-114				WG527839
Phosphorus,Total	mg/l	2.48	2.51	99.2	80-120	1.20	20	L507275-02	WG527484
Phosphorus,Total	mg/l	8.04	8.00	102.	80-120	0.499	20	L507407-03	WG527900
Alkalinity	mg/l	798.	796.	62.0*	80-120	0.251	20	L507403-03	WG528495

Batch number /Run number / Sample number cross reference

WG527464: R1622809: L507407-01 02 03 04 05 06 07 08 09 10 11 12  
 WG527377: R1623283: L507407-01 02 03 04 05 07 08 09 10 11 12  
 WG527378: R1623309: L507407-05 06  
 WG527434: R1623531: L507407-01 02 03 04 05 06 07 08 09 10 11 12  
 WG527401: R1624416: L507407-01 02 03 04 05 06 07 08 09 10 11 12  
 WG527603: R1624611: L507407-02  
 WG527681: R1624689: L507407-03 09 10 11  
 WG527839: R1625529: L507407-01  
 WG527484: R1626714: L507407-01  
 WG527467: R1627309: L507407-01 02 03 04 05 06 07 08 09 10 11 12  
 WG527900: R1628731: L507407-02 03 04 05 06 07 08 09 10 11 12  
 WG528495: R1630309: L507407-01 02 03 04 05 06 07 08 09 10 11 12

\* \* Calculations are performed prior to rounding of reported values.  
 \* Performance of this Analyte is outside of established criteria.  
 For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'



**YOUR LAB OF CHOICE**

ARCADIS U.S. GMC  
Holly M. Burger, Debra Hagerty  
10559 Citation Dr, Ste 100

Brighton, MI 48116

Quality Assurance Report  
Level II

L507407

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

March 30, 2011

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.



# ARCADIS U.S. GMC

10559 Citation Dr. Ste 100  
Brighton, MI 48116

Billing information:  
Brad Saunders  
10559 Citation Dr, Ste 100  
Brighton, MI 48116

### Analysis/Container/Preservative

ALK 500mlHDPE-NoPres	DROCAER 1L-Amb-Add HCl L2	FERUSFE 250mlAmb-HCl L2	GRO 40mlAmb HCl	PT 250mlHDPE-H2SO4 L2	V8260OXY 40mlAmb-HCl	WetChem 125mlHDPE-NoPres Nitrate, Sulfate
----------------------	---------------------------	-------------------------	-----------------	-----------------------	----------------------	---

Chain of Custody  
Page 1 of 2



L.A.B S.C.I.E.N.C.E.S

12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone: (800) 767-5859  
Phone: (615) 758-5858  
Fax: (615) 758-5859

A135

Report to: Holly M. Burger and Debra Hagerty

Email: ~~debra.hagerty@arcadis-us.com~~  
~~jhawkins@envsci.com~~

Project Description: Oakland Truck Center

City/State Collected: Oakland, CA

Phone: (810) 225-1904  
FAX: (810) 229-8837

Client Project #: B0064601.0000.00007

Lab Project #: ARCABMI-OAKLANDCAT

Collected by (print): Karl Johnson

Site/Facility ID#: 8099 S. COLISEUM WAY

P.O.#: B0064601.0000

Collected by (signature): *[Signature]*  
Immediately Packed on Ice N \_\_\_ Y

Rush? (Lab MUST Be Notified)  
 \_\_\_ Same Day ..... 200%  
 \_\_\_ Next Day ..... 100%  
 \_\_\_ Two Day ..... 50%  
 \_\_\_ Three Day ..... 25%

Date Results Needed: 10 day TAT  
 Email? \_\_\_ No  Yes  
 FAX? \_\_\_ No \_\_\_ Yes

No. of Cntrs

Sample ID	Comp/Grab	Matrix*	Date	Time	No. of Cntrs	ALK 500mlHDPE-NoPres	DROCAER 1L-Amb-Add HCl	FERUSFE 250mlAmb-HCl	GRO 40mlAmb HCl	PT 250mlHDPE-H2SO4	V8260OXY 40mlAmb-HCl	WetChem 125mlHDPE-NoPres	Remarks/Contaminant	Sample # (lab only)
MW-1		GW	3/21/11	1220	9	X	X	X	X	X	X	X		L507407-01
MW-2		GW		1055	9	X	X	X	X	X	X	X		02
MW-3		GW		1325	9	X	X	X	X	X	X	X		03
MW-4		GW		1520	9	X	X	X	X	X	X	X		04
MW-5		GW		1710	9	X	X	X	X	X	X	X		05
MW-6		GW	3/22/11	0910	9	X	X	X	X	X	X	X		06
MW-7		GW	3/21/11	1610	9	X	X	X	X	X	X	X		07
MW-8		GW		1425	9	X	X	X	X	X	X	X		08
MW-9		GW		1130	9	X	X	X	X	X	X	X		09

\*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other \_\_\_\_\_

pH \_\_\_\_\_ Temp \_\_\_\_\_

Remarks:

Flow \_\_\_\_\_ Other \_\_\_\_\_

435593170819 435593174766  
435593170820 435593174777

Relinquished by: (Signature) <i>[Signature]</i>	Date: 3/22/11	Time: 1200	Received by: (Signature) <i>[Signature]</i>	Samples returned via: <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> UPS <input type="checkbox"/> Courier	Condition: OK (lab use only)
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received by: (Signature) <i>[Signature]</i>	Temp: 31.1	Bottles Received: 111
Relinquished by: (Signature) <i>[Signature]</i>	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 3/23/11	Time: 8845
					COC Seal Intact: ___ Y ___ N ___ NA
					pH Checked: 2.2 NCF:

# ARCADIS U.S. GMC

10559 Citation Dr. Ste 100  
Brighton, MI 48116

Billing information:  
Brad Saunders  
10559 Citation Dr, Ste 100  
Brighton, MI 48116

### Analysis/Container/Preservative

Chain of Custody  
Page 2 of 2



12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone: (800) 767-5859  
Phone: (615) 758-5858  
Fax: (615) 758-5859

Report to: **Holly M. Burger** and **Debra Hagerly**

Email: **debra.hagerly@arcadisus.com**  
**jhawkins@envsci.com**

Project Description: **Oakland Truck Center**

City/State Collected: **Oakland, CA**

Phone: (810) 225-1904  
FAX: (810) 229-8837

Client Project #: **B0064601.0000.00007**

Lab Project #: **ARCABMI-OAKLANDCAT1**

Collected by (print): **Karl Johnson**

Site/Facility ID#: **8099 S. COLISEUM WA1**

P.O.#: **B0064601.0000**

Collected by (signature):

Rush? (Lab MUST Be Notified)

Date Results Needed  
**10 day TAT**

Immediately Packed on Ice N    Y

Same Day ..... 200%  
 Next Day ..... 100%  
 Two Day ..... 50%  
 Three Day ..... 25%

Email?  No  Yes  
FAX?  No  Yes

No. of Cntrs

ALK 500mlHDPE-NoPres

DROCAER 1L-Amb-Add HCl L2

FERUSFE 250mlAmb-HCl L2

GRO 40mlAmb HCl

PT 250mlHDPE-H2SO4 L2

V8260OXY 40mlAmb-HCl

WetChem 125mlHDPE-NoPres Nitrate, Sulfate

Acctnum **ARCABMI** (lab use only)  
Template/Prelogin **T70272/P350008**  
Cooler #: **3-14-11**  
Shipped Via: **FedEX Saver**

Remarks/Contaminant Sample # (lab only)

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	ALK 500mlHDPE-NoPres	DROCAER 1L-Amb-Add HCl	FERUSFE 250mlAmb-HCl	GRO 40mlAmb HCl	PT 250mlHDPE-H2SO4	V8260OXY 40mlAmb-HCl	WetChem 125mlHDPE-NoPres	Remarks/Contaminant	Sample # (lab only)
MW-10		GW		3/21/11	0850	9	X	X	X	X	X	X	X		LS07407-10
MW-11		GW		3/21/11	0940	9	X	X	X	X	X	X	X		11
DUP		GW		-	-	9	X	X	X	X	X	X	X		12
Trip Blank - ON HOLD		-		-	-	3									13

\*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other \_\_\_\_\_

pH \_\_\_\_\_ Temp \_\_\_\_\_

Remarks:

Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature)	Date: <b>3/22/11</b>	Time: <b>1200</b>	Received by: (Signature)	Samples returned via: <input checked="" type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: <b>ok</b> (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <b>3.1</b>	Bottles Received: <b>111</b>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: <b>3/23/11</b>	Time: <b>0845</b>
				pH Checked: <b>L2</b>	NCF: