

State of Colorado  
**Oil and Gas Conservation Commission**

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109



FOR OGCC USE ONLY

**SITE INVESTIGATION AND REMEDIATION WORKPLAN**

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

**CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED**

☐ Spill or Release ☐ Plug & Abandon ☐ Central Facility Closure ☐ Site/Facility Closure ☒ Other (describe): Pit Closure

OGCC Employee:

☐ Spill ☐ Complaint  
☐ Inspection ☐ NOAV

Tracking No:

OGCC Operator Number: 96850

Name of Operator: Williams Production RMT Company

Address: 1058 County Road 215

City: Parachute State: CO Zip: 81635

Contact Name and Telephone:

Karolina Blaney

No: 970-683-2295

Fax: 970-285-9573

API Number:

County: Garfield

Facility Name: Chevron TR 11-5-697

Facility Number: 422268

Well Name: Chevron TR 11-5-697

Well Number: N/A

Location: (QtrQtr, Sec, Twp, Rng, Meridian): NWNW, Section 5, T6S, R97W, 6th PM Latitude: 39.56007 Longitude: -108.2493

**TECHNICAL CONDITIONS**

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): Produced Water

**Site Conditions:** Is location within a sensitive area (according to Rule 901e)? ☒ Y ☐ N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Rangeland, Non Crop Land

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Parachute-Irigul-Rhone 25-50% slope

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Water well approximately 2149 ft to the east. Un-named tributary to Crystal Creek lies approximately 1,529 ft to the south.

**Description of Impact** (if previously provided, refer to that form or document):

Impacted Media (check):

- ☒ Soils  
☐ Vegetation  
☐ Groundwater  
☐ Surface Water

Extent of Impact:

See Attached Notice of Completion Report

How Determined:

Visual observations, field screening, and analytical analysis

**REMEDIALATION WORKPLAN**

**Describe initial action taken** (if previously provided, refer to that form or document):

See and refer to attached Notice of Completion Report, Remediation # 5065

**Describe how source is to be removed:**

See and refer to attached Notice of Completion Report, Remediation # 5065

**Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:**

See and refer to attached Notice of Completion Report, Remediation # 5065



REMEDIAL WORKPLAN (Cont.)

Tracking Number: \_\_\_\_\_  
Name of Operator: \_\_\_\_\_  
OGCC Operator No: \_\_\_\_\_  
Received Date: \_\_\_\_\_  
Well Name & No: \_\_\_\_\_  
Facility Name & No: \_\_\_\_\_

OGCC Employee: \_\_\_\_\_

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

See and refer to attached Notice of Completion Report, Remediation # 5065

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

See and refer to attached Notice of Completion Report, Remediation # 5065

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? ☐ Y ☒ N If yes, describe:

See and refer to attached Notice of Completion Report, Remediation # 5065

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

See and refer to attached Notice of Completion Report, Remediation # 5065

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: <u>May 2011</u>	Date Site Investigation Completed: <u>May 2011</u>	Date Remediation Plan Submitted: <u>May 27, 2011</u>
Remediation Start Date: <u>June 6, 2011</u>	Anticipated Completion Date: <u>July 5, 2011</u>	Actual Completion Date: <u>July 5, 2011</u>

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Karolina Blaney

Signed: Karolina Blaney

Title: Environmental Specialist

Date: 8/15/2011

OGCC Approved: \_\_\_\_\_

Title: FOR Chris Canfield

Date: 09/21/2011

COA: Arsenic concentrations  
in the pit are slightly above  
background max + 10%.

During backfill, cover w/ 3' of clean material.

EPS NW Region

## Sensitive Area Determination Checklist

<b>Williams Production RMT Company</b>		
<b>Person(s) Conducting Field Inspection</b>	Ashlee Lane	9/28/10
	<i>Biologist</i>	
<b>Site Information</b>		
Location:	TR 11-5-697	Time: 1100
Type of Facility:	Existing Well Pad	
<b>Environmental Conditions</b>	Clear and calm; no recent precipitation	
Temperature (°F)	85°	

Has the proposed, new or existing location been designated as a sensitive area?

☒ Yes      ☐ No

### **SURFACE WATER**

- Are there any surface water features or SWSAs adjacent to or within ¼ mile of the proposed/new or existing facility?

☒ Yes      ☐ No

If yes, list type of surface water feature(s), i.e. rivers, creeks, streams, seeps, springs, wetlands: A small section of an unnamed intermittent/perennial drainage tributary to Crystal Creek. In addition, two springs were identified outside of the ¼ mile buffer zone and are addressed in the additional comments section of this sensitive area determination checklist.

If yes, describe location relative to facility: The unnamed intermittent/perennial drainage tributary to Crystal Creek is located approximately 1,200 south-southeast of the existing facility.

- Could a potential release from the facility reach surface water features?

☐ Yes      ☒ No

If yes, describe the pathway a release from the facility would likely follow to determine if the potential to impact surface water is high or low.

- Is the potential to impact surface water from a facility release high or low?

☐ High      ☒ Low

## GROUNDWATER

1. Will the proposed/new or existing facility have any pits which will contain hydrocarbons and chlorides or other E&P wastes?

☒ Yes      ☐ No

If yes, List the pit type(s): Drilling and production pit.

2. Is the site of the proposed facility underlain by an unconfined aquifer or recharge zone?

☒ Yes      ☐ No

3. Is the hydraulic conductivity of the underlying soil or geologic material  $\leq 1.0 \times 10^{-7}$  cm/sec?

☐ Yes      ☒ No

4. Is the proposed facility located within 1/8 mile of a domestic water well or 1/4 mile of a public water supply well which would use the same aquifer?

☐ Yes      ☒ No

5. Is the proposed facility located within a 100 year floodplain?

☐ Yes (*Sensitive Area*)      ☒ No (*If no, proceed to question #6.*)

6. Is the depth to groundwater known?

☐ Yes (*If yes, follow instructions provided in 6(a) of this section.*)

☒ No (*If no, follow instructions provided in 6(b) of this section.*)

- (a) If yes, could a potential release from the proposed facility reach groundwater?

☐ Yes      ☐ No

If yes, explain:

- (b) If no:

(i) Evaluate surrounding soils, topography, and vegetation which may suggest the presence of shallow groundwater.

(ii) Gather information from surrounding well data in order to determine a depth to groundwater, i.e. State Engineers Office.

7. Is the potential to impact ground water from the facility in the event of a release high or low?

☒ High      ☐ Low

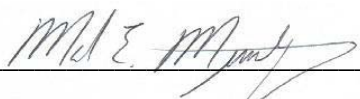
### **Additional Comments:**

As stated in the surface water section of this sensitive area determination there is a small section of an unnamed intermittent/perennial drainage located approximately 1,200 feet to the south southeast of the facility. The unnamed stream in the immediate vicinity of the facility is identified as intermittent and does not appear to flow a majority of the time. The facility as it is currently constructed would limit flow direction from a potential release to the southern edge where it would run down the hillside towards the unnamed intermittent/perennial drainage. However, the potential for fluids to reach this portion of the unmanned intermittent/perennial drainage would be low due to the thick vegetative cover consisting of service berry, oak brush, and sage brush and the moderate to high infiltration rates of the underlying soils. There are currently Best Management Practices (BMP's) installed in the form of a perimeter berm and diversion ditch on the northern, southern and western edges of the facility. These BMP's should be monitored and maintained to ensure site containment in the event of a release.

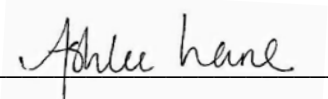
The State Engineers Office and USGS records were reviewed and four permitted wells were indentified in Section 5. All of the permitted wells in Section 5 were constructed to monitor water quality and none were intended or used for domestic purposes. However, there are no completion records or water levels noted for any of the wells. The topographic setting and vegetative cover in the vicinity of the facility, service berry, oak brush, and sage brush does not suggest the presence of shallow groundwater. There are two springs indentified on the USGS topographic maps and confirmed during the site investigation. The first spring is located 1,990 feet to the north of the existing facility (SWSW Sec 35 T5S R97W). This spring is located on an unnamed intermittent drainage which is tributary to Crystal Creek. The second spring (Rock Spring) is located 1,480 feet to the south of the existing facility. This spring forms the perennial section of an unnamed drainage which is also tributary to Crystal Creek. The facility resides in the Uintah Formation, which like the Green River Formation, tends to be fractured both vertically and horizontally which allows for fluids to migrate in the subsurface over larger distances. Based on the topographical setting of the existing facility, it is not anticipated that an overland release would impact groundwater and thus potentially the springs due to the duration of time involved and the fact it would spread out over a large area. The greatest potential for impacts to groundwater would be from a release that occurred over a longer period of time such as a leaking pit and fractured bedrock. Based on the topographic setting of the existing facility and the locations of the springs relative to the facility, it is not anticipated that a potential release from the facility would impact Rock Spring to the south. Previous investigations conducted at Rock Spring have determined that the source water for Rock Spring originates from the drainage feature to the south of the spring. The greater potential for impacts from a potential release would be to the spring indentified north of the facility. There is a fairly well defined drainage feature directly north of the existing facility which potentially could provide some source water to the spring located north of the facility. However based on the USGS topographic map source water feeding the spring could also originate from the larger drainage features to the northeast of the facility as well. In order to lessen any potential impacts to the spring located north of the

facility, it would be highly recommended that the pit be lined in accordance to COGCC criteria and tested prior to any placement of materials into it.

Based on the information collected during the site investigation and desktop review, the potential to impact surface water has been deemed low. The greatest potential for impacts from the facility would be to groundwater due to the geologic conditions in the area and the relatively close proximity of the spring to the north of the facility. With this potential to impact groundwater, the facility should be designated as being in a sensitive area.

Inspector Signature(s):  Date: 10/02/2010

Mark E. Mumby, *Project Manager/RPG*  
HRL Compliance Solutions, Inc.

 Date: 9/30/2010

Ashlee Lane, *Biologist*  
HRL Compliance Solutions, Inc.

***WILLIAMS PRODUCTION RMT COMPANY  
TRAIL RIDGE FIELD  
CHEVRON TR 11-5-697  
NOTICE OF COMPLETION REPORT FOR  
REMEDATION # 5065***

***August 2011***

Prepared For:



1058 County Road 215  
P.O. Box 370  
Parachute, Colorado 81635

Prepared By:



744 Horizon Court, Suite 140  
Grand Junction, CO 81506  
Phone: 970-243-3271  
Fax: 970-243-3280

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## Form 27 Attachment

### **Introduction**

The purpose of this Notice of Completion report – for the closure of the Williams TR 11-5-697 production pit (COGCC API Number 05-045-14093; hereinafter also referred to as TR 11-5-697) – is to provide detailed information and findings analysis for the previously submitted and approved (remediation number 5065) Colorado Oil and Gas Conservation Commission (COGCC) Site Investigation and Remediation Workplan, Form 27. This report will provide the documentation necessary to demonstrate a comprehensive and diligent investigation of the pit and adjacent environment which was obtained as described and in accordance with all appropriate county, state and federal rules and regulations.

The subject Form 27 was delivered via electronic email on May 27, 2011. Preliminary approval to proceed with closure of the subject pit was issued by the COGCC and obtained by Williams Production RMT Company (Williams) on June 17, 2011; at which time the aforementioned remediation number was issued. Closure activities began in June 6, 2011 and were concluded on July 5, 2011. Information in this report includes, but is not limited to: field screening results; laboratory analytical; subliner soil remediation; liner recycling; and bioremediation of the excavated impacted soils.

### **Evacuation of Pit Contents**

Remaining pit contents were removed from the pit using hydro-vac trucks and placed in a lined bermed containment to have free liquids removed via filter press.

The filter press sludge was placed into the aforementioned lined bermed containment cell, profiled for disposal/characterization purposes, and transported to ECDC Environmental for disposal in July, 2011.

### **Background Sampling**

Three samples were collected from the up-gradient undisturbed hillsides surrounding the pad. All background samples were analyzed for arsenic as well as additional analysis at one location which included inorganic parameters of COGCC Table 910-1(i.e. SAR, EC, pH). Refer to **Table 4 and Appendix 3** for background sampling results.

### **Pit Liner Investigation and Integrity Assessment**

The pit liner system – containing two of layers of poly synthetic material/liner and one layer of felt. No rips or holes were present in the primary liner during a liner investigation conducted on June 8, 2011. The presences of water in the bottom of the pit made the liner investigation of the bottom section of the liner inaccessible.

## **Pit Liner Removal**

Removal of the pit liners consisted of a crew cutting the liner along the crest of the pit at an elevation adjacent to the surface of the well pad. A trackhoe bucket was utilized to grab sections of the liner for extraction and place them in a lined earthen bermed containment cell for subsequent management. Sections of liner that contained residual or trace amounts of sludge were pulled, placed into the containment cell, and allowed to dry. Liners were stored in a lined bermed containment until being banded to pallets to be recycled. During the liner removal, the bottom section of the liner was accessible for inspection and revealed no signs of tears or holes.

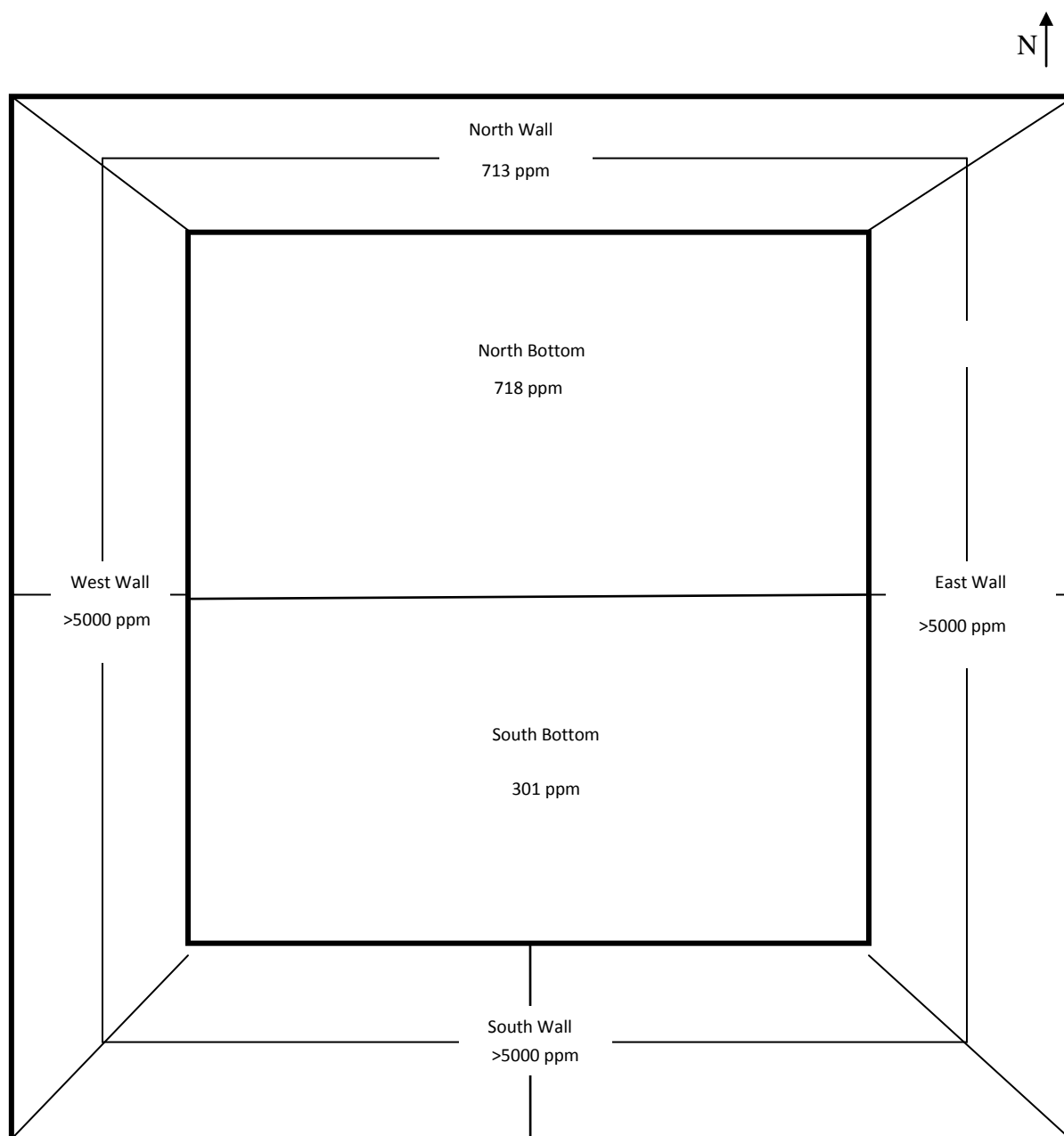
## **Subliner Soil Investigation and Activities**

Subliner soils, examined below the pit lining, were inspected visually and through the use of specialized field screening equipment (identified below) to identify areas which may exceed standards set forth in Table 910-1 of the COGCC 900-Series Rule for hydrocarbons within the soil. Soils below the second lining system on the pit floor and walls were stained black and contained a moderate hydrocarbon odor, indicating that there may have been impacts to the subliner soils.

Field screening of the pit footprint and walls was performed along the entire pit in a grid pattern of sections. The pit bottom was separated into two sections and a five point composite sample was collected from each of the half sections, with a depth of 0-6 inches below the surface and analyzed utilizing a PetroFlag hydrocarbon detector. In addition to the bottom, a five point composite sample was collected from each of the pit walls and field screened for hydrocarbons. Grab samples were collected from each section to provide laboratory confirmation of field screen results.

Figure 1 outlines the pit sampling nomenclature and field screening results using a PetroFlag Hydrocarbon Unit (PetroFlag<sup>®</sup>). Figure 2 is a GIS map of the pit outlining sample locations within the pit as well as background sample locations from the nearby uphill undisturbed soil.

Figure 1  
PetroFlag Results and Pit Sampling ID Layout



Facility Name: Chevron TR 11-5-697  
Remediation #5065  
Facility ID: 422268

Name of Operator: Williams Production RMT Company  
Latitude: 39.56007 Longitude -108.2493  
Location (QtrQty, Sec, Twp, Rng, Meridian): NWNW, Sec 5, T6S, R97W, 6th PM

COGCC Operator # 96850  
County: Garfield

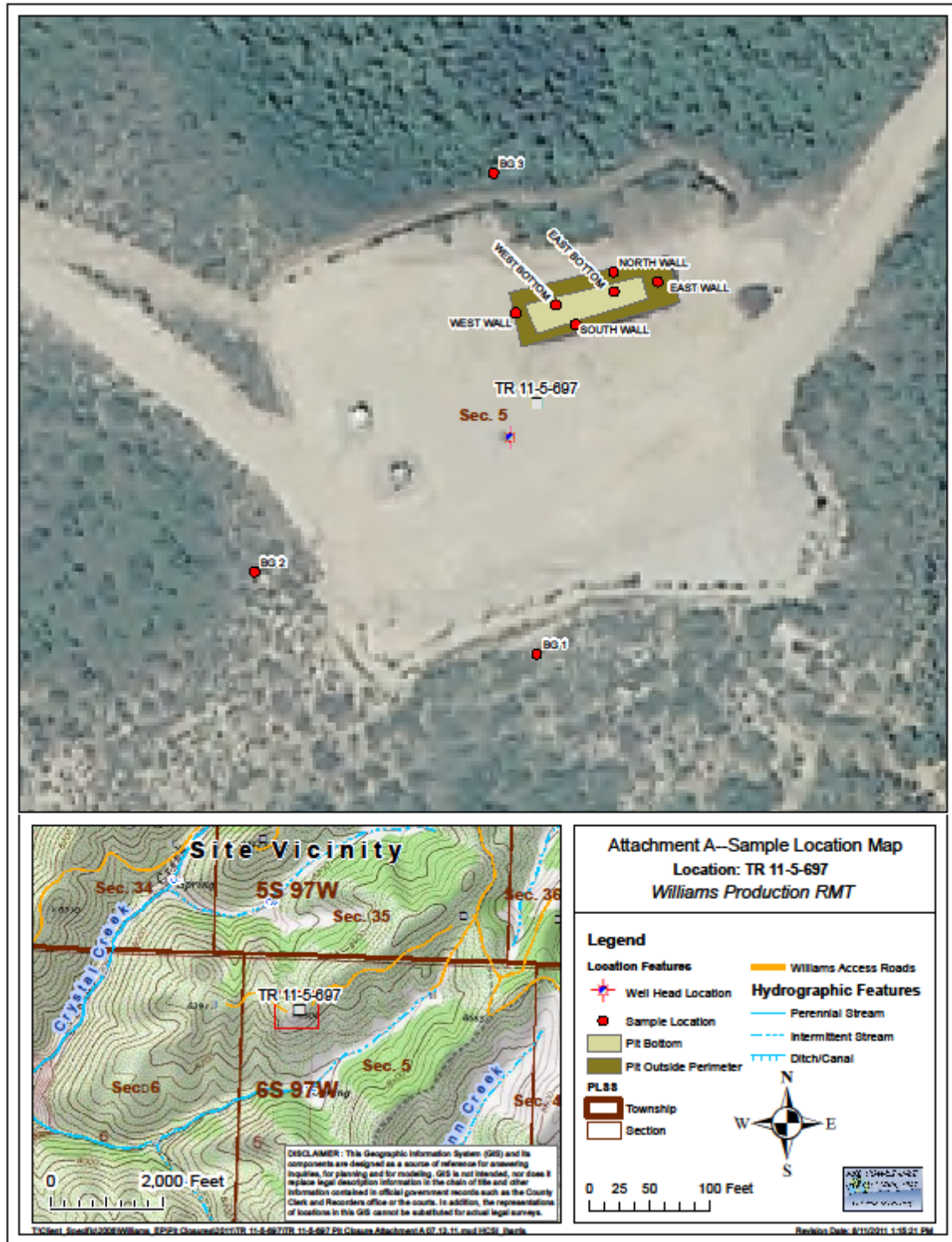
Table 1: PetroFlag Hydrocarbon Initial Field Screening Results

Sample ID	Results mg/kg
North Wall	713
East Wall	>5000
South Wall	>5000
West Wall	>5000
North Bottom	718
South Bottom	301

Note: All results are in mg/kg

Highlighted numbers indicate areas that warranted additional inspection and analysis

Figure 2  
GIS Map of Sampling Locations



Field screening results are provided in Table 1 and indicate that remediation is required due to TPH concentrations being above COGCC Table 910-1 standards.

## **Remediation Activities**

Soil exhibiting dark stains and a hydrocarbon odor were located on the pit bottom and adjacent walls indicating the potential presence of hydrocarbon concentrations exceeding 500 ppm and thus required remediation. The pit footprint was excavated to a depth approximately 3 feet in areas containing a potential hydrocarbon concentration above 500 ppm. Discoloration within soil was no longer present at the excavated depth and field screening results indicated that hydrocarbon concentrations were below 500 ppm. Confirmation samples were collected and analyzed for COGCC Table 910-1.

- Confirmation samples, in accordance with Rule 905.b.(4), were collected from the sides walls at a position that was centered vertically and horizontally. These samples were collected for confirmation of compliance with COGCC Rule 910 and Table 910-1; as well as verification of field screening analysis. Two (2) additional grab samples were collected from the base of the pit, dividing the bottom of the pit into quarters, which included the low point of the base, to demonstrate compliance in accordance with Rule 905.b.(1).
- A Trimble Geo XT 2008 was used to satisfy requirements outlined in COGCC Rule 215 for collecting GPS locations of each confirmation sample location from the pit walls and pit footprint.
- Visual inspection of the pit bottoms, field screening techniques, and sampling procedures were followed in accordance with Williams Highlands Pit Closure Plan (COGCC document #01175818).

Confirmation samples indicated that the north pit bottom exceeded COGCC Table 910-1 for hydrocarbon concentrations exceeding 500 ppm in the DRO range. An additional two feet was excavated from the northern pit bottom and re-sampled for DRO. Confirmation samples collected at 5 feet indicated that the DRO concentrations were well below COGCC Table 910-1, no additional remediation was required.

Analytical data presented in Table 2 provides results for the confirmation sampling performed post excavation of the pit footprint (raw analytical results are available for review in Appendix 1 of this report) and Table 3 provides confirmation sampling analysis of additional excavation performed on the north pit bottom (raw analytical results are available for review in Appendix 2)

## **Sample Analysis**

See attached Table 2 (additional detail provided in Appendix 1) for summary of pit bottom and wall raw analytical results, and Table 3 (additional detail provided in Appendix 2) which

provides raw analytical results for additional excavation on the north pit bottom analytical results, and Table 4 (additional detail provided in Appendix 3) for background analytical results.

### **Management of Stockpiled Material**

The pit liner was segregated according to material and placed in a bermed containment. Plastic lining material was placed in the south end of the containment and felt liners were placed on the north end. High Plains Services compressed and collected the liners and bound them to pallets for transportation to be recycled.

Excavated soils from within the pit was placed in treatment cells, no thicker than 18” and treated on site with bioremediation product.

### **Backfill Material**

The backfill material utilized was from the stockpiled soil present on the east side of the pad from the initial construction of the pit.

- The soil was placed in lifts and was not compacted beyond the point of making an impenetrable layer but sufficient to suppose subsequent operations and prevent subsidence.
- The pit was reclaimed in accordance with the COGCC 1000 Series Rule in addition to all SUA/COA’s per the land owner.

### **Exceptions to COGCC Table 910-1**

The only exceedances with COGCC Table 910-1 are within the confines of constituents listed for inorganics and metals (i.e. arsenic). Refer to Appendix 4 for the Sundry Notice for consideration of background arsenic concentrations in the immediate area of the subject facility.

### **Analytical Data Management**

See Appendix 1 for post excavated pit bottom and wall raw analytical data, Appendix 2 for additional excavation performed on the north pit bottom confirmation analytical data, and Appendix 3 for background analytical data.

## Figures



**Figure 3**



**Visual Representation of the Pit Facing East During Excavation**

## **Summary Tables**

Table 2: Post Excavation Pit Bottom Analytical Results

	North Bottom	South Bottom	East Wall	South Wall	West Wall	North Wall
<b>Post Excavation of Pit Walls and Bottom</b>						
TEPH (DRO)	550	30	490	7.7	77	430
TVPH (GRO)	15	ND	ND	ND	ND	38
BENZENE	ND	ND	ND	ND	ND	ND
TOLUENE	ND	ND	ND	ND	ND	ND
ETHYLBENZENE	ND	ND	ND	ND	ND	ND
XYLENE TOTAL	ND	ND	ND	ND	ND	ND
ACENAPHTHENE	ND	ND	ND	ND	ND	ND
ACENAPHTHYLENE	ND	ND	ND	ND	ND	ND
ANTHRACENE	.110	ND	ND	ND	ND	.096
BENZO(A)ANTHRACENE	ND	ND	ND	ND	ND	ND
BENZO(A)PYRENE	ND	ND	ND	ND	ND	ND
BENZO(B)FLUORANTHENE	ND	ND	ND	ND	ND	ND
BENZO(G,H,I)PERYLENE	ND	ND	ND	ND	ND	ND
BENZO(K)FLUORANTHENE	ND	ND	ND	ND	ND	ND
CHRYSENE	ND	ND	ND	ND	ND	ND
DIBENZO(A,H)ANTHRACENE	ND	ND	ND	ND	ND	ND
FLUORANTHENE	ND	ND	ND	ND	ND	ND
FLUORENE	.130	ND	ND	ND	ND	.097
INDENO(1,2,3-CD)PYRENE	ND	ND	ND	ND	ND	ND
NAPHTHALENE	ND	ND	ND	ND	ND	ND
PYRENE	ND	ND	ND	ND	ND	ND
ARSENIC	11	9.4	11	7.1	5.5	9.8
BARIUM	200	120	520	340	490	170
CADMIUM	ND	ND	0.88	ND	0.55	0.37
CHROMIUM	62	95	38	49	37	76
CHROMIUM (III)	62	95	38	49	38	76
CHROMIUM (IV)	ND	ND	ND	ND	ND	ND
COPPER	18	15	21	14	15	14
LEAD	17	13	21	15	14	15
NICKEL	40	40	34	26	24	36
SELENIUM	ND	ND	1.2	0.90	0.96	0.90
SILVER	ND	ND	ND	ND	ND	ND
ZINC	54	62	65	51	55	51
Sodium Absorbion Ratio (unitless)	63.2	12.7	33.1	152.1	7.1	60.8
Electric Conductivity (mmho/cm)	3.33	0.50	1.64	6.60	0.68	4.36
pH (unitless)	9.13	9.05	8.57	8.49	8.89	9.17

Note: all results are in, mg/kg = milligram per kilogram, unless noted  
Exceedances are highlighted in yellow.

Table 3: North Bottom – Additional Excavation

	North Bottom
<b>Post Excavation Pit Bottom @ 4 ft</b>	
TEPH (DRO)	170

Note: All results are in, mg/L = milligrams per liter, unless noted otherwise

Table 4: Background Analytical Data

	Arsenic	Sodium Absorption Ratio (unitless)	Electro Conductivity (mmhos/cm)	pH (unitless)
BKGD 1	7.5	0.5	0.35	6.93
BKGD 2	7.5			
BKGD 3	5.6			

All results are in, mg/kg = milligram per kilogram, unless noted otherwise

## **Appendix 1: Pit Bottom and Walls Confirmation Raw Analytical Data**



28-Jun-2011

Mark Mumby  
HRL Compliance Solutions  
744 Horizon Ct. Suite 140  
Grand Junction, CO 81506

Re: **TR 11-5-697 Pad LOE 6/19/11**

Work Order: **1106560**

Dear Mark,

ALS Environmental received 9 samples on 21-Jun-2011 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 46.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: IL100452

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental The ALS logo, a stylized blue triangle with a yellow flame inside.

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Work Order:** 1106560

**Work Order Sample Summary**

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1106560-01	West Wall	Soil		6/19/2011 12:40	6/21/2011 10:00	<input type="checkbox"/>
1106560-02	South Bottom	Soil		6/19/2011 12:55	6/21/2011 10:00	<input type="checkbox"/>
1106560-03	North Bottom	Soil		6/19/2011 12:45	6/21/2011 10:00	<input type="checkbox"/>
1106560-04	North Wall	Soil		6/19/2011 12:15	6/21/2011 10:00	<input type="checkbox"/>
1106560-05	South Wall	Soil		6/19/2011 12:30	6/21/2011 10:00	<input type="checkbox"/>
1106560-06	East Wall	Soil		6/19/2011 12:20	6/21/2011 10:00	<input type="checkbox"/>
1106560-07	BK 1	Soil		6/19/2011 13:15	6/21/2011 10:00	<input type="checkbox"/>
1106560-08	BK 2	Soil		6/19/2011 13:20	6/21/2011 10:00	<input type="checkbox"/>
1106560-09	BK 3	Soil		6/19/2011 13:25	6/21/2011 10:00	<input type="checkbox"/>

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**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Work Order:** 1106560

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**Case Narrative**

Batch 33973 MS/MSD data for Metals is not related to this project's samples.

Batch 34084 sample West Wall MS/MSD recoveries for Hexavalent Chromium were below control limits due to matrix interference. The reporting limit may be biased low.



**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**WorkOrder:** 1106560

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
TDL	Target Detection Limit

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
s.u.	Standard Units

# ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** West Wall  
**Collection Date:** 6/19/2011 12:40 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>77</b>		<b>SW8015M</b>		Prep Date: <b>6/22/2011</b>	Analyst: <b>RM</b>
			<b>4.7</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/23/2011 05:18 PM
<i>Surr: 4-Terphenyl-d14</i>	<i>76.5</i>		<i>39-115</i>	<i>%REC</i>	<i>1</i>	6/23/2011 05:18 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>			Analyst: <b>RM</b>
			<b>5.7</b>	<b>mg/Kg-dry</b>	<b>100</b>	6/23/2011 02:42 AM
<i>Surr: Toluene-d8</i>	<i>105</i>		<i>50-150</i>	<i>%REC</i>	<i>100</i>	6/23/2011 02:42 AM
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.020</b>		<b>SW7471</b>		Prep Date: <b>6/22/2011</b>	Analyst: <b>LR</b>
			<b>0.019</b>	<b>mg/Kg-dry</b>	<b>1</b>	6/23/2011 03:39 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>5.5</b>		<b>SW6020A</b>		Prep Date: <b>6/23/2011</b>	Analyst: <b>RH</b>
			<b>0.84</b>	<b>mg/Kg-dry</b>	<b>2</b>	6/24/2011 07:37 AM
<b>Barium</b>	<b>490</b>		<b>8.4</b>	<b>mg/Kg-dry</b>	<b>20</b>	6/24/2011 10:56 PM
<b>Cadmium</b>	<b>0.55</b>		<b>0.33</b>	<b>mg/Kg-dry</b>	<b>2</b>	6/24/2011 07:37 AM
<b>Chromium</b>	<b>37</b>		<b>0.84</b>	<b>mg/Kg-dry</b>	<b>2</b>	6/24/2011 07:37 AM
<b>Copper</b>	<b>15</b>		<b>0.84</b>	<b>mg/Kg-dry</b>	<b>2</b>	6/24/2011 07:37 AM
<b>Lead</b>	<b>14</b>		<b>8.4</b>	<b>mg/Kg-dry</b>	<b>20</b>	6/24/2011 10:56 PM
<b>Nickel</b>	<b>24</b>		<b>0.84</b>	<b>mg/Kg-dry</b>	<b>2</b>	6/24/2011 07:37 AM
<b>Selenium</b>	<b>0.96</b>		<b>0.84</b>	<b>mg/Kg-dry</b>	<b>2</b>	6/24/2011 07:37 AM
<b>Silver</b>	<b>ND</b>		<b>0.84</b>	<b>mg/Kg-dry</b>	<b>2</b>	6/24/2011 07:37 AM
<b>Zinc</b>	<b>55</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>2</b>	6/24/2011 07:37 AM
<b>SUBCONTRACTED ANALYSES</b>						
<b>Subcontracted Analyses</b>	<b>Rcvd 6/27/11</b>		<b>SUBCONTRACT</b>			Analyst: <b>A&amp;LGL</b>
			<b>attached</b>		<b>1</b>	6/27/2011
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270</b>		Prep Date: <b>6/22/2011</b>	Analyst: <b>CW</b>
			<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/23/2011 07:08 AM
<b>Anthracene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/23/2011 07:08 AM
<b>Benzo(a)anthracene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/23/2011 07:08 AM
<b>Benzo(a)pyrene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/23/2011 07:08 AM
<b>Benzo(b)fluoranthene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/23/2011 07:08 AM
<b>Benzo(g,h,i)perylene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/23/2011 07:08 AM
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/23/2011 07:08 AM
<b>Chrysene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/23/2011 07:08 AM
<b>Dibenzo(a,h)anthracene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/23/2011 07:08 AM
<b>Fluoranthene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/23/2011 07:08 AM
<b>Fluorene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/23/2011 07:08 AM
<b>Indeno(1,2,3-cd)pyrene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/23/2011 07:08 AM
<b>Naphthalene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/23/2011 07:08 AM
<b>Pyrene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	6/23/2011 07:08 AM
<i>Surr: 2,4,6-Tribromophenol</i>	<i>76.2</i>		<i>34-140</i>	<i>%REC</i>	<i>1</i>	6/23/2011 07:08 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** West Wall  
**Collection Date:** 6/19/2011 12:40 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: 2-Fluorobiphenyl</i>	66.9		12-100	%REC	1	6/23/2011 07:08 AM
<i>Surr: 2-Fluorophenol</i>	80.1		33-117	%REC	1	6/23/2011 07:08 AM
<i>Surr: 4-Terphenyl-d14</i>	88.6		25-137	%REC	1	6/23/2011 07:08 AM
<i>Surr: Nitrobenzene-d5</i>	75.2		37-107	%REC	1	6/23/2011 07:08 AM
<i>Surr: Phenol-d6</i>	73.5		40-106	%REC	1	6/23/2011 07:08 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>BG</b>
Benzene	ND		110	µg/Kg-dry	100	6/23/2011 05:52 AM
Ethylbenzene	ND		110	µg/Kg-dry	100	6/23/2011 05:52 AM
m,p-Xylene	ND		110	µg/Kg-dry	100	6/23/2011 05:52 AM
o-Xylene	ND		110	µg/Kg-dry	100	6/23/2011 05:52 AM
Toluene	ND		110	µg/Kg-dry	100	6/23/2011 05:52 AM
Xylenes, Total	ND		340	µg/Kg-dry	100	6/23/2011 05:52 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	113		70-120	%REC	100	6/23/2011 05:52 AM
<i>Surr: 4-Bromofluorobenzene</i>	102		75-120	%REC	100	6/23/2011 05:52 AM
<i>Surr: Dibromofluoromethane</i>	97.2		85-115	%REC	100	6/23/2011 05:52 AM
<i>Surr: Toluene-d8</i>	104		85-115	%REC	100	6/23/2011 05:52 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>EE</b>
Chromium, Trivalent	38			mg/L-dry	1	6/28/2011 04:45 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: <b>6/24/2011</b>	Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.57	mg/Kg-dry	1	6/28/2011 02:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	12		0.050	% of sample	1	6/22/2011 09:34 AM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>JS</b>
pH	8.89			s.u.	1	6/22/2011 08:30 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** South Bottom  
**Collection Date:** 6/19/2011 12:55 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-02  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>30</b>		<b>SW8015M</b>		Prep Date: <b>6/22/2011</b>	Analyst: <b>RM</b>
			<b>4.7</b>	<b>mg/Kg-dry</b>	1	6/23/2011 05:43 PM
Surr: 4-Terphenyl-d14	84.0		39-115	%REC	1	6/23/2011 05:43 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>			Analyst: <b>RM</b>
			<b>5.8</b>	<b>mg/Kg-dry</b>	100	6/23/2011 03:08 AM
Surr: Toluene-d8	104		50-150	%REC	100	6/23/2011 03:08 AM
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.024</b>		<b>SW7471</b>		Prep Date: <b>6/22/2011</b>	Analyst: <b>LR</b>
			<b>0.019</b>	<b>mg/Kg-dry</b>	1	6/23/2011 03:45 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>9.4</b>		<b>SW6020A</b>		Prep Date: <b>6/23/2011</b>	Analyst: <b>RH</b>
			<b>0.89</b>	<b>mg/Kg-dry</b>	2	6/24/2011 07:43 AM
<b>Barium</b>	<b>120</b>		<b>0.89</b>	<b>mg/Kg-dry</b>	2	6/24/2011 07:43 AM
Cadmium	ND		0.35	mg/Kg-dry	2	6/24/2011 07:43 AM
<b>Chromium</b>	<b>95</b>		<b>0.89</b>	<b>mg/Kg-dry</b>	2	6/24/2011 07:43 AM
<b>Copper</b>	<b>15</b>		<b>0.89</b>	<b>mg/Kg-dry</b>	2	6/24/2011 07:43 AM
<b>Lead</b>	<b>13</b>		<b>0.89</b>	<b>mg/Kg-dry</b>	2	6/24/2011 11:02 PM
<b>Nickel</b>	<b>40</b>		<b>0.89</b>	<b>mg/Kg-dry</b>	2	6/24/2011 07:43 AM
Selenium	ND		0.89	mg/Kg-dry	2	6/24/2011 07:43 AM
Silver	ND		0.89	mg/Kg-dry	2	6/24/2011 07:43 AM
<b>Zinc</b>	<b>62</b>		<b>1.8</b>	<b>mg/Kg-dry</b>	2	6/24/2011 07:43 AM
<b>SUBCONTRACTED ANALYSES</b>						
<b>Subcontracted Analyses</b>	<b>Rcvd 6/27/11</b>		<b>SUBCONTRACT</b>			Analyst: <b>A&amp;LGL</b>
			<b>attached</b>		1	6/27/2011
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270</b>		Prep Date: <b>6/22/2011</b>	Analyst: <b>CW</b>
			<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 07:44 AM
<b>Anthracene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 07:44 AM
<b>Benzo(a)anthracene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 07:44 AM
<b>Benzo(a)pyrene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 07:44 AM
<b>Benzo(b)fluoranthene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 07:44 AM
<b>Benzo(g,h,i)perylene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 07:44 AM
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 07:44 AM
<b>Chrysene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 07:44 AM
<b>Dibenzo(a,h)anthracene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 07:44 AM
<b>Fluoranthene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 07:44 AM
<b>Fluorene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 07:44 AM
<b>Indeno(1,2,3-cd)pyrene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 07:44 AM
<b>Naphthalene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 07:44 AM
<b>Pyrene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 07:44 AM
Surr: 2,4,6-Tribromophenol	74.3		34-140	%REC	1	6/23/2011 07:44 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** South Bottom  
**Collection Date:** 6/19/2011 12:55 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-02  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: 2-Fluorobiphenyl</i>	64.7		12-100	%REC	1	6/23/2011 07:44 AM
<i>Surr: 2-Fluorophenol</i>	77.5		33-117	%REC	1	6/23/2011 07:44 AM
<i>Surr: 4-Terphenyl-d14</i>	83.1		25-137	%REC	1	6/23/2011 07:44 AM
<i>Surr: Nitrobenzene-d5</i>	69.3		37-107	%REC	1	6/23/2011 07:44 AM
<i>Surr: Phenol-d6</i>	70.8		40-106	%REC	1	6/23/2011 07:44 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>BG</b>
Benzene	ND		120	µg/Kg-dry	100	6/23/2011 10:53 AM
Ethylbenzene	ND		120	µg/Kg-dry	100	6/23/2011 10:53 AM
m,p-Xylene	ND		120	µg/Kg-dry	100	6/23/2011 10:53 AM
o-Xylene	ND		120	µg/Kg-dry	100	6/23/2011 10:53 AM
Toluene	ND		120	µg/Kg-dry	100	6/23/2011 10:53 AM
Xylenes, Total	ND		350	µg/Kg-dry	100	6/23/2011 10:53 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	105		70-120	%REC	100	6/23/2011 10:53 AM
<i>Surr: 4-Bromofluorobenzene</i>	97.3		75-120	%REC	100	6/23/2011 10:53 AM
<i>Surr: Dibromofluoromethane</i>	96.0		85-115	%REC	100	6/23/2011 10:53 AM
<i>Surr: Toluene-d8</i>	101		85-115	%REC	100	6/23/2011 10:53 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>EE</b>
Chromium, Trivalent	95			mg/L-dry	1	6/28/2011 04:45 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: <b>6/24/2011</b>	Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	6/28/2011 02:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	14		0.050	% of sample	1	6/22/2011 09:34 AM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>JS</b>
pH	9.05			s.u.	1	6/22/2011 08:30 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** North Bottom  
**Collection Date:** 6/19/2011 12:45 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>550</b>		<b>SW8015M</b>		Prep Date: <b>6/22/2011</b>	Analyst: <b>RM</b>
<i>Surr: 4-Terphenyl-d14</i>	<i>92.4</i>		<i>39-115</i>	<i>%REC</i>	<i>1</i>	<i>6/23/2011 05:43 PM</i>
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>15</b>		<b>SW8015</b>			Analyst: <b>RM</b>
<i>Surr: Toluene-d8</i>	<i>105</i>		<i>50-150</i>	<i>%REC</i>	<i>100</i>	<i>6/23/2011 03:34 AM</i>
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.023</b>		<b>SW7471</b>		Prep Date: <b>6/23/2011</b>	Analyst: <b>LR</b>
			<b>0.018</b>	<b>mg/Kg-dry</b>	<b>1</b>	<b>6/24/2011 03:27 PM</b>
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>11</b>		<b>SW6020A</b>		Prep Date: <b>6/23/2011</b>	Analyst: <b>RH</b>
<b>Barium</b>	<b>200</b>		<b>0.87</b>	<b>mg/Kg-dry</b>	<b>2</b>	<b>6/24/2011 07:49 AM</b>
Cadmium	ND		<b>0.87</b>	<b>mg/Kg-dry</b>	<b>2</b>	<b>6/24/2011 07:49 AM</b>
<b>Chromium</b>	<b>62</b>		<b>0.35</b>	<b>mg/Kg-dry</b>	<b>2</b>	<b>6/24/2011 07:49 AM</b>
<b>Copper</b>	<b>18</b>		<b>0.87</b>	<b>mg/Kg-dry</b>	<b>2</b>	<b>6/24/2011 07:49 AM</b>
<b>Lead</b>	<b>17</b>		<b>0.87</b>	<b>mg/Kg-dry</b>	<b>2</b>	<b>6/24/2011 11:08 PM</b>
<b>Nickel</b>	<b>40</b>		<b>0.87</b>	<b>mg/Kg-dry</b>	<b>2</b>	<b>6/24/2011 07:49 AM</b>
Selenium	ND		<b>0.87</b>	<b>mg/Kg-dry</b>	<b>2</b>	<b>6/24/2011 07:49 AM</b>
Silver	ND		<b>0.87</b>	<b>mg/Kg-dry</b>	<b>2</b>	<b>6/24/2011 07:49 AM</b>
<b>Zinc</b>	<b>54</b>		<b>1.7</b>	<b>mg/Kg-dry</b>	<b>2</b>	<b>6/24/2011 07:49 AM</b>
<b>SUBCONTRACTED ANALYSES</b>						
<b>Subcontracted Analyses</b>		<b>Rcvd 6/27/11</b>	<b>SUBCONTRACT</b>			Analyst: <b>A&amp;LGL</b>
			<b>attached</b>		<b>1</b>	<b>6/27/2011</b>
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270</b>		Prep Date: <b>6/22/2011</b>	Analyst: <b>CW</b>
<b>Anthracene</b>	<b>110</b>		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>6/23/2011 08:19 AM</b>
Benzo(a)anthracene	ND		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>6/23/2011 08:19 AM</b>
Benzo(a)pyrene	ND		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>6/23/2011 08:19 AM</b>
Benzo(b)fluoranthene	ND		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>6/23/2011 08:19 AM</b>
Benzo(g,h,i)perylene	ND		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>6/23/2011 08:19 AM</b>
Benzo(k)fluoranthene	ND		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>6/23/2011 08:19 AM</b>
Chrysene	ND		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>6/23/2011 08:19 AM</b>
Dibenzo(a,h)anthracene	ND		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>6/23/2011 08:19 AM</b>
Fluoranthene	ND		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>6/23/2011 08:19 AM</b>
<b>Fluorene</b>	<b>130</b>		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>6/23/2011 08:19 AM</b>
Indeno(1,2,3-cd)pyrene	ND		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>6/23/2011 08:19 AM</b>
Naphthalene	ND		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>6/23/2011 08:19 AM</b>
Pyrene	ND		<b>34</b>	<b>µg/Kg-dry</b>	<b>1</b>	<b>6/23/2011 08:19 AM</b>
<i>Surr: 2,4,6-Tribromophenol</i>	<i>71.7</i>		<i>34-140</i>	<i>%REC</i>	<i>1</i>	<i>6/23/2011 08:19 AM</i>

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** North Bottom  
**Collection Date:** 6/19/2011 12:45 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-03  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: 2-Fluorobiphenyl</i>	77.9		12-100	%REC	1	6/23/2011 08:19 AM
<i>Surr: 2-Fluorophenol</i>	82.3		33-117	%REC	1	6/23/2011 08:19 AM
<i>Surr: 4-Terphenyl-d14</i>	96.9		25-137	%REC	1	6/23/2011 08:19 AM
<i>Surr: Nitrobenzene-d5</i>	56.2		37-107	%REC	1	6/23/2011 08:19 AM
<i>Surr: Phenol-d6</i>	75.6		40-106	%REC	1	6/23/2011 08:19 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>BG</b>
Benzene	ND		110	µg/Kg-dry	100	6/23/2011 11:17 AM
Ethylbenzene	ND		110	µg/Kg-dry	100	6/23/2011 11:17 AM
m,p-Xylene	ND		110	µg/Kg-dry	100	6/23/2011 11:17 AM
o-Xylene	ND		110	µg/Kg-dry	100	6/23/2011 11:17 AM
Toluene	ND		110	µg/Kg-dry	100	6/23/2011 11:17 AM
Xylenes, Total	ND		340	µg/Kg-dry	100	6/23/2011 11:17 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	106		70-120	%REC	100	6/23/2011 11:17 AM
<i>Surr: 4-Bromofluorobenzene</i>	99.4		75-120	%REC	100	6/23/2011 11:17 AM
<i>Surr: Dibromofluoromethane</i>	96.3		85-115	%REC	100	6/23/2011 11:17 AM
<i>Surr: Toluene-d8</i>	101		85-115	%REC	100	6/23/2011 11:17 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>EE</b>
Chromium, Trivalent	62			mg/L-dry	1	6/28/2011 04:45 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: <b>6/24/2011</b>	Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.57	mg/Kg-dry	1	6/28/2011 02:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	13		0.050	% of sample	1	6/22/2011 09:34 AM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>JS</b>
pH	9.13			s.u.	1	6/22/2011 08:30 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** North Wall  
**Collection Date:** 6/19/2011 12:15 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-04  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>6/22/2011</b>	Analyst: <b>RM</b>
<b>DRO (C10-C28)</b>	<b>430</b>		<b>4.7</b>	<b>mg/Kg-dry</b>	1	6/23/2011 06:08 PM
Surr: 4-Terphenyl-d14	110		39-115	%REC	1	6/23/2011 06:08 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RM</b>
<b>GRO (C6-C10)</b>	<b>38</b>		<b>5.7</b>	<b>mg/Kg-dry</b>	100	6/23/2011 04:00 AM
Surr: Toluene-d8	106		50-150	%REC	100	6/23/2011 04:00 AM
<b>MERCURY BY CVAA</b>						
			<b>SW7471</b>		Prep Date: <b>6/23/2011</b>	Analyst: <b>LR</b>
<b>Mercury</b>	<b>0.022</b>		<b>0.021</b>	<b>mg/Kg-dry</b>	1	6/24/2011 03:38 PM
<b>METALS BY ICP-MS</b>						
			<b>SW6020A</b>		Prep Date: <b>6/23/2011</b>	Analyst: <b>RH</b>
<b>Arsenic</b>	<b>9.8</b>		<b>0.82</b>	<b>mg/Kg-dry</b>	2	6/24/2011 07:55 AM
<b>Barium</b>	<b>170</b>		<b>0.82</b>	<b>mg/Kg-dry</b>	2	6/24/2011 07:55 AM
<b>Cadmium</b>	<b>0.37</b>		<b>0.33</b>	<b>mg/Kg-dry</b>	2	6/24/2011 07:55 AM
<b>Chromium</b>	<b>76</b>		<b>0.82</b>	<b>mg/Kg-dry</b>	2	6/24/2011 07:55 AM
<b>Copper</b>	<b>14</b>		<b>0.82</b>	<b>mg/Kg-dry</b>	2	6/24/2011 07:55 AM
<b>Lead</b>	<b>15</b>		<b>0.82</b>	<b>mg/Kg-dry</b>	2	6/24/2011 11:14 PM
<b>Nickel</b>	<b>36</b>		<b>0.82</b>	<b>mg/Kg-dry</b>	2	6/24/2011 07:55 AM
<b>Selenium</b>	<b>0.90</b>		<b>0.82</b>	<b>mg/Kg-dry</b>	2	6/24/2011 07:55 AM
Silver	ND		0.82	mg/Kg-dry	2	6/24/2011 07:55 AM
<b>Zinc</b>	<b>51</b>		<b>1.6</b>	<b>mg/Kg-dry</b>	2	6/24/2011 07:55 AM
<b>SUBCONTRACTED ANALYSES</b>						
<b>Subcontracted Analyses</b>		<b>Rcvd 6/27/11</b>	<b>SUBCONTRACT</b>			Analyst: <b>A&amp;LGL</b>
			<b>attached</b>		1	6/27/2011
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8270</b>		Prep Date: <b>6/22/2011</b>	Analyst: <b>CW</b>
<b>Acenaphthene</b>	<b>ND</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 08:55 AM
<b>Anthracene</b>	<b>96</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 08:55 AM
Benzo(a)anthracene	ND		34	µg/Kg-dry	1	6/23/2011 08:55 AM
Benzo(a)pyrene	ND		34	µg/Kg-dry	1	6/23/2011 08:55 AM
Benzo(b)fluoranthene	ND		34	µg/Kg-dry	1	6/23/2011 08:55 AM
Benzo(g,h,i)perylene	ND		34	µg/Kg-dry	1	6/23/2011 08:55 AM
Benzo(k)fluoranthene	ND		34	µg/Kg-dry	1	6/23/2011 08:55 AM
Chrysene	ND		34	µg/Kg-dry	1	6/23/2011 08:55 AM
Dibenzo(a,h)anthracene	ND		34	µg/Kg-dry	1	6/23/2011 08:55 AM
Fluoranthene	ND		34	µg/Kg-dry	1	6/23/2011 08:55 AM
<b>Fluorene</b>	<b>97</b>		<b>34</b>	<b>µg/Kg-dry</b>	1	6/23/2011 08:55 AM
Indeno(1,2,3-cd)pyrene	ND		34	µg/Kg-dry	1	6/23/2011 08:55 AM
Naphthalene	ND		34	µg/Kg-dry	1	6/23/2011 08:55 AM
Pyrene	ND		34	µg/Kg-dry	1	6/23/2011 08:55 AM
Surr: 2,4,6-Tribromophenol	70.8		34-140	%REC	1	6/23/2011 08:55 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** North Wall  
**Collection Date:** 6/19/2011 12:15 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-04  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: 2-Fluorobiphenyl</i>	67.0		12-100	%REC	1	6/23/2011 08:55 AM
<i>Surr: 2-Fluorophenol</i>	72.2		33-117	%REC	1	6/23/2011 08:55 AM
<i>Surr: 4-Terphenyl-d14</i>	94.4		25-137	%REC	1	6/23/2011 08:55 AM
<i>Surr: Nitrobenzene-d5</i>	52.2		37-107	%REC	1	6/23/2011 08:55 AM
<i>Surr: Phenol-d6</i>	67.4		40-106	%REC	1	6/23/2011 08:55 AM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>BG</b>
Benzene	ND		110	µg/Kg-dry	100	6/23/2011 11:43 AM
Ethylbenzene	ND		110	µg/Kg-dry	100	6/23/2011 11:43 AM
m,p-Xylene	ND		110	µg/Kg-dry	100	6/23/2011 11:43 AM
o-Xylene	ND		110	µg/Kg-dry	100	6/23/2011 11:43 AM
Toluene	ND		110	µg/Kg-dry	100	6/23/2011 11:43 AM
Xylenes, Total	ND		340	µg/Kg-dry	100	6/23/2011 11:43 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	105		70-120	%REC	100	6/23/2011 11:43 AM
<i>Surr: 4-Bromofluorobenzene</i>	99.3		75-120	%REC	100	6/23/2011 11:43 AM
<i>Surr: Dibromofluoromethane</i>	95.8		85-115	%REC	100	6/23/2011 11:43 AM
<i>Surr: Toluene-d8</i>	99.9		85-115	%REC	100	6/23/2011 11:43 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>EE</b>
Chromium, Trivalent	76			mg/L-dry	1	6/28/2011 04:45 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: <b>6/24/2011</b>	Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.56	mg/Kg-dry	1	6/28/2011 02:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	12		0.050	% of sample	1	6/22/2011 09:34 AM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>JS</b>
pH	9.17			s.u.	1	6/22/2011 08:30 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** South Wall  
**Collection Date:** 6/19/2011 12:30 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-05  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>7.7</b>		<b>SW8015M</b>		Prep Date: <b>6/22/2011</b>	Analyst: <b>RM</b>
			<b>5.1</b>	<b>mg/Kg-dry</b>	1	6/23/2011 06:08 PM
Surr: 4-Terphenyl-d14	82.3		39-115	%REC	1	6/23/2011 06:08 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>			Analyst: <b>RM</b>
			<b>6.2</b>	<b>mg/Kg-dry</b>	100	6/23/2011 04:26 AM
Surr: Toluene-d8	104		50-150	%REC	100	6/23/2011 04:26 AM
<b>MERCURY BY CVAA</b>						
Mercury	ND		<b>SW7471</b>		Prep Date: <b>6/23/2011</b>	Analyst: <b>LR</b>
			<b>0.021</b>	<b>mg/Kg-dry</b>	1	6/24/2011 03:40 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>7.1</b>		<b>SW6020A</b>		Prep Date: <b>6/23/2011</b>	Analyst: <b>RH</b>
			<b>0.89</b>	<b>mg/Kg-dry</b>	2	6/24/2011 08:00 AM
<b>Barium</b>	<b>340</b>		<b>8.9</b>	<b>mg/Kg-dry</b>	20	6/24/2011 11:20 PM
Cadmium	ND		0.35	mg/Kg-dry	2	6/24/2011 08:00 AM
<b>Chromium</b>	<b>49</b>		<b>0.89</b>	<b>mg/Kg-dry</b>	2	6/24/2011 08:00 AM
<b>Copper</b>	<b>14</b>		<b>0.89</b>	<b>mg/Kg-dry</b>	2	6/24/2011 08:00 AM
<b>Lead</b>	<b>15</b>		<b>8.9</b>	<b>mg/Kg-dry</b>	20	6/24/2011 11:20 PM
<b>Nickel</b>	<b>26</b>		<b>0.89</b>	<b>mg/Kg-dry</b>	2	6/24/2011 08:00 AM
<b>Selenium</b>	<b>0.90</b>		<b>0.89</b>	<b>mg/Kg-dry</b>	2	6/24/2011 08:00 AM
Silver	ND		0.89	mg/Kg-dry	2	6/24/2011 08:00 AM
<b>Zinc</b>	<b>51</b>		<b>1.8</b>	<b>mg/Kg-dry</b>	2	6/24/2011 08:00 AM
<b>SUBCONTRACTED ANALYSES</b>						
<b>Subcontracted Analyses</b>	<b>Rcvd 6/27/11</b>		<b>SUBCONTRACT</b>			Analyst: <b>A&amp;LGL</b>
			<b>attached</b>		1	6/27/2011
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270</b>		Prep Date: <b>6/22/2011</b>	Analyst: <b>CW</b>
			<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 05:29 PM
<b>Anthracene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 05:29 PM
<b>Benzo(a)anthracene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 05:29 PM
<b>Benzo(a)pyrene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 05:29 PM
<b>Benzo(b)fluoranthene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 05:29 PM
<b>Benzo(g,h,i)perylene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 05:29 PM
<b>Benzo(k)fluoranthene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 05:29 PM
<b>Chrysene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 05:29 PM
<b>Dibenzo(a,h)anthracene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 05:29 PM
<b>Fluoranthene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 05:29 PM
<b>Fluorene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 05:29 PM
<b>Indeno(1,2,3-cd)pyrene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 05:29 PM
<b>Naphthalene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 05:29 PM
<b>Pyrene</b>	<b>ND</b>		<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 05:29 PM
Surr: 2,4,6-Tribromophenol	64.1		34-140	%REC	1	6/23/2011 05:29 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** South Wall  
**Collection Date:** 6/19/2011 12:30 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-05  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: 2-Fluorobiphenyl</i>	48.5		12-100	%REC	1	6/23/2011 05:29 PM
<i>Surr: 2-Fluorophenol</i>	69.1		33-117	%REC	1	6/23/2011 05:29 PM
<i>Surr: 4-Terphenyl-d14</i>	80.6		25-137	%REC	1	6/23/2011 05:29 PM
<i>Surr: Nitrobenzene-d5</i>	65.9		37-107	%REC	1	6/23/2011 05:29 PM
<i>Surr: Phenol-d6</i>	64.7		40-106	%REC	1	6/23/2011 05:29 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>BG</b>
Benzene	ND		120	µg/Kg-dry	100	6/23/2011 03:47 AM
Ethylbenzene	ND		120	µg/Kg-dry	100	6/23/2011 03:47 AM
m,p-Xylene	ND		120	µg/Kg-dry	100	6/23/2011 03:47 AM
o-Xylene	ND		120	µg/Kg-dry	100	6/23/2011 03:47 AM
Toluene	ND		120	µg/Kg-dry	100	6/23/2011 03:47 AM
Xylenes, Total	ND		370	µg/Kg-dry	100	6/23/2011 03:47 AM
<i>Surr: 1,2-Dichloroethane-d4</i>	113		70-120	%REC	100	6/23/2011 03:47 AM
<i>Surr: 4-Bromofluorobenzene</i>	101		75-120	%REC	100	6/23/2011 03:47 AM
<i>Surr: Dibromofluoromethane</i>	97.2		85-115	%REC	100	6/23/2011 03:47 AM
<i>Surr: Toluene-d8</i>	104		85-115	%REC	100	6/23/2011 03:47 AM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>EE</b>
Chromium, Trivalent	49			mg/L-dry	1	6/28/2011 04:45 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: <b>6/24/2011</b>	Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.62	mg/Kg-dry	1	6/28/2011 02:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	19		0.050	% of sample	1	6/22/2011 09:34 AM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>JS</b>
pH	8.49			s.u.	1	6/22/2011 08:30 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** East Wall  
**Collection Date:** 6/19/2011 12:20 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-06  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
<b>DRO (C10-C28)</b>	<b>490</b>		<b>SW8015M</b>		Prep Date: <b>6/22/2011</b>	Analyst: <b>RM</b>
			<b>5.0</b>	<b>mg/Kg-dry</b>	1	6/23/2011 06:33 PM
Surr: 4-Terphenyl-d14	106		39-115	%REC	1	6/23/2011 06:33 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>SW8015</b>			Analyst: <b>RM</b>
			<b>6.1</b>	<b>mg/Kg-dry</b>	100	6/23/2011 04:52 AM
Surr: Toluene-d8	105		50-150	%REC	100	6/23/2011 04:52 AM
<b>MERCURY BY CVAA</b>						
<b>Mercury</b>	<b>0.036</b>		<b>SW7471</b>		Prep Date: <b>6/23/2011</b>	Analyst: <b>LR</b>
			<b>0.020</b>	<b>mg/Kg-dry</b>	1	6/24/2011 03:42 PM
<b>METALS BY ICP-MS</b>						
<b>Arsenic</b>	<b>11</b>		<b>SW6020A</b>		Prep Date: <b>6/23/2011</b>	Analyst: <b>RH</b>
			<b>0.79</b>	<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
<b>Barium</b>	<b>520</b>			<b>mg/Kg-dry</b>	20	6/25/2011 10:08 AM
			<b>7.9</b>	<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
<b>Cadmium</b>	<b>0.88</b>			<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
			<b>0.32</b>	<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
<b>Chromium</b>	<b>38</b>			<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
			<b>0.79</b>	<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
<b>Copper</b>	<b>21</b>			<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
			<b>0.79</b>	<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
<b>Lead</b>	<b>21</b>			<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
			<b>0.79</b>	<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
<b>Nickel</b>	<b>34</b>			<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
			<b>0.79</b>	<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
<b>Selenium</b>	<b>1.2</b>			<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
			<b>0.79</b>	<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
<b>Silver</b>	<b>ND</b>			<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
			<b>0.79</b>	<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
<b>Zinc</b>	<b>65</b>			<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
			<b>1.6</b>	<b>mg/Kg-dry</b>	2	6/24/2011 11:25 PM
<b>SUBCONTRACTED ANALYSES</b>						
<b>Subcontracted Analyses</b>		<b>Rcvd 6/27/11</b>	<b>SUBCONTRACT</b>			Analyst: <b>A&amp;LGL</b>
			<b>attached</b>		1	6/27/2011
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
<b>Acenaphthene</b>	<b>ND</b>		<b>SW8270</b>		Prep Date: <b>6/22/2011</b>	Analyst: <b>CW</b>
			<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
<b>Anthracene</b>	<b>ND</b>			<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
			<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
<b>Benzo(a)anthracene</b>	<b>ND</b>			<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
			<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
<b>Benzo(a)pyrene</b>	<b>ND</b>			<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
			<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
<b>Benzo(b)fluoranthene</b>	<b>ND</b>			<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
			<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
<b>Benzo(g,h,i)perylene</b>	<b>ND</b>			<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
			<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
<b>Benzo(k)fluoranthene</b>	<b>ND</b>			<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
			<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
<b>Chrysene</b>	<b>ND</b>			<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
			<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
<b>Dibenzo(a,h)anthracene</b>	<b>ND</b>			<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
			<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
<b>Fluoranthene</b>	<b>ND</b>			<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
			<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
<b>Fluorene</b>	<b>ND</b>			<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
			<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
<b>Indeno(1,2,3-cd)pyrene</b>	<b>ND</b>			<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
			<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
<b>Naphthalene</b>	<b>ND</b>			<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
			<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
<b>Pyrene</b>	<b>ND</b>			<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
			<b>36</b>	<b>µg/Kg-dry</b>	1	6/23/2011 06:06 PM
Surr: 2,4,6-Tribromophenol	77.3		34-140	%REC	1	6/23/2011 06:06 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** East Wall  
**Collection Date:** 6/19/2011 12:20 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-06  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: 2-Fluorobiphenyl</i>	66.5		12-100	%REC	1	6/23/2011 06:06 PM
<i>Surr: 2-Fluorophenol</i>	75.5		33-117	%REC	1	6/23/2011 06:06 PM
<i>Surr: 4-Terphenyl-d14</i>	99.6		25-137	%REC	1	6/23/2011 06:06 PM
<i>Surr: Nitrobenzene-d5</i>	62.4		37-107	%REC	1	6/23/2011 06:06 PM
<i>Surr: Phenol-d6</i>	71.5		40-106	%REC	1	6/23/2011 06:06 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>			<b>SW8260</b>			Analyst: <b>AK</b>
Benzene	ND		120	µg/Kg-dry	100	6/23/2011 08:30 PM
Ethylbenzene	ND		120	µg/Kg-dry	100	6/23/2011 08:30 PM
m,p-Xylene	ND		120	µg/Kg-dry	100	6/23/2011 08:30 PM
o-Xylene	ND		120	µg/Kg-dry	100	6/23/2011 08:30 PM
Toluene	ND		120	µg/Kg-dry	100	6/23/2011 08:30 PM
Xylenes, Total	ND		370	µg/Kg-dry	100	6/23/2011 08:30 PM
<i>Surr: 1,2-Dichloroethane-d4</i>	100		70-120	%REC	100	6/23/2011 08:30 PM
<i>Surr: 4-Bromofluorobenzene</i>	101		75-120	%REC	100	6/23/2011 08:30 PM
<i>Surr: Dibromofluoromethane</i>	92.3		85-115	%REC	100	6/23/2011 08:30 PM
<i>Surr: Toluene-d8</i>	100		85-115	%REC	100	6/23/2011 08:30 PM
<b>CHROMIUM, TRIVALENT</b>			<b>CALCULATION</b>			Analyst: <b>EE</b>
Chromium, Trivalent	38			mg/L-dry	1	6/28/2011 04:45 PM
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: <b>6/24/2011</b>	Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.61	mg/Kg-dry	1	6/28/2011 02:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	18		0.050	% of sample	1	6/22/2011 09:34 AM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>JS</b>
pH	8.57			s.u.	1	6/22/2011 08:30 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Report Number: F11174-0161

Account Number: 91000

# A & L GREAT LAKES LABORATORIES, INC.

3505 Conestoga Drive • Fort Wayne, Indiana 46808-4413 • Phone 260-483-4759 • Fax 260-483-5274  
www.algreatlakes.com • lab@algreatlakes.com



**QUALITY ANALYSES FOR INFORMED DECISIONS**

TO: ALS LABORATORY GROUP  
3352 128TH AVE  
HOLLAND, MI 49424-9263

RE: 1106560

DATE RECEIVED: 06/23/2011

DATE REPORTED: 06/27/2011

PAGE: 1

P.O. NUMBER: 20-122010287

ATTN: ANN PRESTON

## REPORT OF ANALYSIS

LAB NO.	SAMPLE ID	ANALYSIS	RESULT	UNIT	METHOD
80388	01C	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	0.68	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	48	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	15	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	219	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	7.1	-	USDA Handbook 60
80389	02C	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	0.50	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	23	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	7	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	272	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	12.7	-	USDA Handbook 60
80390	03C	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	3.33	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	65	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	22	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	2319	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	63.2	-	USDA Handbook 60
80391	04C	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	4.36	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	108	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	33	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	2822	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	60.8	-	USDA Handbook 60

Report Number: F11174-0161

Account Number: 91000

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**QUALITY ANALYSES FOR INFORMED DECISIONS**

TO: ALS LABORATORY GROUP  
3352 128TH AVE  
HOLLAND, MI 49424-9263

RE: 1106560

DATE RECEIVED: 06/23/2011

DATE REPORTED: 06/27/2011

PAGE: 2

P.O. NUMBER: 20-122010287

ATTN: ANN PRESTON

## REPORT OF ANALYSIS

LAB NO.	SAMPLE ID	ANALYSIS	RESULT	UNIT	METHOD
80392	05C	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	6.60	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	67	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	16	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	5352	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	152.1	-	USDA Handbook 60
80393	06C	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	1.64	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	54	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	12	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	1034	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	33.1	-	USDA Handbook 60
80394	07B	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	0.35	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	54	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	9	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	16	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	0.5	-	USDA Handbook 60

# ALS Group USA, Corp

Date: 28-Jun-11

Client: HRL Compliance Solutions

## QC BATCH REPORT

Work Order: 1106560

Project: TR 11-5-697 Pad LOE 6/19/11

Batch ID: 33935 Instrument ID GC8 Method: SW8015M

<b>MBLK</b>	Sample ID: <b>DBLKS1-33935-33935</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/23/2011 11:59 AM</b>			
Client ID:	Run ID: <b>GC8_110623A</b>				SeqNo: <b>1658103</b>		Prep Date: <b>6/22/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	1.402	0	1.667	0	84.1	39-115	0			

<b>LCS</b>	Sample ID: <b>DLCSS1-33935-33935</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/23/2011 10:45 AM</b>			
Client ID:	Run ID: <b>GC8_110623A</b>				SeqNo: <b>1658101</b>		Prep Date: <b>6/22/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	162.7	4.2	166.7	0	97.6	60-130	0			
Surr: 4-Terphenyl-d14	1.267	0	1.667	0	76	39-115	0			

<b>LCSD</b>	Sample ID: <b>DLCSDS1-33935-33935</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/23/2011 10:45 AM</b>			
Client ID:	Run ID: <b>GC8_110623A</b>				SeqNo: <b>1658111</b>		Prep Date: <b>6/22/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	161.3	4.2	166.7	0	96.8	60-130	162.7	0.868	30	
Surr: 4-Terphenyl-d14	1.256	0	1.667	0	75.4	39-115	1.267	0.845	30	

<b>MS</b>	Sample ID: <b>1106554-02B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/23/2011 11:10 AM</b>			
Client ID:	Run ID: <b>GC8_110623A</b>				SeqNo: <b>1658102</b>		Prep Date: <b>6/22/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	303.7	8.1	326	3.384	92.1	60-130	0			
Surr: 4-Terphenyl-d14	2.276	0	3.26	0	69.8	39-115	0			

<b>MSD</b>	Sample ID: <b>1106554-02B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/23/2011 11:10 AM</b>			
Client ID:	Run ID: <b>GC8_110623A</b>				SeqNo: <b>1658112</b>		Prep Date: <b>6/22/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	333.9	8.0	319.2	3.384	104	60-130	303.7	9.49	30	
Surr: 4-Terphenyl-d14	2.548	0	3.192	0	79.8	39-115	2.276	11.3	30	

The following samples were analyzed in this batch:

1106560-01B	1106560-02B	1106560-03B
1106560-04B	1106560-05B	1106560-06B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



Client: HRL Compliance Solutions  
 Work Order: 1106560  
 Project: TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **R91426** Instrument ID **GC9** Method: **SW8015**

<b>MBLK</b>	Sample ID: <b>MBLK-R91426-R91426</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/23/2011 12:58 PM</b>			
Client ID:	Run ID: <b>GC9_110622B</b>				SeqNo: <b>1657618</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
<i>Surr: Toluene-d8</i>	<i>104.9</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>105</i>	<i>70-130</i>	<i>0</i>			

<b>LCS</b>	Sample ID: <b>LCS-R91426-R91426</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/22/2011 11:41 PM</b>			
Client ID:	Run ID: <b>GC9_110622B</b>				SeqNo: <b>1657616</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	24400	200	25000	0	97.6	70-130	0			
<i>Surr: Toluene-d8</i>	<i>98.09</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>98.1</i>	<i>70-130</i>	<i>0</i>			

<b>LCSD</b>	Sample ID: <b>LCSD-R91426-R91426</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/23/2011 12:06 PM</b>			
Client ID:	Run ID: <b>GC9_110622B</b>				SeqNo: <b>1657617</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	23850	200	25000	0	95.4	70-130	24400	2.29	30	
<i>Surr: Toluene-d8</i>	<i>94.73</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>94.7</i>	<i>70-130</i>	<i>98.09</i>	<i>3.49</i>	<i>30</i>	

<b>MS</b>	Sample ID: <b>1106512-03A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/23/2011 08:19 AM</b>			
Client ID:	Run ID: <b>GC9_110622B</b>				SeqNo: <b>1657635</b>		Prep Date:		DF: <b>50</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1290000	2,500	1250000	0	103	70-130	0			
<i>Surr: Toluene-d8</i>	<i>5120</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>102</i>	<i>50-150</i>	<i>0</i>			

<b>MSD</b>	Sample ID: <b>1106512-03A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/23/2011 08:46 AM</b>			
Client ID:	Run ID: <b>GC9_110622B</b>				SeqNo: <b>1657636</b>		Prep Date:		DF: <b>50</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1269000	2,500	1250000	0	102	70-130	1290000	1.65	30	
<i>Surr: Toluene-d8</i>	<i>4957</i>	<i>0</i>	<i>5000</i>	<i>0</i>	<i>99.1</i>	<i>50-150</i>	<i>5120</i>	<i>3.23</i>	<i>30</i>	

The following samples were analyzed in this batch:

1106560-01A	1106560-02A	1106560-03A
1106560-04A	1106560-05A	1106560-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1106560  
**Project:** TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **33951**      Instrument ID **HG1**      Method: **SW7471**

<b>MBLK</b>	Sample ID: <b>MBLK-33951-33951</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/23/2011 02:32 PM</b>			
Client ID:	Run ID: <b>HG1_110623A</b>				SeqNo: <b>1657873</b>		Prep Date: <b>6/22/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

<b>LCS</b>	Sample ID: <b>LCS-33951-33951</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/23/2011 02:34 PM</b>			
Client ID:	Run ID: <b>HG1_110623A</b>				SeqNo: <b>1657874</b>		Prep Date: <b>6/22/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1822	0.020	0.1665		0	109	80-120	0		

<b>LCSD</b>	Sample ID: <b>LCSD-33951-33951</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/23/2011 02:37 PM</b>			
Client ID:	Run ID: <b>HG1_110623A</b>				SeqNo: <b>1657875</b>		Prep Date: <b>6/22/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1771	0.020	0.1665		0	106	80-120	0.1822	2.83	20

<b>MS</b>	Sample ID: <b>1106554-02BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/23/2011 03:31 PM</b>			
Client ID:	Run ID: <b>HG1_110623A</b>				SeqNo: <b>1657969</b>		Prep Date: <b>6/22/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1609	0.014	0.1182	0.03875	103	75-125		0		

<b>MSD</b>	Sample ID: <b>1106554-02BMDS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/23/2011 03:33 PM</b>			
Client ID:	Run ID: <b>HG1_110623A</b>				SeqNo: <b>1657971</b>		Prep Date: <b>6/22/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1552	0.015	0.1215	0.03875	95.8	75-125	0.1609	3.62	35	

The following samples were analyzed in this batch:

1106560-01B	1106560-02B
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1106560  
**Project:** TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **33977** Instrument ID **HG1** Method: **SW7471**

**MBLK** Sample ID: **MBLK-33977-33977** Units: **mg/Kg** Analysis Date: **6/24/2011 03:21 PM**

Client ID: Run ID: **HG1\_110624A** SeqNo: **1659528** Prep Date: **6/23/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

**LCS** Sample ID: **LCS-33977-33977** Units: **mg/Kg** Analysis Date: **6/24/2011 03:23 PM**

Client ID: Run ID: **HG1\_110624A** SeqNo: **1659529** Prep Date: **6/23/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1761	0.020	0.1665	0	106	80-120	0			

**LCSD** Sample ID: **LCSD-33977-33977** Units: **mg/Kg** Analysis Date: **6/24/2011 03:25 PM**

Client ID: Run ID: **HG1\_110624A** SeqNo: **1659530** Prep Date: **6/23/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1686	0.020	0.1665	0	101	80-120	0.1761	4.35	20	

The following samples were analyzed in this batch:

1106560-03B	1106560-04B	1106560-05B
1106560-06B		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1106560  
**Project:** TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **33973**      Instrument ID **ICPMS1**      Method: **SW6020A**

<b>MBLK</b>	Sample ID: <b>MBLK-33973-33973</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/24/2011 05:57 AM</b>			
Client ID:	Run ID: <b>ICPMS1_110623A</b>				SeqNo: <b>1658316</b>		Prep Date: <b>6/23/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	0.00739	0.10								J
Chromium	0.01576	0.25								J
Copper	ND	0.25								
Lead	0.01924	0.25								J
Nickel	0.01258	0.25								J
Selenium	ND	0.25								
Silver	0.004904	0.25								J
Zinc	ND	0.50								

<b>LCS</b>	Sample ID: <b>LCS-33973-33973</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/24/2011 06:03 AM</b>			
Client ID:	Run ID: <b>ICPMS1_110623A</b>				SeqNo: <b>1658317</b>		Prep Date: <b>6/23/2011</b>		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.686	0.50	5	0	93.7	80-120	0			
Barium	4.786	0.50	5	0	95.7	80-120	0			
Cadmium	4.86	0.20	5	0	97.2	80-120	0			
Chromium	5.105	0.50	5	0	102	80-120	0			
Copper	5.059	0.50	5	0	101	80-120	0			
Lead	4.929	0.50	5	0	98.6	80-120	0			
Nickel	5.123	0.50	5	0	102	80-120	0			
Selenium	4.804	0.50	5	0	96.1	80-120	0			
Silver	5.033	0.50	5	0	101	80-120	0			
Zinc	4.648	1.0	5	0	93	80-120	0			

<b>LCSD</b>	Sample ID: <b>LCSD-33973-33973</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/24/2011 06:09 AM</b>			
Client ID:	Run ID: <b>ICPMS1_110623A</b>				SeqNo: <b>1658318</b>		Prep Date: <b>6/23/2011</b>		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.269	0.50	5	0	85.4	80-120	4.686	9.31	20	
Barium	4.208	0.50	5	0	84.2	80-120	4.786	12.9	20	
Cadmium	4.337	0.20	5	0	86.7	80-120	4.86	11.4	20	
Chromium	4.481	0.50	5	0	89.6	80-120	5.105	13	20	
Copper	4.449	0.50	5	0	89	80-120	5.059	12.8	20	
Lead	4.348	0.50	5	0	87	80-120	4.929	12.5	20	
Nickel	4.508	0.50	5	0	90.2	80-120	5.123	12.8	20	
Selenium	4.237	0.50	5	0	84.7	80-120	4.804	12.5	20	
Silver	4.479	0.50	5	0	89.6	80-120	5.033	11.6	20	
Zinc	4.202	1.0	5	0	84	80-120	4.648	10.1	20	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1106560  
**Project:** TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **33973**      Instrument ID **ICPMS1**      Method: **SW6020A**

<b>MS</b>		Sample ID: <b>1106553-03BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/24/2011 06:38 AM</b>		
Client ID:		Run ID: <b>ICPMS1_110623A</b>				SeqNo: <b>1658323</b>		Prep Date: <b>6/23/2011</b>		DF: <b>4</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	24.45	1.3	6.72	11.32	195	80-120	0			S
Barium	158	1.3	6.72	118.2	592	80-120	0			SO
Cadmium	7.731	0.54	6.72	0.9027	102	80-120	0			
Chromium	46.1	1.3	6.72	31.81	213	80-120	0			SO
Copper	51.32	1.3	6.72	39.49	176	80-120	0			SO
Lead	70.27	1.3	6.72	52.75	261	80-120	0			SO
Nickel	19.26	1.3	6.72	10.05	137	80-120	0			S
Selenium	7.54	1.3	6.72	1.167	94.8	80-120	0			
Silver	6.995	1.3	6.72	0.767	92.7	80-120	0			
Zinc	154.1	2.7	6.72	113	611	80-120	0			SO

<b>MSD</b>		Sample ID: <b>1106553-03BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/24/2011 07:08 AM</b>		
Client ID:		Run ID: <b>ICPMS1_110623A</b>				SeqNo: <b>1658326</b>		Prep Date: <b>6/23/2011</b>		DF: <b>4</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	18.55	1.3	6.649	11.32	109	80-120	24.45	27.5	25	R
Barium	134.9	1.3	6.649	118.2	253	80-120	158	15.7	25	SO
Cadmium	7.356	0.53	6.649	0.9027	97.1	80-120	7.731	4.97	25	
Chromium	35.37	1.3	6.649	31.81	53.6	80-120	46.1	26.3	25	SRO
Copper	44.97	1.3	6.649	39.49	82.5	80-120	51.32	13.2	25	O
Nickel	17.5	1.3	6.649	10.05	112	80-120	19.26	9.58	25	
Selenium	7.75	1.3	6.649	1.167	99	80-120	7.54	2.74	25	
Silver	6.859	1.3	6.649	0.767	91.6	80-120	6.995	1.96	25	
Zinc	124	2.7	6.649	113	166	80-120	154.1	21.6	25	SO

<b>MSD</b>		Sample ID: <b>1106553-03BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>6/24/2011 03:57 PM</b>		
Client ID:		Run ID: <b>ICPMS1_110624A</b>				SeqNo: <b>1659651</b>		Prep Date: <b>6/23/2011</b>		DF: <b>4</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Lead	56.3	1.3	6.649	52.75	53.5	80-120	70.27	22.1	25	SO

The following samples were analyzed in this batch:

1106560-01B	1106560-02B	1106560-03B
1106560-04B	1106560-05B	1106560-06B
1106560-07A	1106560-08A	1106560-09A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1106560  
**Project:** TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **33934**      Instrument ID **SVMS4**      Method: **SW8270**

MBLK		Sample ID: <b>SBLKS1-33934-33934</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/22/2011 05:37 PM</b>		
Client ID:		Run ID: <b>SVMS4_110622A</b>				SeqNo: <b>1657190</b>		Prep Date: <b>6/22/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	30								
Anthracene	ND	30								
Benzo(a)anthracene	ND	30								
Benzo(a)pyrene	ND	30								
Benzo(b)fluoranthene	ND	30								
Benzo(g,h,i)perylene	ND	30								
Benzo(k)fluoranthene	ND	30								
Chrysene	ND	30								
Dibenzo(a,h)anthracene	ND	30								
Fluoranthene	ND	30								
Fluorene	ND	30								
Indeno(1,2,3-cd)pyrene	ND	30								
Naphthalene	ND	30								
Pyrene	ND	30								
<i>Surr: 2,4,6-Tribromophenol</i>	1242	0	1667	0	74.5	34-140		0		
<i>Surr: 2-Fluorobiphenyl</i>	1085	0	1667	0	65.1	12-100		0		
<i>Surr: 2-Fluorophenol</i>	1339	0	1667	0	80.4	33-117		0		
<i>Surr: 4-Terphenyl-d14</i>	1284	0	1667	0	77.1	25-137		0		
<i>Surr: Nitrobenzene-d5</i>	1225	0	1667	0	73.5	37-107		0		
<i>Surr: Phenol-d6</i>	1349	0	1667	0	80.9	40-106		0		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1106560  
**Project:** TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **33934**      Instrument ID **SVMS4**      Method: **SW8270**

LCS		Sample ID: <b>SLCSS1-33934-33934</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/22/2011 06:10 PM</b>		
Client ID:		Run ID: <b>SVMS4_110622A</b>				SeqNo: <b>1657191</b>		Prep Date: <b>6/22/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1065	30	1333	0	79.9	45-110	0			
Anthracene	1152	30	1333	0	86.4	55-105	0			
Benzo(a)anthracene	1197	30	1333	0	89.8	50-110	0			
Benzo(a)pyrene	1277	30	1333	0	95.8	50-110	0			
Benzo(b)fluoranthene	1290	30	1333	0	96.8	45-115	0			
Benzo(g,h,i)perylene	1250	30	1333	0	93.8	40-125	0			
Benzo(k)fluoranthene	1189	30	1333	0	89.2	45-115	0			
Chrysene	1177	30	1333	0	88.3	55-110	0			
Dibenzo(a,h)anthracene	1240	30	1333	0	93	40-125	0			
Fluoranthene	1189	30	1333	0	89.2	55-115	0			
Fluorene	1058	30	1333	0	79.4	50-110	0			
Indeno(1,2,3-cd)pyrene	1250	30	1333	0	93.7	40-120	0			
Naphthalene	1038	30	1333	0	77.9	40-105	0			
Pyrene	1282	30	1333	0	96.1	45-125	0			
<i>Surr: 2,4,6-Tribromophenol</i>	<i>1351</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>81.1</i>	<i>34-140</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>1145</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>68.7</i>	<i>12-100</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>1226</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>73.6</i>	<i>33-117</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>1465</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>87.9</i>	<i>25-137</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>1207</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>72.4</i>	<i>37-107</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>1159</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>69.5</i>	<i>40-106</i>	<i>0</i>			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1106560  
**Project:** TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **33934**      Instrument ID **SVMS4**      Method: **SW8270**

LCSD		Sample ID: <b>SLCSDS1-33934-33934</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/22/2011 06:42 PM</b>		
Client ID:		Run ID: <b>SVMS4_110622A</b>				SeqNo: <b>1657192</b>		Prep Date: <b>6/22/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1100	30	1333	0	82.5	45-110	1065	3.23	25	
Anthracene	1180	30	1333	0	88.5	55-105	1152	2.46	25	
Benzo(a)anthracene	1162	30	1333	0	87.2	50-110	1197	2.97	25	
Benzo(a)pyrene	1263	30	1333	0	94.7	50-110	1277	1.08	25	
Benzo(b)fluoranthene	1317	30	1333	0	98.8	45-115	1290	2.1	25	
Benzo(g,h,i)perylene	1221	30	1333	0	91.6	40-125	1250	2.4	25	
Benzo(k)fluoranthene	1130	30	1333	0	84.8	45-115	1189	5.06	25	
Chrysene	1192	30	1333	0	89.4	55-110	1177	1.32	25	
Dibenzo(a,h)anthracene	1223	30	1333	0	91.7	40-125	1240	1.43	25	
Fluoranthene	1185	30	1333	0	88.9	55-115	1189	0.365	25	
Fluorene	1097	30	1333	0	82.3	50-110	1058	3.59	25	
Indeno(1,2,3-cd)pyrene	1228	30	1333	0	92.1	40-120	1250	1.75	25	
Naphthalene	1072	30	1333	0	80.4	40-105	1038	3.25	25	
Pyrene	1266	30	1333	0	95	45-125	1282	1.2	25	
<i>Surr: 2,4,6-Tribromophenol</i>	1372	0	1667	0	82.3	34-140	1351	1.54	40	
<i>Surr: 2-Fluorobiphenyl</i>	1186	0	1667	0	71.2	12-100	1145	3.52	40	
<i>Surr: 2-Fluorophenol</i>	1262	0	1667	0	75.7	33-117	1226	2.89	40	
<i>Surr: 4-Terphenyl-d14</i>	1442	0	1667	0	86.5	25-137	1465	1.61	40	
<i>Surr: Nitrobenzene-d5</i>	1246	0	1667	0	74.8	37-107	1207	3.15	40	
<i>Surr: Phenol-d6</i>	1194	0	1667	0	71.6	40-106	1159	2.95	40	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 1106560  
**Project:** TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **33934**      Instrument ID **SVMS4**      Method: **SW8270**

MS		Sample ID: <b>1106554-02B MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>6/23/2011 01:09 AM</b>		
Client ID:		Run ID: <b>SVMS4_110622A</b>				SeqNo: <b>1657595</b>		Prep Date: <b>6/22/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	2011	57	2539	0	79.2	45-110	0			
Anthracene	2137	57	2539	0	84.2	55-105	0			
Benzo(a)anthracene	2190	57	2539	11.79	85.8	50-110	0			
Benzo(a)pyrene	2335	57	2539	11.46	91.5	50-110	0			
Benzo(b)fluoranthene	2332	57	2539	18.01	91.1	45-115	0			
Benzo(g,h,i)perylene	2407	57	2539	12.44	94.3	40-125	0			
Benzo(k)fluoranthene	2199	57	2539	0	86.6	45-115	0			
Chrysene	2136	57	2539	13.1	83.6	55-110	0			
Dibenzo(a,h)anthracene	2273	57	2539	0	89.5	40-125	0			
Fluoranthene	2202	57	2539	19.32	85.9	55-115	0			
Fluorene	2001	57	2539	0	78.8	50-110	0			
Indeno(1,2,3-cd)pyrene	2324	57	2539	9.824	91.1	40-120	0			
Naphthalene	1932	57	2539	0	76.1	40-105	0			
Pyrene	2310	57	2539	16.37	90.3	45-125	0			
<i>Surr: 2,4,6-Tribromophenol</i>	2593	0	3174	0	81.7	34-140	0			
<i>Surr: 2-Fluorobiphenyl</i>	2118	0	3174	0	66.7	12-100	0			
<i>Surr: 2-Fluorophenol</i>	2356	0	3174	0	74.2	33-117	0			
<i>Surr: 4-Terphenyl-d14</i>	2566	0	3174	0	80.8	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	2287	0	3174	0	72.1	37-107	0			
<i>Surr: Phenol-d6</i>	2233	0	3174	0	70.3	40-106	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1106560  
**Project:** TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **33934**      Instrument ID **SVMS4**      Method: **SW8270**

MSD				Sample ID: <b>1106554-02B MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>6/23/2011 01:42 AM</b>	
Client ID:				Run ID: <b>SVMS4_110622A</b>			SeqNo: <b>1657596</b>		Prep Date: <b>6/22/2011</b>	
									DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	2009	58	2575	0	78	45-110	2011	0.0887	30	
Anthracene	2092	58	2575	0	81.3	55-105	2137	2.1	30	
Benzo(a)anthracene	2163	58	2575	11.79	83.5	50-110	2190	1.24	30	
Benzo(a)pyrene	2263	58	2575	11.46	87.4	50-110	2335	3.13	30	
Benzo(b)fluoranthene	2362	58	2575	18.01	91	45-115	2332	1.24	30	
Benzo(g,h,i)perylene	2266	58	2575	12.44	87.5	40-125	2407	6.03	30	
Benzo(k)fluoranthene	2027	58	2575	0	78.7	45-115	2199	8.12	30	
Chrysene	2065	58	2575	13.1	79.7	55-110	2136	3.37	30	
Dibenzo(a,h)anthracene	2177	58	2575	0	84.5	40-125	2273	4.34	30	
Fluoranthene	2156	58	2575	19.32	83	55-115	2202	2.11	30	
Fluorene	1980	58	2575	0	76.9	50-110	2001	1.03	30	
Indeno(1,2,3-cd)pyrene	2213	58	2575	9.824	85.6	40-120	2324	4.85	30	
Naphthalene	1962	58	2575	0	76.2	40-105	1932	1.5	30	
Pyrene	2279	58	2575	16.37	87.8	45-125	2310	1.38	30	
<i>Surr: 2,4,6-Tribromophenol</i>	2297	0	3219	0	71.4	34-140	2593	12.1	40	
<i>Surr: 2-Fluorobiphenyl</i>	1800	0	3219	0	55.9	12-100	2118	16.2	40	
<i>Surr: 2-Fluorophenol</i>	2309	0	3219	0	71.7	33-117	2356	2.02	40	
<i>Surr: 4-Terphenyl-d14</i>	2344	0	3219	0	72.8	25-137	2566	9.04	40	
<i>Surr: Nitrobenzene-d5</i>	2119	0	3219	0	65.8	37-107	2287	7.65	40	
<i>Surr: Phenol-d6</i>	2152	0	3219	0	66.8	40-106	2233	3.7	40	

The following samples were analyzed in this batch:

1106560-01B	1106560-02B	1106560-03B
1106560-04B	1106560-05B	1106560-06B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions  
 Work Order: 1106560  
 Project: TR 11-5-697 Pad LOE 6/19/11

# QC BATCH REPORT

Batch ID: **R91399** Instrument ID **VMS6** Method: **SW8260**

<b>MBLK</b>	Sample ID: <b>VBLKW2-110622-R91399</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/23/2011 03:42 AM</b>			
Client ID:	Run ID: <b>VMS6_110622B</b>				SeqNo: <b>1656866</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	101.5	0	100	0	101	70-120	0			
Surr: 4-Bromofluorobenzene	96.67	0	100	0	96.7	75-120	0			
Surr: Dibromofluoromethane	99.17	0	100	0	99.2	85-115	0			
Surr: Toluene-d8	99.8	0	100	0	99.8	85-120	0			

<b>LCS</b>	Sample ID: <b>VLCSW2-110622-R91399</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/23/2011 02:27 AM</b>			
Client ID:	Run ID: <b>VMS6_110622B</b>				SeqNo: <b>1656864</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.03	1.0	20	0	105	80-120	0			
Ethylbenzene	20.58	1.0	20	0	103	75-125	0			
m,p-Xylene	41.87	2.0	40	0	105	75-130	0			
o-Xylene	20.4	1.0	20	0	102	80-120	0			
Toluene	20.48	1.0	20	0	102	75-120	0			
Xylenes, Total	62.27	2.0	60	0	104	75-130	0			
Surr: 1,2-Dichloroethane-d4	100.2	0	100	0	100	70-120	0			
Surr: 4-Bromofluorobenzene	97.77	0	100	0	97.8	75-120	0			
Surr: Dibromofluoromethane	99.46	0	100	0	99.5	85-115	0			
Surr: Toluene-d8	100.1	0	100	0	100	85-120	0			

<b>LCSD</b>	Sample ID: <b>VLCSDW2-110622-R91399</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/23/2011 02:52 AM</b>			
Client ID:	Run ID: <b>VMS6_110622B</b>				SeqNo: <b>1656865</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.76	1.0	20	0	104	80-120	21.03	1.29	30	
Ethylbenzene	20.27	1.0	20	0	101	75-125	20.58	1.52	30	
m,p-Xylene	40.96	2.0	40	0	102	75-130	41.87	2.2	30	
o-Xylene	20.09	1.0	20	0	100	80-120	20.4	1.53	30	
Toluene	20.12	1.0	20	0	101	75-120	20.48	1.77	30	
Xylenes, Total	61.05	2.0	60	0	102	75-130	62.27	1.98	30	
Surr: 1,2-Dichloroethane-d4	98.67	0	100	0	98.7	70-120	100.2	1.53	30	
Surr: 4-Bromofluorobenzene	96.98	0	100	0	97	75-120	97.77	0.811	30	
Surr: Dibromofluoromethane	99.83	0	100	0	99.8	85-115	99.46	0.371	30	
Surr: Toluene-d8	99.05	0	100	0	99	85-120	100.1	1.04	30	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions  
 Work Order: 1106560  
 Project: TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **R91399** Instrument ID **VMS6** Method: **SW8260**

MS				Sample ID: <b>1106580-07A MS</b>			Units: <b>µg/L</b>		Analysis Date: <b>6/23/2011 12:08 PM</b>	
Client ID:				Run ID: <b>VMS6_110622B</b>			SeqNo: <b>1657722</b>		Prep Date:	
									DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.57	1.0	20	0	108	80-120	0			
Ethylbenzene	20.99	1.0	20	0	105	75-125	0			
m,p-Xylene	42.44	2.0	40	0	106	75-130	0			
o-Xylene	20.88	1.0	20	0	104	80-120	0			
Toluene	21	1.0	20	0	105	75-120	0			
Xylenes, Total	63.32	2.0	60	0	106	75-130	0			
Surr: 1,2-Dichloroethane-d4	103	0	100	0	103	70-120	0			
Surr: 4-Bromofluorobenzene	97.82	0	100	0	97.8	75-120	0			
Surr: Dibromofluoromethane	100.9	0	100	0	101	85-115	0			
Surr: Toluene-d8	99.88	0	100	0	99.9	85-120	0			

MSD				Sample ID: <b>1106580-07A MSD</b>			Units: <b>µg/L</b>		Analysis Date: <b>6/23/2011 12:33 PM</b>	
Client ID:				Run ID: <b>VMS6_110622B</b>			SeqNo: <b>1657727</b>		Prep Date:	
									DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.81	1.0	20	0	99	80-120	21.57	8.51	30	
Ethylbenzene	19.62	1.0	20	0	98.1	75-125	20.99	6.75	30	
m,p-Xylene	39.17	2.0	40	0	97.9	75-130	42.44	8.01	30	
o-Xylene	19.05	1.0	20	0	95.2	80-120	20.88	9.17	30	
Toluene	19.23	1.0	20	0	96.2	75-120	21	8.8	30	
Xylenes, Total	58.22	2.0	60	0	97	75-130	63.32	8.39	30	
Surr: 1,2-Dichloroethane-d4	102.8	0	100	0	103	70-120	103	0.165	30	
Surr: 4-Bromofluorobenzene	104.4	0	100	0	104	75-120	97.82	6.51	30	
Surr: Dibromofluoromethane	100.3	0	100	0	100	85-115	100.9	0.616	30	
Surr: Toluene-d8	100.8	0	100	0	101	85-120	99.88	0.887	30	

The following samples were analyzed in this batch:

1106560-02A	1106560-03A	1106560-04A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions  
 Work Order: 1106560  
 Project: TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **R91401** Instrument ID **VMS7** Method: **SW8260**

<b>MBLK</b>	Sample ID: <b>VBLKW2-110622-R91401</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/22/2011 09:32 PM</b>			
Client ID:	Run ID: <b>VMS7_110622B</b>				SeqNo: <b>1656902</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	107	0	100	0	107	70-120	0			
Surr: 4-Bromofluorobenzene	99.62	0	100	0	99.6	75-120	0			
Surr: Dibromofluoromethane	99.88	0	100	0	99.9	85-115	0			
Surr: Toluene-d8	101.7	0	100	0	102	85-120	0			

<b>LCS</b>	Sample ID: <b>VLCSW1-110622-R91401</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/22/2011 08:17 PM</b>			
Client ID:	Run ID: <b>VMS7_110622B</b>				SeqNo: <b>1656900</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.91	1.0	20	0	105	80-120	0			
Ethylbenzene	20.44	1.0	20	0	102	75-125	0			
m,p-Xylene	40.9	2.0	40	0	102	75-130	0			
o-Xylene	20.41	1.0	20	0	102	80-120	0			
Toluene	21.31	1.0	20	0	107	75-120	0			
Xylenes, Total	61.31	2.0	60	0	102	75-130	0			
Surr: 1,2-Dichloroethane-d4	98.8	0	100	0	98.8	70-120	0			
Surr: 4-Bromofluorobenzene	100.2	0	100	0	100	75-120	0			
Surr: Dibromofluoromethane	101.6	0	100	0	102	85-115	0			
Surr: Toluene-d8	100.3	0	100	0	100	85-120	0			

<b>LCSD</b>	Sample ID: <b>VLCSDW1-110622-R91401</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/22/2011 08:42 PM</b>			
Client ID:	Run ID: <b>VMS7_110622B</b>				SeqNo: <b>1656901</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.31	1.0	20	0	102	80-120	20.91	2.91	30	
Ethylbenzene	19.62	1.0	20	0	98.1	75-125	20.44	4.09	30	
m,p-Xylene	38.8	2.0	40	0	97	75-130	40.9	5.27	30	
o-Xylene	19.65	1.0	20	0	98.2	80-120	20.41	3.79	30	
Toluene	20.19	1.0	20	0	101	75-120	21.31	5.4	30	
Xylenes, Total	58.45	2.0	60	0	97.4	75-130	61.31	4.78	30	
Surr: 1,2-Dichloroethane-d4	99.16	0	100	0	99.2	70-120	98.8	0.364	30	
Surr: 4-Bromofluorobenzene	100.6	0	100	0	101	75-120	100.2	0.448	30	
Surr: Dibromofluoromethane	102.2	0	100	0	102	85-115	101.6	0.658	30	
Surr: Toluene-d8	100.4	0	100	0	100	85-120	100.3	0.0698	30	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1106560  
**Project:** TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

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Batch ID: **R91401** Instrument ID **VMS7** Method: **SW8260**

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**The following samples were analyzed in this batch:**

1106560-01A	1106560-05A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1106560  
**Project:** TR 11-5-697 Pad LOE 6/19/11

# QC BATCH REPORT

Batch ID: **R91416**      Instrument ID **VMS8**      Method: **SW8260**

<b>MBLK</b>	Sample ID: <b>VBLKW1-110623-R91416</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/23/2011 01:01 PM</b>			
Client ID:	Run ID: <b>VMS8_110623A</b>				SeqNo: <b>1658379</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	2.0								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>100.9</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>101</i>	<i>70-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>97.21</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>97.2</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>101</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>101</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>99.71</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>99.7</i>	<i>85-120</i>	<i>0</i>			

<b>LCS</b>	Sample ID: <b>VLCSW1-110623-R91416</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/23/2011 11:46 AM</b>			
Client ID:	Run ID: <b>VMS8_110623A</b>				SeqNo: <b>1657265</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.59	1.0	20	0	103	80-120	0			
Ethylbenzene	20.94	1.0	20	0	105	75-125	0			
m,p-Xylene	42.6	2.0	40	0	106	75-130	0			
o-Xylene	20.76	1.0	20	0	104	80-120	0			
Toluene	20.68	1.0	20	0	103	75-120	0			
Xylenes, Total	63.36	2.0	60	0	106	75-130	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>97.15</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>97.2</i>	<i>70-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>101</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>101</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>101.4</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>101</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>99.86</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>99.9</i>	<i>85-120</i>	<i>0</i>			

<b>LCSD</b>	Sample ID: <b>VLCSDW1-110623-R91416</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/23/2011 12:11 PM</b>			
Client ID:	Run ID: <b>VMS8_110623A</b>				SeqNo: <b>1657312</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.13	1.0	20	0	95.6	80-120	20.59	7.35	30	
Ethylbenzene	19.08	1.0	20	0	95.4	75-125	20.94	9.3	30	
m,p-Xylene	39.06	2.0	40	0	97.6	75-130	42.6	8.67	30	
o-Xylene	19.09	1.0	20	0	95.4	80-120	20.76	8.38	30	
Toluene	19.05	1.0	20	0	95.2	75-120	20.68	8.21	30	
Xylenes, Total	58.15	2.0	60	0	96.9	75-130	63.36	8.58	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>97.55</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>97.6</i>	<i>70-120</i>	<i>97.15</i>	<i>0.411</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>99.91</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>99.9</i>	<i>75-120</i>	<i>101</i>	<i>1.09</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>101.3</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>101</i>	<i>85-115</i>	<i>101.4</i>	<i>0.0296</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>99.23</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>99.2</i>	<i>85-120</i>	<i>99.86</i>	<i>0.633</i>	<i>30</i>	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions  
 Work Order: 1106560  
 Project: TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **R91416** Instrument ID **VMS8** Method: **SW8260**

MS				Sample ID: <b>1106554-02A MS</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>6/23/2011 09:20 PM</b>	
Client ID:				Run ID: <b>VMS8_110623A</b>			SeqNo: <b>1658411</b>		Prep Date:	
									DF: <b>105</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	2080	100	2100	0	99	75-125	0			
Ethylbenzene	2042	210	2100	0	97.2	75-125	0			
m,p-Xylene	4353	210	4200	0	104	80-125	0			
o-Xylene	2023	100	2100	0	96.4	75-125	0			
Toluene	2035	160	2100	0	96.9	70-125	0			
Xylenes, Total	6377	320	6300	0	101	75-125	0			
Surr: 1,2-Dichloroethane-d4	10180	0	10500	0	96.9	70-120	0			
Surr: 4-Bromofluorobenzene	10580	0	10500	0	101	75-120	0			
Surr: Dibromofluoromethane	10360	0	10500	0	98.6	85-115	0			
Surr: Toluene-d8	10360	0	10500	0	98.7	85-115	0			

MSD				Sample ID: <b>1106554-02A MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>6/23/2011 09:45 PM</b>	
Client ID:				Run ID: <b>VMS8_110623A</b>			SeqNo: <b>1658412</b>		Prep Date:	
									DF: <b>105</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	2100	100	2100	0	100	75-125	2080	0.955	30	
Ethylbenzene	2092	210	2100	0	99.6	75-125	2042	2.39	30	
m,p-Xylene	4306	210	4200	0	103	80-125	4353	1.09	30	
o-Xylene	2104	100	2100	0	100	75-125	2023	3.92	30	
Toluene	2088	160	2100	0	99.4	70-125	2035	2.6	30	
Xylenes, Total	6410	320	6300	0	102	75-125	6377	0.526	30	
Surr: 1,2-Dichloroethane-d4	10130	0	10500	0	96.5	70-120	10180	0.424	30	
Surr: 4-Bromofluorobenzene	10640	0	10500	0	101	75-120	10580	0.525	30	
Surr: Dibromofluoromethane	10450	0	10500	0	99.5	85-115	10360	0.908	30	
Surr: Toluene-d8	10400	0	10500	0	99.1	85-115	10360	0.405	30	

The following samples were analyzed in this batch:

1106560-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 1106560  
**Project:** TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **34084** Instrument ID **WETCHEM** Method: **SW7196A**

**MBLK** Sample ID: **MBLK-34084-34084** Units: **mg/Kg** Analysis Date: **6/28/2011 02:00 PM**  
Client ID: Run ID: **WETCHEM\_110628D** SeqNo: **1663445** Prep Date: **6/24/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	0.48								

**LCS** Sample ID: **LCS-34084-34084** Units: **mg/Kg** Analysis Date: **6/28/2011 02:00 PM**  
Client ID: Run ID: **WETCHEM\_110628D** SeqNo: **1663443** Prep Date: **6/24/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.629	0.49	1.953		0	83.4	75-110	0		

**LCSD** Sample ID: **LCSD-34084-34084** Units: **mg/Kg** Analysis Date: **6/28/2011 02:00 PM**  
Client ID: Run ID: **WETCHEM\_110628D** SeqNo: **1663444** Prep Date: **6/24/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.642	0.49	1.969		0	83.4	75-110	1.629	0.784	20

**MS** Sample ID: **1106560-01B MS** Units: **mg/Kg** Analysis Date: **6/28/2011 02:00 PM**  
Client ID: **West Wall** Run ID: **WETCHEM\_110628D** SeqNo: **1663428** Prep Date: **6/24/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	0.49	1.969		0	0	60-130	0		S

**MSD** Sample ID: **1106560-01B MSD** Units: **mg/Kg** Analysis Date: **6/28/2011 02:00 PM**  
Client ID: **West Wall** Run ID: **WETCHEM\_110628D** SeqNo: **1663429** Prep Date: **6/24/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	0.49	1.961		0	0	60-130	0	0	30

The following samples were analyzed in this batch:

1106560-01B	1106560-02B	1106560-03B
1106560-04B	1106560-05B	1106560-06B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1106560  
**Project:** TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **R91382** Instrument ID **WETCHEM** Method: **SW9045D**

**DUP** Sample ID: **1106560-01BDUP** Units: **s.u.** Analysis Date: **6/22/2011 08:30 AM**  
Client ID: **West Wall** Run ID: **WETCHEM\_110622F** SeqNo: **1656290** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.89	0	0	0	0	0-0	8.89	0	20	

**DUP** Sample ID: **1106585-01ADUP** Units: **s.u.** Analysis Date: **6/22/2011 08:30 AM**  
Client ID: Run ID: **WETCHEM\_110622F** SeqNo: **1656298** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.19	0	0	0	0	0-0	8.18	0.122	20	

The following samples were analyzed in this batch:

1106560-01B	1106560-02B	1106560-03B
1106560-04B	1106560-05B	1106560-06B
1106560-07A		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1106560  
**Project:** TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **R91412**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>	Sample ID: <b>WBLKS1-R91412</b>				Units: % of sample			Analysis Date: <b>6/22/2011 09:34 AM</b>		
Client ID:	Run ID: <b>MOIST_110622B</b>				SeqNo: <b>1657229</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

<b>LCS</b>	Sample ID: <b>LCS-R91412</b>				Units: % of sample			Analysis Date: <b>6/22/2011 09:34 AM</b>		
Client ID:	Run ID: <b>MOIST_110622B</b>				SeqNo: <b>1657228</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

<b>DUP</b>	Sample ID: <b>1106560-06BDUP</b>				Units: % of sample			Analysis Date: <b>6/22/2011 09:34 AM</b>		
Client ID: <b>East Wall</b>	Run ID: <b>MOIST_110622B</b>				SeqNo: <b>1657212</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	18.26	0.050	0	0	0	0-0	18.3	0.219	20	

<b>DUP</b>	Sample ID: <b>1106567-01BDUP</b>				Units: % of sample			Analysis Date: <b>6/22/2011 09:34 AM</b>		
Client ID:	Run ID: <b>MOIST_110622B</b>				SeqNo: <b>1657214</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	17.3	0.050	0	0	0	0-0	16.42	5.22	20	

The following samples were analyzed in this batch:

1106560-01B	1106560-02B	1106560-03B
1106560-04B	1106560-05B	1106560-06B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1106560  
**Project:** TR 11-5-697 Pad LOE 6/19/11

## QC BATCH REPORT

Batch ID: **R91415**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>	Sample ID: <b>WBLKS1-R91415</b>				Units: % of sample			Analysis Date: <b>6/22/2011 12:10 PM</b>		
Client ID:	Run ID: <b>MOIST_110622C</b>				SeqNo: <b>1657260</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

<b>LCS</b>	Sample ID: <b>LCS-R91415</b>				Units: % of sample			Analysis Date: <b>6/22/2011 12:10 PM</b>		
Client ID:	Run ID: <b>MOIST_110622C</b>				SeqNo: <b>1657259</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

<b>DUP</b>	Sample ID: <b>1106585-05ADUP</b>				Units: % of sample			Analysis Date: <b>6/22/2011 12:10 PM</b>		
Client ID:	Run ID: <b>MOIST_110622C</b>				SeqNo: <b>1657254</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	13.56	0.050	0	0	0	0-0	13.63	0.515	20	

<b>DUP</b>	Sample ID: <b>1106560-07ADUP</b>				Units: % of sample			Analysis Date: <b>6/22/2011 12:10 PM</b>		
Client ID: <b>BK 1</b>	Run ID: <b>MOIST_110622C</b>				SeqNo: <b>1657264</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	7.43	0.050	0	0	0	0-0	7.48	0.671	20	

The following samples were analyzed in this batch:

1106560-07A	1106560-08A	1106560-09A
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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



# ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524  
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Form 202r8

WORKORDER  
#

1106560

PROJECT NAME		TR 11-5-697 Pad LOE		SAMPLER		Reed Wold		DATE		6/20/2011		PAGE		1 of 1	
PROJECT No.				SITE ID		TR 11-5-697		TURNAROUND		Standard		DISPOSAL		By Lab or Return to Client	
COMPANY NAME		HRL COMPLIANCE SOLUTIONS Inc.		BILL TO COMPANY		Williams		BTEX/ GRO DRO/ PAH/ Metals (table 910-1) SAR/ EC/ PH Arsenic							
SEND REPORT TO		Mark Mumby		INVOICE ATTN TO		Karolia Blaney									
ADDRESS		744 HORIZON CT SUITE 140		ADDRESS		1058 co rd 215									
CITY / STATE / ZIP		GRAND JUNCTION CO 81506		CITY / STATE / ZIP		Parachute CO 81635									
PHONE		970-243-3271		PHONE		970-683-2295									
FAX		970-243-3280		FAX		970-285-9573									
E-MAIL		Krowe@hrlcomp.com		E-MAIL		Karolia.blaney@williams.com									
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC								
01	West Wall	SO	6/19/2011	12:40	3	8		X	X	X					
02	South Bottom	SO	6/19/2011	12:55	3	8		X	X	X					
03	North Bottom	SO	6/19/2011	12:45	3	8		X	X	X					
04	North Wall	SO	6/19/2011	12:15	3	8		X	X	X					
05	South Wall	SO	6/19/2011	12:30	3	8		X	X	X					
06	East Wall	SO	6/19/2011	12:20	3	8		X	X	X					
07	BK 1	SO	6/19/2011	13:15	2					X	X				
08	BK 2	SO	6/19/2011	13:20	1						X				
09	BK 3	SO	6/19/2011	13:25	1						X				

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)	
	X	LEVEL II (Standard QC)
		LEVEL III (Std QC + forms)
		LEVEL IV (Std QC + forms + raw data)
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035		

SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Reed Wold	6/20/11	4:45
RECEIVED BY	Diane F. Shaw	6/21/11	1000
RELINQUISHED BY			
RECEIVED BY			
RELINQUISHED BY			
RECEIVED BY			

**Subcontractor:**A & L Great Lakes Agricultural La  
3505 Conestoga Dr

TEL: (260) 483-4759

FAX:

Acct #: 91000

**CHAIN-OF-CUSTODY RECORD**Date: 21-Jun-11COC ID: 2966Due Date: 27-Jun-11

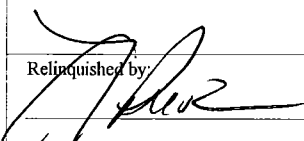
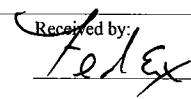
Page 1 of 1

Environmental

Ft. Wayne, IN 46808

Customer Information		Project Information		Parameter/Method Request for Analysis											
Purchase Order		Project Name	1106560	A	Subcontracted Analyses (SUBCONTRACT)										
Work Order		Project Number		B											
Company Name	ALS Group USA, Corp	Bill To Company	ALS Group USA, Corp	C											
Send Report To	Ann Preston	Inv Attn	Accounts Payable	D											
Address	3352 128th Avenue	Address	3352 128th Avenue	E											
				F											
City/State/Zip	Holland, Michigan 49424-9263	City/State/Zip	Holland, Michigan 49424-9263	G											
Phone	(616) 399-6070	Phone	(616) 399-6070	H											
Fax	(616) 399-6185	Fax	(616) 399-6185	I											
eMail Address	ann.preston@alsglobal.com	eMail CC		J											
Sample ID	Matrix	Collection Date 24hr	Bottle	A	B	C	D	E	F	G	H	I	J		
1106560-01C (West Wall)	Soil	19/Jun/2011 12:40	(1) MISC	X											
1106560-02C (South Bottom)	Soil	19/Jun/2011 12:55	(1) MISC	X											
1106560-03C (North Bottom)	Soil	19/Jun/2011 12:45	(1) MISC	X											
1106560-04C (North Wall)	Soil	19/Jun/2011 12:15	(1) MISC	X											
1106560-05C (South Wall)	Soil	19/Jun/2011 12:30	(1) MISC	X											
1106560-06C (East Wall)	Soil	19/Jun/2011 12:20	(1) MISC	X											
1106560-07B (BK 1)	Soil	19/Jun/2011 13:15	(1) MISC	X											

**Comments:**Please analyze for SAR-EC. Email results to Ann Preston.

Relinquished by: 	Date/Time: <u>6/21/11</u>	Received by: 	Date/Time: _____	Cooler IDs: _____	Report/QC Level: _____
Relinquished by: _____	Date/Time: _____	Received by: _____	Date/Time: _____	Cooler IDs: _____	Report/QC Level: _____

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **21-Jun-11 10:00**

Work Order: **1106560**

Received by: **DS**

Checklist completed by *Diane Shaw* 21-Jun-11  
eSignature Date

Reviewed by: *Ann Preston* 21-Jun-11  
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.4 c</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			
Login Notes:			

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

fedex.com 1.800.GoFedEx 1.800.463.3339

**CUSTODY SEAL**

DATE 6/20/11

SIGNATURE [Signature]

**QEC**

Quality Environmental Containers  
800-255-3950 • 304-255-3900

**FedEx**

Express

FedEx Tracking Number

8746 3274 4232

0200

Form 10 No.

**FedEx Retrieval Copy**

**1 From**  
Date 6/20/11 Sender's FedEx Account Number

Sender's Name Reed Wdd Phone 770 243-3271

Company HRH Compliance

Address 744 Horizon Ct Suite 140

City Alamogordo State CA ZIP 92006

**2 Your Internal Billing Reference**

**3 To**  
Recipient's Name Sample Receiving Phone 616 399-6070

Company ALS Group

Address 3352 128th Ave

Address Holland State MI ZIP 49424

**4a Express Package Service** \*To most locations. Packages up to 150 lbs.

01 ☒ **FedEx Priority Overnight** Next business morning.\* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
05 ☐ **FedEx Standard Overnight** Next business afternoon.\* Saturday Delivery NOT available.  
06 ☐ **FedEx First Overnight** Earliest next business morning delivery to select locations.\*  
03 ☐ **FedEx 2Day** Second business day.\* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
20 ☐ **FedEx Express Saver** Third business day.\* Saturday Delivery NOT available.

**4b Express Freight Service** \*\*To most locations. Packages over 150 lbs.

70 ☐ **FedEx 1Day Freight** Next business day.\*\* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx 1Day Freight Booking No.  
80 ☐ **FedEx 2Day Freight** Second business day.\*\* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.  
83 ☐ **FedEx 3Day Freight** Third business day.\*\* Saturday Delivery NOT available.

**5 Packaging** \*Declared value limit \$500.

06 ☐ **FedEx Envelope\*** 02 ☐ **FedEx Pak\*** Includes FedEx Small Pak and FedEx Large Pak. 03 ☐ **FedEx Box** 04 ☐ **FedEx Tube** 01 ☒ **Other**

**6 Special Handling and Delivery Signature Options**

03 ☐ **SATURDAY DELIVERY**  
No Signature Required Package may be left without obtaining a signature for delivery.  
10 ☐ **Direct Signature** Someone at recipient's address may sign for delivery. Fee applies.  
34 ☐ **Indirect Signature** If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked.  
☒ **No** 04 ☐ **Yes** As per attached Shipper's Declaration. ☐ **Yes** Shipper's Declaration not required. 06 ☐ **Dry Ice** Dry ice, 9 UN 1845 x kg  
Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box. ☐ **Cargo Aircraft Only**

**7 Payment Bill to:**

Sender Acct. No. in Section 1 15 Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. ☐  
2 ☒ **Recipient** 3 ☐ **Third Party** 4 ☐ **Credit Card** 5 ☐ **Cash/Check**  
Total Packages Total Weight Credit Card Auth.



8746 3274 4232

fedex.com 1.800.GoFedEx 1.800.463.3339

**606**



## **Appendix 2: North Pit Bottom Additional Excavation Raw Analytical Data**



18-Jul-2011

Mark Mumby  
HRL Compliance Solutions  
744 Horizon Ct. Suite 140  
Grand Junction, CO 81506

Re: **TR 11-5-697 Pad LOE 7/5/11**

Work Order: **1107193**

Dear Mark,

ALS Environmental received 1 sample on 09-Jul-2011 11:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 9.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: IL100452

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental The ALS logo, a stylized blue triangle with a yellow flame inside.

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

---

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 7/5/11  
**Work Order:** 1107193**Work Order Sample Summary**

---

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1107193-01	N. Bottom	Soil		7/5/2011 14:00	7/9/2011 11:00	<input type="checkbox"/>

---

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 7/5/11  
**WorkOrder:** 1107193

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
ML	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
TDL	Target Detection Limit

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight

**ALS Group USA, Corp****Date:** 18-Jul-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 7/5/11  
**Sample ID:** N. Bottom  
**Collection Date:** 7/5/2011 02:00 PM

**Work Order:** 1107193  
**Lab ID:** 1107193-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>DIESEL RANGE ORGANICS BY GC-FID</b>			<b>SW8015M</b>		Prep Date: <b>7/14/2011</b>	Analyst: <b>RM</b>
<b>DRO (C10-C28)</b>	<b>170</b>		<b>4.3</b>	<b>mg/Kg-dry</b>	<b>1</b>	7/14/2011 04:15 PM
<i>Surr: 4-Terphenyl-d14</i>	<i>100</i>		<i>39-115</i>	<i>%REC</i>	<i>1</i>	7/14/2011 04:15 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
<b>Moisture</b>	<b>4.2</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	7/11/2011 01:44 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions

Work Order: 1107193

Project: TR 11-5-697 Pad LOE 7/5/11

# QC BATCH REPORT

Batch ID: **34293** Instrument ID **GC8** Method: **SW8015M**

<b>MBLK</b>	Sample ID: <b>DBLKS1-34293-34293</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/14/2011 08:57 AM</b>			
Client ID:	Run ID: <b>GC8_110714A</b>				SeqNo: <b>1676835</b>		Prep Date: <b>7/14/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
Surr: 4-Terphenyl-d14	1.478	0	1.667	0	88.7	39-115	0			

<b>LCS</b>	Sample ID: <b>DLCSS1-34293-34293</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/14/2011 12:12 PM</b>			
Client ID:	Run ID: <b>GC8_110714A</b>				SeqNo: <b>1676843</b>		Prep Date: <b>7/14/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	116.3	4.2	166.7	0	69.8	60-130	0			
Surr: 4-Terphenyl-d14	1.504	0	1.667	0	90.3	39-115	0			

<b>LCSD</b>	Sample ID: <b>DLCSDS1-34293-34293</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/14/2011 12:36 PM</b>			
Client ID:	Run ID: <b>GC8_110714A</b>				SeqNo: <b>1676831</b>		Prep Date: <b>7/14/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	136.2	4.2	166.7	0	81.7	60-130	116.3	15.8	30	
Surr: 4-Terphenyl-d14	1.38	0	1.667	0	82.8	39-115	1.504	8.6	30	

<b>MS</b>	Sample ID: <b>1107189-01A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/14/2011 12:36 PM</b>			
Client ID:	Run ID: <b>GC8_110714A</b>				SeqNo: <b>1676844</b>		Prep Date: <b>7/14/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	909.1	8.1	324.5	557.5	108	60-130	0			
Surr: 4-Terphenyl-d14	1.735	0	3.245	0	53.5	39-115	0			

<b>MSD</b>	Sample ID: <b>1107189-01A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>7/14/2011 01:00 PM</b>			
Client ID:	Run ID: <b>GC8_110714A</b>				SeqNo: <b>1676832</b>		Prep Date: <b>7/14/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	835.1	8.0	318.2	557.5	87.2	60-130	909.1	8.49	30	
Surr: 4-Terphenyl-d14	2.647	0	3.182	0	83.2	39-115	1.735	41.6	30	R

The following samples were analyzed in this batch:

1107193-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1107193  
**Project:** TR 11-5-697 Pad LOE 7/5/11

## QC BATCH REPORT

Batch ID: **R92092**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>	Sample ID: <b>WBLKS1-R92092</b>				Units: <b>% of sample</b>			Analysis Date: <b>7/11/2011 01:44 PM</b>		
Client ID:	Run ID: <b>MOIST_110711A</b>				SeqNo: <b>1674087</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

<b>LCS</b>	Sample ID: <b>LCS-R92092</b>				Units: <b>% of sample</b>			Analysis Date: <b>7/11/2011 01:44 PM</b>		
Client ID:	Run ID: <b>MOIST_110711A</b>				SeqNo: <b>1674086</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

<b>DUP</b>	Sample ID: <b>1107174-01ADUP</b>				Units: <b>% of sample</b>			Analysis Date: <b>7/11/2011 01:44 PM</b>		
Client ID:	Run ID: <b>MOIST_110711A</b>				SeqNo: <b>1674078</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	50.49	0.050	0	0	0	0-0	51.46	1.9	20	

<b>DUP</b>	Sample ID: <b>1107189-01ADUP</b>				Units: <b>% of sample</b>			Analysis Date: <b>7/11/2011 01:44 PM</b>		
Client ID:	Run ID: <b>MOIST_110711A</b>				SeqNo: <b>1674083</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	10.28	0.050	0	0	0	0-0	10.54	2.5	20	

The following samples were analyzed in this batch:

1107193-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.





Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **09-Jul-11 11:00**

Work Order: **1107193**

Received by: **KRW**

Checklist completed by Keith Wurenga  
eSignature

09-Jul-11  
Date

Reviewed by: Ann Preston  
eSignature

13-Jul-11  
Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>1.8 C</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

**From**  
Date 7/8/11 Sender's FedEx Account Number  
Sender's Name Reed 1218 Phone 970 243-3271  
Company HRH Compliance  
Address 744 Holizer Ct Ste 146 Dept./Floor/Suite/Room  
City Grand Junction State CO ZIP 81506  
**Your Internal Billing Reference**

**To**  
Recipient's Name Sample Receiving Phone 116 379-6570  
Company ALS GROUP  
Address 3252 12th Ave Dept./Floor/Suite/Room  
We cannot deliver to P.O. boxes or P.O. ZIP codes.  
Address Use this line for the HOLD location address or for continuation of your shipping address.  
City Hollands State MI ZIP 49424

**01** ☐ **HOLD Weekday**  
FedEx location address  
REQUIRED. NOT available for  
FedEx First Overnight.  
**31** ☐ **HOLD Saturday**  
FedEx location address  
REQUIRED. Available ONLY for  
FedEx Priority Overnight and  
FedEx 2Day to select locations.

**4 Express Package Service** \*To most locations.  
NOTE: Service order has changed. Please select carefully.

- Next Business Day**
- 06** ☒ **FedEx First Overnight**  
Earliest next business morning delivery to select  
locations. Friday shipments will be delivered on  
Monday unless SATURDAY Delivery is selected.
- 06** ☒ **FedEx Priority Overnight**  
Next business morning. Friday shipments will be  
delivered on Monday unless SATURDAY Delivery  
is selected.
- 05** ☐ **FedEx Standard Overnight**  
Next business afternoon. Saturday Delivery NOT available.

- 2 or 3 Business Days**
- 49** ☐ **NEW FedEx 2Day A.M.**  
Second business morning.  
Saturday Delivery NOT available.
- 03** ☐ **FedEx 2Day**  
Second business afternoon. Thursday shipments  
will be delivered on Monday unless SATURDAY  
Delivery is selected.
- 20** ☐ **FedEx Express Saver**  
Third business day. Saturday Delivery NOT available.

**5 Packaging** \*Declared value limit \$500.

- 06** ☐ FedEx Envelope\* **02** ☐ FedEx Pak\* **03** ☐ FedEx Box **04** ☐ FedEx Tube **01** ☒ Other

**6 Special Handling and Delivery Signature Options**

**03** ☒ **SATURDAY DELIVERY**

- ☒ **No Signature Required**  
Package may be left without  
obtaining a signature for delivery.
- 10** ☐ **Direct Signature**  
Someone at recipient's address  
may sign for delivery. Fee applies.
- 34** ☐ **Indirect Signature**  
If no one is available at recipient's  
address, someone at a neighboring  
address may sign for delivery. For  
residential deliveries only. Fee applies.

**Does this shipment contain dangerous goods?**

- 04** ☒ **No** **04** ☐ **Yes**  
As per attached  
Shipper's Declaration.
- 06** ☐ **Dry Ice**  
Dry ice, 9, UN 1845 \_\_\_\_\_ x \_\_\_\_\_ kg  
☐ Cargo Aircraft Only

**7 Payment Bill to:**

- Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No. ☐
- 1** ☐ **Sender** **2** ☒ **Recipient** **3** ☐ **Third Party** **4** ☐ **Credit Card** **5** ☐ **Cash/Check**
- Total Packages 1 Total Weight 31 lbs. Credit Card Auth. \_\_\_\_\_

\*Our liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

**612**



8758 3475 6105

### **Appendix 3: Background Raw Analytical Data**

**ALS Group USA, Corp****Date:** 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** BK 1  
**Collection Date:** 6/19/2011 01:15 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-07  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>						
Arsenic	7.5		SW6020A 0.75	mg/Kg-dry	Prep Date: 6/23/2011 2	Analyst: RH 6/24/2011 11:55 PM
<b>SUBCONTRACTED ANALYSES</b>						
Subcontracted Analyses	Rcvd 6/27/11		SUBCONTRACT attached		1	Analyst: A&LGL 6/27/2011
<b>MOISTURE</b>						
Moisture	7.5		A2540 G 0.050	% of sample	1	Analyst: JS 6/22/2011 12:10 PM
<b>PH</b>						
pH	6.93		SW9045D	s.u.	1	Analyst: JS 6/22/2011 08:30 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

## ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** BK 2  
**Collection Date:** 6/19/2011 01:20 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-08  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>6/23/2011</b>	Analyst: <b>RH</b>
Arsenic	7.4		0.67	mg/Kg-dry	2	6/25/2011 12:01 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	3.2		0.050	% of sample	1	6/22/2011 12:10 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** BK 3  
**Collection Date:** 6/19/2011 01:25 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-09  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>6/23/2011</b>	Analyst: <b>RH</b>
Arsenic	6.7		0.68	mg/Kg-dry	2	6/25/2011 12:07 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	3.2		0.050	% of sample	1	6/22/2011 12:10 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

#### **Appendix 4: Sundry Notice Form 4**

1. OGCC Operator Number: <u>96850</u>	4. Contact Name Karolina Blaney	Complete the Attachment Checklist  OP OGCC
2. Name of Operator: <u>Williams Production RMT Company</u>	Phone: <u>970-683-2295</u>	
3. Address: <u>1058 County Road 215</u> City: <u>Parachute</u> State: <u>CO</u> Zip: <u>81635</u>	Fax: <u>970-285-9573</u>	
5. API Number <u>05- N/A</u>	OGCC Facility ID Number <u>422268</u>	Survey Plat
6. Well/Facility Name: <u>Chevron TR 11-5-697</u>	7. Well/Facility Number <u>TR 11-5-697</u>	Directional Survey
8. Location (QtrQtr, Sec, Twp, Rng, Meridian): <u>NWNW, Sec 5, T6S, R97W, 6th PM</u>		Surface Eqpm Diagram
9. County: <u>Garfield</u>	10. Field Name: <u>Trail Ridge</u>	Technical Info Page
11. Federal, Indian or State Lease Number: _____		Other

## General Notice

<input type="checkbox"/> <b>CHANGE OF LOCATION:</b> Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)															
Change of <b>Surface</b> Footage from Exterior Section Lines:	<input type="text"/>	FNL/FSL <input type="text"/>	FEL/FWL <input type="text"/>												
Change of <b>Surface</b> Footage to Exterior Section Lines:	<input type="text"/>	<input type="text"/>	<input type="text"/>												
Change of <b>Bottomhole</b> Footage from Exterior Section Lines:	<input type="text"/>	<input type="text"/>	<input type="text"/>												
Change of <b>Bottomhole</b> Footage to Exterior Section Lines:	<input type="text"/>	<input type="text"/>	<input type="text"/>												
Bottomhole location Qtr/Qtr, Sec, Twp, Rng, Mer _____															
Latitude _____	Distance to nearest property line _____	Distance to nearest bldg, public rd, utility or RR _____													
Longitude _____	Distance to nearest lease line _____	Is location in a High Density Area (rule 603b)? Yes/No <input type="text"/>													
Ground Elevation _____	Distance to nearest well same formation _____	Surface owner consultation date: _____													
<b>GPS DATA:</b> Date of Measurement _____ PDOP Reading _____ Instrument Operator's Name _____															
<input type="checkbox"/> <b>CHANGE SPACING UNIT</b> Formation _____ Formation Code _____ Spacing order number _____ Unit Acreage _____ Unit configuration _____			<input type="checkbox"/> <b>Remove from surface bond</b> Signed surface use agreement attached												
<input type="checkbox"/> <b>CHANGE OF OPERATOR (prior to drilling):</b> Effective Date: _____ Plugging Bond: <input type="checkbox"/> Blanket <input type="checkbox"/> Individual		<input type="checkbox"/> <b>CHANGE WELL NAME</b> <b>NUMBER</b> From: _____ To: _____ Effective Date: _____													
<input type="checkbox"/> <b>ABANDONED LOCATION:</b> Was location ever built? <input type="checkbox"/> Yes <input type="checkbox"/> No Is site ready for inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No Date Ready for Inspection: _____		<input type="checkbox"/> <b>NOTICE OF CONTINUED SHUT IN STATUS</b> Date well shut in or temporarily abandoned: _____ Has Production Equipment been removed from site? <input type="checkbox"/> Yes <input type="checkbox"/> No MIT required if shut in longer than two years. Date of last MIT _____													
<input type="checkbox"/> <b>SPUD DATE:</b> _____		<input type="checkbox"/> <b>REQUEST FOR CONFIDENTIAL STATUS</b> (6 mos from date casing set)													
<input type="checkbox"/> <b>SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK</b> *submit cbl and cement job summaries <table border="1"> <thead> <tr> <th>Method used</th> <th>Cementing tool setting/perf depth</th> <th>Cement volume</th> <th>Cement top</th> <th>Cement bottom</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				Method used	Cementing tool setting/perf depth	Cement volume	Cement top	Cement bottom	Date						
Method used	Cementing tool setting/perf depth	Cement volume	Cement top	Cement bottom	Date										
<input type="checkbox"/> <b>RECLAMATION:</b> Attach technical page describing final reclamation procedures per Rule 1004. Final reclamation will commence on approximately _____ <input type="checkbox"/> Final reclamation is completed and site is ready for inspection.															

## Technical Engineering/Environmental Notice

<input type="checkbox"/> <b>Notice of Intent</b> Approximate Start Date: _____		<input type="checkbox"/> <b>Report of Work Done</b> Date Work Completed: _____	
Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)			
<input type="checkbox"/> Intent to Recomplete (submit form 2) <input type="checkbox"/> Change Drilling Plans <input type="checkbox"/> Gross Interval Changed? <input type="checkbox"/> Casing/Cementing Program Change	<input type="checkbox"/> Request to Vent or Flare <input type="checkbox"/> Repair Well <input type="checkbox"/> Rule 502 variance requested <input checked="" type="checkbox"/> Other: <u>Background</u>	<input type="checkbox"/> E&P Waste Disposal <input type="checkbox"/> Beneficial Reuse of E&P Waste <input type="checkbox"/> Status Update/Change of Remediation Plans for Spills and Releases	

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: Karolina Blaney Date: 8/15/2011 Email: Karolina.Blaney@williams.com  
 Print Name: Karolina Blaney Title: Environmental Specialist

COGCC Approved: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:



1. OGCC Operator Number: <u>96850</u>	API Number: <u>N/A</u>
2. Name of Operator: <u>Williams Production RMT</u>	OGCC Facility ID # <u>422268</u>
3. Well/Facility Name: <u>Chevron TR 11-5-697</u>	Well/Facility Number: <u>TR 11-5-697</u>
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): <u>NWNW, Sec 5, T6S, R97W, 6PM</u>	

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5.

**DESCRIBE PROPOSED OR COMPLETED OPERATIONS**

This COGCC Form 4 is being submitted as a request to consider the background concentration levels for arsenic at the Chevron TR 11-5-697 well pad relative to production pit closure at the subject facility in accordance with footnote 1 to the COGCC Table 9101-1.

The request is based on the analytical results below (see attached analytical)

Six (6) grab samples were collected from locations within the pit footprint at depths of approximately 18' to 18.6' below pad grade to ascertain the arsenic concentrations of the facility.

Pit Bottom - North End - 11mg/kg  
Pit Bottom - South End - 9.4 mg/kg  
East Wall - 11 mg/kg  
South Wall - 7.1 mg/kg  
West Wall - 5.5 mg/kg  
North Wall - 9.8 mg/kg

Three (3) grab samples were collected from nearby non-impacted, native soil from surface to 6" below to establish the background arsenic concentrations.

BKGD 1 - 7.5 mg/kg  
BKGD 2 - 7.5 mg/kg  
BKGD 3 - 5.6 mg/kg

Williams is requesting this approval in order to proceed with closure and reclamation of the production pit on the Chevron TR 11-5-697 well pad.

**ALS Group USA, Corp****Date:** 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** BK 1  
**Collection Date:** 6/19/2011 01:15 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-07  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>						
Arsenic	7.5		SW6020A 0.75	mg/Kg-dry	Prep Date: 6/23/2011 2	Analyst: RH 6/24/2011 11:55 PM
<b>SUBCONTRACTED ANALYSES</b>						
Subcontracted Analyses	Rcvd 6/27/11		SUBCONTRACT attached		1	Analyst: A&LGL 6/27/2011
<b>MOISTURE</b>						
Moisture	7.5		A2540 G 0.050	% of sample	1	Analyst: JS 6/22/2011 12:10 PM
<b>PH</b>						
pH	6.93		SW9045D	s.u.	1	Analyst: JS 6/22/2011 08:30 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

## ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** BK 2  
**Collection Date:** 6/19/2011 01:20 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-08  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>6/23/2011</b>	Analyst: <b>RH</b>
Arsenic	7.4		0.67	mg/Kg-dry	2	6/25/2011 12:01 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	3.2		0.050	% of sample	1	6/22/2011 12:10 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** BK 3  
**Collection Date:** 6/19/2011 01:25 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-09  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>6/23/2011</b>	Analyst: <b>RH</b>
Arsenic	6.7		0.68	mg/Kg-dry	2	6/25/2011 12:07 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	3.2		0.050	% of sample	1	6/22/2011 12:10 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

FORM  
4  
Rev 12/05

## State of Colorado

## Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax: (303)894-2109



## SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form.) Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

1. OGCC Operator Number: 96850	4. Contact Name: Karolina Blaney	Complete the Attachment Checklist OP OGCC
2. Name of Operator: Williams Production RMT Company	Phone: 970-683-2295	
3. Address: 1058 County Road 215 City: Parachute State: CO Zip: 81635	Fax: 970-285-9573	
5. API Number 05- N/A	OGCC Facility ID Number 422268	Survey Plat
6. Well/Facility Name: Chevron TR 11-5-697	7. Well/Facility Number TR 11-5-697	Directional Survey
8. Location (Qtr/Sec, Twp, Rng, Meridian): NWNW, Sec 5, T6S, R97W, 6th PM		Surface Eqpm Diagram
9. County: Garfield	10. Field Name: Trail Ridge	Technical Info Page <input checked="" type="checkbox"/>
11. Federal, Indian or State Lease Number:		Other

## General Notice

<input type="checkbox"/> CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)	
Change of Surface Footage from Exterior Section Lines:	<input type="checkbox"/> FN/FSL <input type="checkbox"/> FEL/FWL
Change of Surface Footage to Exterior Section Lines:	<input type="checkbox"/> <input type="checkbox"/>
Change of Bottomhole Footage from Exterior Section Lines:	<input type="checkbox"/> <input type="checkbox"/>
Change of Bottomhole Footage to Exterior Section Lines:	<input type="checkbox"/> <input type="checkbox"/> attach directional survey
Bottomhole location Qtr/Sec, Twp, Rng, Mer	
Latitude	Distance to nearest property line
Longitude	Distance to nearest lease line
Ground Elevation	Distance to nearest well same formation
	Distance to nearest bldg, public rd, utility or RR
	Is location in a High Density Area (rule 603b)? Yes/No <input type="checkbox"/>
Surface owner consultation date: _____	
GPS DATA:	
Date of Measurement	PDOP Reading
Instrument Operator's Name	
<input type="checkbox"/> CHANGE SPACING UNIT	
Formation	Formation Code
Spacing order number	Unit Acreage
Unit configuration	
<input type="checkbox"/> Remove from surface bond	
Signed surface use agreement attached	
<input type="checkbox"/> CHANGE OF OPERATOR (prior to drilling):	
Effective Date:	
Plugging Bond: <input type="checkbox"/> Blanket <input type="checkbox"/> Individual	
<input type="checkbox"/> CHANGE WELL NAME	
From:	NUMBER
To:	
Effective Date:	
<input type="checkbox"/> ABANDONED LOCATION:	
Was location ever built? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Is site ready for inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Date Ready for Inspection:	
<input type="checkbox"/> NOTICE OF CONTINUED SHUT IN STATUS	
Date well shut in or temporarily abandoned:	
Has Production Equipment been removed from site? <input type="checkbox"/> Yes <input type="checkbox"/> No	
MIT required if shut in longer than two years. Date of last MIT	
<input type="checkbox"/> SPUD DATE:	
<input type="checkbox"/> REQUEST FOR CONFIDENTIAL STATUS (5 mos from date casing set)	
<input type="checkbox"/> SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK	
Method used	Cementing tool setting/perf depth
Cement volume	Cement top
Cement bottom	Date
*submit cbl and cement job summaries	
<input type="checkbox"/> RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.	
Final reclamation will commence on approximately	<input type="checkbox"/> Final reclamation is completed and site is ready for inspection.

## Technical Engineering/Environmental Notice

<input type="checkbox"/> Notice of Intent		<input type="checkbox"/> Report of Work Done	
Approximate Start Date:		Date Work Completed:	
Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)			
<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare	<input type="checkbox"/> E&P Waste Disposal	
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well	<input type="checkbox"/> Beneficial Reuse of E&P Waste	
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested	<input type="checkbox"/> Status Update/Change of Remediation Plans	
<input type="checkbox"/> Casing/Cementing Program Change	<input checked="" type="checkbox"/> Other: Background	for Spills and Releases	

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: Karolina Blaney Date: 8/15/2011 Email: Karolina.Blaney@williams.com  
 Print Name: Karolina Blaney Title: Environmental Specialist

COGCC Approved:

Chris Camfield  
 CONDITIONS OF APPROVAL, IF ANY:

Title: FOR

Date:

Chris Camfield  
 EPS NW Region

Date: 09/21/2011

1. OGCC Operator Number: 96850	API Number: N/A
2. Name of Operator: Williams Production RMT	OGCC Facility ID # 422268
3. Well/Facility Name: Chevron TR 11-5-697	Well/Facility Number: TR 11-5-697
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): NWNW, Sec 5, T6S, R97W, 6PM	

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5.

**DESCRIBE PROPOSED OR COMPLETED OPERATIONS**

This COGCC Form 4 is being submitted as a request to consider the background concentration levels for arsenic at the Chevron TR 11-5-697 well pad relative to production pit closure at the subject facility in accordance with footnote 1 to the COGCC Table 9101-1.

The request is based on the analytical results below (see attached analytical)

Six (6) grab samples were collected from locations within the pit footprint at depths of approximately 18' to 18.6' below pad grade to ascertain the arsenic concentrations of the facility.

Pit Bottom - North End - 11mg/kg  
Pit Bottom - South End - 9.4 mg/kg  
East Wall - 11 mg/kg  
South Wall - 7.1 mg/kg  
West Wall - 5.5 mg/kg  
North Wall - 9.8 mg/kg

Three (3) grab samples were collected from nearby non-impacted, native soil from surface to 6" below to establish the background arsenic concentrations.

BKGD 1 - 7.5 mg/kg  
BKGD 2 - 7.5 mg/kg  
BKGD 3 - 5.6 mg/kg

Williams is requesting this approval in order to proceed with closure and reclamation of the production pit on the Chevron TR 11-5-697 well pad.

## ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** BK 2  
**Collection Date:** 6/19/2011 01:20 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-08  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>6/23/2011</b>	Analyst: <b>RH</b>
Arsenic	7.4		0.67	mg/Kg-dry	2	6/25/2011 12:01 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	3.2		0.050	% of sample	1	6/22/2011 12:10 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp****Date:** 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** BK 1  
**Collection Date:** 6/19/2011 01:15 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-07  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>						
Arsenic	7.5		SW6020A 0.75	mg/Kg-dry	Prep Date: 6/23/2011 2	Analyst: RH 6/24/2011 11:55 PM
<b>SUBCONTRACTED ANALYSES</b>						
Subcontracted Analyses	Rcvd 6/27/11		SUBCONTRACT attached		1	Analyst: A&LGL 6/27/2011
<b>MOISTURE</b>						
Moisture	7.5		A2540 G 0.050	% of sample	1	Analyst: JS 6/22/2011 12:10 PM
<b>PH</b>						
pH	6.93		SW9045D	s.u.	1	Analyst: JS 6/22/2011 08:30 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group USA, Corp

Date: 28-Jun-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Pad LOE 6/19/11  
**Sample ID:** BK 3  
**Collection Date:** 6/19/2011 01:25 PM

**Work Order:** 1106560  
**Lab ID:** 1106560-09  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>METALS BY ICP-MS</b>			<b>SW6020A</b>		Prep Date: <b>6/23/2011</b>	Analyst: <b>RH</b>
Arsenic	6.7		0.68	mg/Kg-dry	2	6/25/2011 12:07 AM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>JS</b>
Moisture	3.2		0.050	% of sample	1	6/22/2011 12:10 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



23-Aug-2011

Kris Rowe  
HRL Compliance Solutions  
744 Horizon Ct. Suite 140  
Grand Junction, CO 81506

Re: **TR 11-5-697 Treatment Cell 8/12/11**

Work Order: **1108493**

Dear Kris,

ALS Environmental received 1 sample on 16-Aug-2011 10:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 12.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: IL100452

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

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Environmental The ALS logo, a stylized blue triangle with a yellow flame inside.

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Treatment Cell 8/12/11  
**Work Order:** 1108493

**Work Order Sample Summary**

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<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1108493-01	Treatment Cell	Soil		8/12/2011 10:30	8/16/2011 10:00	<input type="checkbox"/>

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Treatment Cell 8/12/11  
**WorkOrder:** 1108493

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
TDL	Target Detection Limit

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

# ALS Group USA, Corp

Date: 23-Aug-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Treatment Cell 8/12/11  
**Sample ID:** Treatment Cell  
**Collection Date:** 8/12/2011 10:30 AM

**Work Order:** 1108493  
**Lab ID:** 1108493-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015M</b>		Prep Date: <b>8/18/2011</b>	Analyst: <b>RM</b>
<b>DRO (C10-C28)</b>	<b>300</b>		<b>4.5</b>	<b>mg/Kg-dry</b>	<b>1</b>	8/19/2011 04:36 PM
Surr: 4-Terphenyl-d14	77.1		39-115	%REC	1	8/19/2011 04:36 PM
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>						
			<b>SW8015</b>			Analyst: <b>RM</b>
<b>GRO (C6-C10)</b>	<b>ND</b>		<b>5.4</b>	<b>mg/Kg-dry</b>	<b>100</b>	8/19/2011 05:54 PM
Surr: Toluene-d8	102		50-150	%REC	100	8/19/2011 05:54 PM
<b>VOLATILE ORGANIC COMPOUNDS</b>						
			<b>SW8260</b>			Analyst: <b>AK</b>
Benzene	ND		110	µg/Kg-dry	100	8/19/2011 06:04 PM
Ethylbenzene	ND		110	µg/Kg-dry	100	8/19/2011 06:04 PM
m,p-Xylene	ND		110	µg/Kg-dry	100	8/19/2011 06:04 PM
o-Xylene	ND		110	µg/Kg-dry	100	8/19/2011 06:04 PM
Toluene	ND		110	µg/Kg-dry	100	8/19/2011 06:04 PM
Xylenes, Total	ND		330	µg/Kg-dry	100	8/19/2011 06:04 PM
Surr: 1,2-Dichloroethane-d4	103		70-120	%REC	100	8/19/2011 06:04 PM
Surr: 4-Bromofluorobenzene	101		75-120	%REC	100	8/19/2011 06:04 PM
Surr: Dibromofluoromethane	95.8		85-115	%REC	100	8/19/2011 06:04 PM
Surr: Toluene-d8	98.7		85-115	%REC	100	8/19/2011 06:04 PM
<b>MOISTURE</b>						
			<b>A2540 G</b>			Analyst: <b>CG</b>
<b>Moisture</b>	<b>8.2</b>		<b>0.050</b>	<b>% of sample</b>	<b>1</b>	8/17/2011 12:23 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group USA, Corp

Date: 23-Aug-11

**Client:** HRL Compliance Solutions

## QC BATCH REPORT

**Work Order:** 1108493

**Project:** TR 11-5-697 Treatment Cell 8/12/11

Batch ID: **34980**

Instrument ID **GC8**

Method: **SW8015M**

<b>MBLK</b>	Sample ID: <b>DBLKS1-34980-34980</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/19/2011 03:03 PM</b>			
Client ID:	Run ID: <b>GC8_110819A</b>				SeqNo: <b>1712847</b>		Prep Date: <b>8/18/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	4.2								
<i>Surr: 4-Terphenyl-d14</i>	1.452	0	1.667	0	87.1	39-115	0			

<b>LCS</b>	Sample ID: <b>DLCSS1-34980-34980</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/19/2011 01:54 PM</b>			
Client ID:	Run ID: <b>GC8_110819A</b>				SeqNo: <b>1712845</b>		Prep Date: <b>8/18/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	162.2	4.2	166.7	0	97.4	60-130	0			
<i>Surr: 4-Terphenyl-d14</i>	1.06	0	1.667	0	63.6	39-115	0			

<b>LCSD</b>	Sample ID: <b>DLCSDS1-34980-34980</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/19/2011 02:17 PM</b>			
Client ID:	Run ID: <b>GC8_110819A</b>				SeqNo: <b>1712827</b>		Prep Date: <b>8/18/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	180.9	4.2	166.7	0	109	60-130	162.2	10.8	30	
<i>Surr: 4-Terphenyl-d14</i>	1.35	0	1.667	0	81	39-115	1.06	24.1	30	

<b>MS</b>	Sample ID: <b>1108553-01A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/19/2011 02:17 PM</b>			
Client ID:	Run ID: <b>GC8_110819A</b>				SeqNo: <b>1712846</b>		Prep Date: <b>8/18/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	313.4	7.9	315.9	5.225	97.6	60-130	0			
<i>Surr: 4-Terphenyl-d14</i>	2.142	0	3.159	0	67.8	39-115	0			

<b>MSD</b>	Sample ID: <b>1108553-01A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/19/2011 02:40 PM</b>			
Client ID:	Run ID: <b>GC8_110819A</b>				SeqNo: <b>1712828</b>		Prep Date: <b>8/18/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	309.1	8.2	326.7	5.225	93	60-130	313.4	1.39	30	
<i>Surr: 4-Terphenyl-d14</i>	2.216	0	3.267	0	67.8	39-115	2.142	3.43	30	

The following samples were analyzed in this batch:

1108493-01B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1108493  
**Project:** TR 11-5-697 Treatment Cell 8/12/11

## QC BATCH REPORT

Batch ID: **R93673**      Instrument ID **GC9**      Method: **SW8015**

<b>MBLK</b>	Sample ID: <b>MBLK-R93673-R93673</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/19/2011 12:45 PM</b>			
Client ID:	Run ID: <b>GC9_110819A</b>				SeqNo: <b>1712452</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	200								
<i>Surr: Toluene-d8</i>	96.28	0	100	0	96.3	70-130	0			

<b>LCS</b>	Sample ID: <b>LCS-R93673-R93673</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/19/2011 11:28 AM</b>			
Client ID:	Run ID: <b>GC9_110819A</b>				SeqNo: <b>1712450</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	22830	200	25000	0	91.3	70-130	0			
<i>Surr: Toluene-d8</i>	89.44	0	100	0	89.4	70-130	0			

<b>LCSD</b>	Sample ID: <b>LCSD-R93673-R93673</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/19/2011 11:54 AM</b>			
Client ID:	Run ID: <b>GC9_110819A</b>				SeqNo: <b>1712451</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	22310	200	25000	0	89.2	70-130	22830	2.32	30	
<i>Surr: Toluene-d8</i>	87.67	0	100	0	87.7	70-130	89.44	2	30	

<b>MS</b>	Sample ID: <b>1108598-05A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/19/2011 09:55 PM</b>			
Client ID:	Run ID: <b>GC9_110819A</b>				SeqNo: <b>1712473</b>		Prep Date:		DF: <b>50</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1282000	2,500	1250000	0	103	70-130	0			
<i>Surr: Toluene-d8</i>	4972	0	5000	0	99.4	50-150	0			

<b>MSD</b>	Sample ID: <b>1108598-05A MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/19/2011 10:21 PM</b>			
Client ID:	Run ID: <b>GC9_110819A</b>				SeqNo: <b>1712474</b>		Prep Date:		DF: <b>50</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	1239000	2,500	1250000	0	99.1	70-130	1282000	3.43	30	
<i>Surr: Toluene-d8</i>	4952	0	5000	0	99	50-150	4972	0.403	30	

The following samples were analyzed in this batch: | 1108493-01A |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1108493  
**Project:** TR 11-5-697 Treatment Cell 8/12/11

## QC BATCH REPORT

Batch ID: **R93597**      Instrument ID **VMS8**      Method: **SW8260**

<b>MBLK</b>	Sample ID: <b>VBLKW1-110819-R93597</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/19/2011 12:53 PM</b>			
Client ID:	Run ID: <b>VMS8_110819A</b>				SeqNo: <b>1712429</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	2.0								
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>102.4</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>102</i>	<i>70-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>99.15</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>99.2</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>99.45</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>99.4</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>100.2</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>100</i>	<i>85-120</i>	<i>0</i>			

<b>LCS</b>	Sample ID: <b>VLCSW1-110819-R93597</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/19/2011 10:39 AM</b>			
Client ID:	Run ID: <b>VMS8_110819A</b>				SeqNo: <b>1710172</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.38	1.0	20	0	107	80-120	0			
Ethylbenzene	21.34	1.0	20	0	107	75-125	0			
m,p-Xylene	43.05	2.0	40	0	108	75-130	0			
o-Xylene	20.95	1.0	20	0	105	80-120	0			
Toluene	21.66	1.0	20	0	108	75-120	0			
Xylenes, Total	64	2.0	60	0	107	75-130	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>101.5</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>102</i>	<i>70-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>99.72</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>99.7</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>103.5</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>104</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>99.53</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>99.5</i>	<i>85-120</i>	<i>0</i>			

<b>LCSD</b>	Sample ID: <b>VLCSW2-118019-R93597</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/19/2011 11:54 AM</b>			
Client ID:	Run ID: <b>VMS8_110819A</b>				SeqNo: <b>1710381</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	21.31	1.0	20	0	107	80-120	21.38	0.328	30	
Ethylbenzene	21.23	1.0	20	0	106	75-125	21.34	0.517	30	
m,p-Xylene	42.59	2.0	40	0	106	75-130	43.05	1.07	30	
o-Xylene	20.76	1.0	20	0	104	80-120	20.95	0.911	30	
Toluene	21.62	1.0	20	0	108	75-120	21.66	0.185	30	
Xylenes, Total	63.35	2.0	60	0	106	75-130	64	1.02	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>102.3</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>102</i>	<i>70-120</i>	<i>101.5</i>	<i>0.756</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>100.2</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>100</i>	<i>75-120</i>	<i>99.72</i>	<i>0.49</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>102.4</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>102</i>	<i>85-115</i>	<i>103.5</i>	<i>1.06</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>99.82</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>99.8</i>	<i>85-120</i>	<i>99.53</i>	<i>0.291</i>	<i>30</i>	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 1108493  
**Project:** TR 11-5-697 Treatment Cell 8/12/11

## QC BATCH REPORT

Batch ID: **R93597**      Instrument ID **VMS8**      Method: **SW8260**

MS				Sample ID: 1108599-02A MS			Units: µg/L		Analysis Date: 8/19/2011 09:14 PM		
Client ID:		Run ID: VMS8_110819A			SeqNo: 1712435		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	22.12	1.0	20	0	111	80-120	0				
Ethylbenzene	22.79	1.0	20	0	114	75-125	0				
m,p-Xylene	48.32	2.0	40	0	121	75-130	0				
o-Xylene	23.63	1.0	20	0	118	80-120	0				
Toluene	21.34	1.0	20	0.81	103	75-120	0				
Xylenes, Total	71.95	2.0	60	0	120	75-130	0				
Surr: 1,2-Dichloroethane-d4	100.8	0	100	0	101	70-120	0				
Surr: 4-Bromofluorobenzene	111.9	0	100	0	112	75-120	0				
Surr: Dibromofluoromethane	104	0	100	0	104	85-115	0				
Surr: Toluene-d8	93.57	0	100	0	93.6	85-120	0				

MSD				Sample ID: 1108599-02A MSD			Units: µg/L		Analysis Date: 8/19/2011 09:38 PM		
Client ID:		Run ID: VMS8_110819A			SeqNo: 1712436		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	21.49	1.0	20	0	107	80-120	22.12	2.89	30		
Ethylbenzene	21.39	1.0	20	0	107	75-125	22.79	6.34	30		
m,p-Xylene	44.02	2.0	40	0	110	75-130	48.32	9.31	30		
o-Xylene	21.43	1.0	20	0	107	80-120	23.63	9.76	30		
Toluene	21.2	1.0	20	0.81	102	75-120	21.34	0.658	30		
Xylenes, Total	65.45	2.0	60	0	109	75-130	71.95	9.46	30		
Surr: 1,2-Dichloroethane-d4	101.7	0	100	0	102	70-120	100.8	0.879	30		
Surr: 4-Bromofluorobenzene	105	0	100	0	105	75-120	111.9	6.4	30		
Surr: Dibromofluoromethane	104.5	0	100	0	104	85-115	104	0.451	30		
Surr: Toluene-d8	97.54	0	100	0	97.5	85-120	93.57	4.15	30		

The following samples were analyzed in this batch:

1108493-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1108493  
**Project:** TR 11-5-697 Treatment Cell 8/12/11

## QC BATCH REPORT

Batch ID: **R93535** Instrument ID **MOIST** Method: **A2540 G**

<b>MBLK</b>	Sample ID: <b>WBLKS1-R93535</b>			Units: <b>% of sample</b>			Analysis Date: <b>8/17/2011 12:23 PM</b>			
Client ID:	Run ID: <b>MOIST_110817A</b>			SeqNo: <b>1709098</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

<b>LCS</b>	Sample ID: <b>LCS-R93535</b>			Units: <b>% of sample</b>			Analysis Date: <b>8/17/2011 12:23 PM</b>			
Client ID:	Run ID: <b>MOIST_110817A</b>			SeqNo: <b>1709097</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

<b>DUP</b>	Sample ID: <b>1108487-01ADUP</b>			Units: <b>% of sample</b>			Analysis Date: <b>8/17/2011 12:23 PM</b>			
Client ID:	Run ID: <b>MOIST_110817A</b>			SeqNo: <b>1709044</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	10.26	0.050	0	0	0	0-0	10.68	4.01	20	

<b>DUP</b>	Sample ID: <b>1108502-06ADUP</b>			Units: <b>% of sample</b>			Analysis Date: <b>8/17/2011 12:23 PM</b>			
Client ID:	Run ID: <b>MOIST_110817A</b>			SeqNo: <b>1709085</b>			Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	4.06	0.050	0	0	0	0-0	3.36	18.9	20	

The following samples were analyzed in this batch:

1108493-01B

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**WORKORDER**  
#

1108493

**PAGE**                      **1**                      **of**                      **1**



DISPOSAL	By Lab	or	Return to Client
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[illegible]

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

**For metals or anions, please detail analytes below.**

<b>Comments:</b>  <div style="text-align: center;"> </div>	<b>QC PACKAGE (check below)</b>								
	<input checked="" type="checkbox"/>	LEVEL II (Standard QC)							
	<input type="checkbox"/>	LEVEL III (Std QC + forms)							
	<input type="checkbox"/>	LEVEL IV (Std QC + forms + raw data)							
	<input type="checkbox"/>								
<b>Preservative Key:</b> 1-HCl    2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH    5-NaHSO <sub>4</sub> 7-Other    8-4 degrees C    9-5035									

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Dan Pinegar	8/15/2011	5:00 PM
RECEIVED BY		Diane F. Shaw	8/16/11	1000
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **16-Aug-11 10:00**

Work Order: **1108493**

Received by: **DS**

Checklist completed by *Diane Shaw* 16-Aug-11  
eSignature Date

Reviewed by: *Ann Preston* 18-Aug-11  
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>5.2 c</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			
Login Notes:			

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

CUSTODY SEAL

DATE

SIGNATURE

QEC

Quality Environmental Containers  
800-255-3950 • 304-255-3900FedEx NEW Package  
Express US AirbillFedEx  
Tracking  
Number

8758 3471 3823

Form  
ID No.

FedEx Retrieval Copy

1 From  
Date 8/15/11 Sender's FedEx  
Account Number

Sender's Name DAN PINEGAR Phone 970 243-3271

Company HCSI

Address 794 HORIZON CT. STE. 140  
Dept./Floor/Suite/Room

City GRAND JUNCTION State CO ZIP 81506

2 Your Internal Billing Reference

3 To  
Recipient's Name SAMPLE RECEIVING Phone 416 399-6070

Company ALS GROUP

Address 3352 128th AVE  
We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/RoomAddress X  
Use this line for the HOLD location address or for continuation of your shipping address.

City HOLLAND State MI ZIP 49427

4 Express Package Service \*To most locations.  
NOTE: Service order has changed. Please select carefully.Packages up to 150 lbs.  
For packages over 150 lbs., use the new  
FedEx Express Freight US Airbill.

## Next Business Day

06 ☐ FedEx First Overnight  
Earliest next business morning delivery to select  
locations. Friday shipments will be delivered on  
Monday unless SATURDAY Delivery is selected.01 ☒ FedEx Priority Overnight  
Next business morning.\* Friday shipments will be  
delivered on Monday unless SATURDAY Delivery  
is selected.05 ☐ FedEx Standard Overnight  
Next business afternoon.\*  
Saturday Delivery NOT available.

## 2 or 3 Business Days

49 ☐ NEW FedEx 2Day A.M.  
Second business morning.\*  
Saturday Delivery NOT available.03 ☐ FedEx 2Day  
Second business afternoon.\* Thursday shipments  
will be delivered on Monday unless SATURDAY  
Delivery is selected.20 ☐ FedEx Express Saver  
Third business day.\*  
Saturday Delivery NOT available.

5 Packaging \*Declared value limit \$500.

06 ☐ FedEx Envelope\* 02 ☐ FedEx Pak\* 03 ☐ FedEx  
Box 04 ☐ FedEx Tube 01 ☒ Other

6 Special Handling and Delivery Signature Options

03 SATURDAY DELIVERY

☒ No Signature Required  
Package may be left without  
obtaining a signature for delivery.10 ☐ Direct Signature  
Someone at recipient's address  
may sign for delivery. Fee applies.34 ☐ Indirect Signature  
If no one is available at recipient's  
address, someone at a neighboring  
address may sign for delivery. For  
residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked.

☒ No 04 ☐ Yes  
As per attached  
Shipper's Declaration.☐ Yes  
Shipper's Declaration  
not required.06 ☐ Dry Ice  
Dry Ice, 9 UN 1845 x kgDangerous goods (including dry ice) cannot be shipped in FedEx packaging  
or placed in a FedEx Express Drop Box.☐ Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

Obtain recip.  
Acct. No. ☐1 ☐ Sender  
Acct. No. in Section  
1 will be billed. 2 ☒ Recipient 3 ☐ Third Party 4 ☐ Credit Card 5 ☐ Cash/Check

Total Packages

Total Weight

Credit Card Auth.

Our liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

612

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02-Sep-2011

Kris Rowe  
HRL Compliance Solutions  
744 Horizon Ct. Suite 140  
Grand Junction, CO 81506

Re: **TR 11-5-697 Treatment Cell 8/25/11**

Work Order: **1108869**

Dear Kris,

ALS Environmental received 1 sample on 27-Aug-2011 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 24.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston  
Project Manager



Certificate No: IL100452

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

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Environmental The ALS logo, a stylized blue triangle with a yellow flame inside.

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RIGHT SOLUTIONS RIGHT PARTNER

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**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Treatment Cell 8/25/11  
**Work Order:** 1108869

**Work Order Sample Summary**

---

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1108869-01	TR 11-5-697 Treatment Cell	Soil		8/25/2011 16:00	8/27/2011 10:15	<input type="checkbox"/>

## ALS Group USA, Corp

*Date: 02-Sep-11*

---

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Treatment Cell 8/25/11  
**Work Order:** 1108869

---

### Case Narrative

Batch 35196 MS/MSD data for Metals is not related to this project's samples.



**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Treatment Cell 8/25/11  
**WorkOrder:** 1108869

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
TDL	Target Detection Limit

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
% of sample	Percent of Sample
µg/Kg-dry as noted	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
s.u.	Standard Units

# ALS Group USA, Corp

Date: 02-Sep-11

**Client:** HRL Compliance Solutions  
**Project:** TR 11-5-697 Treatment Cell 8/25/11  
**Sample ID:** TR 11-5-697 Treatment Cell  
**Collection Date:** 8/25/2011 04:00 PM

**Work Order:** 1108869  
**Lab ID:** 1108869-01  
**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MERCURY BY CVAA</b>						
Mercury	0.023		SW7471 0.019	mg/Kg-dry	Prep Date: 8/27/2011 1	Analyst: LR 8/29/2011 01:56 PM
<b>METALS BY ICP-MS</b>						
Arsenic	6.8		SW6020A 0.73	mg/Kg-dry	Prep Date: 8/29/2011 2	Analyst: CES 8/31/2011 11:37 AM
Barium	480		7.3	mg/Kg-dry	20	8/31/2011 11:32 AM
Cadmium	1.2		0.29	mg/Kg-dry	2	8/31/2011 11:37 AM
Chromium	45		0.73	mg/Kg-dry	2	8/31/2011 06:13 AM
Copper	17		0.73	mg/Kg-dry	2	8/31/2011 06:13 AM
Lead	16		0.73	mg/Kg-dry	2	8/31/2011 06:13 AM
Nickel	27		0.73	mg/Kg-dry	2	8/31/2011 06:13 AM
Selenium	1.5		0.73	mg/Kg-dry	2	8/31/2011 06:13 AM
Silver	ND		0.73	mg/Kg-dry	2	8/31/2011 06:13 AM
Zinc	69		1.5	mg/Kg-dry	2	8/31/2011 11:37 AM
<b>SUBCONTRACTED ANALYSES</b>						
Subcontracted Analyses	Rcvd 9/2/11		SUBCONTRACT as noted		1	Analyst: A&LGL 9/2/2011
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>						
Acenaphthene	ND		SW8270 32	µg/Kg-dry	Prep Date: 8/29/2011 1	Analyst: CW 8/30/2011 02:36 PM
Anthracene	ND		32	µg/Kg-dry	1	8/30/2011 02:36 PM
Benzo(a)anthracene	ND		32	µg/Kg-dry	1	8/30/2011 02:36 PM
Benzo(a)pyrene	ND		32	µg/Kg-dry	1	8/30/2011 02:36 PM
Benzo(b)fluoranthene	ND		32	µg/Kg-dry	1	8/30/2011 02:36 PM
Benzo(g,h,i)perylene	ND		32	µg/Kg-dry	1	8/30/2011 02:36 PM
Benzo(k)fluoranthene	ND		32	µg/Kg-dry	1	8/30/2011 02:36 PM
Chrysene	ND		32	µg/Kg-dry	1	8/30/2011 02:36 PM
Dibenzo(a,h)anthracene	ND		32	µg/Kg-dry	1	8/30/2011 02:36 PM
Fluoranthene	ND		32	µg/Kg-dry	1	8/30/2011 02:36 PM
Fluorene	ND		32	µg/Kg-dry	1	8/30/2011 02:36 PM
Indeno(1,2,3-cd)pyrene	ND		32	µg/Kg-dry	1	8/30/2011 02:36 PM
Naphthalene	ND		32	µg/Kg-dry	1	8/30/2011 02:36 PM
Pyrene	ND		32	µg/Kg-dry	1	8/30/2011 02:36 PM
Surr: 2,4,6-Tribromophenol	80.9		34-140	%REC	1	8/30/2011 02:36 PM
Surr: 2-Fluorobiphenyl	70.6		12-100	%REC	1	8/30/2011 02:36 PM
Surr: 2-Fluorophenol	74.5		33-117	%REC	1	8/30/2011 02:36 PM
Surr: 4-Terphenyl-d14	112		25-137	%REC	1	8/30/2011 02:36 PM
Surr: Nitrobenzene-d5	75.4		37-107	%REC	1	8/30/2011 02:36 PM
Surr: Phenol-d6	75.3		40-106	%REC	1	8/30/2011 02:36 PM
<b>CHROMIUM, TRIVALENT</b>						
Chromium, Trivalent	45		CALCULATION	mg/kg-dry	1	Analyst: JJG 9/2/2011 02:35 PM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group USA, Corp****Date:** 02-Sep-11**Client:** HRL Compliance Solutions**Project:** TR 11-5-697 Treatment Cell 8/25/11**Work Order:** 1108869**Sample ID:** TR 11-5-697 Treatment Cell**Lab ID:** 1108869-01**Collection Date:** 8/25/2011 04:00 PM**Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>CHROMIUM, HEXAVALENT</b>			<b>SW7196A</b>		Prep Date: <b>9/1/2011</b>	Analyst: <b>MB</b>
Chromium, Hexavalent	ND		0.52	mg/Kg-dry	1	9/2/2011 01:00 PM
<b>MOISTURE</b>			<b>A2540 G</b>			Analyst: <b>CG</b>
Moisture	7.9		0.050	% of sample	1	8/29/2011 11:39 AM
<b>PH</b>			<b>SW9045D</b>			Analyst: <b>JJG</b>
pH	8.46			s.u.	1	8/30/2011 10:15 AM

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Report Number: F11243-0164

Account Number: 91000

# A & L GREAT LAKES LABORATORIES, INC.

3505 Conestoga Drive • Fort Wayne, Indiana 46808-4413 • Phone 260-483-4759 • Fax 260-483-5274

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**QUALITY ANALYSES FOR INFORMED DECISIONS**

TO: ALS LABORATORY GROUP  
3352 128TH AVE  
HOLLAND, MI 49424-9263

RE: 1108869

DATE RECEIVED: 08/31/2011

DATE REPORTED: 09/02/2011

PAGE: 1

P.O. NUMBER: 20-122010664

ATTN: ANN PRESTON

## REPORT OF ANALYSIS

LAB NO.	SAMPLE ID	ANALYSIS	RESULT	UNIT	METHOD
81613	01B	Sat'd Paste Extraction with DIW	1		USDA Handbook 60
		Conductivity (ECe)	1.16	mmho/cm	USDA Handbook 60
		Calcium (Sat'd Paste)	35	ppm	USDA Handbook 60
		Magnesium (Sat'd Paste)	11	ppm	USDA Handbook 60
		Sodium (Sat'd Paste)	1031	ppm	USDA Handbook 60
		Sodium Adsorption Ratio	38.8	-	USDA Handbook 60

Client: HRL Compliance Solutions

**QC BATCH REPORT**

Work Order: 1108869

Project: TR 11-5-697 Treatment Cell 8/25/11

Batch ID: **35187** Instrument ID **HG1** Method: **SW7471**

<b>MBLK</b>	Sample ID: <b>MBLK-35187-35187</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/29/2011 01:17 PM</b>			
Client ID:	Run ID: <b>HG1_110829A</b>				SeqNo: <b>1719407</b>		Prep Date: <b>8/27/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.020								

<b>LCS</b>	Sample ID: <b>LCS-35187-35187</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/29/2011 01:19 PM</b>			
Client ID:	Run ID: <b>HG1_110829A</b>				SeqNo: <b>1719408</b>		Prep Date: <b>8/27/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1646	0.020	0.1665	0	98.8	80-120	0			

<b>LCSD</b>	Sample ID: <b>LCSD-35187-35187</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/29/2011 01:21 PM</b>			
Client ID:	Run ID: <b>HG1_110829A</b>				SeqNo: <b>1719409</b>		Prep Date: <b>8/27/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1584	0.020	0.1665	0	95.1	80-120	0.1646	3.82	20	

<b>MS</b>	Sample ID: <b>1108821-01BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/29/2011 01:30 PM</b>			
Client ID:	Run ID: <b>HG1_110829A</b>				SeqNo: <b>1719413</b>		Prep Date: <b>8/27/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1673	0.019	0.1604	0.01787	93.2	75-125	0			

<b>MSD</b>	Sample ID: <b>1108821-01BMDS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/29/2011 01:32 PM</b>			
Client ID:	Run ID: <b>HG1_110829A</b>				SeqNo: <b>1719414</b>		Prep Date: <b>8/27/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.1738	0.019	0.1609	0.01787	96.9	75-125	0.1673	3.86	35	

The following samples were analyzed in this batch:

1108869-01A

**Client:** HRL Compliance Solutions  
**Work Order:** 1108869  
**Project:** TR 11-5-697 Treatment Cell 8/25/11

## QC BATCH REPORT

Batch ID: **35196**      Instrument ID **ICPMS1**      Method: **SW6020A**

<b>MBLK</b>	Sample ID: <b>MBLK-35196-35196</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/31/2011 02:10 AM</b>			
Client ID:	Run ID: <b>ICPMS1_110830A</b>				SeqNo: <b>1721720</b>		Prep Date: <b>8/29/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	0.001144	0.10								J
Chromium	0.002806	0.25								J
Copper	ND	0.25								
Lead	0.002402	0.25								J
Nickel	ND	0.25								
Selenium	ND	0.25								
Silver	ND	0.25								
Zinc	ND	0.50								

<b>LCS</b>	Sample ID: <b>LCS-35196-35196</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/31/2011 02:15 AM</b>			
Client ID:	Run ID: <b>ICPMS1_110830A</b>				SeqNo: <b>1721721</b>		Prep Date: <b>8/29/2011</b>		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.663	0.50	5	0	93.3	80-120	0			
Barium	4.779	0.50	5	0	95.6	80-120	0			
Cadmium	4.603	0.20	5	0	92.1	80-120	0			
Chromium	4.697	0.50	5	0	93.9	80-120	0			
Copper	4.763	0.50	5	0	95.3	80-120	0			
Lead	4.714	0.50	5	0	94.3	80-120	0			
Nickel	4.729	0.50	5	0	94.6	80-120	0			
Selenium	4.607	0.50	5	0	92.1	80-120	0			
Silver	4.489	0.50	5	0	89.8	80-120	0			
Zinc	4.588	1.0	5	0	91.8	80-120	0			

<b>LCSD</b>	Sample ID: <b>LCSD-35196-35196</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/31/2011 02:20 AM</b>			
Client ID:	Run ID: <b>ICPMS1_110830A</b>				SeqNo: <b>1721722</b>		Prep Date: <b>8/29/2011</b>		DF: <b>2</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.766	0.50	5	0	95.3	80-120	4.663	2.18	20	
Barium	4.746	0.50	5	0	94.9	80-120	4.779	0.693	20	
Cadmium	4.647	0.20	5	0	92.9	80-120	4.603	0.951	20	
Chromium	4.764	0.50	5	0	95.3	80-120	4.697	1.42	20	
Copper	4.848	0.50	5	0	97	80-120	4.763	1.77	20	
Lead	4.769	0.50	5	0	95.4	80-120	4.714	1.16	20	
Nickel	4.795	0.50	5	0	95.9	80-120	4.729	1.39	20	
Selenium	4.702	0.50	5	0	94	80-120	4.607	2.04	20	
Silver	4.543	0.50	5	0	90.9	80-120	4.489	1.2	20	
Zinc	4.681	1.0	5	0	93.6	80-120	4.588	2.01	20	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1108869  
**Project:** TR 11-5-697 Treatment Cell 8/25/11

## QC BATCH REPORT

Batch ID: **35196**      Instrument ID **ICPMS1**      Method: **SW6020A**

<b>MS</b>		Sample ID: <b>1108879-03BMS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/31/2011 02:46 AM</b>		
Client ID:		Run ID: <b>ICPMS1_110830A</b>				SeqNo: <b>1721727</b>		Prep Date: <b>8/29/2011</b>		DF: <b>4</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.74	1.5	7.342	3.799	94.6	80-120	0			
Barium	19.68	1.5	7.342	13.09	89.8	80-120	0			
Cadmium	6.831	0.59	7.342	0.1448	91.1	80-120	0			
Chromium	12	1.5	7.342	5.1	94	80-120	0			
Copper	14.94	1.5	7.342	7.488	101	80-120	0			
Lead	11.54	1.5	7.342	4.501	95.9	80-120	0			
Nickel	13.82	1.5	7.342	6.964	93.4	80-120	0			
Selenium	7.319	1.5	7.342	0.6311	91.1	80-120	0			
Silver	5.93	1.5	7.342	0.01805	80.5	80-120	0			
Zinc	36.27	2.9	7.342	27.47	120	80-120	0			

<b>MSD</b>		Sample ID: <b>1108879-03BMSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>8/31/2011 04:38 AM</b>		
Client ID:		Run ID: <b>ICPMS1_110830A</b>				SeqNo: <b>1721741</b>		Prep Date: <b>8/29/2011</b>		DF: <b>4</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.93	1.5	7.342	3.799	97.1	80-120	10.74	1.68	25	
Barium	19.29	1.5	7.342	13.09	84.5	80-120	19.68	2.02	25	
Cadmium	7.001	0.59	7.342	0.1448	93.4	80-120	6.831	2.46	25	
Chromium	12.12	1.5	7.342	5.1	95.6	80-120	12	0.974	25	
Copper	15.19	1.5	7.342	7.488	105	80-120	14.94	1.68	25	
Lead	11.46	1.5	7.342	4.501	94.8	80-120	11.54	0.689	25	
Nickel	13.81	1.5	7.342	6.964	93.3	80-120	13.82	0.0425	25	
Selenium	7.48	1.5	7.342	0.6311	93.3	80-120	7.319	2.18	25	
Silver	6.123	1.5	7.342	0.01805	83.2	80-120	5.93	3.22	25	
Zinc	38.59	2.9	7.342	27.47	151	80-120	36.27	6.2	25	S

The following samples were analyzed in this batch:

1108869-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1108869  
**Project:** TR 11-5-697 Treatment Cell 8/25/11

## QC BATCH REPORT

Batch ID: **35190**      Instrument ID **SVMS6**      Method: **SW8270**

MBLK		Sample ID: <b>SBLKS1-35190-35190</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/30/2011 10:21 AM</b>		
Client ID:		Run ID: <b>SVMS6_110830A</b>				SeqNo: <b>1720453</b>		Prep Date: <b>8/29/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	30								
Anthracene	ND	30								
Benzo(a)anthracene	ND	30								
Benzo(a)pyrene	ND	30								
Benzo(b)fluoranthene	ND	30								
Benzo(g,h,i)perylene	ND	30								
Benzo(k)fluoranthene	ND	30								
Chrysene	ND	30								
Dibenzo(a,h)anthracene	ND	30								
Fluoranthene	ND	30								
Fluorene	ND	30								
Indeno(1,2,3-cd)pyrene	ND	30								
Naphthalene	ND	30								
Pyrene	ND	30								
<hr/>										
<i>Surr: 2,4,6-Tribromophenol</i>	<i>1483</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>89</i>	<i>34-140</i>		<i>0</i>		
<i>Surr: 2-Fluorobiphenyl</i>	<i>1289</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>77.4</i>	<i>12-100</i>		<i>0</i>		
<hr/>										
<i>Surr: 2-Fluorophenol</i>	<i>1410</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>84.6</i>	<i>33-117</i>		<i>0</i>		
<i>Surr: 4-Terphenyl-d14</i>	<i>1471</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>88.3</i>	<i>25-137</i>		<i>0</i>		
<hr/>										
<i>Surr: Nitrobenzene-d5</i>	<i>1400</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>84</i>	<i>37-107</i>		<i>0</i>		
<i>Surr: Phenol-d6</i>	<i>1415</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>84.9</i>	<i>40-106</i>		<i>0</i>		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 1108869  
**Project:** TR 11-5-697 Treatment Cell 8/25/11

## QC BATCH REPORT

Batch ID: **35190**      Instrument ID **SVMS6**      Method: **SW8270**

LCS		Sample ID: <b>SLCSS1-35190-35190</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/30/2011 10:48 AM</b>		
Client ID:		Run ID: <b>SVMS6_110830A</b>				SeqNo: <b>1720540</b>		Prep Date: <b>8/29/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1153	30	1333	0	86.5	45-110	0			
Anthracene	1258	30	1333	0	94.4	55-105	0			
Benzo(a)anthracene	1230	30	1333	0	92.3	50-110	0			
Benzo(a)pyrene	1298	30	1333	0	97.4	50-110	0			
Benzo(b)fluoranthene	1354	30	1333	0	102	45-115	0			
Benzo(g,h,i)perylene	1407	30	1333	0	106	40-125	0			
Benzo(k)fluoranthene	1342	30	1333	0	101	45-115	0			
Chrysene	1278	30	1333	0	95.9	55-110	0			
Dibenzo(a,h)anthracene	1350	30	1333	0	101	40-125	0			
Fluoranthene	1255	30	1333	0	94.1	55-115	0			
Fluorene	1175	30	1333	0	88.1	50-110	0			
Indeno(1,2,3-cd)pyrene	1371	30	1333	0	103	40-120	0			
Naphthalene	1141	30	1333	0	85.6	40-105	0			
Pyrene	1306	30	1333	0	97.9	45-125	0			
<i>Surr: 2,4,6-Tribromophenol</i>	<i>1608</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>96.5</i>	<i>34-140</i>	<i>0</i>			
<i>Surr: 2-Fluorobiphenyl</i>	<i>1302</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>78.1</i>	<i>12-100</i>	<i>0</i>			
<i>Surr: 2-Fluorophenol</i>	<i>1354</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>81.2</i>	<i>33-117</i>	<i>0</i>			
<i>Surr: 4-Terphenyl-d14</i>	<i>1564</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>93.8</i>	<i>25-137</i>	<i>0</i>			
<i>Surr: Nitrobenzene-d5</i>	<i>1383</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>83</i>	<i>37-107</i>	<i>0</i>			
<i>Surr: Phenol-d6</i>	<i>1332</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>79.9</i>	<i>40-106</i>	<i>0</i>			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1108869  
**Project:** TR 11-5-697 Treatment Cell 8/25/11

## QC BATCH REPORT

Batch ID: **35190**      Instrument ID **SVMS6**      Method: **SW8270**

LCSD		Sample ID: <b>SLCSDS1-35190-35190</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/30/2011 11:14 AM</b>		
Client ID:		Run ID: <b>SVMS6_110830A</b>				SeqNo: <b>1720541</b>		Prep Date: <b>8/29/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1046	30	1333	0	78.4	45-110	1153	9.76	25	
Anthracene	1162	30	1333	0	87.2	55-105	1258	7.93	25	
Benzo(a)anthracene	1158	30	1333	0	86.9	50-110	1230	6.03	25	
Benzo(a)pyrene	1209	30	1333	0	90.7	50-110	1298	7.1	25	
Benzo(b)fluoranthene	1169	30	1333	0	87.7	45-115	1354	14.7	25	
Benzo(g,h,i)perylene	1330	30	1333	0	99.8	40-125	1407	5.63	25	
Benzo(k)fluoranthene	1110	30	1333	0	83.2	45-115	1342	19	25	
Chrysene	1192	30	1333	0	89.4	55-110	1278	6.99	25	
Dibenzo(a,h)anthracene	1270	30	1333	0	95.3	40-125	1350	6.11	25	
Fluoranthene	1163	30	1333	0	87.2	55-115	1255	7.58	25	
Fluorene	1067	30	1333	0	80	50-110	1175	9.63	25	
Indeno(1,2,3-cd)pyrene	1284	30	1333	0	96.3	40-120	1371	6.58	25	
Naphthalene	1032	30	1333	0	77.4	40-105	1141	10	25	
Pyrene	1224	30	1333	0	91.8	45-125	1306	6.48	25	
<i>Surr: 2,4,6-Tribromophenol</i>	<i>1502</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>90.1</i>	<i>34-140</i>	<i>1608</i>	<i>6.8</i>	<i>40</i>	
<i>Surr: 2-Fluorobiphenyl</i>	<i>1182</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>70.9</i>	<i>12-100</i>	<i>1302</i>	<i>9.72</i>	<i>40</i>	
<i>Surr: 2-Fluorophenol</i>	<i>1256</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>75.4</i>	<i>33-117</i>	<i>1354</i>	<i>7.48</i>	<i>40</i>	
<i>Surr: 4-Terphenyl-d14</i>	<i>1478</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>88.7</i>	<i>25-137</i>	<i>1564</i>	<i>5.68</i>	<i>40</i>	
<i>Surr: Nitrobenzene-d5</i>	<i>1275</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>76.5</i>	<i>37-107</i>	<i>1383</i>	<i>8.15</i>	<i>40</i>	
<i>Surr: Phenol-d6</i>	<i>1242</i>	<i>0</i>	<i>1667</i>	<i>0</i>	<i>74.5</i>	<i>40-106</i>	<i>1332</i>	<i>7.04</i>	<i>40</i>	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1108869  
**Project:** TR 11-5-697 Treatment Cell 8/25/11

## QC BATCH REPORT

Batch ID: **35190**      Instrument ID **SVMS6**      Method: **SW8270**

MS		Sample ID: <b>1108858-03A MS</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>8/30/2011 12:19 PM</b>		
Client ID:		Run ID: <b>SVMS6_110830A</b>				SeqNo: <b>1720753</b>		Prep Date: <b>8/29/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	2226	60	2649	0	84.1	45-110	0			
Anthracene	2291	60	2649	0	86.5	55-105	0			
Benzo(a)anthracene	2287	60	2649	0	86.4	50-110	0			
Benzo(a)pyrene	2355	60	2649	0	88.9	50-110	0			
Benzo(b)fluoranthene	2665	60	2649	0	101	45-115	0			
Benzo(g,h,i)perylene	2611	60	2649	0	98.6	40-125	0			
Benzo(k)fluoranthene	2017	60	2649	0	76.2	45-115	0			
Chrysene	2343	60	2649	0	88.5	55-110	0			
Dibenzo(a,h)anthracene	2472	60	2649	0	93.3	40-125	0			
Fluoranthene	2310	60	2649	0	87.2	55-115	0			
Fluorene	2226	60	2649	0	84	50-110	0			
Indeno(1,2,3-cd)pyrene	2502	60	2649	0	94.5	40-120	0			
Naphthalene	2220	60	2649	0	83.8	40-105	0			
Pyrene	2427	60	2649	0	91.6	45-125	0			
<i>Surr: 2,4,6-Tribromophenol</i>	3071	0	3311	0	92.8	34-140	0			
<i>Surr: 2-Fluorobiphenyl</i>	2449	0	3311	0	74	12-100	0			
<i>Surr: 2-Fluorophenol</i>	2627	0	3311	0	79.3	33-117	0			
<i>Surr: 4-Terphenyl-d14</i>	2823	0	3311	0	85.3	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	2717	0	3311	0	82.1	37-107	0			
<i>Surr: Phenol-d6</i>	2610	0	3311	0	78.8	40-106	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1108869  
**Project:** TR 11-5-697 Treatment Cell 8/25/11

## QC BATCH REPORT

Batch ID: **35190**      Instrument ID **SVMS6**      Method: **SW8270**

MS				Sample ID: 1108752-01C MS		Units: µg/Kg		Analysis Date: 9/1/2011 07:19 PM		
Client ID:		Run ID: SVMS4_110901A			SeqNo: 1723896		Prep Date: 8/29/2011		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	2293	57	2511	0	91.3	45-110	0			
Anthracene	2475	57	2511	0	98.6	55-105	0			
Benzo(a)anthracene	2399	57	2511	17.13	94.8	50-110	0			
Benzo(a)pyrene	2262	57	2511	74.32	87.1	50-110	0			
Benzo(b)fluoranthene	2279	57	2511	46.53	88.9	45-115	0			
Benzo(g,h,i)perylene	2214	57	2511	51.7	86.1	40-125	0			
Benzo(k)fluoranthene	2440	57	2511	51.7	95.1	45-115	0			
Chrysene	2637	57	2511	0	105	55-110	0			
Dibenzo(a,h)anthracene	2237	57	2511	81.11	85.9	40-125	0			
Fluoranthene	2285	57	2511	53.64	88.8	55-115	0			
Fluorene	2364	57	2511	0	94.2	50-110	0			
Indeno(1,2,3-cd)pyrene	2236	57	2511	77.23	86	40-120	0			
Naphthalene	2117	57	2511	0	84.3	40-105	0			
Pyrene	2306	57	2511	47.5	90	45-125	0			
Surr: 2,4,6-Tribromophenol	3087	0	3139	0	98.4	34-140	0			
Surr: 2-Fluorobiphenyl	2698	0	3139	0	85.9	12-100	0			
Surr: 2-Fluorophenol	2500	0	3139	0	79.7	33-117	0			
Surr: 4-Terphenyl-d14	3109	0	3139	0	99	25-137	0			
Surr: Nitrobenzene-d5	2645	0	3139	0	84.3	37-107	0			
Surr: Phenol-d6	2742	0	3139	0	87.4	40-106	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1108869  
**Project:** TR 11-5-697 Treatment Cell 8/25/11

## QC BATCH REPORT

Batch ID: **35190**      Instrument ID **SVMS6**      Method: **SW8270**

MSD				Sample ID: <b>1108858-03A MSD</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>8/30/2011 12:46 PM</b>	
Client ID:				Run ID: <b>SVMS6_110830A</b>			SeqNo: <b>1720754</b>		Prep Date: <b>8/29/2011</b>	
									DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	2144	59	2619	0	81.9	45-110	2226	3.76	30	
Anthracene	2278	59	2619	0	87	55-105	2291	0.594	30	
Benzo(a)anthracene	2248	59	2619	0	85.8	50-110	2287	1.72	30	
Benzo(a)pyrene	2376	59	2619	0	90.7	50-110	2355	0.891	30	
Benzo(b)fluoranthene	2649	59	2619	0	101	45-115	2665	0.617	30	
Benzo(g,h,i)perylene	2591	59	2619	0	98.9	40-125	2611	0.784	30	
Benzo(k)fluoranthene	2150	59	2619	0	82.1	45-115	2017	6.41	30	
Chrysene	2314	59	2619	0	88.4	55-110	2343	1.25	30	
Dibenzo(a,h)anthracene	2496	59	2619	0	95.3	40-125	2472	0.981	30	
Fluoranthene	2306	59	2619	0	88	55-115	2310	0.171	30	
Fluorene	2180	59	2619	0	83.2	50-110	2226	2.07	30	
Indeno(1,2,3-cd)pyrene	2513	59	2619	0	96	40-120	2502	0.463	30	
Naphthalene	2046	59	2619	0	78.1	40-105	2220	8.15	30	
Pyrene	2391	59	2619	0	91.3	45-125	2427	1.5	30	
Surr: 2,4,6-Tribromophenol	3045	0	3274	0	93	34-140	3071	0.854	40	
Surr: 2-Fluorobiphenyl	2213	0	3274	0	67.6	12-100	2449	10.1	40	
Surr: 2-Fluorophenol	2474	0	3274	0	75.6	33-117	2627	5.99	40	
Surr: 4-Terphenyl-d14	2625	0	3274	0	80.2	25-137	2823	7.28	40	
Surr: Nitrobenzene-d5	2487	0	3274	0	76	37-107	2717	8.83	40	
Surr: Phenol-d6	2425	0	3274	0	74.1	40-106	2610	7.34	40	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1108869  
**Project:** TR 11-5-697 Treatment Cell 8/25/11

## QC BATCH REPORT

Batch ID: **35190**      Instrument ID **SVMS6**      Method: **SW8270**

MSD		Sample ID: <b>1108752-01C MSD</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>9/1/2011 07:51 PM</b>		
Client ID:		Run ID: <b>SVMS4_110901A</b>				SeqNo: <b>1723897</b>		Prep Date: <b>8/29/2011</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	2355	60	2652	0	88.8	45-110	2293	2.7	30	
Anthracene	2551	60	2652	0	96.2	55-105	2475	3	30	
Benzo(a)anthracene	2477	60	2652	17.13	92.8	50-110	2399	3.22	30	
Benzo(a)pyrene	2331	60	2652	74.32	85.1	50-110	2262	3.03	30	
Benzo(b)fluoranthene	2426	60	2652	46.53	89.7	45-115	2279	6.24	30	
Benzo(g,h,i)perylene	2275	60	2652	51.7	83.9	40-125	2214	2.74	30	
Benzo(k)fluoranthene	2461	60	2652	51.7	90.9	45-115	2440	0.837	30	
Chrysene	2750	60	2652	0	104	55-110	2637	4.2	30	
Dibenzo(a,h)anthracene	2292	60	2652	81.11	83.4	40-125	2237	2.42	30	
Fluoranthene	2354	60	2652	53.64	86.8	55-115	2285	3	30	
Fluorene	2422	60	2652	0	91.4	50-110	2364	2.42	30	
Indeno(1,2,3-cd)pyrene	2307	60	2652	77.23	84.1	40-120	2236	3.14	30	
Naphthalene	2199	60	2652	0	82.9	40-105	2117	3.8	30	
Pyrene	2388	60	2652	47.5	88.3	45-125	2306	3.49	30	
<i>Surr: 2,4,6-Tribromophenol</i>	3190	0	3315	0	96.2	34-140	3087	3.26	40	
<i>Surr: 2-Fluorobiphenyl</i>	2776	0	3315	0	83.7	12-100	2698	2.85	40	
<i>Surr: 2-Fluorophenol</i>	2704	0	3315	0	81.6	33-117	2500	7.82	40	
<i>Surr: 4-Terphenyl-d14</i>	3149	0	3315	0	95	25-137	3109	1.3	40	
<i>Surr: Nitrobenzene-d5</i>	2756	0	3315	0	83.1	37-107	2645	4.11	40	
<i>Surr: Phenol-d6</i>	2845	0	3315	0	85.8	40-106	2742	3.69	40	

The following samples were analyzed in this batch: | 1108869-01A |

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1108869  
**Project:** TR 11-5-697 Treatment Cell 8/25/11

## QC BATCH REPORT

Batch ID: **35281**      Instrument ID **WETCHEM**      Method: **SW7196A**

<b>MBLK</b>	Sample ID: <b>MBLK-35281-35281</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/2/2011 01:00 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110902C</b>				SeqNo: <b>1724443</b>		Prep Date: <b>9/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	ND	0.49								

<b>LCS</b>	Sample ID: <b>LCS-35281-35281</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/2/2011 01:00 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110902C</b>				SeqNo: <b>1724441</b>		Prep Date: <b>9/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2.054	0.48	1.931		0	106	75-110	0		

<b>LCSD</b>	Sample ID: <b>LCSD-35281-35281</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/2/2011 01:00 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110902C</b>				SeqNo: <b>1724442</b>		Prep Date: <b>9/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	2.078	0.49	1.953		0	106	75-110	2.054	1.17	20

<b>MS</b>	Sample ID: <b>1108868-01A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/2/2011 01:00 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110902C</b>				SeqNo: <b>1724424</b>		Prep Date: <b>9/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.616	0.48	1.938	0.2326	71.4	60-130		0		

<b>MSD</b>	Sample ID: <b>1108868-01A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>9/2/2011 01:00 PM</b>			
Client ID:	Run ID: <b>WETCHEM_110902C</b>				SeqNo: <b>1724425</b>		Prep Date: <b>9/1/2011</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	1.806	0.50	1.984	0.2326	79.3	60-130	1.616	11.1	30	

The following samples were analyzed in this batch:

1108869-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** HRL Compliance Solutions  
**Work Order:** 1108869  
**Project:** TR 11-5-697 Treatment Cell 8/25/11

## QC BATCH REPORT

Batch ID: **R94038**      Instrument ID **MOIST**      Method: **A2540 G**

<b>MBLK</b>	Sample ID: <b>WBLKS1-R94038</b>				Units: % of sample			Analysis Date: <b>8/29/2011 11:39 AM</b>		
Client ID:	Run ID: <b>MOIST_110829A</b>				SeqNo: <b>1720347</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

<b>LCS</b>	Sample ID: <b>LCS-R94038</b>				Units: % of sample			Analysis Date: <b>8/29/2011 11:39 AM</b>		
Client ID:	Run ID: <b>MOIST_110829A</b>				SeqNo: <b>1720346</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

<b>DUP</b>	Sample ID: <b>1108867-03BDUP</b>				Units: % of sample			Analysis Date: <b>8/29/2011 11:39 AM</b>		
Client ID:	Run ID: <b>MOIST_110829A</b>				SeqNo: <b>1720332</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	6.87	0.050	0	0	0	0-0	6.69	2.65	20	

<b>DUP</b>	Sample ID: <b>1108879-03BDUP1</b>				Units: % of sample			Analysis Date: <b>8/29/2011 11:39 AM</b>		
Client ID:	Run ID: <b>MOIST_110829A</b>				SeqNo: <b>1720339</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	15.85	0.050	0	0	0	0-0	15.69	1.01	20	

<b>DUP</b>	Sample ID: <b>1108879-03BDUP2</b>				Units: % of sample			Analysis Date: <b>8/29/2011 11:39 AM</b>		
Client ID:	Run ID: <b>MOIST_110829A</b>				SeqNo: <b>1720340</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	15.53	0.050	0	0	0	0-0	15.69	1.02	20	

The following samples were analyzed in this batch:

1108869-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** HRL Compliance Solutions  
**Work Order:** 1108869  
**Project:** TR 11-5-697 Treatment Cell 8/25/11

## QC BATCH REPORT

Batch ID: **R94050** Instrument ID **WETCHEM** Method: **A4500-H B**

<b>DUP</b>	Sample ID: <b>1108914-01A DUP</b>				Units: <b>s.u.</b>			Analysis Date: <b>8/30/2011 10:15 AM</b>		
Client ID:	Run ID: <b>WETCHEM_110830F</b>				SeqNo: <b>1720591</b>			Prep Date: DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.57	0	0	0	0	0-0	8.57	0	20	

<b>DUP</b>	Sample ID: <b>1108868-01A DUP</b>				Units: <b>s.u.</b>			Analysis Date: <b>8/30/2011 10:15 AM</b>		
Client ID:	Run ID: <b>WETCHEM_110830F</b>				SeqNo: <b>1720594</b>			Prep Date: DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.26	0	0	0	0	0-0	8.26	0	20	

<b>DUP</b>	Sample ID: <b>1108912-05B DUP</b>				Units: <b>s.u.</b>			Analysis Date: <b>8/30/2011 10:15 AM</b>		
Client ID:	Run ID: <b>WETCHEM_110830F</b>				SeqNo: <b>1720606</b>			Prep Date: DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	8.65	0	0	0	0	0-0	8.65	0	20	HH

The following samples were analyzed in this batch:

1108869-01A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.




WORKORDER  
#

1102860

Form 202r8

\*Time Zone (Circle): EST CST **MST** PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

**For metals or anions, please detail analytes below.**

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Dan Pinegar	8/26/2011	5:00 PM
RECEIVED BY			8/27/11	10/5
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

**Subcontractor:**

A &amp; L Great Lakes Agricultural La

3505 Conestoga Dr

TEL: (260) 483-4759

FAX: (260) 483-5274

Acct #: 91000

Ft. Wayne, IN 46808

**CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

Date: **30-Aug-11**COC ID: **3073**Due Date **06-Sep-11**

Customer Information		Project Information		Parameter/Method Request for Analysis										
Purchase Order		Project Name	1108869	A Subcontracted Analyses (SUBCONTRACT)										
Work Order		Project Number		B										
Company Name	ALS Group USA, Corp	Bill To Company	ALS Group USA, Corp	C										
Send Report To	Ann Preston	Inv Attn	Accounts Payable	D										
Address	3352 128th Avenue	Address	3352 128th Avenue	E										
				F										
City/State/Zip	Holland, Michigan 49424-9263	City/State/Zip	Holland, Michigan 49424-9263	G										
Phone	(616) 399-6070	Phone	(616) 399-6070	H										
Fax	(616) 399-6185	Fax	(616) 399-6185	I										
eMail Address	ann.preston@alsglobal.com	eMail CC		J										
Sample ID	Matrix	Collection Date 24hr	Bottle	A	B	C	D	E	F	G	H	I	J	
1108869-01B (TR 11-5-697 Treatment Cell)	Soil	25/Aug/2011 16:00	(1) MISC	X										

**Comments:**Please analyze for SAR-EC. Email results to Ann Preston.

Relinquished by:	Date/Time	Received by:	Date/Time	Cooler IDs	Report/QC Level
					<b>Std</b>
Relinquished by:	Date/Time	Received by:	Date/Time		

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 27-Aug-11 00:00

Work Order: 1108869

Received by: WJC

Checklist completed by Bill Carey 27-Aug-11  
eSignature Date

Reviewed by: Ann Preston 30-Aug-11  
eSignature Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.4 C</u>		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

-----

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

fedex.com 1800.GoFedEx 1800.463.3339

**red EX** *NEW Package*  
Express *US Airbill*

FedEx  
Tracking  
Number

8758 3471 3960

0200

Form  
ID No.

**FedEx Retrieval Copy**

**1 From**  
Date 8-26-11 Sender's FedEx  
Account Number

Sender's  
Name DAN PINIGAR Phone 770 242 3271

Company HCS

Address 744 HORIZON CHASE 140 Dept./Floor/Suite/Room

City SILVER SPRING State MD ZIP 21156

**2 Your Internal Billing Reference**

**3 To**  
Recipient's  
Name SAMPLE RECEIVING Phone 616 399-6070

Company ALS GROUP

Address 3352 128TH AVE Dept./Floor/Suite/Room  
We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address  
Use this line for the HOLD location address or for continuation of your shipping address.

City HOLLAND State MI ZIP 49424



8758 3471 3960

**4 Express Package Service** \*To most locations.  
NOTE: Service order has changed. Please select carefully.

*Packages up to 150 lbs.*  
*For packages over 150 lbs., use the new*  
*FedEx Express Freight US Airbill.*

**Next Business Day**

**2 or 3 Business Days**

☐ **06 FedEx First Overnight**  
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ **49 NEW FedEx 2Day A.M.**  
Second business morning.  
Saturday Delivery NOT available.

☒ **01 FedEx Priority Overnight**  
Next business morning.\* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ **03 FedEx 2Day**  
Second business afternoon.\* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

☐ **05 FedEx Standard Overnight**  
Next business afternoon.\*  
Saturday Delivery NOT available.

☐ **20 FedEx Express Saver**  
Third business day.\*  
Saturday Delivery NOT available.

**5 Packaging** \*Declared value limit \$500.

☐ **06 FedEx Envelope\*** ☐ **02 FedEx Pak\*** ☐ **03 FedEx Box** ☐ **04 FedEx Tube** ☒ **01 Other**

**6 Special Handling and Delivery Signature Options**

☒ **SATURDAY DELIVERY**

☒ **No Signature Required**  
Package may be left without obtaining a signature for delivery.

☐ **10 Direct Signature**  
Someone at recipient's address may sign for delivery. *Fee applies.*

☐ **34 Indirect Signature**  
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. *Fee applies.*

**Does this shipment contain dangerous goods?**

One box must be checked.

☒ **No** ☐ **04 Yes**  
As per attached Shipper's Declaration.

☐ **Yes**  
Shipper's Declaration not required.

☐ **06 Dry Ice**  
Dry Ice, 9, UN 1845 x kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

☐ **Cargo Aircraft Only**

**7 Payment Bill to:**

Enter FedEx Acct. No. or Credit Card No. below.

Obtain recip.  
Acct. No. ☐

☐ **1 Sender** Acct. No. in Section 1 will be billed ☒ **2 Recipient** ☐ **3 Third Party** ☐ **4 Credit Card** ☐ **5 Cash/Check**

Total Packages

Total Weight

Credit Card Auth.

Our liability is limited to \$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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**CUSTOMER SEAL**

DATE 8/26/11

SIGNATURE [Signature]

**QEC**

Quality Environmental Containers  
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