

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.)

RECEIVED
1/4/2012

1. OGCC Operator Number: 66571	4. Contact Name: Daniel I. Padilla	Complete the Attachment Checklist OP OGCC
2. Name of Operator: OXY USA WTP LP	Phone: 970.263.3637	
3. Address: 760 Horizon Drive, Suite 101 City: Grand Junction State: CO Zip: 81506	Fax: 970.263.3694	
5. API Number: 05-045-10653	OGCC Facility ID Number: 383337	Survey Plat
6. Well/Facility Name: CC 608-43-31 Reserve Pit	7. Well/Facility Number: 608-43-31	Directional Survey
8. Location (Qtr/Sec, Twp, Rng, Meridian): NESE Sec. 8, T6S, R97W, 6th PM		Surface Eqmpt Diagram
9. County: Garfield	10. Field Name: Grand Valley	Technical Info Page
11. Federal, Indian or State Lease Number:		Other Lab data, Map

General Notice

<input type="checkbox"/> CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qr is substantive and requires a new permit)	
Change of Surface Footage from Exterior Section Lines.	<input type="checkbox"/> FNUFSL <input type="checkbox"/> FELFWL
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 bldg, public rd, utility or R/R
Ground Elevation	Distance to nearest lease line
	Is location in a High Density Area (rule 603b)? Yes/No
	Distance to nearest well same formation
	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:	
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 (6 mos from date casing set)	
<input type="checkbox"/> SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK	
*submit cbl and cement job summaries	
Method used	Cementing tool setting/perf depth
Cement volume	Cement top
Cement bottom	Date
<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"/> Change Drilling Plans	<input type="checkbox"/> Repair Well
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested
<input type="checkbox"/> Casing/Cementing Program Change	<input checked="" type="checkbox"/> Other: Application of diff. standard for Spills and Releases
	<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

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

Signed: [Signature] Date: 1/3/12 Email: daniel.padilla@oxy.com
 Print Name: Daniel I. Padilla Title: Regulatory Advisor

COGCC Approved:

Title: FORDate: 02/01/2012

CONDITIONS OF APPROVAL IF ANY:

Chris Canfield
EPS NW Region

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

- | | |
|---|---------------------------------|
| 1. OGCC Operator Number: 66571 | API Number: 05-045-10653 |
| 2. Name of Operator: OXY USA WTP LP | OGCC Facility ID # 383337 |
| 3. Well/Facility Name: CC 608-43-31 Reserve Pit | Well/Facility Number: 608-43-31 |
| 4. Location (QtrQtr, Sec, Twp, Rng, Meridian): NESE Sec. 8, T6S, R97W, 6th PM | |

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

OXY USA WTP LP (Oxy) has completed reclamation of the above-mentioned reserve pit. Oxy identified post reclamation levels for Arsenic (As) to be less than undisturbed background levels but above COGCC Table 910-1 concentration levels. Oxy requests consideration as an alternative to the default value for As in Table 910-1, based on our demonstration of naturally occurring concentrations of As in undisturbed samples taken from native material collected from nearby locations, as per foot note 1 of COGCC Table 910-1. Please refer to attached table, analytical data, and sample location map.

The sampling method Oxy employed was to take a representative random grab sample for each background sample location, post reclaim sample, and a composite cap sample. The analytical concentrations table identifies the COGCC Table 910-1 concentration levels, Oxy's undisturbed background concentrations, and Oxy's post reclamation concentrations (Post Reclaim 11/07/2011, 11/18/2011), and cap sample (Cap 12/20/2011). The post reclaim concentrations of As are less than those found in back ground samples.

During the initial pit bottom sampling Oxy encountered a sample that had elevated levels of total petroleum hydrocarbons (TPH). Oxy identifies this elevated level of TPH as an incomplete mixing of the pit contents. As a result of this one sample, Oxy resampled the pit contents in all cardinal directions and below the area of concern once the pit contents were mixed and stabilized. After mixing, and resampling Oxy found the pit contents to be within table 910-1 allowable concentrations with the exception of As (addressed above), and pH (addressed below).

To address elevated concentrations of pH, Oxy buried and capped the pit bottom below at least three feet of native material to ensure a sufficient agronomic zone. The reclaimed pit was contoured to be level with the pad grade (active working surface for operations & maintenance activities) to minimize stormwater run-on and run-off, during the operational phase of the pad. Final pad reclamation will occur at the end of the life of the pad.

608-43-31 Reserve Pit Closure

608-43-31 well pad

Lab Report #		L545506	L545506	L545506	L545506	L545506	L545506	L547797	L547797	L547797	L547797
Date Sampled		11/07/2011	11/07/2011	11/07/2011	11/07/2011	11/07/2011	11/07/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011
Sample Name		608-43-31-PB-S3	608-43-31-PB-N	608-43-31-PB-S2	608-43-31-PB-S	608-43-31-PB-NE	608-43-31-PB-AOC	608-43-31-PB-AOCD1	608-43-31-PB-NE-D1	608-43-31-PB-NE-D2	608-43-31-PB-SW-D1
Organics in Soil		MCL (mg/Kg)									
TPH (GRO and DRO) - San Area		500	64.73	12.0	25	43	4390	13	56.3	59.9	63
Benzene	0.17	0.014	BDL	0.004	0.018	BDL	BDL	BDL	BDL	0.11	0.1
Toluene	85	0.034	BDL	0.012	0.061	2.3	0.46	0.49	0.63	0.31	0.14
Ethylbenzene	100	0.0076	BDL	0.0032	0.021	0.86	0.06	0.085	0.2	U	0.36
Xylenes	175	0.072	0.014	0.034	0.18	19	0.96	1.6	4.7	0.12	1
Organics in Soil (PAH's)											
Acenaphthene	1000	0.0031	0.0033	0.0028	0.0031	0.4	BDL	0.0017	NA	NA	NA
Anthracene	1000	BDL	0.0016	0.0014	0.0016	0.15	BDL	0.0009	NA	NA	NA
Benzo(A)anthracene	0.22	0.0014	BDL	0.0016	BDL	BDL	BDL	BDL	NA	NA	NA
Benzo(B)fluoranthene	0.22	0.00083	BDL	0.00094	BDL	BDL	BDL	BDL	NA	NA	NA
Benzo(K)fluoranthene	2.2	BDL	BDL	BDL	0.0022	BDL	BDL	BDL	NA	NA	NA
Benzo(A)pyrene	0.022	0.00087	BDL	BDL	0.0012	BDL	BDL	BDL	NA	NA	NA
Chrysene	22	0.0017	BDL	0.0021	0.0018	BDL	BDL	BDL	NA	NA	NA
Dibenz(A,H)anthracene	0.022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA
Fluoranthene	1000	BDL	BDL	BDL	0.0038	0.034	BDL	0.0077	NA	NA	NA
Fluorene	1000	0.011	0.014	0.01	0.011	1.8	0.0024	0.0077	NA	NA	NA
Indeno(1,2,3-C,D)pyrene	0.22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA
Naphthalene	23	0.081	0.025	0.065	0.088	11	0.017	0.0099	NA	NA	NA
Pyrene	1000	0.0039	BDL	0.005	0.0044	BDL	BDL	0.0076	NA	NA	NA
Inorganics in Soil											
EC	<4 mmhos/cm or 2X background	0.65	0.88	0.55	0.92	1.9	0.75	0.62	0.84	0.76	1.2
SAR	<12	6.7	3.1	8.2	7.1	21	2.9	2.6	6	6.2	5.6
pH	6-9	9.6	8.7	9.6	10	9.2	8.2	8.6	8.8	8.8	8.9
Metals in Soils											
Arsenic	0.39	4.0	9.9	4.2	4.5	5.2	11	15	4.3	6.1	5.5
Barium	15,000	270	220	320	300	400	300	180	260	320	450
Cadmium	70	BDL	BDL	0.082	BDL	BDL	BDL	BDL	U	U	0.057
Chromium III	120,000	26	76	40	38	32	100	98	40	48	38
Chromium VI	23	1.5	0.76	0.72	1.4	BDL	BDL	BDL	1.1	U	U
Copper	3100	14	10	12	16	30	10	9.7	14	16	15
Lead	400	10	8.6	18	11	18	9	9.4	10	12	12
Mercury	23	0.013	0.012	0.011	0.015	0.038	0.011	0.01	0.012	0.013	0.019
Nickel	1600	18	28	18	18	12	32	34	18	22	21
Selenium	390	4.8	6.2	5.2	4.8	4.9	5.6	5	3.5	4	4.1
Silver	390	BDL	2.5	1.5	2.4	1.3	2.9	2.7	1.2	1.4	0.97
Zinc	23,000	38	37	43	41	32	41	38	44	41	45

L547297	L547297	L547297	L547297	L547297	L493788	L493788	L493788	L493788	L552665	L520524	L520524	L520524
11/18/2011	11/18/2011	11/18/2011	11/18/2011	11/18/2011	12/13/2010	12/13/2010	12/13/2010	12/13/2010	12/20/2011	08/10/2011	08/10/2011	08/10/2011
608-43-31-PB-SE-D2	608-43-31-PB-NW-D1	608-43-31-PB-NW-D2	608-43-31-PB-C-D1	608-43-31-PB-C-D2	608-43-31-SB	608-43-31-SEB	608-43-31-SWB	608-43-31-EB	608-43-31 Cap	697-08-53 - Ptl BG - SS-6	697-08-53 - Ptl BG - SS-7	697-08-53 - Ptl BG - SS-8

79.7	16.7	81.6	74	40	NA	NA	NA	NA	39.5	4.6	1.2	1.6	5.3
0.099	BDL	BDL	0.03	0.0046	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL
0.41	BDL	0.055	0.084	0.059	NA	NA	NA	NA	0.037	BDL	BDL	BDL	BDL
0.063	BDL	0.028	0.027	0.015	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL
0.94	0.036	0.53	0.47	0.22	NA	NA	NA	NA	0.12	BDL	BDL	BDL	BDL

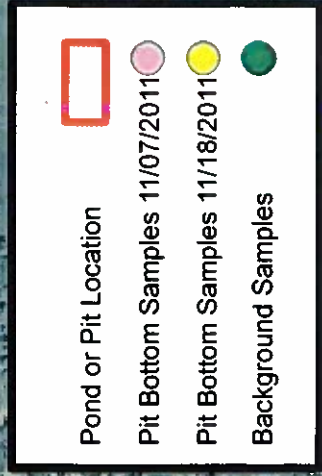
NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0034	BDL	BDL	BDL	BDL
NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL
NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	0.0012	BDL	BDL	BDL
NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	0.0016	BDL	0.0016	0.0017
NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL
NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0012	BDL	BDL	0.00066	0.00066
NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL
NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	0.0011	BDL
NA	NA	NA	NA	NA	NA	NA	NA	NA	0.012	BDL	BDL	BDL	BDL
NA	NA	NA	NA	NA	NA	NA	NA	NA	BDL	BDL	BDL	BDL	BDL
NA	NA	NA	NA	NA	NA	NA	NA	NA	0.12	BDL	BDL	BDL	0.0008
NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0018	0.00076	BDL	0.0011	0.0029


0.81	0.8	0.87	0.79	0.83	0.038	0.033	0.026	0.028	0.38	0.1	0.11	0.14	0.14
6.5	7.9	5.4	7.9	7.9	0.82	0.81	0.7	0.81	6.7	2.5	0.8	0.99	0.95
9.8	8.3	8.7	9.4	8.6	6.8	6.9	6.7	6.7	8.8	9.2	8.8	8.5	7.3


5.7	9.4	6.3	5.6	4.4	5.8	3.2	3.3	2.5	3.4	17	19	14	20
320	260	280	310	320	NA	NA	NA	NA	300	360	410	320	410
0.09	U	U	U	U	NA	NA	NA	NA	0.15	2.6	2	1.8	1.9
41	72	50	48	44	NA	NA	NA	NA	42	58	86	84	82
U	U	U	1.4	1.6	NA	NA	NA	NA	BDL	U	U	U	U
15	10	18	17	16	NA	NA	NA	NA	17	22	14	16	16
13	10	13	12	11	NA	NA	NA	NA	11	21	18	17	14
0.014	0.011	0.015	0.012	0.011	NA	NA	NA	NA	0.014	0.033	0.022	0.019	0.015
24	28	23	24	22	NA	NA	NA	NA	22	34	39	38	37
4.4	4.2	4.6	3.9	4	NA	NA	NA	NA	3	0.66	U	U	U
0.78	1.8	1.8	1.2	1.3	NA	NA	NA	NA	0.52	U	U	U	U
43	37	49	42	44	NA	NA	NA	NA	44	66	46	52	54


608-43-31 Closure Sampling


Updated: December 13, 2011 Garfield County, Colorado




 Pond or Pit Location

 Pit Bottom Samples 11/07/2011

 Pit Cap Sample

 Pit Bottom Samples 11/18/2011

 Background Samples





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

Tax I.D. 62-0814289

Est. 1970

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Report Summary

Friday November 11, 2011

Report Number: L545506

Samples Received: 11/08/11

Client Project: 900546.0005.010

Description:

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

Entire Report Reviewed By:

Mark W. Beasley, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,
TX - T104704245, OK-9915, PA - 68-02979

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

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

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



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

November 11, 2011

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : November 08, 2011
Description :
Sample ID : 608-43-31-PB-S3
Collected By : CJB/BG
Collection Date : 11/07/11 11:55

ESC Sample # : L545506-01
Site ID :
Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	1.5	0.71	2.0	mg/kg	J	3060A/7	11/11/11	1
Chromium, Trivalent	26.	0.17	2.0	mg/kg		Calc.	11/09/11	1
ORP	75.			mV		2580	11/10/11	1
pH	9.6			su	T8	9045D	11/10/11	1
Sodium Adsorption Ratio	6.7					Calc.	11/10/11	1
Specific Conductance	650			umhos/cm		9050AMo	11/09/11	1
Mercury	0.013	0.0015	0.020	mg/kg	J	7471	11/10/11	1
Arsenic	4.0	0.32	1.0	mg/kg		6010B	11/09/11	1
Barium	270	0.050	0.25	mg/kg		6010B	11/09/11	1
Cadmium	U	0.040	0.25	mg/kg		6010B	11/09/11	1
Chromium	28.	0.085	0.50	mg/kg		6010B	11/09/11	1
Copper	14.	0.21	1.0	mg/kg		6010B	11/09/11	1
Lead	10.	0.090	0.25	mg/kg		6010B	11/09/11	1
Nickel	18.	0.26	1.0	mg/kg		6010B	11/09/11	1
Selenium	4.8	0.32	1.0	mg/kg		6010B	11/09/11	1
Silver	U	0.16	0.50	mg/kg		6010B	11/09/11	1
Zinc	38.	0.34	1.5	mg/kg		6010B	11/09/11	1
TPH (GC/FID) Low Fraction	0.73	0.25	0.50	mg/kg		8015D/G	11/08/11	5
Surrogate Recovery (70-130)								
a,a,a-Trifluorotoluene (FID)	109.			% Rec.		602/801	11/08/11	5
Benzene	0.014	0.0017	0.0050	mg/kg		8260B	11/09/11	5
Toluene	0.034	0.0016	0.025	mg/kg		8260B	11/09/11	5
Ethylbenzene	0.0076	0.0019	0.0050	mg/kg		8260B	11/09/11	5
Total Xylenes	0.072	0.0023	0.015	mg/kg		8260B	11/09/11	5
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	11/09/11	5
Dibromofluoromethane	93.7			% Rec.		8260B	11/09/11	5
a,a,a-Trifluorotoluene	105.			% Rec.		8260B	11/09/11	5
4-Bromofluorobenzene	102.			% Rec.		8260B	11/09/11	5
TPH (GC/FID) High Fraction	64.	0.77	4.0	mg/kg		3546/DR	11/11/11	1
Surrogate recovery(%)								
o-Terphenyl	231.			% Rec.	J1	3546/DR	11/11/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/11/11 16:06 Printed: 11/11/11 16:07

L545506-01 (PH) - 9.60@19.0c

L545506-01 (DRO) - Previous run also had high SURR recovery. Matrix effect.



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

November 11, 2011

Date Received : November 08, 2011
Description :
Sample ID : 608-43-31-PB-S3
Collected By : CJB/BG
Collection Date : 11/07/11 11:55

ESC Sample # : L545506-01

Site ID :

Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	11/10/11	1
Acenaphthene	0.0031	0.00071	0.0060	mg/kg	J	8270C-S	11/10/11	1
Acenaphthylene	0.0014	0.00057	0.0060	mg/kg	J	8270C-S	11/10/11	1
Benzo(a)anthracene	0.0014	0.00092	0.0060	mg/kg	J	8270C-S	11/10/11	1
Benzo(a)pyrene	0.00097	0.00062	0.0060	mg/kg	J	8270C-S	11/10/11	1
Benzo(b)fluoranthene	0.00083	0.00082	0.0060	mg/kg	J	8270C-S	11/10/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	11/10/11	1
Chrysene	0.0017	0.0011	0.0060	mg/kg	J	8270C-S	11/10/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	11/10/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	11/10/11	1
Fluorene	0.011	0.00055	0.0060	mg/kg		8270C-S	11/10/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	11/10/11	1
Naphthalene	0.081	0.00065	0.0060	mg/kg		8270C-S	11/10/11	1
Phenanthrene	0.018	0.00074	0.0060	mg/kg		8270C-S	11/10/11	1
Pyrene	0.0039	0.00059	0.0060	mg/kg	J	8270C-S	11/10/11	1
1-Methylnaphthalene	0.060	0.00079	0.0060	mg/kg		8270C-S	11/10/11	1
2-Methylnaphthalene	0.16	0.00059	0.0060	mg/kg		8270C-S	11/10/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	11/10/11	1
Surrogate Recovery								
Nitrobenzene-d5	128.			% Rec.		8270C-S	11/10/11	1
2-Fluorobiphenyl	72.3			% Rec.		8270C-S	11/10/11	1
p-Terphenyl-d14	62.3			% Rec.		8270C-S	11/10/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/11/11 16:06 Printed: 11/11/11 16:07

L545506-01 (PH) - 9.60@19.0c

L545506-01 (DRO) - Previous run also had high SURR recovery. Matrix effect.



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

November 11, 2011

Date Received : November 08, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-N
Collected By : CJB/BG
Collection Date : 11/07/11 11:20

ESC Sample # : L545506-02

Site ID :

Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	0.76	0.71	2.0	mg/kg	J	3060A/7	11/11/11	1
Chromium, Trivalent	76.	0.17	2.0	mg/kg		Calc.	11/09/11	1
ORP	100			mV		2580	11/10/11	1
pH	8.7			su	T8	9045D	11/10/11	1
Sodium Adsorption Ratio	3.1					Calc.	11/10/11	1
Specific Conductance	880			umhos/cm		9050AMo	11/09/11	1
Mercury	0.012	0.0015	0.020	mg/kg	J	7471	11/10/11	1
Arsenic	9.9	0.32	1.0	mg/kg		6010B	11/09/11	1
Barium	220	0.050	0.25	mg/kg		6010B	11/09/11	1
Cadmium	U	0.040	0.25	mg/kg		6010B	11/09/11	1
Chromium	77.	0.085	0.50	mg/kg		6010B	11/09/11	1
Copper	10.	0.21	1.0	mg/kg		6010B	11/09/11	1
Lead	8.6	0.090	0.25	mg/kg		6010B	11/09/11	1
Nickel	28.	0.26	1.0	mg/kg		6010B	11/09/11	1
Selenium	5.2	0.32	1.0	mg/kg		6010B	11/09/11	1
Silver	2.5	0.16	0.50	mg/kg		6010B	11/09/11	1
Zinc	37.	0.34	1.5	mg/kg		6010B	11/09/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	11/10/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	109.			% Rec.		602/801	11/10/11	5
Benzene	U	0.0017	0.0050	mg/kg		8260B	11/08/11	5
Toluene	U	0.0016	0.025	mg/kg		8260B	11/08/11	5
Ethylbenzene	U	0.0019	0.0050	mg/kg		8260B	11/08/11	5
Total Xylenes	0.014	0.0023	0.015	mg/kg	J	8260B	11/08/11	5
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	11/08/11	5
Dibromofluoromethane	96.4			% Rec.		8260B	11/08/11	5
a,a,a-Trifluorotoluene	108.			% Rec.		8260B	11/08/11	5
4-Bromofluorobenzene	100.			% Rec.		8260B	11/08/11	5
TPH (GC/FID) High Fraction	12.	0.77	4.0	mg/kg		3546/DR	11/09/11	1
Surrogate recovery(%) o-Terphenyl	75.8			% Rec.		3546/DR	11/09/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/11/11 16:06 Printed: 11/11/11 16:07
L545506-02 (PH) - 8.66@19.2c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

November 11, 2011

Date Received : November 08, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-N
Collected By : CJB/BG
Collection Date : 11/07/11 11:20

ESC Sample # : L545506-02

Site ID :

Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.0016	0.00076	0.0060	mg/kg	J	8270C-S	11/10/11	1
Acenaphthene	0.0033	0.00071	0.0060	mg/kg	J	8270C-S	11/10/11	1
Acenaphthylene	0.00083	0.00057	0.0060	mg/kg	J	8270C-S	11/10/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	11/10/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	11/10/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	11/10/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	11/10/11	1
Fluorene	0.014	0.00055	0.0060	mg/kg		8270C-S	11/10/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	11/10/11	1
Naphthalene	0.025	0.00065	0.0060	mg/kg		8270C-S	11/10/11	1
Phenanthrene	0.012	0.00074	0.0060	mg/kg		8270C-S	11/10/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	11/10/11	1
1-Methylnaphthalene	0.049	0.00079	0.0060	mg/kg		8270C-S	11/10/11	1
2-Methylnaphthalene	0.13	0.00059	0.0060	mg/kg		8270C-S	11/10/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	11/10/11	1
Surrogate Recovery								
Nitrobenzene-d5	112.			% Rec.		8270C-S	11/10/11	1
2-Fluorobiphenyl	83.3			% Rec.		8270C-S	11/10/11	1
p-Terphenyl-d14	64.3			% Rec.		8270C-S	11/10/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/11/11 16:06 Printed: 11/11/11 16:07
L545506-02 (PH) - 8.66@19.2c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

November 11, 2011

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : November 08, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-S2
Collected By : CJB/BG
Collection Date : 11/07/11 11:45

ESC Sample # : L545506-03

Site ID :

Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	0.72	0.71	2.0	mg/kg	J	3060A/7	11/11/11	1
Chromium, Trivalent	40.	0.17	2.0	mg/kg		Calc.	11/09/11	1
ORP	66.			mV		2580	11/10/11	1
pH	9.6			su	T8	9045D	11/10/11	1
Sodium Adsorption Ratio	8.2					Calc.	11/10/11	1
Specific Conductance	550			umhos/cm		9050AMo	11/09/11	1
Mercury	0.011	0.0015	0.020	mg/kg	J	7471	11/10/11	1
Arsenic	4.2	0.32	1.0	mg/kg		6010B	11/09/11	1
Barium	320	0.050	0.25	mg/kg		6010B	11/09/11	1
Cadmium	0.082	0.040	0.25	mg/kg	J	6010B	11/09/11	1
Chromium	41.	0.085	0.50	mg/kg		6010B	11/09/11	1
Copper	18.	0.21	1.0	mg/kg		6010B	11/09/11	1
Lead	12.	0.090	0.25	mg/kg		6010B	11/09/11	1
Nickel	18.	0.26	1.0	mg/kg		6010B	11/09/11	1
Selenium	5.2	0.32	1.0	mg/kg		6010B	11/09/11	1
Silver	1.5	0.16	0.50	mg/kg		6010B	11/09/11	1
Zinc	43.	0.34	1.5	mg/kg		6010B	11/09/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	11/08/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	108.			% Rec.		602/801	11/08/11	5
Benzene	0.0040	0.0017	0.0050	mg/kg	J	8260B	11/08/11	5
Toluene	0.012	0.0016	0.025	mg/kg	J	8260B	11/08/11	5
Ethylbenzene	0.0032	0.0019	0.0050	mg/kg	J	8260B	11/08/11	5
Total Xylenes	0.034	0.0023	0.015	mg/kg		8260B	11/08/11	5
Surrogate Recovery								
Toluene-d8	109.			% Rec.		8260B	11/08/11	5
Dibromofluoromethane	97.3			% Rec.		8260B	11/08/11	5
a,a,a-Trifluorotoluene	101.			% Rec.		8260B	11/08/11	5
4-Bromofluorobenzene	100.			% Rec.		8260B	11/08/11	5
TPH (GC/FID) High Fraction	25.	0.77	4.0	mg/kg		3546/DR	11/11/11	1
Surrogate recovery(%) o-Terphenyl	173.			% Rec.	J1	3546/DR	11/11/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/11/11 16:06 Printed: 11/11/11 16:07

L545506-03 (PH) - 9.61@18.8c

L545506-03 (DRO) - Previous run also had high SURR recovery. Matrix effect.



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

November 11, 2011

Date Received : November 08, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-S2
Collected By : CJB/BG
Collection Date : 11/07/11 11:45

ESC Sample # : L545506-03

Site ID :

Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.0014	0.00076	0.0060	mg/kg	J	8270C-S	11/10/11	1
Acenaphthene	0.0028	0.00071	0.0060	mg/kg	J	8270C-S	11/10/11	1
Acenaphthylene	0.0012	0.00057	0.0060	mg/kg	J	8270C-S	11/10/11	1
Benzo(a)anthracene	0.0016	0.00092	0.0060	mg/kg	J	8270C-S	11/10/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(b)fluoranthene	0.00094	0.00082	0.0060	mg/kg	J	8270C-S	11/10/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	11/10/11	1
Chrysene	0.0021	0.0011	0.0060	mg/kg	J	8270C-S	11/10/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	11/10/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	11/10/11	1
Fluorene	0.010	0.00055	0.0060	mg/kg		8270C-S	11/10/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	11/10/11	1
Naphthalene	0.065	0.00065	0.0060	mg/kg		8270C-S	11/10/11	1
Phenanthrene	0.017	0.00074	0.0060	mg/kg		8270C-S	11/10/11	1
Pyrene	0.0050	0.00059	0.0060	mg/kg	J	8270C-S	11/10/11	1
1-Methylnaphthalene	0.054	0.00079	0.0060	mg/kg		8270C-S	11/10/11	1
2-Methylnaphthalene	0.14	0.00059	0.0060	mg/kg		8270C-S	11/10/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	11/10/11	1
Surrogate Recovery								
Nitrobenzene-d5	98.7			% Rec.		8270C-S	11/10/11	1
2-Fluorobiphenyl	67.8			% Rec.		8270C-S	11/10/11	1
p-Terphenyl-d14	66.9			% Rec.		8270C-S	11/10/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/11/11 16:06 Printed: 11/11/11 16:07

L545506-03 (PH) - 9.61@18.8c

L545506-03 (DRO) - Previous run also had high SURR recovery. Matrix effect.



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

November 11, 2011

Date Received : November 08, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-S
Collected By : CJB/BG
Collection Date : 11/07/11 10:55

ESC Sample # : L545506-04

Site ID :

Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	1.4	0.71	2.0	mg/kg	J	3060A/7	11/11/11	1
Chromium, Trivalent	38.	0.17	2.0	mg/kg		Calc.	11/09/11	1
ORP	49.			mV		2580	11/10/11	1
pH	10.			su	T8	9045D	11/10/11	1
Sodium Adsorption Ratio	7.1					Calc.	11/10/11	1
Specific Conductance	920			umhos/cm		9050AMo	11/09/11	1
Mercury	0.015	0.0015	0.020	mg/kg	J	7471	11/10/11	1
Arsenic	4.5	0.32	1.0	mg/kg		6010B	11/09/11	1
Barium	300	0.050	0.25	mg/kg		6010B	11/09/11	1
Cadmium	U	0.040	0.25	mg/kg		6010B	11/09/11	1
Chromium	39.	0.085	0.50	mg/kg		6010B	11/09/11	1
Copper	16.	0.21	1.0	mg/kg		6010B	11/09/11	1
Lead	11.	0.090	0.25	mg/kg		6010B	11/09/11	1
Nickel	18.	0.26	1.0	mg/kg		6010B	11/09/11	1
Selenium	4.8	0.32	1.0	mg/kg		6010B	11/09/11	1
Silver	2.4	0.16	0.50	mg/kg		6010B	11/09/11	1
Zinc	41.	0.34	1.5	mg/kg		6010B	11/09/11	1
TPH (GC/FID) Low Fraction	18.	2.5	5.0	mg/kg		8015D/G	11/08/11	50
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	108.			% Rec.		602/801	11/08/11	50
Benzene	0.018	0.0017	0.0050	mg/kg		8260B	11/08/11	5
Toluene	0.061	0.0016	0.025	mg/kg		8260B	11/08/11	5
Ethylbenzene	0.021	0.0019	0.0050	mg/kg		8260B	11/08/11	5
Total Xylenes	0.18	0.0023	0.015	mg/kg		8260B	11/08/11	5
Surrogate Recovery								
Toluene-d8	111.			% Rec.		8260B	11/08/11	5
Dibromofluoromethane	97.1			% Rec.		8260B	11/08/11	5
a,a,a-Trifluorotoluene	101.			% Rec.		8260B	11/08/11	5
4-Bromofluorobenzene	96.8			% Rec.		8260B	11/08/11	5
TPH (GC/FID) High Fraction	25.	0.77	4.0	mg/kg		3546/DR	11/11/11	1
Surrogate recovery(%) o-Terphenyl	157.			% Rec.	J1	3546/DR	11/11/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/11/11 16:06 Printed: 11/11/11 16:07

L545506-04 (PH) - 10.37@18.9c

L545506-04 (DRO) - Previous run also had high SURR recovery. Matrix effect.



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

November 11, 2011

Date Received : November 08, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-S
Collected By : CJB/BG
Collection Date : 11/07/11 10:55

ESC Sample # : L545506-04

Site ID :

Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.0016	0.00076	0.0060	mg/kg	J	8270C-S	11/10/11	1
Acenaphthene	0.0031	0.00071	0.0060	mg/kg	J	8270C-S	11/10/11	1
Acenaphthylene	0.0010	0.00057	0.0060	mg/kg	J	8270C-S	11/10/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(a)pyrene	0.0012	0.00062	0.0060	mg/kg	J	8270C-S	11/10/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(k)fluoranthene	0.0022	0.0013	0.0060	mg/kg	J	8270C-S	11/10/11	1
Chrysene	0.0018	0.0011	0.0060	mg/kg	J	8270C-S	11/10/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	11/10/11	1
Fluoranthene	0.0038	0.0010	0.0060	mg/kg	J	8270C-S	11/10/11	1
Fluorene	0.011	0.00055	0.0060	mg/kg		8270C-S	11/10/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	11/10/11	1
Naphthalene	0.088	0.00065	0.0060	mg/kg		8270C-S	11/10/11	1
Phenanthrene	0.018	0.00074	0.0060	mg/kg		8270C-S	11/10/11	1
Pyrene	0.0044	0.00059	0.0060	mg/kg	J	8270C-S	11/10/11	1
1-Methylnaphthalene	0.059	0.00079	0.0060	mg/kg		8270C-S	11/10/11	1
2-Methylnaphthalene	0.17	0.00059	0.0060	mg/kg		8270C-S	11/10/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	11/10/11	1
Surrogate Recovery								
Nitrobenzene-d5	105.			% Rec.		8270C-S	11/10/11	1
2-Fluorobiphenyl	72.6			% Rec.		8270C-S	11/10/11	1
p-Terphenyl-d14	72.3			% Rec.		8270C-S	11/10/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/11/11 16:06 Printed: 11/11/11 16:07

L545506-04 (PH) - 10.37@18.9c

L545506-04 (DRO) - Previous run also had high SURR recovery. Matrix effect.



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

November 11, 2011

Date Received : November 08, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-NE
Collected By : CJB/BG
Collection Date : 11/07/11 12:07

ESC Sample # : L545506-05

Site ID :

Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	11/11/11	1
Chromium, Trivalent	32.	0.17	2.0	mg/kg		Calc.	11/09/11	1
ORP	92.			mV		2580	11/10/11	1
pH	9.2			su	T8	9045D	11/10/11	1
Sodium Adsorption Ratio	21.					Calc.	11/10/11	1
Specific Conductance	1900			umhos/cm		9050AMo	11/09/11	1
Mercury	0.038	0.0015	0.020	mg/kg		7471	11/10/11	1
Arsenic	5.2	0.32	1.0	mg/kg		6010B	11/09/11	1
Barium	400	0.050	0.25	mg/kg		6010B	11/09/11	1
Cadmium	U	0.040	0.25	mg/kg		6010B	11/09/11	1
Chromium	32.	0.085	0.50	mg/kg		6010B	11/09/11	1
Copper	30.	0.21	1.0	mg/kg		6010B	11/09/11	1
Lead	18.	0.090	0.25	mg/kg		6010B	11/09/11	1
Nickel	12.	0.26	1.0	mg/kg		6010B	11/09/11	1
Selenium	4.9	0.32	1.0	mg/kg		6010B	11/09/11	1
Silver	1.3	0.16	0.50	mg/kg		6010B	11/09/11	1
Zinc	32.	0.34	1.5	mg/kg		6010B	11/09/11	1
TPH (GC/FID) Low Fraction	490	50.	100	mg/kg		8015D/G	11/08/11	1000
Surrogate Recovery (70-130)								
a,a,a-Trifluorotoluene (FID)	108.			% Rec.		602/801	11/08/11	1000
Benzene	U	0.34	1.0	mg/kg		8260B	11/08/11	1000
Toluene	2.3	0.31	5.0	mg/kg	J	8260B	11/08/11	1000
Ethylbenzene	0.86	0.37	1.0	mg/kg	J	8260B	11/08/11	1000
Total Xylenes	19.	0.46	3.0	mg/kg		8260B	11/08/11	1000
Surrogate Recovery								
Toluene-d8	108.			% Rec.		8260B	11/08/11	1000
Dibromofluoromethane	98.6			% Rec.		8260B	11/08/11	1000
a,a,a-Trifluorotoluene	105.			% Rec.		8260B	11/08/11	1000
4-Bromofluorobenzene	101.			% Rec.		8260B	11/08/11	1000
TPH (GC/FID) High Fraction	3900	15.	80.	mg/kg		3546/DR	11/10/11	20
Surrogate recovery(%)								
o-Terphenyl	0.00			% Rec.	J7	3546/DR	11/10/11	20

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/11/11 16:06 Printed: 11/11/11 16:07
L545506-05 (PH) - 9.22@18.7c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

November 11, 2011

Date Received : November 08, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-NE
Collected By : CJB/BG
Collection Date : 11/07/11 12:07

ESC Sample # : L545506-05

Site ID :

Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.15	0.015	0.12	mg/kg		8270C-S	11/10/11	20
Acenaphthene	0.40	0.014	0.12	mg/kg		8270C-S	11/10/11	20
Acenaphthylene	0.72	0.011	0.12	mg/kg		8270C-S	11/10/11	20
Benzo(a)anthracene	U	0.018	0.12	mg/kg		8270C-S	11/10/11	20
Benzo(a)pyrene	U	0.012	0.12	mg/kg		8270C-S	11/10/11	20
Benzo(b)fluoranthene	U	0.016	0.12	mg/kg		8270C-S	11/10/11	20
Benzo(g,h,i)perylene	U	0.025	0.12	mg/kg		8270C-S	11/10/11	20
Benzo(k)fluoranthene	U	0.027	0.12	mg/kg		8270C-S	11/10/11	20
Chrysene	U	0.022	0.12	mg/kg		8270C-S	11/10/11	20
Dibenz(a,h)anthracene	U	0.022	0.12	mg/kg		8270C-S	11/10/11	20
Fluoranthene	0.034	0.021	0.12	mg/kg	J	8270C-S	11/10/11	20
Fluorene	1.8	0.011	0.12	mg/kg		8270C-S	11/10/11	20
Indeno(1,2,3-cd)pyrene	U	0.023	0.12	mg/kg		8270C-S	11/10/11	20
Naphthalene	11.	0.013	0.12	mg/kg	E	8270C-S	11/10/11	20
Phenanthrene	1.4	0.015	0.12	mg/kg		8270C-S	11/10/11	20
Pyrene	U	0.012	0.12	mg/kg		8270C-S	11/10/11	20
1-Methylnaphthalene	7.8	0.016	0.12	mg/kg	E	8270C-S	11/10/11	20
2-Methylnaphthalene	23.	0.012	0.12	mg/kg	E	8270C-S	11/10/11	20
2-Chloronaphthalene	U	0.012	0.12	mg/kg		8270C-S	11/10/11	20
Surrogate Recovery								
Nitrobenzene-d5	0.00			% Rec.	J7	8270C-S	11/10/11	20
2-Fluorobiphenyl	0.00			% Rec.	J7	8270C-S	11/10/11	20
p-Terphenyl-d14	0.00			% Rec.	J7	8270C-S	11/10/11	20

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/11/11 16:06 Printed: 11/11/11 16:07
L545506-05 (PH) - 9.22@18.7c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

November 11, 2011

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

ESC Sample # : L545506-06

Date Received : November 08, 2011
Description : 608-43-31 Pit

Site ID :

Sample ID : 608-43-31-PB-AOC

Project # : 900546.0005.010

Collected By : CJB/BG
Collection Date : 11/07/11 12:30

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	11/11/11	1
Chromium, Trivalent	100	0.17	2.0	mg/kg		Calc.	11/09/11	1
ORP	130			mV		2580	11/10/11	1
pH	8.2			su	T8	9045D	11/10/11	1
Sodium Adsorption Ratio	2.9					Calc.	11/10/11	1
Specific Conductance	750			umhos/cm		9050AMo	11/09/11	1
Mercury	0.011	0.0015	0.020	mg/kg	J	7471	11/10/11	1
Arsenic	11.	0.32	1.0	mg/kg		6010B	11/09/11	1
Barium	300	0.050	0.25	mg/kg		6010B	11/09/11	1
Cadmium	U	0.040	0.25	mg/kg		6010B	11/09/11	1
Chromium	100	0.085	0.50	mg/kg		6010B	11/09/11	1
Copper	10.	0.21	1.0	mg/kg		6010B	11/09/11	1
Lead	9.0	0.090	0.25	mg/kg		6010B	11/09/11	1
Nickel	32.	0.26	1.0	mg/kg		6010B	11/09/11	1
Selenium	5.6	0.32	1.0	mg/kg		6010B	11/09/11	1
Silver	2.9	0.16	0.50	mg/kg		6010B	11/09/11	1
Zinc	41.	0.34	1.5	mg/kg		6010B	11/09/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	11/08/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	109.			% Rec.		602/801	11/08/11	5
Benzene	U	0.0017	0.0050	mg/kg		8260B	11/08/11	5
Toluene	0.021	0.0016	0.025	mg/kg	J	8260B	11/08/11	5
Ethylbenzene	0.012	0.0019	0.0050	mg/kg		8260B	11/08/11	5
Total Xylenes	0.26	0.0023	0.015	mg/kg		8260B	11/08/11	5
Surrogate Recovery								
Toluene-d8	112.			% Rec.		8260B	11/08/11	5
Dibromofluoromethane	99.7			% Rec.		8260B	11/08/11	5
a,a,a-Trifluorotoluene	103.			% Rec.		8260B	11/08/11	5
4-Bromofluorobenzene	105.			% Rec.		8260B	11/08/11	5
TPH (GC/FID) High Fraction	13.	0.77	4.0	mg/kg		3546/DR	11/09/11	1
Surrogate recovery(%) o-Terphenyl	62.4			% Rec.		3546/DR	11/09/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/11/11 16:06 Printed: 11/11/11 16:07

L545506-06 (PH) - 8.25@18.1c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

November 11, 2011

Date Received : November 08, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-AOC
Collected By : CJB/BG
Collection Date : 11/07/11 12:30

ESC Sample # : L545506-06

Site ID :

Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	11/10/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	11/10/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	11/10/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	11/10/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	11/10/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	11/10/11	1
Fluorene	0.0024	0.00055	0.0060	mg/kg	J	8270C-S	11/10/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	11/10/11	1
Naphthalene	0.017	0.00065	0.0060	mg/kg		8270C-S	11/10/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	11/10/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	11/10/11	1
1-Methylnaphthalene	0.012	0.00079	0.0060	mg/kg		8270C-S	11/10/11	1
2-Methylnaphthalene	0.034	0.00059	0.0060	mg/kg		8270C-S	11/10/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	11/10/11	1
Surrogate Recovery								
Nitrobenzene-d5	86.7			% Rec.		8270C-S	11/10/11	1
2-Fluorobiphenyl	83.9			% Rec.		8270C-S	11/10/11	1
p-Terphenyl-d14	58.4			% Rec.		8270C-S	11/10/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/11/11 16:06 Printed: 11/11/11 16:07

L545506-06 (PH) - 8.25@18.1c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

November 11, 2011

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : November 08, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-PBAOCD1
Collected By : CJB/BG
Collection Date : 11/07/11 12:52

ESC Sample # : L545506-07

Site ID :

Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	11/11/11	1
Chromium, Trivalent	98.	0.17	2.0	mg/kg		Calc.	11/09/11	1
ORP	120			mV		2580	11/10/11	1
pH	8.6			su	T8	9045D	11/10/11	1
Sodium Adsorption Ratio	2.6					Calc.	11/10/11	1
Specific Conductance	620			umhos/cm		9050AMo	11/09/11	1
Mercury	0.010	0.0015	0.020	mg/kg	J	7471	11/10/11	1
Arsenic	15.	0.32	1.0	mg/kg		6010B	11/09/11	1
Barium	180	0.050	0.25	mg/kg		6010B	11/09/11	1
Cadmium	U	0.20	1.3	mg/kg	O	6010B	11/09/11	5
Chromium	98.	0.085	0.50	mg/kg		6010B	11/09/11	1
Copper	9.7	0.21	1.0	mg/kg		6010B	11/09/11	1
Lead	9.4	0.090	0.25	mg/kg		6010B	11/09/11	1
Nickel	34.	0.26	1.0	mg/kg		6010B	11/09/11	1
Selenium	5.0	0.32	1.0	mg/kg		6010B	11/09/11	1
Silver	2.7	0.16	0.50	mg/kg		6010B	11/09/11	1
Zinc	38.	0.34	1.5	mg/kg		6010B	11/09/11	1
TPH (GC/FID) Low Fraction	1.3	0.25	0.50	mg/kg		8015D/G	11/10/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	108.			% Rec.		602/801	11/10/11	5
Benzene	U	0.0017	0.0050	mg/kg		8260B	11/08/11	5
Toluene	U	0.0016	0.025	mg/kg		8260B	11/08/11	5
Ethylbenzene	U	0.0019	0.0050	mg/kg		8260B	11/08/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	11/08/11	5
Surrogate Recovery								
Toluene-d8	108.			% Rec.		8260B	11/08/11	5
Dibromofluoromethane	97.7			% Rec.		8260B	11/08/11	5
a,a,a-Trifluorotoluene	97.9			% Rec.		8260B	11/08/11	5
4-Bromofluorobenzene	97.3			% Rec.		8260B	11/08/11	5
TPH (GC/FID) High Fraction	55.	0.77	4.0	mg/kg		3546/DR	11/09/11	1
Surrogate recovery(%) o-Terphenyl	80.3			% Rec.		3546/DR	11/09/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/11/11 16:06 Printed: 11/11/11 16:07

L545506-07 (PH) - 8.61@18.6c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

November 11, 2011

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

ESC Sample # : L545506-07

Date Received : November 08, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-PBAOCD1

Site ID :

Project # : 900546.0005.010

Collected By : CJB/BG
Collection Date : 11/07/11 12:52

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.00090	0.00076	0.0060	mg/kg	J	8270C-S	11/10/11	1
Acenaphthene	0.0017	0.00071	0.0060	mg/kg	J	8270C-S	11/10/11	1
Acenaphthylene	0.00066	0.00057	0.0060	mg/kg	J	8270C-S	11/10/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	11/10/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	11/10/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	11/10/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	11/10/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	11/10/11	1
Fluorene	0.0077	0.00055	0.0060	mg/kg		8270C-S	11/10/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	11/10/11	1
Naphthalene	0.0089	0.00065	0.0060	mg/kg		8270C-S	11/10/11	1
Phenanthrene	0.0076	0.00074	0.0060	mg/kg		8270C-S	11/10/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	11/10/11	1
1-Methylnaphthalene	0.021	0.00079	0.0060	mg/kg		8270C-S	11/10/11	1
2-Methylnaphthalene	0.045	0.00059	0.0060	mg/kg		8270C-S	11/10/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	11/10/11	1
Surrogate Recovery								
Nitrobenzene-d5	89.7			% Rec.		8270C-S	11/10/11	1
2-Fluorobiphenyl	79.9			% Rec.		8270C-S	11/10/11	1
p-Terphenyl-d14	66.0			% Rec.		8270C-S	11/10/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/11/11 16:06 Printed: 11/11/11 16:07

L545506-07 (PH) - 8.61@18.6c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L545506-01	WG565002	SAMP	o-Terphenyl	R1928412	J1
	WG564219	SAMP	Chromium, Hexavalent	R1928873	J
	WG564626	SAMP	Mercury	R1927299	J
	WG564619	SAMP	pH	R1927672	T8
	WG564250	SAMP	Acenaphthene	R1927572	J
	WG564250	SAMP	Acenaphthylene	R1927572	J
	WG564250	SAMP	Benzo(a)anthracene	R1927572	J
	WG564250	SAMP	Benzo(a)pyrene	R1927572	J
	WG564250	SAMP	Benzo(b)fluoranthene	R1927572	J
	WG564250	SAMP	Chrysene	R1927572	J
	WG564250	SAMP	Pyrene	R1927572	J
	WG564219	SAMP	Chromium, Hexavalent	R1928873	J
	WG564626	SAMP	Mercury	R1927299	J
	WG564511	SAMP	Total Xylenes	R1925054	J
L545506-02	WG564619	SAMP	pH	R1927672	T8
	WG564250	SAMP	Anthracene	R1927572	J
	WG564250	SAMP	Acenaphthene	R1927572	J
	WG564250	SAMP	Acenaphthylene	R1927572	J
	WG564544	SAMP	Cadmium	R1926979	J
	WG565002	SAMP	o-Terphenyl	R1928412	J1
	WG564219	SAMP	Chromium, Hexavalent	R1928873	J
	WG564626	SAMP	Mercury	R1927299	J
	WG564549	SAMP	Benzene	R1927301	J
	WG564549	SAMP	Toluene	R1927301	J
L545506-03	WG564549	SAMP	Ethylbenzene	R1927301	J
	WG564619	SAMP	pH	R1927672	T8
	WG564250	SAMP	Anthracene	R1927572	J
	WG564250	SAMP	Acenaphthene	R1927572	J
	WG564250	SAMP	Acenaphthylene	R1927572	J
	WG564250	SAMP	Benzo(a)anthracene	R1927572	J
	WG564250	SAMP	Benzo(b)fluoranthene	R1927572	J
	WG564250	SAMP	Chrysene	R1927572	J
	WG564250	SAMP	Pyrene	R1927572	J
	WG565002	SAMP	o-Terphenyl	R1928412	J1
	WG564219	SAMP	Chromium, Hexavalent	R1928873	J
	WG564626	SAMP	Mercury	R1927299	J
	WG564619	SAMP	pH	R1927672	T8
	WG564250	SAMP	Anthracene	R1927572	J
L545506-04	WG564250	SAMP	Acenaphthene	R1927572	J
	WG564250	SAMP	Acenaphthylene	R1927572	J
	WG564250	SAMP	Benzo(a)pyrene	R1927572	J
	WG564250	SAMP	Benzo(k)fluoranthene	R1927572	J
	WG564250	SAMP	Chrysene	R1927572	J
	WG564250	SAMP	Fluoranthene	R1927572	J
	WG564250	SAMP	Pyrene	R1927572	J
	WG565002	SAMP	o-Terphenyl	R1926915	J7
	WG564219	SAMP	Chromium, Hexavalent	R1928873	J
	WG564626	SAMP	Mercury	R1927299	J
	WG564619	SAMP	pH	R1927672	T8
	WG564250	SAMP	Anthracene	R1927572	J
	WG564250	SAMP	Acenaphthene	R1927572	J
	WG564250	SAMP	Acenaphthylene	R1927572	J
L545506-05	WG564250	SAMP	Benzo(a)pyrene	R1927572	J
	WG564250	SAMP	Benzo(k)fluoranthene	R1927572	J
	WG564250	SAMP	Chrysene	R1927572	J
	WG564250	SAMP	Fluoranthene	R1927572	J
	WG564250	SAMP	Pyrene	R1927572	J
	WG564553	SAMP	o-Terphenyl	R1926915	J7
	WG564549	SAMP	Toluene	R1927301	J
	WG564549	SAMP	Ethylbenzene	R1927301	J
	WG564619	SAMP	pH	R1927672	T8
	WG564250	SAMP	Fluoranthene	R1927572	J
	WG564250	SAMP	Naphthalene	R1927572	E
	WG564250	SAMP	1-Methylnaphthalene	R1927572	E
	WG564250	SAMP	2-Methylnaphthalene	R1927572	E
	WG564250	SAMP	Nitrobenzene-d5	R1927572	J7
L545506-06	WG564250	SAMP	2-Fluorobiphenyl	R1927572	J7
	WG564250	SAMP	p-Terphenyl-d14	R1927572	J7
	WG564626	SAMP	Mercury	R1927299	J
	WG564549	SAMP	Toluene	R1927301	J
	WG564619	SAMP	pH	R1927672	T8
	WG564250	SAMP	Fluorene	R1927572	J
	WG564544	SAMP	Cadmium	R1926979	O
	WG564626	SAMP	Mercury	R1927299	J
	WG564619	SAMP	pH	R1927672	T8
	WG564250	SAMP	Anthracene	R1927572	J
L545506-07	WG564250	SAMP	Acenaphthene	R1927572	J
	WG564250	SAMP	Acenaphthylene	R1927572	J
	WG564250	SAMP	Acenaphthylene	R1927572	J

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
E	GTL (EPA) - Greater than upper calibration limit: Actual value is known to be greater than the upper calibration range.
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits
J7	Surrogate recovery limits cannot be evaluated; surrogates were diluted out
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

Qualifier Report Information

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

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

OXY USA Inc. - Grand Junction, CO
760 Horizon Dr., Ste 101
Grand Junction, CO 81506

Alternate billing information:
 CO Table 910

Analysis/Container/Preservative

Prepared by:

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Road
 Mt Juliet, TN 37122

Phone (615) 758-5858
 Phone (800) 767-5859
 FAX (615) 758-5859

Report to:

Blair Poling
 Email to: Blair.Poling@oxy.com

City/State Collected **Parachute**

Project Description: **608-43-31 P1**

Phone: (970) 263-3601

Client Project #:

ESC Key:

FAX:

900546.0005.010

Site/Facility ID#:

P.O.#:

Collected by: **CSB JRC**

Collected by (signature):

Date Results Needed:

No. of

V8260BTEX, GRO

DRO, SV8270PAHSIM

SAR, SPCON, PH

MRCRA8 + Cu, Ni, Zn

CR3, CR6SS

CoCode OXYGJCO (lab use only)

Template/Prelogin

Shipped Via:

Remark/Contaminant Sample # (lab only)

Packed on Ice N

Two Day

50%

100%

200%

Next Day

Same Day

Two Day

50%

100%

200%

Next Day

Same Day

Two Day

50%

100%

200%

Next Day

Same Day

Two Day

50%

100%

200%

Next Day

Same Day

Two Day

50%

100%

200%

Next Day

Same Day

Two Day

50%

100%

200%

Sample ID

Comp/Grab

Matrix

Depth

Date

Time

Enter

11/7/11

11:55

3

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

608-43-31-Pb-S3

Grab

SS

-

11/7/11

11:55

3

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

608-43-31-Pb-N

Grab

SS

-

11/7/11

11:20

3

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

608-43-31-Pb-S2

Grab

SS

-

11/7/11

11:45

3

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

608-43-31-Pb-S

Grab

SS

-

11/7/11

10:55

3

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

608-43-31-Pb-AOC

Grab

SS

-

11/7/11

12:07

3

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

608-43-31-Pb-AOC-D1

Grab

SS

-

11/7/11

12:30

3

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

Matrix SS - Soil/Solid GW - Groundwater WW - Wastewater DW - Drinking Water OT - Other

pH

Temp

Remarks: **3-Day Turn-Around**

500 061 2901

Flow

Other

Relinquished by: (Signature)

Date: 11/2/11

Time: 5:00

Received by: (Signature)

Date: 11/2/11

Time: 5:00

Received for lab by: (Signature)

Date: 11/2/11

Time: 5:00

Received by: (Signature)

Date: 11/2/11

Time: 5:00

Received for lab by: (Signature)

Date: 11/2/11

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Report Summary

Monday June 20, 2011

Report Number: L520524

Samples Received: 06/11/11

Client Project: 900546.0001.050

Description: 697-08-53-Pit Background

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

Entire Report Reviewed By:



Mark W. Beasley, ESC Representative

Laboratory Certification Numbers

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

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

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

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



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

June 20, 2011

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 11, 2011
Description : 697-08-53-Pit Background
Sample ID : SS-6
Collected By : CJB
Collection Date : 06/10/11 10:40

ESC Sample # : L520524-01

Site ID :

Project # : 900546.0001.050

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	06/17/11	1
Chromium, Trivalent	58.	0.17	2.0	mg/kg		Calc.	06/15/11	1
ORP	44.			mV		2580	06/17/11	1
pH	9.2			su		9045D	06/17/11	1
Sodium Adsorption Ratio	2.5					Calc.	06/14/11	1
Specific Conductance	100			umhos/cm		9050AMo	06/17/11	1
Mercury	0.033	0.0015	0.020	mg/kg		7471	06/15/11	1
Arsenic	17.	0.32	1.0	mg/kg		6010B	06/15/11	1
Barium	360	0.050	0.25	mg/kg		6010B	06/15/11	1
Cadmium	2.6	0.040	0.25	mg/kg		6010B	06/15/11	1
Chromium	58.	0.085	0.50	mg/kg		6010B	06/15/11	1
Copper	22.	0.21	1.0	mg/kg		6010B	06/15/11	1
Lead	21.	0.090	0.25	mg/kg	B	6010B	06/16/11	1
Nickel	34.	0.26	1.0	mg/kg		6010B	06/15/11	1
Selenium	0.66	0.32	1.0	mg/kg	J	6010B	06/15/11	1
Silver	U	0.16	0.50	mg/kg		6010B	06/15/11	1
Zinc	66.	0.34	1.5	mg/kg		6010B	06/15/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	06/13/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	94.1			% Rec.		602/801	06/13/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	06/13/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	06/13/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	06/13/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	06/13/11	5
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	06/13/11	5
Dibromofluoromethane	111.			% Rec.		8260B	06/13/11	5
a,a,a-Trifluorotoluene	106.			% Rec.		8260B	06/13/11	5
4-Bromofluorobenzene	99.0			% Rec.		8260B	06/13/11	5
TPH (GC/FID) High Fraction	4.6	0.77	4.0	mg/kg		3546/DR	06/18/11	1
Surrogate recovery(%) o-Terphenyl	83.1			% Rec.		3546/DR	06/18/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 06/20/11 16:37 Printed: 06/20/11 16:38
L520524-01 (PH) - 9.2@20.4c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

June 20, 2011

Date Received : June 11, 2011
Description : 697-08-53-Pit Background
Sample ID : SS-6
Collected By : CJB
Collection Date : 06/10/11 10:40

ESC Sample # : L520524-01

Site ID :

Project # : 900546.0001.050

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	06/16/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	06/16/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	06/16/11	1
Benzo(a)anthracene	0.0012	0.00092	0.0060	mg/kg	J	8270C-S	06/16/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	06/16/11	1
Benzo(b)fluoranthene	0.0016	0.00082	0.0060	mg/kg	J	8270C-S	06/16/11	1
Benzo(g,h,i)perylene	0.0016	0.0012	0.0060	mg/kg	J	8270C-S	06/16/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	06/16/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	06/16/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	06/16/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	06/16/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	06/16/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	06/16/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	06/16/11	1
Phenanthrene	0.0019	0.00074	0.0060	mg/kg	J	8270C-S	06/16/11	1
Pyrene	0.00076	0.00059	0.0060	mg/kg	J	8270C-S	06/16/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	06/16/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	06/16/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	06/16/11	1
Surrogate Recovery								
Nitrobenzene-d5	45.9			% Rec.		8270C-S	06/16/11	1
2-Fluorobiphenyl	51.6			% Rec.		8270C-S	06/16/11	1
p-Terphenyl-d14	43.8			% Rec.		8270C-S	06/16/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 06/20/11 16:37 Printed: 06/20/11 16:38
L520524-01 (PH) - 9.2@20.4c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

June 20, 2011

Date Received : June 11, 2011
Description : 697-08-53-Pit Background

Sample ID : SS-7

Collected By : CJB
Collection Date : 06/10/11 11:00

ESC Sample # : L520524-02

Site ID :

Project # : 900546.0001.050

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	06/17/11	1
Chromium, Trivalent	86.	0.17	2.0	mg/kg		Calc.	06/15/11	1
ORP	63.			mV		2580	06/17/11	1
pH	8.8			su		9045D	06/17/11	1
Sodium Adsorption Ratio	0.80					Calc.	06/14/11	1
Specific Conductance	110			umhos/cm		9050AMo	06/17/11	1
Mercury	0.022	0.0015	0.020	mg/kg		7471	06/15/11	1
Arsenic	19.	0.32	1.0	mg/kg		6010B	06/15/11	1
Barium	410	0.050	0.25	mg/kg		6010B	06/15/11	1
Cadmium	2.0	0.040	0.25	mg/kg		6010B	06/15/11	1
Chromium	86.	0.085	0.50	mg/kg		6010B	06/15/11	1
Copper	14.	0.21	1.0	mg/kg		6010B	06/15/11	1
Lead	18.	0.090	0.25	mg/kg	B	6010B	06/16/11	1
Nickel	39.	0.26	1.0	mg/kg		6010B	06/15/11	1
Selenium	U	0.32	1.0	mg/kg		6010B	06/15/11	1
Silver	U	0.16	0.50	mg/kg		6010B	06/15/11	1
Zinc	46.	0.34	1.5	mg/kg		6010B	06/15/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	06/13/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	94.3			% Rec.		602/801	06/13/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	06/13/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	06/13/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	06/13/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	06/13/11	5
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	06/13/11	5
Dibromofluoromethane	108.			% Rec.		8260B	06/13/11	5
a,a,a-Trifluorotoluene	103.			% Rec.		8260B	06/13/11	5
4-Bromofluorobenzene	99.4			% Rec.		8260B	06/13/11	5
TPH (GC/FID) High Fraction	1.2	0.77	4.0	mg/kg	J	3546/DR	06/17/11	1
Surrogate recovery(%) o-Terphenyl	80.0			% Rec.		3546/DR	06/17/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 06/20/11 16:37 Printed: 06/20/11 16:38
L520524-02 (PH) - 8.8@20.4c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

June 20, 2011

Date Received : June 11, 2011
Description : 697-08-53-Pit Background
Sample ID : SS-7
Collected By : CJB
Collection Date : 06/10/11 11:00

ESC Sample # : L520524-02

Site ID :

Project # : 900546.0001.050

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	06/16/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	06/16/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	06/16/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	06/16/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	06/16/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	06/16/11	1
Benzo(g,h,i)perylene	0.0017	0.0012	0.0060	mg/kg	J	8270C-S	06/16/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	06/16/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	06/16/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	06/16/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	06/16/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	06/16/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	06/16/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	06/16/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	06/16/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	06/16/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	06/16/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	06/16/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	06/16/11	1
Surrogate Recovery								
Nitrobenzene-d5	50.2			% Rec.		8270C-S	06/16/11	1
2-Fluorobiphenyl	55.8			% Rec.		8270C-S	06/16/11	1
p-Terphenyl-d14	63.0			% Rec.		8270C-S	06/16/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 06/20/11 16:37 Printed: 06/20/11 16:38
L520524-02 (PH) - 8.8@20.4c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

June 20, 2011

Date Received : June 11, 2011
Description : 697-08-53-Pit Background

Sample ID : SS-8

Collected By : CJB
Collection Date : 06/10/11 11:07

ESC Sample # : L520524-03

Site ID :

Project # : 900546.0001.050

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	06/17/11	1
Chromium, Trivalent	84.	0.17	2.0	mg/kg		Calc.	06/15/11	1
ORP	87.			mV		2580	06/17/11	1
pH	8.5			su		9045D	06/17/11	1
Sodium Adsorption Ratio	0.99					Calc.	06/14/11	1
Specific Conductance	140			umhos/cm		9050AMo	06/17/11	1
Mercury	0.019	0.0015	0.020	mg/kg	J	7471	06/16/11	1
Arsenic	14.	0.32	1.0	mg/kg		6010B	06/15/11	1
Barium	320	0.050	0.25	mg/kg		6010B	06/15/11	1
Cadmium	1.8	0.040	0.25	mg/kg		6010B	06/15/11	1
Chromium	84.	0.085	0.50	mg/kg		6010B	06/15/11	1
Copper	16.	0.21	1.0	mg/kg		6010B	06/15/11	1
Lead	17.	0.090	0.25	mg/kg	B	6010B	06/16/11	1
Nickel	38.	0.26	1.0	mg/kg		6010B	06/15/11	1
Selenium	U	0.32	1.0	mg/kg		6010B	06/15/11	1
Silver	U	0.16	0.50	mg/kg		6010B	06/15/11	1
Zinc	52.	0.34	1.5	mg/kg		6010B	06/15/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	06/13/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	94.0			% Rec.		602/801	06/13/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	06/13/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	06/13/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	06/13/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	06/13/11	5
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	06/13/11	5
Dibromofluoromethane	111.			% Rec.		8260B	06/13/11	5
a,a,a-Trifluorotoluene	104.			% Rec.		8260B	06/13/11	5
4-Bromofluorobenzene	92.8			% Rec.		8260B	06/13/11	5
TPH (GC/FID) High Fraction	1.6	0.77	4.0	mg/kg	J	3546/DR	06/18/11	1
Surrogate recovery(%) o-Terphenyl	76.1			% Rec.		3546/DR	06/18/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 06/20/11 16:37 Printed: 06/20/11 16:38
L520524-03 (PH) - 8.5@20.3c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

June 20, 2011

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 11, 2011
Description : 697-08-53-Pit Background
Sample ID : SS-8
Collected By : CJB
Collection Date : 06/10/11 11:07

ESC Sample # : L520524-03

Site ID :

Project # : 900546.0001.050

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	06/17/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	06/17/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	06/17/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	06/17/11	1
Benzo(a)pyrene	0.00086	0.00062	0.0060	mg/kg	J	8270C-S	06/17/11	1
Benzo(b)fluoranthene	0.0016	0.00082	0.0060	mg/kg	J	8270C-S	06/17/11	1
Benzo(g,h,i)perylene	0.0042	0.0012	0.0060	mg/kg	J	8270C-S	06/17/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	06/17/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	06/17/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	06/17/11	1
Fluoranthene	0.0011	0.0010	0.0060	mg/kg	J	8270C-S	06/17/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	06/17/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	06/17/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	06/17/11	1
Phenanthrene	0.00079	0.00074	0.0060	mg/kg	J	8270C-S	06/17/11	1
Pyrene	0.0011	0.00059	0.0060	mg/kg	J	8270C-S	06/17/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	06/17/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	06/17/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	06/17/11	1
Surrogate Recovery								
Nitrobenzene-d5	98.9			% Rec.		8270C-S	06/17/11	1
2-Fluorobiphenyl	98.7			% Rec.		8270C-S	06/17/11	1
p-Terphenyl-d14	93.2			% Rec.		8270C-S	06/17/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 06/20/11 16:37 Printed: 06/20/11 16:38
L520524-03 (PH) - 8.5@20.3c



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

June 20, 2011

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 11, 2011
Description : 697-08-53-Pit Background
Sample ID : SS-9
Collected By : CJB
Collection Date : 06/10/11 11:13

ESC Sample # : L520524-04
Site ID :
Project # : 900546.0001.050

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	06/17/11	1
Chromium, Trivalent	82.	0.17	2.0	mg/kg		Calc.	06/15/11	1
ORP	85.			mV		2580	06/17/11	1
pH	7.3			su		9045D	06/17/11	1
Sodium Adsorption Ratio	0.95					Calc.	06/14/11	1
Specific Conductance	140			umhos/cm		9050AMo	06/17/11	1
Mercury	0.015	0.0015	0.020	mg/kg	J	7471	06/16/11	1
Arsenic	20.	0.32	1.0	mg/kg		6010B	06/15/11	1
Barium	410	0.050	0.25	mg/kg	V	6010B	06/15/11	1
Cadmium	1.9	0.040	0.25	mg/kg		6010B	06/15/11	1
Chromium	82.	0.085	0.50	mg/kg		6010B	06/15/11	1
Copper	16.	0.21	1.0	mg/kg		6010B	06/15/11	1
Lead	14.	0.090	0.25	mg/kg	B	6010B	06/16/11	1
Nickel	37.	0.26	1.0	mg/kg		6010B	06/15/11	1
Selenium	U	0.32	1.0	mg/kg		6010B	06/15/11	1
Silver	U	0.16	0.50	mg/kg		6010B	06/15/11	1
Zinc	54.	0.34	1.5	mg/kg		6010B	06/15/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	06/13/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	94.4			% Rec.		602/801	06/13/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	06/13/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	06/13/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	06/13/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	06/13/11	5
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	06/13/11	5
Dibromofluoromethane	106.			% Rec.		8260B	06/13/11	5
a,a,a-Trifluorotoluene	104.			% Rec.		8260B	06/13/11	5
4-Bromofluorobenzene	97.0			% Rec.		8260B	06/13/11	5
TPH (GC/FID) High Fraction	5.3	0.77	4.0	mg/kg		3546/DR	06/18/11	1
Surrogate recovery (%) o-Terphenyl	79.3			% Rec.		3546/DR	06/18/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 06/20/11 16:37 Printed: 06/20/11 16:38
L520524-04 (PH) - 7.3@20.6c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

June 20, 2011

Date Received : June 11, 2011
Description : 697-08-53-Pit Background
Sample ID : SS-9
Collected By : CJB
Collection Date : 06/10/11 11:13

ESC Sample # : L520524-04

Site ID :

Project # : 900546.0001.050

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	06/17/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	06/17/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	06/17/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	06/17/11	1
Benzo(a)pyrene	0.00066	0.00062	0.0060	mg/kg	J	8270C-S	06/17/11	1
Benzo(b)fluoranthene	0.0017	0.00082	0.0060	mg/kg	J	8270C-S	06/17/11	1
Benzo(g,h,i)perylene	0.0014	0.0012	0.0060	mg/kg	J	8270C-S	06/17/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	06/17/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	06/17/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	06/17/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	06/17/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	06/17/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	06/17/11	1
Naphthalene	0.00080	0.00065	0.0060	mg/kg	J	8270C-S	06/17/11	1
Phenanthrene	0.0010	0.00074	0.0060	mg/kg	J	8270C-S	06/17/11	1
Pyrene	0.0029	0.00059	0.0060	mg/kg	J	8270C-S	06/17/11	1
1-Methylnaphthalene	0.0010	0.00079	0.0060	mg/kg	J	8270C-S	06/17/11	1
2-Methylnaphthalene	0.0024	0.00059	0.0060	mg/kg	J	8270C-S	06/17/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	06/17/11	1
Surrogate Recovery								
Nitrobenzene-d5	100.			% Rec.		8270C-S	06/17/11	1
2-Fluorobiphenyl	101.			% Rec.		8270C-S	06/17/11	1
p-Terphenyl-d14	107.			% Rec.		8270C-S	06/17/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 06/20/11 16:37 Printed: 06/20/11 16:38
L520524-04 (PH) - 7.3@20.6c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L520524-01	WG540600	SAMP	Lead	R1727230	B
	WG540130	SAMP	Selenium	R1724389	J
	WG540795	SAMP	Benzo(a)anthracene	R1728470	J
	WG540795	SAMP	Benzo(b)fluoranthene	R1728470	J
	WG540795	SAMP	Benzo(g,h,i)perylene	R1728470	J
	WG540795	SAMP	Phenanthrene	R1728470	J
	WG540795	SAMP	Pyrene	R1728470	J
	WG540600	SAMP	Lead	R1727230	B
L520524-02	WG540644	SAMP	TPH (GC/FID) High Fraction	R1728369	J
	WG540527	SAMP	Benzo(g,h,i)perylene	R1727331	J
	WG540600	SAMP	Lead	R1727230	B
L520524-03	WG540644	SAMP	TPH (GC/FID) High Fraction	R1728369	J
	WG540079	SAMP	Mercury	R1726809	J
	WG540652	SAMP	Benzo(a)pyrene	R1727749	J
	WG540652	SAMP	Benzo(b)fluoranthene	R1727749	J
	WG540652	SAMP	Benzo(g,h,i)perylene	R1727749	J
	WG540652	SAMP	Fluoranthene	R1727749	J
	WG540652	SAMP	Phenanthrene	R1727749	J
	WG540652	SAMP	Pyrene	R1727749	J
	WG540130	SAMP	Barium	R1724389	V
	WG540600	SAMP	Lead	R1727230	B
	WG540079	SAMP	Mercury	R1726809	J
L520524-04	WG540652	SAMP	Benzo(a)pyrene	R1727749	J
	WG540652	SAMP	Benzo(b)fluoranthene	R1727749	J
	WG540652	SAMP	Benzo(g,h,i)perylene	R1727749	J
	WG540652	SAMP	Naphthalene	R1727749	J
	WG540652	SAMP	Phenanthrene	R1727749	J
	WG540652	SAMP	Pyrene	R1727749	J
	WG540652	SAMP	1-Methylnaphthalene	R1727749	J
	WG540652	SAMP	2-Methylnaphthalene	R1727749	J

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
B	(EPA) - The indicated compound was found in the associated method blank as well as the laboratory sample.
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
V	(ESC) - Additional QC Info: The sample concentration is too high to evaluate accurate spike recoveries.

Qualifier Report Information

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

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

OXY USA Inc. - Grand Junction, CO 760 Horizon Dr., Ste 101 Grand Junction, CO 81506				Alternate billing information: CO Table 910				Analysis/Container/Preservative				Chain of Custody Page 1 of 1							
Project Description: 697-08-53-Pit Bank Phone: (970) 263-3601 FAX:				Report to: Blair - Patton's Email to: Daniel.Padilla@oxy.com				Prepared by: ENVIRONMENTAL SCIENCE CORP. 12065 Lebanon Road Mt Juliet, TN 37122 Phone (615) 758-5858 Phone (800) 767-5859 F153				CoCode OXYGJCO (lab use only) Template/Prelogin							
Collected by: CJB Client Project #: 90546, 000, 050 Site/Facility ID#:				ESC Key: P.O.#:				Shipped Via:				Remarks/Contaminant Sample # (lab only)							
Collected by (signature): <i>CJB</i> Packed on Ice N <input checked="" type="checkbox"/>				Date Results Needed: Email? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes				No. of Cnts 3				V8260BTEX, GRO DRO, SV8270PAHSIM SAR, SPCON, PH MRCRA8 + Cu, Ni, Zn CR3, CR6SS		Sample # (lab only) -01 -02 -03 -04					
(Lab MUST Be Notified) Same Day.....200% Next Day.....100% Two Day.....50%				Date 6/10/11 6/10/11 6/10/11 6/10/11				Time 1040 1100 1107 1113				Matrix* SS SS SS SS		Depth - - - -		Comp/Grab Grab Grab Grab Grab		Sample ID SS-6 SS-7 SS-8 SS-9	

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH Temp

Flow Other

8615 2051 3909

Relinquished by: (Signature) <i>CJB</i>		Date: 6/10/11 Time: 4:30		Received by: (Signature) <i>[Signature]</i>		Samples returned via: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier		Condition: (lab use only)	
Relinquished by: (Signature) <i>[Signature]</i>		Date: Time:		Received by: (Signature) <i>[Signature]</i>		Temp: 37 Date: 6/11/11		Bottles Received: 11-802	
Relinquished by: (Signature) <i>[Signature]</i>		Date: Time:		Received by: (Signature) <i>[Signature]</i>		Date: 6/11/11 Time: 0900		pH Checked: NCF: <input checked="" type="checkbox"/>	



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Report Summary

Tuesday December 27, 2011

Report Number: L552665

Samples Received: 12/21/11

Client Project: 900546.0013.010

Description: 608-43-31 cap

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

Entire Report Reviewed By:

Mark W. Beasley, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,
TX - T104704245, OK-9915, PA - 68-02979

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

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

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



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

December 27, 2011

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : December 21, 2011
Description : 608-43-31 cap
Sample ID : 608-43-31-CCOMP 6IN
Collected By : CJB
Collection Date : 12/20/11 12:20

ESC Sample # : L552665-01
Site ID :
Project # : 900546.0013.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	12/24/11	1
Chromium, Trivalent	42.	0.17	2.0	mg/kg		Calc.	12/23/11	1
ORP	45.			mV	T8	2580	12/22/11	1
pH	8.8			su	T8	9045D	12/23/11	1
Sodium Adsorption Ratio	6.7					Calc.	12/23/11	1
Specific Conductance	380			umhos/cm		9050AMo	12/23/11	1
Mercury	0.014	0.0015	0.020	mg/kg	J	7471	12/23/11	1
Arsenic	3.4	0.32	1.0	mg/kg		6010B	12/23/11	1
Barium	300	0.050	0.25	mg/kg		6010B	12/23/11	1
Cadmium	0.15	0.040	0.25	mg/kg	J	6010B	12/23/11	1
Chromium	42.	0.085	0.50	mg/kg		6010B	12/23/11	1
Copper	17.	0.21	1.0	mg/kg		6010B	12/23/11	1
Lead	11.	0.090	0.25	mg/kg		6010B	12/23/11	1
Nickel	22.	0.26	1.0	mg/kg		6010B	12/23/11	1
Selenium	3.0	0.32	1.0	mg/kg		6010B	12/23/11	1
Silver	0.52	0.16	0.50	mg/kg		6010B	12/23/11	1
Zinc	44.	0.34	1.5	mg/kg		6010B	12/23/11	1
TPH (GC/FID) Low Fraction	3.5	0.25	0.50	mg/kg		8015D/G	12/21/11	5
Surrogate Recovery (70-130) a, a, a-Trifluorotoluene (FID)	95.6			% Rec.		602/801	12/21/11	5
Benzene	U	0.017	0.050	mg/kg		8260B	12/22/11	50
Toluene	0.037	0.016	0.25	mg/kg	J	8260B	12/22/11	50
Ethylbenzene	U	0.019	0.050	mg/kg		8260B	12/22/11	50
Total Xylenes	0.12	0.023	0.15	mg/kg	J	8260B	12/22/11	50
Surrogate Recovery				% Rec.		8260B	12/22/11	50
Toluene-d8	105.			% Rec.		8260B	12/22/11	50
Dibromofluoromethane	104.			% Rec.		8260B	12/22/11	50
a, a, a-Trifluorotoluene	108.			% Rec.		8260B	12/22/11	50
4-Bromofluorobenzene	106.			% Rec.		8260B	12/22/11	50
TPH (GC/FID) High Fraction	36.	0.77	4.0	mg/kg		3546/DR	12/23/11	1
Surrogate recovery (%) o-Terphenyl	107.			% Rec.		3546/DR	12/23/11	1

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

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

Reported: 12/27/11 16:54 Printed: 12/27/11 16:54
L552665-01 (PH) - 8.81@18.7c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

December 27, 2011

Date Received : December 21, 2011
Description : 608-43-31 cap
Sample ID : 608-43-31-CCOMP 6IN
Collected By : CJB
Collection Date : 12/20/11 12:20

ESC Sample # : L552665-01

Site ID :

Project # : 900546.0013.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	12/23/11	1
Acenaphthene	0.0034	0.00071	0.0060	mg/kg	J	8270C-S	12/23/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	12/23/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	12/23/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	12/23/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	12/23/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	12/23/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	12/23/11	1
Chrysene	0.0012	0.0011	0.0060	mg/kg	J	8270C-S	12/23/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	12/23/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	12/23/11	1
Fluorene	0.012	0.00055	0.0060	mg/kg		8270C-S	12/23/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	12/23/11	1
Naphthalene	0.12	0.00065	0.0060	mg/kg		8270C-S	12/23/11	1
Phenanthrene	0.014	0.00074	0.0060	mg/kg		8270C-S	12/23/11	1
Pyrene	0.0018	0.00059	0.0060	mg/kg	J	8270C-S	12/23/11	1
1-Methylnaphthalene	0.079	0.00079	0.0060	mg/kg		8270C-S	12/23/11	1
2-Methylnaphthalene	0.22	0.00059	0.0060	mg/kg		8270C-S	12/23/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	12/23/11	1
Surrogate Recovery								
Nitrobenzene-d5	88.5			% Rec.		8270C-S	12/23/11	1
2-Fluorobiphenyl	68.6			% Rec.		8270C-S	12/23/11	1
p-Terphenyl-d14	76.9			% Rec.		8270C-S	12/23/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 12/27/11 16:54 Printed: 12/27/11 16:54
L552665-01 (PH) - 8.81@18.7c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L552665-01	WG571182	SAMP	Cadmium	R1978192	J
	WG571106	SAMP	Mercury	R1978332	J
	WG571115	SAMP	Toluene	R1975892	J
	WG571115	SAMP	Total Xylenes	R1975892	J
	WG571397	SAMP	pH	R1978592	T8
	WG571175	SAMP	Acenaphthene	R1978252	J
	WG571175	SAMP	Chrysene	R1978252	J
	WG571175	SAMP	Pyrene	R1978252	J
	WG571190	SAMP	ORP	R1977032	T8

Attachment B
Explanation of QC Qualifier Codes

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

Qualifier Report Information

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

Definitions

- Accuracy** - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision** - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate** - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC** - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
12/27/11 at 16:54:36

TSR Signing Reports: 134
R4 - Rush: Three Day

Sample: L552665-01 Account: OXYGJCO Received: 12/21/11 09:00 Due Date: 12/27/11 00:00 RPT Date: 12/27/11 16:54

OXY USA WTP LP. -

Grand Junction, CO

760 Horizon Dr., Ste 101

Grand Junction, CO 81506

Alternate billing information:

CO Table 910

Report to:

Email to: *Blair-Pollin3*
*Daniel.Pollin3@oxy.com*City/State
Collected *Parachute*

ESC Key:

Client Project #:

9005460013.010

Site/Facility ID#:

P.O.#:

Collected by: *CSB*Collected by (signature): *[Signature]***Rush?** (Lab MUST Be Notified)

☐ Same Day 200%
☐ Next Day 100%
☐ Two Day 50%

Date Results Needed:

Email? ☐ No ☐ Yes
 FAX? ☐ No ☐ Yes

No. of Cntrs
 Date Time

Packed on Ice N *(Y)*

Sample ID

608-43-31-Ccomp

Comp/Grab

Comp SS

Depth

6"

Date

12/20/11 12:20

Time

3

DRO, SV8270PAHSIM

X

SAR, SPCON, pH

X

MRCRA8 + Cu, Ni, Zn

X

CR3, CR6SS

X

Remarks/Contaminant

Sample # (lab only)

-01

CoCode OXYGJCO (lab use only)

Template/Prelogin

Shipped Via:

L552605

Prepared by:

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Road

Mt Juliet, TN 37122

Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

pH _____ Temp _____

Other _____

5040 0623 5707 Flow

Samples returned via: ☒ UPS
☐ FedEx ☐ Courier

Temp: *3.7*
 Date: *12/21/11*

Bottles Received: *3*Time: *0910*pH Checked: *OK*Condition: *JF* (lab use only)Relinquished by: (Signature) *[Signature]*Date: *12/20/11*Received by: (Signature) *[Signature]*Time: *5:00*Relinquished by: (Signature) *[Signature]*Date: *12/20/11*Received by: (Signature) *[Signature]*Time: *5:00*Relinquished by: (Signature) *[Signature]*Date: *12/20/11*Received by: (Signature) *[Signature]*Time: *5:00*** 3 Dec Turnaround*



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Report Summary

Wednesday November 23, 2011

Report Number: L547797

Samples Received: 11/19/11

Client Project: 900546.0013.010

Description: 608-43-31 Pit

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

Entire Report Reviewed By:

Mark W. Beasley, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,
TX - T104704245, OK-9915, PA - 68-02979

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

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

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



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

November 23, 2011

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : November 19, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-NE-D1 6 FT
Collected By : CJB
Collection Date : 11/18/11 13:08

ESC Sample # : L547797-01
Site ID :
Project # : 900546.0013.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	1.1	0.71	2.0	mg/kg	J	3060A/7	11/23/11	1
Chromium, Trivalent	40.	0.17	2.0	mg/kg		Calc.	11/20/11	1
ORP	82.			mV		2580	11/22/11	1
pH	8.8			su	T8	9045D	11/22/11	1
Sodium Adsorption Ratio	6.0					Calc.	11/21/11	1
Specific Conductance	840			umhos/cm		9050AMo	11/20/11	1
Mercury	0.012	0.0015	0.020	mg/kg	J	7471	11/21/11	1
Arsenic	4.3	0.32	1.0	mg/kg		6010B	11/20/11	1
Barium	260	0.050	0.25	mg/kg		6010B	11/20/11	1
Cadmium	U	0.040	0.25	mg/kg		6010B	11/21/11	1
Chromium	41.	0.085	0.50	mg/kg		6010B	11/20/11	1
Copper	14.	0.21	1.0	mg/kg		6010B	11/20/11	1
Lead	10.	0.090	0.25	mg/kg		6010B	11/20/11	1
Nickel	18.	0.26	1.0	mg/kg		6010B	11/20/11	1
Selenium	3.5	0.32	1.0	mg/kg		6010B	11/20/11	1
Silver	1.2	0.16	0.50	mg/kg		6010B	11/20/11	1
Zinc	44.	0.34	1.5	mg/kg		6010B	11/20/11	1
TPH (GC/FID) Low Fraction	5.9	0.25	0.50	mg/kg		8015D/G	11/20/11	5
Surrogate Recovery (70-130) a, a, a-Trifluorotoluene (FID)	91.7			% Rec.		602/801	11/20/11	5
Benzene	0.11	0.017	0.050	mg/kg		8260B	11/22/11	50
Toluene	0.46	0.016	0.25	mg/kg		8260B	11/22/11	50
Ethylbenzene	0.060	0.019	0.050	mg/kg		8260B	11/22/11	50
Total Xylenes	0.96	0.023	0.15	mg/kg		8260B	11/22/11	50
Surrogate Recovery				% Rec.		8260B	11/22/11	50
Toluene-d8	109.			% Rec.		8260B	11/22/11	50
Dibromofluoromethane	109.			% Rec.		8260B	11/22/11	50
a, a, a-Trifluorotoluene	103.			% Rec.		8260B	11/22/11	50
4-Bromofluorobenzene	81.6			% Rec.		8260B	11/22/11	50
TPH (GC/FID) High Fraction	54.	0.77	4.0	mg/kg		3546/DR	11/22/11	1
Surrogate recovery(%) o-Terphenyl	159.			% Rec.	J1	3546/DR	11/22/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/23/11 14:46 Printed: 11/23/11 14:47

L547797-01 (PH) - 8.81021.4c

L547797-01 (DRO) - second extraction confirms



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

November 23, 2011

Date Received : November 19, 2011
Description : 608-43-31 Pit

Sample ID : 608-43-31-PB-NE-D2 8 FT

Collected By : CJB
Collection Date : 11/18/11 13:16

ESC Sample # : L547797-02

Site ID :

Project # : 900546.0013.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	11/23/11	1
Chromium, Trivalent	48.	0.17	2.0	mg/kg		Calc.	11/20/11	1
ORP	74.			mV		2580	11/22/11	1
pH	8.8			su	T8	9045D	11/22/11	1
Sodium Adsorption Ratio	6.2					Calc.	11/21/11	1
Specific Conductance	760			umhos/cm		9050AMo	11/20/11	1
Mercury	0.013	0.0015	0.020	mg/kg	J	7471	11/21/11	1
Arsenic	6.1	0.32	1.0	mg/kg		6010B	11/20/11	1
Barium	320	0.050	0.25	mg/kg		6010B	11/20/11	1
Cadmium	U	0.040	0.25	mg/kg		6010B	11/21/11	1
Chromium	48.	0.085	0.50	mg/kg		6010B	11/20/11	1
Copper	16.	0.21	1.0	mg/kg		6010B	11/20/11	1
Lead	12.	0.090	0.25	mg/kg		6010B	11/20/11	1
Nickel	22.	0.26	1.0	mg/kg		6010B	11/20/11	1
Selenium	4.0	0.32	1.0	mg/kg		6010B	11/20/11	1
Silver	1.4	0.16	0.50	mg/kg		6010B	11/20/11	1
Zinc	41.	0.34	1.5	mg/kg		6010B	11/20/11	1
TPH (GC/FID) Low Fraction	18.	0.25	0.50	mg/kg		8015D/G	11/20/11	5
Surrogate Recovery (70-130) a, a, a-Trifluorotoluene (FID)	84.9			% Rec.		602/801	11/20/11	5
Benzene	0.10	0.017	0.050	mg/kg		8260B	11/22/11	50
Toluene	0.49	0.016	0.25	mg/kg		8260B	11/22/11	50
Ethylbenzene	0.085	0.019	0.050	mg/kg		8260B	11/22/11	50
Total Xylenes	1.6	0.023	0.15	mg/kg		8260B	11/22/11	50
Surrogate Recovery				% Rec.				
Toluene-d8	106.			% Rec.		8260B	11/22/11	50
Dibromofluoromethane	102.			% Rec.		8260B	11/22/11	50
a, a, a-Trifluorotoluene	105.			% Rec.		8260B	11/22/11	50
4-Bromofluorobenzene	83.3			% Rec.		8260B	11/22/11	50
TPH (GC/FID) High Fraction	45.	0.77	4.0	mg/kg		3546/DR	11/22/11	1
Surrogate recovery (%) o-Terphenyl	142.			% Rec.		3546/DR	11/22/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/23/11 14:46 Printed: 11/23/11 14:47
L547797-02 (PH) - 8.75@21.3c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

November 23, 2011

Date Received : November 19, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-SW-D1 8-9 FT
Collected By : CJB
Collection Date : 11/18/11 14:05

ESC Sample # : L547797-03

Site ID :

Project # : 900546.0013.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	11/23/11	1
Chromium, Trivalent	38.	0.17	2.0	mg/kg		Calc.	11/20/11	1
ORP	54.			mV		2580	11/22/11	1
pH	8.9			su	T8	9045D	11/22/11	1
Sodium Adsorption Ratio	5.6					Calc.	11/21/11	1
Specific Conductance	1200			umhos/cm		9050AMo	11/20/11	1
Mercury	0.013	0.0015	0.020	mg/kg	J	7471	11/21/11	1
Arsenic	5.5	0.32	1.0	mg/kg		6010B	11/20/11	1
Barium	450	0.050	0.25	mg/kg		6010B	11/20/11	1
Cadmium	0.067	0.040	0.25	mg/kg	J	6010B	11/21/11	1
Chromium	38.	0.085	0.50	mg/kg		6010B	11/20/11	1
Copper	15.	0.21	1.0	mg/kg		6010B	11/20/11	1
Lead	12.	0.090	0.25	mg/kg		6010B	11/20/11	1
Nickel	21.	0.26	1.0	mg/kg		6010B	11/20/11	1
Selenium	4.1	0.32	1.0	mg/kg		6010B	11/20/11	1
Silver	0.97	0.16	0.50	mg/kg		6010B	11/20/11	1
Zinc	45.	0.34	1.5	mg/kg		6010B	11/20/11	1
TPH (GC/FID) Low Fraction	170	2.5	5.0	mg/kg		8015D/G	11/20/11	50
Surrogate Recovery (70-130)								
a, a, a-Trifluorotoluene (FID)	89.2			% Rec.		602/801	11/20/11	50
Benzene	0.073	0.017	0.050	mg/kg		8260B	11/22/11	50
Toluene	0.63	0.016	0.25	mg/kg		8260B	11/22/11	50
Ethylbenzene	0.20	0.019	0.050	mg/kg		8260B	11/22/11	50
Total Xylenes	4.7	0.023	0.15	mg/kg		8260B	11/22/11	50
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	11/22/11	50
Dibromofluoromethane	101.			% Rec.		8260B	11/22/11	50
a, a, a-Trifluorotoluene	108.			% Rec.		8260B	11/22/11	50
4-Bromofluorobenzene	103.			% Rec.		8260B	11/22/11	50
TPH (GC/FID) High Fraction	48.	0.77	4.0	mg/kg		3546/DR	11/21/11	1
Surrogate recovery (%)								
o-Terphenyl	128.			% Rec.		3546/DR	11/21/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/23/11 14:46 Printed: 11/23/11 14:47
L547797-03 (PH) - 8.89@21.0c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

November 23, 2011

Date Received : November 19, 2011
Description : 608-43-31 Pit

Sample ID : 608-43-31-PB-SW-D2 10 FT

Collected By : CJB
Collection Date : 11/18/11 14:15

ESC Sample # : L547797-04

Site ID :

Project # : 900546.0013.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	11/23/11	1
Chromium, Trivalent	45.	0.17	2.0	mg/kg		Calc.	11/20/11	1
ORP	79.			mV		2580	11/22/11	1
pH	8.6			su	T8	9045D	11/22/11	1
Sodium Adsorption Ratio	4.5					Calc.	11/21/11	1
Specific Conductance	490			umhos/cm		9050AMo	11/20/11	1
Mercury	0.020	0.0015	0.020	mg/kg		7471	11/21/11	1
Arsenic	4.0	0.32	1.0	mg/kg		6010B	11/20/11	1
Barium	380	0.050	0.25	mg/kg		6010B	11/20/11	1
Cadmium	0.043	0.040	0.25	mg/kg	J	6010B	11/21/11	1
Chromium	45.	0.085	0.50	mg/kg		6010B	11/20/11	1
Copper	14.	0.21	1.0	mg/kg		6010B	11/20/11	1
Lead	12.	0.090	0.25	mg/kg		6010B	11/20/11	1
Nickel	21.	0.26	1.0	mg/kg		6010B	11/20/11	1
Selenium	3.7	0.32	1.0	mg/kg		6010B	11/20/11	1
Silver	0.98	0.16	0.50	mg/kg		6010B	11/20/11	1
Zinc	42.	0.34	1.5	mg/kg		6010B	11/20/11	1
TPH (GC/FID) Low Fraction	3.0	0.25	0.50	mg/kg		8015D/G	11/20/11	5
Surrogate Recovery (70-130) a, a, a-Trifluorotoluene (FID)	90.5			% Rec.		602/801	11/20/11	5
Benzene	U	0.017	0.050	mg/kg		8260B	11/20/11	50
Toluene	0.031	0.016	0.25	mg/kg	J	8260B	11/20/11	50
Ethylbenzene	U	0.019	0.050	mg/kg		8260B	11/20/11	50
Total Xylenes	0.12	0.023	0.15	mg/kg	J	8260B	11/20/11	50
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/20/11	50
Dibromofluoromethane	101.			% Rec.		8260B	11/20/11	50
a, a, a-Trifluorotoluene	104.			% Rec.		8260B	11/20/11	50
4-Bromofluorobenzene	106.			% Rec.		8260B	11/20/11	50
TPH (GC/FID) High Fraction	19.	0.77	4.0	mg/kg		3546/DR	11/22/11	1
Surrogate recovery(%) o-Terphenyl	107.			% Rec.		3546/DR	11/22/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/23/11 14:46 Printed: 11/23/11 14:47

L547797-04 (V8260BTEX) - Non-target compounds too high to run at a lower dilution.

L547797-04 (PH) - 8.55@20.8c



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

November 23, 2011

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : November 19, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-SE-D1 10 FT
Collected By : CJB
Collection Date : 11/18/11 13:25

ESC Sample # : L547797-05
Site ID :
Project # : 900546.0013.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	11/23/11	1
Chromium, Trivalent	40.	0.17	2.0	mg/kg		Calc.	11/20/11	1
ORP	54.			mV		2580	11/22/11	1
pH	9.3			su	T8	9045D	11/22/11	1
Sodium Adsorption Ratio	6.1					Calc.	11/21/11	1
Specific Conductance	850			umhos/cm		9050AMo	11/20/11	1
Mercury	0.014	0.0015	0.020	mg/kg	J	7471	11/21/11	1
Arsenic	4.9	0.32	1.0	mg/kg		6010B	11/20/11	1
Barium	310	0.050	0.25	mg/kg		6010B	11/20/11	1
Cadmium	0.057	0.040	0.25	mg/kg	J	6010B	11/21/11	1
Chromium	40.	0.085	0.50	mg/kg		6010B	11/20/11	1
Copper	15.	0.21	1.0	mg/kg		6010B	11/20/11	1
Lead	13.	0.090	0.25	mg/kg		6010B	11/20/11	1
Nickel	21.	0.26	1.0	mg/kg		6010B	11/20/11	1
Selenium	3.5	0.32	1.0	mg/kg		6010B	11/20/11	1
Silver	1.3	0.16	0.50	mg/kg		6010B	11/20/11	1
Zinc	41.	0.34	1.5	mg/kg		6010B	11/20/11	1
TPH (GC/FID) Low Fraction	7.8	0.25	0.50	mg/kg		8015D/G	11/20/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	89.4			% Rec.		602/801	11/20/11	5
Benzene	0.14	0.017	0.050	mg/kg		8260B	11/22/11	50
Toluene	0.56	0.016	0.25	mg/kg		8260B	11/22/11	50
Ethylbenzene	0.075	0.019	0.050	mg/kg		8260B	11/22/11	50
Total Xylenes	1.0	0.023	0.15	mg/kg		8260B	11/22/11	50
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	11/22/11	50
Dibromofluoromethane	96.8			% Rec.		8260B	11/22/11	50
a,a,a-Trifluorotoluene	108.			% Rec.		8260B	11/22/11	50
4-Bromofluorobenzene	86.6			% Rec.		8260B	11/22/11	50
TPH (GC/FID) High Fraction	50.	0.77	4.0	mg/kg		3546/DR	11/22/11	1
Surrogate recovery(%) o-Terphenyl	218.			% Rec.	J1	3546/DR	11/22/11	1

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

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

Reported: 11/23/11 14:46 Printed: 11/23/11 14:47
L547797-05 (DRO) - second extraction confirms
L547797-05 (PH) - 9.33@20.7c



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

November 23, 2011

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : November 19, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-SE-D2 12 FT
Collected By : CJB
Collection Date : 11/18/11 13:35

ESC Sample # : L547797-06
Site ID :
Project # : 900546.0013.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg	J6	3060A/7	11/23/11	1
Chromium, Trivalent	41.	0.17	2.0	mg/kg		Calc.	11/20/11	1
ORP	36.			mV		2580	11/22/11	1
pH	9.8			su	T8	9045D	11/22/11	1
Sodium Adsorption Ratio	6.5					Calc.	11/21/11	1
Specific Conductance	810			umhos/cm		9050AMo	11/20/11	1
Mercury	0.014	0.0015	0.020	mg/kg	J	7471	11/21/11	1
Arsenic	5.7	0.32	1.0	mg/kg		6010B	11/20/11	1
Barium	320	0.050	0.25	mg/kg		6010B	11/20/11	1
Cadmium	0.090	0.040	0.25	mg/kg	J	6010B	11/21/11	1
Chromium	41.	0.085	0.50	mg/kg		6010B	11/20/11	1
Copper	15.	0.21	1.0	mg/kg		6010B	11/20/11	1
Lead	13.	0.090	0.25	mg/kg		6010B	11/20/11	1
Nickel	24.	0.26	1.0	mg/kg		6010B	11/20/11	1
Selenium	4.4	0.32	1.0	mg/kg		6010B	11/20/11	1
Silver	0.78	0.16	0.50	mg/kg		6010B	11/20/11	1
Zinc	43.	0.34	1.5	mg/kg		6010B	11/20/11	1
TPH (GC/FID) Low Fraction	5.7	0.25	0.50	mg/kg		8015D/G	11/20/11	5
Surrogate Recovery (70-130)								
a,a,a-Trifluorotoluene (FID)	91.3			% Rec.		602/801	11/20/11	5
Benzene	0.099	0.017	0.050	mg/kg		8260B	11/22/11	50
Toluene	0.41	0.016	0.25	mg/kg		8260B	11/22/11	50
Ethylbenzene	0.063	0.019	0.050	mg/kg		8260B	11/22/11	50
Total Xylenes	0.94	0.023	0.15	mg/kg		8260B	11/22/11	50
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	11/22/11	50
Dibromofluoromethane	97.0			% Rec.		8260B	11/22/11	50
a,a,a-Trifluorotoluene	109.			% Rec.		8260B	11/22/11	50
4-Bromofluorobenzene	86.2			% Rec.		8260B	11/22/11	50
TPH (GC/FID) High Fraction	74.	0.77	4.0	mg/kg		3546/DR	11/22/11	1
Surrogate recovery(%)								
o-Terphenyl	239.			% Rec.	J1	3546/DR	11/22/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/23/11 14:46 Printed: 11/23/11 14:47

L547797-06 (CR6) - sample is a reducer

L547797-06 (DRO) - second extraction confirms

L547797-06 (PH) - 9.83@21.3c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

November 23, 2011

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : November 19, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-NW-D1 10 FT
Collected By : CJB
Collection Date : 11/18/11 11:56

ESC Sample # : L547797-07

Site ID :

Project # : 900546.0013.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	11/23/11	1
Chromium, Trivalent	72.	0.17	2.0	mg/kg		Calc.	11/20/11	1
ORP	67.			mV		2580	11/22/11	1
pH	8.3			su	T8	9045D	11/22/11	1
Sodium Adsorption Ratio	7.9					Calc.	11/21/11	1
Specific Conductance	800			umhos/cm		9050AMo	11/20/11	1
Mercury	0.011	0.0015	0.020	mg/kg	J	7471	11/21/11	1
Arsenic	9.4	0.32	1.0	mg/kg		6010B	11/20/11	1
Barium	260	0.050	0.25	mg/kg		6010B	11/20/11	1
Cadmium	U	0.040	0.25	mg/kg		6010B	11/21/11	1
Chromium	72.	0.085	0.50	mg/kg		6010B	11/20/11	1
Copper	10.	0.21	1.0	mg/kg		6010B	11/20/11	1
Lead	10.	0.090	0.25	mg/kg		6010B	11/20/11	1
Nickel	28.	0.26	1.0	mg/kg		6010B	11/20/11	1
Selenium	4.2	0.32	1.0	mg/kg		6010B	11/20/11	1
Silver	1.8	0.16	0.50	mg/kg		6010B	11/20/11	1
Zinc	37.	0.34	1.5	mg/kg		6010B	11/20/11	1
TPH (GC/FID) Low Fraction	3.7	0.25	0.50	mg/kg		8015D/G	11/20/11	5
Surrogate Recovery (70-130)				% Rec.		602/801	11/20/11	5
a,a,a-Trifluorotoluene (FID)	93.9							
Benzene	U	0.017	0.050	mg/kg		8260B	11/20/11	50
Toluene	U	0.016	0.25	mg/kg		8260B	11/20/11	50
Ethylbenzene	U	0.019	0.050	mg/kg		8260B	11/20/11	50
Total Xylenes	0.036	0.023	0.15	mg/kg	J	8260B	11/20/11	50
Surrogate Recovery				% Rec.		8260B	11/20/11	50
Toluene-d8	103.			% Rec.		8260B	11/20/11	50
Dibromofluoromethane	99.8			% Rec.		8260B	11/20/11	50
a,a,a-Trifluorotoluene	103.			% Rec.		8260B	11/20/11	50
4-Bromofluorobenzene	103.			% Rec.		8260B	11/20/11	50
TPH (GC/FID) High Fraction	13.	0.77	4.0	mg/kg		3546/DR	11/21/11	1
Surrogate recovery(%)				% Rec.		3546/DR	11/21/11	1
o-Terphenyl	86.4							

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/23/11 14:46 Printed: 11/23/11 14:47

L547797-07 (PH) - 8.28@21.0c

L547797-07 (V8260BTEX) - Non-target compounds too high to run at a lower dilution.



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

November 23, 2011

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : November 19, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-NW-D2 12 FT
Collected By : CJB
Collection Date : 11/18/11 12:05

ESC Sample # : L547797-08
Site ID :
Project # : 900546.0013.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	11/23/11	1
Chromium, Trivalent	50.	0.17	2.0	mg/kg		Calc.	11/20/11	1
ORP	75.			mV		2580	11/22/11	1
pH	8.7			su	T8	9045D	11/22/11	1
Sodium Adsorption Ratio	5.4					Calc.	11/21/11	1
Specific Conductance	870			umhos/cm		9050AMo	11/20/11	1
Mercury	0.015	0.0015	0.020	mg/kg	J	7471	11/21/11	1
Arsenic	6.3	0.32	1.0	mg/kg		6010B	11/20/11	1
Barium	280	0.050	0.25	mg/kg		6010B	11/20/11	1
Cadmium	U	0.040	0.25	mg/kg		6010B	11/22/11	1
Chromium	50.	0.085	0.50	mg/kg		6010B	11/20/11	1
Copper	18.	0.21	1.0	mg/kg		6010B	11/20/11	1
Lead	13.	0.090	0.25	mg/kg		6010B	11/20/11	1
Nickel	23.	0.26	1.0	mg/kg		6010B	11/20/11	1
Selenium	4.6	0.32	1.0	mg/kg		6010B	11/20/11	1
Silver	1.8	0.16	0.50	mg/kg		6010B	11/20/11	1
Zinc	49.	0.34	1.5	mg/kg		6010B	11/20/11	1
TPH (GC/FID) Low Fraction	8.6	0.25	0.50	mg/kg		8015D/G	11/20/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	91.7			% Rec.		602/801	11/20/11	5
Benzene	U	0.017	0.050	mg/kg		8260B	11/20/11	50
Toluene	0.065	0.016	0.25	mg/kg	J	8260B	11/20/11	50
Ethylbenzene	0.026	0.019	0.050	mg/kg	J	8260B	11/20/11	50
Total Xylenes	0.53	0.023	0.15	mg/kg		8260B	11/20/11	50
Surrogate Recovery				% Rec.		8260B	11/20/11	50
Toluene-d8	104.			% Rec.		8260B	11/20/11	50
Dibromofluoromethane	98.8			% Rec.		8260B	11/20/11	50
a,a,a-Trifluorotoluene	104.			% Rec.		8260B	11/20/11	50
4-Bromofluorobenzene	108.			% Rec.		8260B	11/20/11	50
TPH (GC/FID) High Fraction	73.	0.77	4.0	mg/kg		3546/DR	11/22/11	1
Surrogate recovery(%) o-Terphenyl	170.			% Rec.	J1	3546/DR	11/22/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/23/11 14:46 Printed: 11/23/11 14:47

L547797-08 (DRO) - second extraction confirms

L547797-08 (PH) - 8.68@20.8c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

November 23, 2011

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : November 19, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-C-D1 12-14 FT
Collected By : CJB
Collection Date : 11/18/11 11:15

ESC Sample # : L547797-09
Site ID :
Project # : 900546.0013.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	1.4	0.71	2.0	mg/kg	J	3060A/7	11/23/11	1
Chromium, Trivalent	48.	0.17	2.0	mg/kg		Calc.	11/20/11	1
ORP	45.			mV		2580	11/22/11	1
pH	9.4			su	T8	9045D	11/22/11	1
Sodium Adsorption Ratio	7.9					Calc.	11/21/11	1
Specific Conductance	790			umhos/cm		9050AMo	11/20/11	1
Mercury	0.012	0.0015	0.020	mg/kg	J	7471	11/21/11	1
Arsenic	5.6	0.32	1.0	mg/kg		6010B	11/20/11	1
Barium	310	0.050	0.25	mg/kg		6010B	11/20/11	1
Cadmium	U	0.040	0.25	mg/kg		6010B	11/21/11	1
Chromium	49.	0.085	0.50	mg/kg		6010B	11/20/11	1
Copper	17.	0.21	1.0	mg/kg		6010B	11/20/11	1
Lead	12.	0.090	0.25	mg/kg		6010B	11/20/11	1
Nickel	24.	0.26	1.0	mg/kg		6010B	11/20/11	1
Selenium	3.9	0.32	1.0	mg/kg		6010B	11/20/11	1
Silver	1.2	0.16	0.50	mg/kg		6010B	11/20/11	1
Zinc	42.	0.34	1.5	mg/kg		6010B	11/20/11	1
TPH (GC/FID) Low Fraction	6.0	0.25	0.50	mg/kg		8015D/G	11/20/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	91.1			% Rec.		602/801	11/20/11	5
Benzene	0.030	0.0017	0.0050	mg/kg		8260B	11/20/11	5
Toluene	0.084	0.0016	0.025	mg/kg		8260B	11/20/11	5
Ethylbenzene	0.027	0.0019	0.0050	mg/kg		8260B	11/20/11	5
Total Xylenes	0.47	0.0023	0.015	mg/kg		8260B	11/20/11	5
Surrogate Recovery								
Toluene-d8	106.			% Rec.		8260B	11/20/11	5
Dibromofluoromethane	100.			% Rec.		8260B	11/20/11	5
a,a,a-Trifluorotoluene	101.			% Rec.		8260B	11/20/11	5
4-Bromofluorobenzene	106.			% Rec.		8260B	11/20/11	5
TPH (GC/FID) High Fraction	68.	0.77	4.0	mg/kg		3546/DR	11/22/11	1
Surrogate recovery(%) o-Terphenyl	199.			% Rec.	J1	3546/DR	11/22/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/23/11 14:46 Printed: 11/23/11 14:47
L547797-09 (DRO) - second extraction confirms
L547797-09 (PH) - 9.39@20.9c



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

November 23, 2011

Daniel Padilla
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : November 19, 2011
Description : 608-43-31 Pit
Sample ID : 608-43-31-PB-C-D2 18 FT
Collected By : CJB
Collection Date : 11/18/11 11:24

ESC Sample # : L547797-10
Site ID :
Project # : 900546.0013.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	1.6	0.71	2.0	mg/kg	JP1	3060A/7	11/23/11	1
Chromium, Trivalent	44.	0.17	2.0	mg/kg		Calc.	11/20/11	1
ORP	58.			mV		2580	11/22/11	1
pH	8.6			su	T8	9045D	11/22/11	1
Sodium Adsorption Ratio	5.8					Calc.	11/21/11	1
Specific Conductance	830			umhos/cm		9050AMo	11/20/11	1
Mercury	0.011	0.0015	0.020	mg/kg	J	7471	11/21/11	1
Arsenic	4.4	0.32	1.0	mg/kg	J3	6010B	11/20/11	1
Barium	320	0.050	0.25	mg/kg	V	6010B	11/20/11	1
Cadmium	U	0.040	0.25	mg/kg		6010B	11/21/11	1
Chromium	46.	0.085	0.50	mg/kg		6010B	11/20/11	1
Copper	16.	0.21	1.0	mg/kg		6010B	11/20/11	1
Lead	11.	0.090	0.25	mg/kg		6010B	11/20/11	1
Nickel	22.	0.26	1.0	mg/kg		6010B	11/20/11	1
Selenium	4.0	0.32	1.0	mg/kg		6010B	11/20/11	1
Silver	1.3	0.16	0.50	mg/kg		6010B	11/20/11	1
Zinc	44.	0.34	1.5	mg/kg		6010B	11/20/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	11/20/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	96.0			% Rec.		602/801	11/20/11	5
Benzene	0.0046	0.0017	0.0050	mg/kg	J	8260B	11/20/11	5
Toluene	0.029	0.0016	0.025	mg/kg		8260B	11/20/11	5
Ethylbenzene	0.015	0.0019	0.0050	mg/kg		8260B	11/20/11	5
Total Xylenes	0.22	0.0023	0.015	mg/kg		8260B	11/20/11	5
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	11/20/11	5
Dibromofluoromethane	103.			% Rec.		8260B	11/20/11	5
a,a,a-Trifluorotoluene	101.			% Rec.		8260B	11/20/11	5
4-Bromofluorobenzene	105.			% Rec.		8260B	11/20/11	5
TPH (GC/FID) High Fraction	40.	0.77	4.0	mg/kg		3546/DR	11/22/11	1
Surrogate recovery(%) o-Terphenyl	142.			% Rec.		3546/DR	11/22/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/23/11 14:46 Printed: 11/23/11 14:47
L547797-10 (PH) - 8.59@20.9c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L547797-01	WG566708	SAMP	o-Terphenyl	R1942553	J1
	WG566679	SAMP	Chromium, Hexavalent	R1942994	J
	WG566487	SAMP	Mercury	R1940556	J
	WG566692	SAMP	pH	R1941655	T8
L547797-02	WG566487	SAMP	Mercury	R1940556	J
	WG566692	SAMP	pH	R1941655	T8
	WG566666	SAMP	Cadmium	R1940252	J
L547797-03	WG566487	SAMP	Mercury	R1940556	J
	WG566692	SAMP	pH	R1941655	T8
	WG566666	SAMP	Cadmium	R1940252	J
L547797-04	WG566509	SAMP	Toluene	R1940073	J
	WG566509	SAMP	Total Xylenes	R1940073	J
	WG566692	SAMP	pH	R1941655	T8
	WG566666	SAMP	Cadmium	R1940252	J
L547797-05	WG566708	SAMP	o-Terphenyl	R1942553	J1
	WG566487	SAMP	Mercury	R1940556	J
	WG566692	SAMP	pH	R1941655	T8
	WG566666	SAMP	Cadmium	R1940252	J
L547797-06	WG566708	SAMP	o-Terphenyl	R1942553	J1
	WG566679	SAMP	Chromium, Hexavalent	R1942994	J6
	WG566487	SAMP	Mercury	R1940556	J
	WG566692	SAMP	pH	R1941655	T8
	WG566487	SAMP	Mercury	R1940556	J
L547797-07	WG566509	SAMP	Total Xylenes	R1940073	J
	WG566692	SAMP	pH	R1941655	T8
	WG566708	SAMP	o-Terphenyl	R1942553	J1
	WG566487	SAMP	Mercury	R1940556	J
L547797-08	WG566509	SAMP	Toluene	R1940073	J
	WG566509	SAMP	Ethylbenzene	R1940073	J
	WG566692	SAMP	pH	R1941655	T8
	WG566708	SAMP	o-Terphenyl	R1942553	J1
	WG566679	SAMP	Chromium, Hexavalent	R1942994	J
L547797-09	WG566487	SAMP	Mercury	R1940556	J
	WG566692	SAMP	pH	R1941655	T8
	WG566511	SAMP	Arsenic	R1938714	J3
	WG566511	SAMP	Barium	R1938714	V
L547797-10	WG566679	SAMP	Chromium, Hexavalent	R1942994	JP1
	WG566487	SAMP	Mercury	R1940556	J
	WG566509	SAMP	Benzene	R1940073	J
	WG566692	SAMP	pH	R1941655	T8

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.
V	(ESC) - Additional QC Info: The sample concentration is too high to evaluate accurate spike recoveries.

Qualifier Report Information

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

Definitions

- Accuracy** - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision** - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate** - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC** - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

OXY USA WTP LP. -
Grand Junction, CO
760 Horizon Dr., Ste 101
Grand Junction, CO 81506

Alternate billing information:
CO Table 910

Report to:

Abis Collins
Email to: David Collins @oxy.com

City/State
Collected Parachute

ESC Key:

Project Description: 608-43-31-P1
Phone: (970) 263-3601
FAX:

Client Project #:
805460013.012

Collected by: CTS

Site/Facility ID#:

P.O.#:

Collected by (signature):

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

Date Results Needed:
Email? No Yes
FAX? No Yes

Packed on Ice N

Sample ID	Comp/Grab	Matrix	Depth	Date	Time	No. of Cnts	V8260BTEX, GRO	DRO, SV8270PAHSIM	SAR, SPCON, pH	MRCRA8 + Cu, Ni, Zn	CR3, CR6SS	CoCode OXYGJCO (lab use only)	Template/Prelog	Shipped Via:	Remarks/Contaminant	Sample # (lab only)
608-43-31-PB-NE-D1	Grab	SS	6'	11/18/11	1308	3	X	X	X	X	X	*Hold on PAH	LSM79701			
608-43-31-PB-NE-D2	Grab	SS	8'	11/18/11	1316	3	X	X	X	X	X	*Hold on PAH				02
608-43-31-PB-SW-D1	Grab	SS	8-9'	11/18/11	1405	3	X	X	X	X	X	*Hold on PAH				03
608-43-31-PB-SW-D2	Grab	SS	10'	11/18/11	1415	3	X	X	X	X	X	*Hold on PAH				04
608-43-31-PB-SE-D1	Grab	SS	10'	11/18/11	1325	3	X	X	X	X	X	*Hold on PAH				05
608-43-31-PB-SE-D2	Grab	SS	12'	11/18/11	1335	3	X	X	X	X	X	*Hold on PAH				06
608-43-31-PB-NW-D1	Grab	SS	10'	11/18/11	1156	3	X	X	X	X	X	*Hold on PAH				07
608-43-31-PB-NW-D2	Grab	SS	12'	11/18/11	1205	3	X	X	X	X	X	*Hold on PAH				08

Matrix: SS - Soil/Solid GW - Groundwater WW - Wastewater DW - Drinking Water OT - Other

Remarks: *Please Hold all Samples on PAH

431198232019

pH _____ Temp _____

Flow _____ Other _____

Condition: (lab use only)

Relinquished by: (Signature)
Date: 11/18/11
Time: 5:00

Received by: (Signature)
Received for lab by: (Signature)

Samples returned via: ☒ UPS
Temp: 34°
Bottles Received: 30

pH Checked:

NCF:

B021

Prepared by:

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Road
Mt. Juliet, TN 37122

Phone (615) 758-5858
Phone (800) 767-5859
FAX (615) 758-5859

Chain of Custody
Page 1 of 2

OXY USA WTP LP. -
Grand Junction, CO
760 Horizon Dr., Ste 101
Grand Junction, CO 81506

Alternate billing information:

CO Table 910

Analysis/Container/Preservative

Prepared by:

Chain of Custody
Page 2 of 2



SCIENCE CORP.

12065 Lebanon Road

Mt. Juliet, TN 37122

Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

Project Description: 608-43-31 P14

Client Project #:

90576.0013.010

ESC Key:

Phone: (970) 263-3601

Collected by: CTB

Site/Facility ID#:

P.O.#:

Collected by (signature):

[Rush?] (Lab MUST Be Notified)

Date Results Needed:

Same Day..... 200%
Next Day..... 100%
☒ Two Day..... 50%

Email? ☒ No ☒ Yes
FAX? ☐ No ☐ Yes

Packed on Ice N

Sample ID

Comp/Grab

Matrix*

Depth

Date

Time

No. of Cuts

V8260BTEX, GRO

DRO, SV8270PAHSIM

SAR, SPCON, pH

MRCRA8 + Cu, Ni, Zn

CR3, CR6SS

CoCode OXYGJCO (lab use only)
Template/PrelogIn
Shipped Via:

Remarks/Contaminant

Sample # (lab only)

608-43-31-PB-C-01

Grab

SS

12'-14'

11/16/11

11:15

3

X

X

X

X

X

4 Hold on PAH

1547791-49

CO

608-43-31-PB-C-02

Grab

SS

18'

11/16/11

11:24

3

X

X

X

X

X

X Hold on PAH

1547791-49

CO

*Matrix: SS - Sol/Solid GW - Groundwater WW - Wastewater DW - Drinking Water OT - Other

Remarks: * Please hold all samples on PAH

434198230219

pH _____ Temp _____
Flow _____ Other _____

Relinquished by: (Signature)

Date: 11/16/11

Time: 5:00

Received by: (Signature)

Samples returned via: ☐ UPS ☒ FedEx ☐ Courier

Condition: (lab use only)

Temp _____

Relinquished by: (Signature)

Date: 11/16/11

Time: 5:00

Received by: (Signature)

Temp: 3.4 Boilies Received: 30

pH Checked:

NCF:

Relinquished by: (Signature)

Date: 11-19-11

Time: 09:44

Received for lab by: (Signature)

Date: 11-19-11

Time: 09:44

NCF:



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

Tax I.D. 62-0814289

Est. 1970

Brett Kennedy
Oxy USA WTP LP - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Report Summary

Friday December 24, 2010

Report Number: L493788

Samples Received: 12/15/10

Client Project:

Description: 608-43-31

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

Entire Report Reviewed By:

Mark W. Beasley, ESC Representative

Laboratory Certification Numbers

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

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

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

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



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

Brett Kennedy
Oxy USA WTP LP - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

December 24, 2010

Date Received : December 15, 2010
Description : 608-43-31
Sample ID : 608-43-31-SB-121310
Collected By : Jake Harris
Collection Date : 12/13/10 11:10

ESC Sample # : L493788-01

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	6.8			su		9045D	12/18/10	1
Sodium Adsorption Ratio	0.82					Calc.	12/20/10	1
Specific Conductance	38.			umhos/cm		9050AMo	12/20/10	1
Arsenic	5.8	0.32	1.0	mg/kg		6010B	12/24/10	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 12/24/10 15:08 Printed: 12/24/10 15:09

L493788-01 (PH) - 6.8@17.2c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Brett Kennedy
Oxy USA WTP LP - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

December 24, 2010

Date Received : December 15, 2010
Description : 608-43-31
Sample ID : 608-43-31-SEB-121310
Collected By : Jake Harris
Collection Date : 12/13/10 11:20

ESC Sample # : L493788-02

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	6.9			su		9045D	12/18/10	1
Sodium Adsorption Ratio	0.81					Calc.	12/20/10	1
Specific Conductance	33.			umhos/cm		9050AMo	12/20/10	1
Arsenic	3.2	0.32	1.0	mg/kg		6010B	12/24/10	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 12/24/10 15:08 Printed: 12/24/10 15:09

L493788-02 (PH) - 6.9@17.6c



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

Brett Kennedy
Oxy USA WTP LP - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

December 24, 2010

Date Received : December 15, 2010
Description : 608-43-31
Sample ID : 608-43-31-SWB-121310
Collected By : Jake Harris
Collection Date : 12/13/10 11:00

ESC Sample # : L493788-03

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	6.7			su		9045D	12/18/10	1
Sodium Adsorption Ratio	0.70					Calc.	12/20/10	1
Specific Conductance	26.			umhos/cm		9050AMo	12/20/10	1
Arsenic	3.3	0.32	1.0	mg/kg		6010B	12/24/10	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 12/24/10 15:08 Printed: 12/24/10 15:09
L493788-03 (PH) - 6.7@17.5c



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Brett Kennedy
Oxy USA WTP LP - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

December 24, 2010

Date Received : December 15, 2010
Description : 608-43-31
Sample ID : 608-43-31-EB-121310
Collected By : Jake Harris
Collection Date : 12/13/10 11:30

ESC Sample # : L493788-04

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	6.7			su		9045D	12/18/10	1
Sodium Adsorption Ratio	0.81					Calc.	12/20/10	1
Specific Conductance	28.			umhos/cm		9050AMo	12/20/10	1
Arsenic	2.5	0.32	1.0	mg/kg		6010B	12/24/10	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 12/24/10 15:08 Printed: 12/24/10 15:09
L493788-04 (PH) - 6.7@17.5c

Summary of Remarks For Samples Printed
12/24/10 at 15:09:08

TSR Signing Reports: 134
R5 - Desired TAT

Sample: L493788-01 Account: OXYWTPGJCO Received: 12/15/10 09:00 Due Date: 12/22/10 00:00 RPT Date: 12/24/10 15:08
Sample: L493788-02 Account: OXYWTPGJCO Received: 12/15/10 09:00 Due Date: 12/22/10 00:00 RPT Date: 12/24/10 15:08
Sample: L493788-03 Account: OXYWTPGJCO Received: 12/15/10 09:00 Due Date: 12/22/10 00:00 RPT Date: 12/24/10 15:08
Sample: L493788-04 Account: OXYWTPGJCO Received: 12/15/10 09:00 Due Date: 12/22/10 00:00 RPT Date: 12/24/10 15:08

