



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
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Tax I.D. 62-0814289  
  
Est. 1970

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

## Report Summary

Monday April 22, 2013

Report Number: L630253

Samples Received: 04/12/13

Client Project:

Description: LW 28-10 Line Dig

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 - 01157CA, CT - PH-0197,  
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,  
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,  
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,  
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,  
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364

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# REPORT OF ANALYSIS

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

April 22, 2013

Date Received : April 12, 2013  
Description : LW 28-10 Soil Piles

ESC Sample # : L630253-01

Sample ID : W PILE-N 0-6IN

Site ID :

Collected By : Tyson Ertel  
Collection Date : 04/11/13 09:00

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	04/17/13	1
Chromium, Trivalent	3.8	2.0	mg/kg	Calc.	04/19/13	1
ORP	24.		mV	2580 B-2011	04/16/13	1
pH	8.0		su	9045D	04/18/13	1
Sodium Adsorption Ratio	22.			Calc.	04/20/13	1
Specific Conductance	4500		umhos/cm	9050AMod	04/14/13	1
Mercury	BDL	0.020	mg/kg	7471	04/17/13	1
Arsenic	4.2	0.38	mg/kg	6010B	04/19/13	1
Barium	240	0.25	mg/kg	6010B	04/19/13	1
Cadmium	0.26	0.25	mg/kg	6010B	04/19/13	1
Chromium	3.8	0.50	mg/kg	6010B	04/19/13	1
Copper	11.	1.0	mg/kg	6010B	04/19/13	1
Lead	7.6	0.25	mg/kg	6010B	04/19/13	1
Nickel	6.1	1.0	mg/kg	6010B	04/19/13	1
Selenium	1.3	1.0	mg/kg	6010B	04/19/13	1
Silver	BDL	0.50	mg/kg	6010B	04/19/13	1
Zinc	28.	1.5	mg/kg	6010B	04/19/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	04/14/13	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	101.		% Rec.	602/8015	04/14/13	5
Benzene	BDL	0.0050	mg/kg	8260B	04/14/13	5
Toluene	BDL	0.025	mg/kg	8260B	04/14/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	04/14/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	04/14/13	5
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	04/14/13	5
Dibromofluoromethane	101.		% Rec.	8260B	04/14/13	5
a,a,a-Trifluorotoluene	103.		% Rec.	8260B	04/14/13	5
4-Bromofluorobenzene	91.3		% Rec.	8260B	04/14/13	5
TPH (GC/FID) High Fraction	8.5	4.0	mg/kg	3546/DRO	04/17/13	1
Surrogate recovery(%) o-Terphenyl	62.5		% Rec.	3546/DRO	04/17/13	1

## Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L630253-01 (PH) - 8.0@22.2c



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

April 22, 2013

Date Received : April 12, 2013  
Description : LW 28-10 Soil Piles

ESC Sample # : L630253-01

Sample ID : W PILE-N 0-6IN

Site ID :

Collected By : Tyson Ertel  
Collection Date : 04/11/13 09:00

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.036	mg/kg	8270C-SIM	04/19/13	6
Acenaphthene	BDL	0.036	mg/kg	8270C-SIM	04/19/13	6
Acenaphthylene	BDL	0.036	mg/kg	8270C-SIM	04/19/13	6
Benzo(a)anthracene	BDL	0.036	mg/kg	8270C-SIM	04/19/13	6
Benzo(a)pyrene	BDL	0.036	mg/kg	8270C-SIM	04/19/13	6
Benzo(b)fluoranthene	BDL	0.036	mg/kg	8270C-SIM	04/19/13	6
Benzo(g,h,i)perylene	BDL	0.036	mg/kg	8270C-SIM	04/19/13	6
Benzo(k)fluoranthene	BDL	0.036	mg/kg	8270C-SIM	04/19/13	6
Chrysene	BDL	0.036	mg/kg	8270C-SIM	04/19/13	6
Dibenz(a,h)anthracene	BDL	0.036	mg/kg	8270C-SIM	04/19/13	6
Fluoranthene	BDL	0.036	mg/kg	8270C-SIM	04/19/13	6
Fluorene	BDL	0.036	mg/kg	8270C-SIM	04/19/13	6
Indeno(1,2,3-cd)pyrene	BDL	0.036	mg/kg	8270C-SIM	04/19/13	6
Naphthalene	BDL	0.12	mg/kg	8270C-SIM	04/19/13	6
Phenanthrene	BDL	0.036	mg/kg	8270C-SIM	04/19/13	6
Pyrene	BDL	0.036	mg/kg	8270C-SIM	04/19/13	6
1-Methylnaphthalene	BDL	0.12	mg/kg	8270C-SIM	04/19/13	6
2-Methylnaphthalene	BDL	0.12	mg/kg	8270C-SIM	04/19/13	6
2-Chloronaphthalene	BDL	0.12	mg/kg	8270C-SIM	04/19/13	6
Surrogate Recovery						
Nitrobenzene-d5	104.		% Rec.	8270C-SIM	04/19/13	6
2-Fluorobiphenyl	103.		% Rec.	8270C-SIM	04/19/13	6
p-Terphenyl-d14	90.4		% Rec.	8270C-SIM	04/19/13	6

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 04/22/13 10:40 Printed: 04/22/13 10:40  
L630253-01 (PH) - 8.0@22.2c



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# REPORT OF ANALYSIS

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

April 22, 2013

Date Received : April 12, 2013  
Description : LW 28-10 Soil Piles

ESC Sample # : L630253-02

Sample ID : W PILE-E 0-6IN

Site ID :

Collected By : Tyson Ertel  
Collection Date : 04/11/13 09:03

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.0	mg/kg	3060A/7196A	04/17/13	1
Chromium,Trivalent	3.3	2.0	mg/kg	Calc.	04/19/13	1
ORP	29.		mV	2580 B-2011	04/16/13	1
pH	8.1		su	9045D	04/18/13	1
Sodium Adsorption Ratio	11.			Calc.	04/20/13	1
Specific Conductance	1700		umhos/cm	9050AMod	04/14/13	1
Mercury	BDL	0.020	mg/kg	7471	04/15/13	1
Arsenic	3.4	0.38	mg/kg	6010B	04/19/13	1
Barium	210	0.25	mg/kg	6010B	04/19/13	1
Cadmium	BDL	0.25	mg/kg	6010B	04/19/13	1
Chromium	3.3	0.50	mg/kg	6010B	04/19/13	1
Copper	11.	1.0	mg/kg	6010B	04/19/13	1
Lead	7.8	0.25	mg/kg	6010B	04/19/13	1
Nickel	6.8	1.0	mg/kg	6010B	04/19/13	1
Selenium	1.4	1.0	mg/kg	6010B	04/19/13	1
Silver	BDL	0.50	mg/kg	6010B	04/19/13	1
Zinc	27.	1.5	mg/kg	6010B	04/19/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	04/14/13	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	102.		% Rec.	602/8015	04/14/13	5
Benzene	BDL	0.0050	mg/kg	8260B	04/14/13	5
Toluene	BDL	0.025	mg/kg	8260B	04/14/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	04/14/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	04/14/13	5
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	04/14/13	5
Dibromofluoromethane	100.		% Rec.	8260B	04/14/13	5
a,a,a-Trifluorotoluene	101.		% Rec.	8260B	04/14/13	5
4-Bromofluorobenzene	90.5		% Rec.	8260B	04/14/13	5
TPH (GC/FID) High Fraction	BDL	20.	mg/kg	3546/DRO	04/17/13	5
Surrogate recovery(%) o-Terphenyl	68.3		% Rec.	3546/DRO	04/17/13	5

## Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L630253-02 (PH) - 8.1@21.7c



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760 Horizon Dr., Ste. 101  
Grand Junction, CO 81506

April 22, 2013

Date Received : April 12, 2013  
Description : LW 28-10 Soil Piles

ESC Sample # : L630253-02

Sample ID : W PILE-E 0-6IN

Site ID :

Collected By : Tyson Ertel  
Collection Date : 04/11/13 09:03

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	04/19/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/19/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/19/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/19/13	1
Surrogate Recovery						
Nitrobenzene-d5	104.		% Rec.	8270C-SIM	04/19/13	1
2-Fluorobiphenyl	103.		% Rec.	8270C-SIM	04/19/13	1
p-Terphenyl-d14	86.3		% Rec.	8270C-SIM	04/19/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L630253-02 (PH) - 8.1@21.7c



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

April 22, 2013

Date Received : April 12, 2013  
Description : LW 28-10 Soil Piles

ESC Sample # : L630253-03

Sample ID : W PILE-S 0-6IN

Site ID :

Collected By : Tyson Ertel  
Collection Date : 04/11/13 09:07

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.0	mg/kg	3060A/7196A	04/17/13	1
Chromium,Trivalent	3.7	2.0	mg/kg	Calc.	04/20/13	1
ORP	54.		mV	2580 B-2011	04/16/13	1
pH	7.9		su	9045D	04/18/13	1
Sodium Adsorption Ratio	21.			Calc.	04/20/13	1
Specific Conductance	4000		umhos/cm	9050AMod	04/14/13	1
Mercury	0.022	0.020	mg/kg	7471	04/15/13	1
Arsenic	4.6	0.38	mg/kg	6010B	04/20/13	1
Barium	240	0.25	mg/kg	6010B	04/20/13	1
Cadmium	BDL	0.25	mg/kg	6010B	04/20/13	1
Chromium	3.7	0.50	mg/kg	6010B	04/20/13	1
Copper	10.	1.0	mg/kg	6010B	04/20/13	1
Lead	8.1	0.25	mg/kg	6010B	04/20/13	1
Nickel	9.5	1.0	mg/kg	6010B	04/20/13	1
Selenium	BDL	1.0	mg/kg	6010B	04/20/13	1
Silver	BDL	0.50	mg/kg	6010B	04/20/13	1
Zinc	46.	1.5	mg/kg	6010B	04/20/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	04/14/13	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	102.		% Rec.	602/8015	04/14/13	5
Benzene	BDL	0.0050	mg/kg	8260B	04/14/13	5
Toluene	BDL	0.025	mg/kg	8260B	04/14/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	04/14/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	04/14/13	5
Surrogate Recovery						
Toluene-d8	107.		% Rec.	8260B	04/14/13	5
Dibromofluoromethane	101.		% Rec.	8260B	04/14/13	5
a,a,a-Trifluorotoluene	103.		% Rec.	8260B	04/14/13	5
4-Bromofluorobenzene	92.1		% Rec.	8260B	04/14/13	5
TPH (GC/FID) High Fraction	BDL	20.	mg/kg	3546/DRO	04/17/13	5
Surrogate recovery(%) o-Terphenyl	60.2		% Rec.	3546/DRO	04/17/13	5

## Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L630253-03 (PH) - 7.9@22.2c



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# REPORT OF ANALYSIS

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

April 22, 2013

Date Received : April 12, 2013  
Description : LW 28-10 Soil Piles

ESC Sample # : L630253-03

Sample ID : W PILE-S 0-6IN

Site ID :

Collected By : Tyson Ertel  
Collection Date : 04/11/13 09:07

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	04/19/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/19/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/19/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/19/13	1
Surrogate Recovery						
Nitrobenzene-d5	103.		% Rec.	8270C-SIM	04/19/13	1
2-Fluorobiphenyl	100.		% Rec.	8270C-SIM	04/19/13	1
p-Terphenyl-d14	78.0		% Rec.	8270C-SIM	04/19/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L630253-03 (PH) - 7.9@22.2c



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# REPORT OF ANALYSIS

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

April 22, 2013

Date Received : April 12, 2013  
Description : LW 28-10 Soil Piles

ESC Sample # : L630253-04

Sample ID : W PILE-W 0-6IN

Site ID :

Collected By : Tyson Ertel  
Collection Date : 04/11/13 09:10

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.0	mg/kg	3060A/7196A	04/17/13	1
Chromium,Trivalent	4.7	2.0	mg/kg	Calc.	04/20/13	1
ORP	50.		mV	2580 B-2011	04/16/13	1
pH	8.0		su	9045D	04/18/13	1
Sodium Adsorption Ratio	14.			Calc.	04/20/13	1
Specific Conductance	2900		umhos/cm	9050AMod	04/14/13	1
Mercury	BDL	0.020	mg/kg	7471	04/15/13	1
Arsenic	4.1	0.38	mg/kg	6010B	04/20/13	1
Barium	270	0.25	mg/kg	6010B	04/20/13	1
Cadmium	BDL	0.25	mg/kg	6010B	04/20/13	1
Chromium	4.7	0.50	mg/kg	6010B	04/20/13	1
Copper	10.	1.0	mg/kg	6010B	04/20/13	1
Lead	7.4	0.25	mg/kg	6010B	04/20/13	1
Nickel	10.	1.0	mg/kg	6010B	04/20/13	1
Selenium	BDL	1.0	mg/kg	6010B	04/20/13	1
Silver	BDL	0.50	mg/kg	6010B	04/20/13	1
Zinc	44.	1.5	mg/kg	6010B	04/20/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	04/14/13	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	102.		% Rec.	602/8015	04/14/13	5
Benzene	BDL	0.0050	mg/kg	8260B	04/14/13	5
Toluene	BDL	0.025	mg/kg	8260B	04/14/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	04/14/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	04/14/13	5
Surrogate Recovery						
Toluene-d8	106.		% Rec.	8260B	04/14/13	5
Dibromofluoromethane	100.		% Rec.	8260B	04/14/13	5
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	04/14/13	5
4-Bromofluorobenzene	90.1		% Rec.	8260B	04/14/13	5
TPH (GC/FID) High Fraction	BDL	20.	mg/kg	3546/DRO	04/17/13	5
Surrogate recovery(%) o-Terphenyl	58.8		% Rec.	3546/DRO	04/17/13	5

## Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L630253-04 (PH) - 8.0@21.9c





12065 Lebanon Rd.  
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Tax I.D. 62-0814289

Est. 1970

# REPORT OF ANALYSIS

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

April 22, 2013

Date Received : April 12, 2013  
Description : LW 28-10 Soil Piles

ESC Sample # : L630253-04

Sample ID : W PILE-W 0-6IN

Site ID :

Collected By : Tyson Ertel  
Collection Date : 04/11/13 09:10

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	04/19/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/19/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/19/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/19/13	1
Surrogate Recovery						
Nitrobenzene-d5	101.		% Rec.	8270C-SIM	04/19/13	1
2-Fluorobiphenyl	98.9		% Rec.	8270C-SIM	04/19/13	1
p-Terphenyl-d14	83.3		% Rec.	8270C-SIM	04/19/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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L630253-04 (PH) - 8.0@21.9c



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Est. 1970

# REPORT OF ANALYSIS

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

April 22, 2013

Date Received : April 12, 2013  
Description : LW 28-10 Soil Piles

ESC Sample # : L630253-05

Sample ID : E PILE-N 0-6IN

Site ID :

Collected By : Tyson Ertel  
Collection Date : 04/11/13 09:20

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.0	mg/kg	3060A/7196A	04/17/13	1
Chromium,Trivalent	5.2	2.0	mg/kg	Calc.	04/20/13	1
ORP	69.		mV	2580 B-2011	04/16/13	1
pH	8.0		su	9045D	04/18/13	1
Sodium Adsorption Ratio	15.			Calc.	04/20/13	1
Specific Conductance	4100		umhos/cm	9050AMod	04/14/13	1
Mercury	BDL	0.020	mg/kg	7471	04/15/13	1
Arsenic	4.2	0.38	mg/kg	6010B	04/20/13	1
Barium	250	0.25	mg/kg	6010B	04/20/13	1
Cadmium	BDL	0.25	mg/kg	6010B	04/20/13	1
Chromium	5.2	0.50	mg/kg	6010B	04/20/13	1
Copper	11.	1.0	mg/kg	6010B	04/20/13	1
Lead	7.4	0.25	mg/kg	6010B	04/20/13	1
Nickel	11.	1.0	mg/kg	6010B	04/20/13	1
Selenium	BDL	1.0	mg/kg	6010B	04/20/13	1
Silver	BDL	0.50	mg/kg	6010B	04/20/13	1
Zinc	49.	1.5	mg/kg	6010B	04/20/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	04/14/13	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	102.		% Rec.	602/8015	04/14/13	5
Benzene	BDL	0.0050	mg/kg	8260B	04/14/13	5
Toluene	BDL	0.025	mg/kg	8260B	04/14/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	04/14/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	04/14/13	5
Surrogate Recovery						
Toluene-d8	106.		% Rec.	8260B	04/14/13	5
Dibromofluoromethane	104.		% Rec.	8260B	04/14/13	5
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	04/14/13	5
4-Bromofluorobenzene	93.3		% Rec.	8260B	04/14/13	5
TPH (GC/FID) High Fraction	BDL	20.	mg/kg	3546/DRO	04/17/13	5
Surrogate recovery(%) o-Terphenyl	57.2		% Rec.	3546/DRO	04/17/13	5

## Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L630253-05 (PH) - 8.0@21.9c



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# REPORT OF ANALYSIS

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

April 22, 2013

Date Received : April 12, 2013  
Description : LW 28-10 Soil Piles

ESC Sample # : L630253-05

Sample ID : E PILE-N 0-6IN

Site ID :

Collected By : Tyson Ertel  
Collection Date : 04/11/13 09:20

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	04/19/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/19/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/19/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/19/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/19/13	1
Surrogate Recovery						
Nitrobenzene-d5	100.		% Rec.	8270C-SIM	04/19/13	1
2-Fluorobiphenyl	99.4		% Rec.	8270C-SIM	04/19/13	1
p-Terphenyl-d14	80.6		% Rec.	8270C-SIM	04/19/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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# REPORT OF ANALYSIS

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

April 22, 2013

Date Received : April 12, 2013  
Description : LW 28-10 Soil Piles

ESC Sample # : L630253-06

Sample ID : E PILE-E 0-6IN

Site ID :

Collected By : Tyson Ertel  
Collection Date : 04/11/13 09:25

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.0	mg/kg	3060A/7196A	04/17/13	1
Chromium,Trivalent	3.2	2.0	mg/kg	Calc.	04/20/13	1
ORP	71.		mV	2580 B-2011	04/16/13	1
pH	8.3		su	9045D	04/18/13	1
Sodium Adsorption Ratio	14.			Calc.	04/20/13	1
Specific Conductance	3000		umhos/cm	9050AMod	04/14/13	1
Mercury	BDL	0.020	mg/kg	7471	04/15/13	1
Arsenic	3.5	0.38	mg/kg	6010B	04/20/13	1
Barium	170	0.25	mg/kg	6010B	04/20/13	1
Cadmium	BDL	0.25	mg/kg	6010B	04/20/13	1
Chromium	3.2	0.50	mg/kg	6010B	04/20/13	1
Copper	9.3	1.0	mg/kg	6010B	04/20/13	1
Lead	7.3	0.25	mg/kg	6010B	04/20/13	1
Nickel	7.2	1.0	mg/kg	6010B	04/20/13	1
Selenium	BDL	1.0	mg/kg	6010B	04/20/13	1
Silver	BDL	0.50	mg/kg	6010B	04/20/13	1
Zinc	35.	1.5	mg/kg	6010B	04/20/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	04/14/13	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	102.		% Rec.	602/8015	04/14/13	5
Benzene	BDL	0.0050	mg/kg	8260B	04/14/13	5
Toluene	BDL	0.025	mg/kg	8260B	04/14/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	04/14/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	04/14/13	5
Surrogate Recovery						
Toluene-d8	107.		% Rec.	8260B	04/14/13	5
Dibromofluoromethane	102.		% Rec.	8260B	04/14/13	5
a,a,a-Trifluorotoluene	103.		% Rec.	8260B	04/14/13	5
4-Bromofluorobenzene	91.6		% Rec.	8260B	04/14/13	5
TPH (GC/FID) High Fraction	BDL	20.	mg/kg	3546/DRO	04/17/13	5
Surrogate recovery(%) o-Terphenyl	63.6		% Rec.	3546/DRO	04/17/13	5

## Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L630253-06 (PH) - 8.3@21.8c



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Est. 1970

# REPORT OF ANALYSIS

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

April 22, 2013

Date Received : April 12, 2013  
Description : LW 28-10 Soil Piles

ESC Sample # : L630253-06

Sample ID : E PILE-E 0-6IN

Site ID :

Collected By : Tyson Ertel  
Collection Date : 04/11/13 09:25

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	04/15/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/15/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/15/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/15/13	1
Surrogate Recovery						
Nitrobenzene-d5	91.6		% Rec.	8270C-SIM	04/15/13	1
2-Fluorobiphenyl	87.9		% Rec.	8270C-SIM	04/15/13	1
p-Terphenyl-d14	87.5		% Rec.	8270C-SIM	04/15/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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# REPORT OF ANALYSIS

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

April 22, 2013

Date Received : April 12, 2013  
Description : LW 28-10 Soil Piles

ESC Sample # : L630253-07

Sample ID : E PILE-S 0-6IN

Site ID :

Collected By : Tyson Ertel  
Collection Date : 04/11/13 09:28

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.0	mg/kg	3060A/7196A	04/17/13	1
Chromium,Trivalent	5.7	2.0	mg/kg	Calc.	04/20/13	1
ORP	86.		mV	2580 B-2011	04/16/13	1
pH	7.9		su	9045D	04/18/13	1
Sodium Adsorption Ratio	15.			Calc.	04/20/13	1
Specific Conductance	5000		umhos/cm	9050AMod	04/14/13	1
Mercury	BDL	0.020	mg/kg	7471	04/15/13	1
Arsenic	4.4	0.38	mg/kg	6010B	04/20/13	1
Barium	260	0.25	mg/kg	6010B	04/20/13	1
Cadmium	BDL	0.25	mg/kg	6010B	04/20/13	1
Chromium	5.7	0.50	mg/kg	6010B	04/20/13	1
Copper	12.	1.0	mg/kg	6010B	04/20/13	1
Lead	8.1	0.25	mg/kg	6010B	04/20/13	1
Nickel	12.	1.0	mg/kg	6010B	04/20/13	1
Selenium	BDL	1.0	mg/kg	6010B	04/20/13	1
Silver	BDL	0.50	mg/kg	6010B	04/20/13	1
Zinc	48.	1.5	mg/kg	6010B	04/20/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	04/14/13	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	102.		% Rec.	602/8015	04/14/13	5
Benzene	BDL	0.0050	mg/kg	8260B	04/14/13	5
Toluene	BDL	0.025	mg/kg	8260B	04/14/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	04/14/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	04/14/13	5
Surrogate Recovery						
Toluene-d8	106.		% Rec.	8260B	04/14/13	5
Dibromofluoromethane	103.		% Rec.	8260B	04/14/13	5
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	04/14/13	5
4-Bromofluorobenzene	89.7		% Rec.	8260B	04/14/13	5
TPH (GC/FID) High Fraction	BDL	20.	mg/kg	3546/DRO	04/17/13	5
Surrogate recovery(%) o-Terphenyl	56.1		% Rec.	3546/DRO	04/17/13	5

## Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L630253-07 (PH) - 7.9@22.0c



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Est. 1970

# REPORT OF ANALYSIS

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

April 22, 2013

Date Received : April 12, 2013  
Description : LW 28-10 Soil Piles

ESC Sample # : L630253-07

Sample ID : E PILE-S 0-6IN

Site ID :

Collected By : Tyson Ertel  
Collection Date : 04/11/13 09:28

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	04/15/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/15/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/15/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/15/13	1
Surrogate Recovery						
Nitrobenzene-d5	95.8		% Rec.	8270C-SIM	04/15/13	1
2-Fluorobiphenyl	87.6		% Rec.	8270C-SIM	04/15/13	1
p-Terphenyl-d14	92.3		% Rec.	8270C-SIM	04/15/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L630253-07 (PH) - 7.9@22.0c



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Tax I.D. 62-0814289

Est. 1970

# REPORT OF ANALYSIS

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

April 22, 2013

Date Received : April 12, 2013  
Description : LW 28-10 Soil Piles

ESC Sample # : L630253-08

Sample ID : E PILE-W 0-6IN

Site ID :

Collected By : Tyson Ertel  
Collection Date : 04/11/13 09:30

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium,Hexavalent	BDL	2.0	mg/kg	3060A/7196A	04/17/13	1
Chromium,Trivalent	4.9	2.0	mg/kg	Calc.	04/20/13	1
ORP	86.		mV	2580 B-2011	04/16/13	1
pH	8.1		su	9045D	04/18/13	1
Sodium Adsorption Ratio	16.			Calc.	04/20/13	1
Specific Conductance	3300		umhos/cm	9050AMod	04/14/13	1
Mercury	BDL	0.020	mg/kg	7471	04/15/13	1
Arsenic	5.2	0.38	mg/kg	6010B	04/20/13	1
Barium	250	0.25	mg/kg	6010B	04/20/13	1
Cadmium	BDL	0.25	mg/kg	6010B	04/20/13	1
Chromium	4.9	0.50	mg/kg	6010B	04/20/13	1
Copper	12.	1.0	mg/kg	6010B	04/20/13	1
Lead	7.4	0.25	mg/kg	6010B	04/20/13	1
Nickel	10.	1.0	mg/kg	6010B	04/20/13	1
Selenium	BDL	1.0	mg/kg	6010B	04/20/13	1
Silver	BDL	0.50	mg/kg	6010B	04/20/13	1
Zinc	47.	1.5	mg/kg	6010B	04/20/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	04/14/13	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	101.		% Rec.	602/8015	04/14/13	5
Benzene	BDL	0.0050	mg/kg	8260B	04/14/13	5
Toluene	BDL	0.025	mg/kg	8260B	04/14/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	04/14/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	04/14/13	5
Surrogate Recovery						
Toluene-d8	106.		% Rec.	8260B	04/14/13	5
Dibromofluoromethane	102.		% Rec.	8260B	04/14/13	5
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	04/14/13	5
4-Bromofluorobenzene	91.8		% Rec.	8260B	04/14/13	5
TPH (GC/FID) High Fraction	BDL	20.	mg/kg	3546/DRO	04/17/13	5
Surrogate recovery(%) o-Terphenyl	62.8		% Rec.	3546/DRO	04/17/13	5

## Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
L630253-08 (PH) - 8.1@21.8c





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Mt. Juliet, TN 37122  
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1-800-767-5859  
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Tax I.D. 62-0814289

Est. 1970

# REPORT OF ANALYSIS

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

April 22, 2013

Date Received : April 12, 2013  
Description : LW 28-10 Soil Piles

ESC Sample # : L630253-08

Sample ID : E PILE-W 0-6IN

Site ID :

Collected By : Tyson Ertel  
Collection Date : 04/11/13 09:30

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Benzo(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Benzo(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Benzo(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Benzo(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Benzo(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	04/15/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	04/15/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/15/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/15/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	04/15/13	1
Surrogate Recovery						
Nitrobenzene-d5	91.4		% Rec.	8270C-SIM	04/15/13	1
2-Fluorobiphenyl	85.7		% Rec.	8270C-SIM	04/15/13	1
p-Terphenyl-d14	90.5		% Rec.	8270C-SIM	04/15/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 04/22/13 10:40 Printed: 04/22/13 10:41  
L630253-08 (PH) - 8.1@21.8c

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L630253-01	WG656395	SAMP	ORP	R2621943	T8
L630253-02	WG656395	SAMP	ORP	R2621943	T8
	WG656209	SAMP	TPH (GC/FID) High Fraction	R2623820	O
L630253-03	WG656395	SAMP	ORP	R2621943	T8
	WG656209	SAMP	TPH (GC/FID) High Fraction	R2623820	O
L630253-04	WG656395	SAMP	ORP	R2621943	T8
	WG656209	SAMP	TPH (GC/FID) High Fraction	R2623820	O
L630253-05	WG656395	SAMP	ORP	R2621943	T8
	WG656209	SAMP	TPH (GC/FID) High Fraction	R2623820	O
L630253-06	WG656395	SAMP	ORP	R2621943	T8
	WG656209	SAMP	TPH (GC/FID) High Fraction	R2623820	O
L630253-07	WG656395	SAMP	ORP	R2621943	T8
	WG656209	SAMP	TPH (GC/FID) High Fraction	R2623820	O
L630253-08	WG656395	SAMP	ORP	R2621943	T8
	WG656209	SAMP	TPH (GC/FID) High Fraction	R2623820	O

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
0	(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.

Summary of Remarks For Samples Printed  
04/22/13 at 10:41:06

TSR Signing Reports: 134  
R5 - Desired TAT

Log BTEX by 8260 unless otherwise noted

Sample: L630253-01 Account: OXYGJCO Received: 04/12/13 09:00 Due Date: 04/19/13 00:00 RPT Date: 04/22/13 10:40  
Sample: L630253-02 Account: OXYGJCO Received: 04/12/13 09:00 Due Date: 04/19/13 00:00 RPT Date: 04/22/13 10:40  
Sample: L630253-03 Account: OXYGJCO Received: 04/12/13 09:00 Due Date: 04/19/13 00:00 RPT Date: 04/22/13 10:40  
Sample: L630253-04 Account: OXYGJCO Received: 04/12/13 09:00 Due Date: 04/19/13 00:00 RPT Date: 04/22/13 10:40  
Sample: L630253-05 Account: OXYGJCO Received: 04/12/13 09:00 Due Date: 04/19/13 00:00 RPT Date: 04/22/13 10:40  
Sample: L630253-06 Account: OXYGJCO Received: 04/12/13 09:00 Due Date: 04/19/13 00:00 RPT Date: 04/22/13 10:40  
Sample: L630253-07 Account: OXYGJCO Received: 04/12/13 09:00 Due Date: 04/19/13 00:00 RPT Date: 04/22/13 10:40  
Sample: L630253-08 Account: OXYGJCO Received: 04/12/13 09:00 Due Date: 04/19/13 00:00 RPT Date: 04/22/13 10:40