

FORM

27

Rev 6/99

State of Colorado
Oil and Gas Conservation Commission

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



#6118

FOR OGCC USE ONLY

RECEIVED
8/18/2011

SITE INVESTIGATION AND REMEDIATION WORKPLAN

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

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

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

OGCC Employee:

☐ Spill ☐ Complaint
☐ Inspection ☐ NOAV

Tracking No:

OGCC Operator Number: 66571

Name of Operator: OXY USA WTP LP

Address: 760 Horizon Dr. #101

City: Grand Junction State: CO Zip: 81506

Contact Name and Telephone:

Daniel I. Padilla

No: 970-263-3637

Fax: 970-263-3694

API Number: 05-045-10201

County: Garfield

Facility Name: MCM/83-92 (Pit)

Facility Number: 273645

Well Name: Cascade Creek

Well Number: 609-14

Location: (QtrQtr, Sec, Twp, Rng, Meridian): SWSW, Sec 9, T6S, R97W, 6 PM Latitude: 39.531847 Longitude: -108.231731

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): Not Applicable

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

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Non-crop land rangeland

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Parachute-Rhone Loams 5-30% slopes.

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Nearest surface water is an intermittent unnamed stream ~ 1094' to the Southwest.

Nearest natural drainage is ~ 480' to the South.

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

Impacted Media (check):

☐ Soils☐ Vegetation☐ Groundwater☐ Surface Water

Extent of Impact:

N/A

N/A

N/A

N/A

How Determined:

Laboratory analytical results

Visual

Visual inspection below pit liner

Visual

REMEDIALTION WORKPLAN

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

Oxy permitted the pit as a blowdown pit in August of 2004. Oxy closed this pit in late 2008 and is providing this pit closure form/plan for COGCC review/approval.

Describe how source is to be removed:

Oxy removed liquids from inside the pit; no solids were encountered. Liquids removed from the pit were disposed of at the Black Mountain Disposal Facility located near Debeque, Colorado. Oxy disposed of the pit liner at Garfield County Landfill for disposal. Based on the sampling results of the pit bottom, all analytes are found to be below allowable concentration levels except for As and sodium adsorption ratio (SAR). Although the As concentrations are above the COGCC regulated concentration, Oxy collected background samples in undisturbed locations which identified elevated concentrations of As to be above concentrations found in the pit bottom. To account for the elevated SAR the pit bottom was buried below a cap of three feet to ensure a sufficient agronomic zone is achieved.

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

Liquids were removed from the pit and no solids were encountered. Liquids present in the pit and the 30-mil high-density polyethylene liner were removed appropriately (see above). Analytical concentrations found in the pit bottom are below the COGCC's table 910-1 concentrations, except for As and SAR. The elevated concentrations of As have been found to be below As concentrations found in background samples. Oxy has submitted a Form 4 Sundry to account for this allowance. Oxy backfilled the pit with cuttings generated on-site. To account for SAR, Oxy then covered the cuttings with at least 3 ft of soil to allow for a proper agronomic zone for revegetation, this was then capped with at least 6 inches topsoil to ensure a proper seed bed. The backfilled pit was contoured to be level with the existing pad grade to minimize stormwater erosion.

Submit Page 2 with Page 1



Page 2
REMEDIAL WORKPLAN (Cont.)

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

OGCC Employee: _____

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

No groundwater was impacted by the pit. The pit was lined with a 30-mil HDPE liner. This pit was used as a blowdown pit and no solids were encountered in the pit during closure activities. During excavation of the pit liner, an Oxy contractor was present to observe the soil below the liner. The Oxy contractor collected soil samples from below the pit liner to ensure environmental impacts were not present. Laboratory analytical results are included which identify the approximate sampling location within the pit at depth and compliance with the OGCC Table 910-1 allowable concentrations, except for arsenic and SAR. Oxy collected background samples in undisturbed locations which identified elevated concentrations of arsenic to be above concentrations found in the pit bottom. To address elevated concentrations of SAR, Oxy buried the pit bottom below a cap of at least three feet of native material to ensure a sufficient agronomic zone.

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

The pit was constructed at grade with Oxy's Cascade Creek 609-14 well pad, and was approximately 15 feet deep. The pit liner was sent to the Garfield County Landfill for disposal. The reclaimed pit was contoured to be level with the pad grade to minimize stormwater runoff. Final pad reclamation will occur at the end of the life of the pad.

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

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

Oxy will monitor the site for stormwater compliance and will follow up during the next growing season to determine if revegetation efforts were successful.

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

Oxy removed all liquids within the pit and disposed of them at the Black Mountain Disposal Facility located near Debeque, Colorado. No solids were encountered during removal of the liquids from the pit. Note that the pit liner was disposed of at the Garfield County Landfill.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 10/15/2008	Date Site Investigation Completed: 12/2/2008	Date Remediation Plan Submitted: _____
Remediation Start Date: 10/29/2008	Anticipated Completion Date: _____	Actual Completion Date: _____

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

Print Name: Denise I. Padilla

Signed: _____

Title: Regulatory Advisor

Date: 8/18/11

OGCC Approved: _____

Title: FOR

Date: 08/31/2011

Chris Canfield
EPS NW Region

State of Colorado
Oil and Gas Conservation Commission

1123 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)694-2100 Fax: (303)694-2109



SUNDRY NOTICE

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

1. OGCC Operator Number: 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: 780 Horizon Drive, Suite 101 City: Grand Junction State: CO Zip: 81506	Fax: 970.263.3694	
5. API Number: 05-045-10201	OGCC Facility ID Number: 273645	
6. Well/Facility Name: MCM/83-92 (PH)	7. Well/Facility Number: 609-14	Survey Plat
8. Location (Qtr/Sec. Twp. Rng. Meridian): SWSW, Sec. 9, T6S, R97W, 6		Directional Survey
9. County: Garfield	10. Field Name: Grand Valley	Surface Explot Diagram
11. Federal, Indian or State Lease Number:		Technical Info Page
		Other Lab data, map

General Notice

<input type="checkbox"/> CHANGE OF LOCATION: Attach New Survey Plat (a change of surface rights is substantive and requires a new permit)	
Change of Surface Footage from Exterior Section Lines:	<input type="checkbox"/> FNUFSL <input type="checkbox"/> FEUFML
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 RR
Ground Elevation	Distance to nearest lease line
	Is location in a High Density Area (rule 603b)? Yes/No <input type="checkbox"/>
	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:	NUMBER
To:	
Effective Date:	
<input type="checkbox"/> ABANDONED LOCATION:	
Was location ever built? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Is site ready for inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Date Ready for inspection:	
<input type="checkbox"/> NOTICE OF CONTINUED SHUT IN STATUS	
Date well shut in or temporarily abandoned:	
Has Production Equipment been removed from site? <input type="checkbox"/> Yes <input type="checkbox"/> No	
MIT required if shut in longer than two years. Date of last MIT	
<input type="checkbox"/> SPUD DATE:	
<input type="checkbox"/> REQUEST FOR CONFIDENTIAL STATUS (if more than date casing set)	
<input type="checkbox"/> SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK	
Method used	Cementing tool setting/perf depth
Cement volume	Cement top
Cement bottom	Date
*submit cbl and cement job summaries	
<input type="checkbox"/> RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.	
Final reclamation will commence on approximately	
<input type="checkbox"/> Final reclamation is completed and site is ready for inspection.	

Technical Engineering/Environmental Notice

<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Report of Work Done
Approximate Start Date:	Date Work Completed:
Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)	
<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare
<input type="checkbox"/> 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: Apply different standard
	<input type="checkbox"/> E&P Waste Disposal
	<input type="checkbox"/> Beneficial Reuse of E&P Waste
	<input type="checkbox"/> Status Update/Change of Remediation Plans for Spills and Releases

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

Signed: Daniel I. Padilla Date: 8/18/11 Email: daniel_padilla@oxy.com
Print Name: Daniel I. Padilla Title: Regulatory Advisor

COGCC Approved:

Title: FOR

Date: 08/31/2011

CONDITIONS OF APPROVAL, IF ANY:

Ihris Canfield
EPS NW Region

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1. OGCC Operator Number: 66571	API Number: 05-045-10201
2. Name of Operator: OXY USA WTP LP	OGCC Facility ID #: 273645
3. Well/Facility Name: MCM/83-92 (Pit)	Well/Facility Number: 609-14
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): SWSW, Sec 9, T6S, R97W, 6 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 blowdown pit and will apply a different standard (see table on next page) to the COGCC Table 910-1 concentration levels for Arsenic (As). Based on post reclamation levels for As being below undisturbed background levels, Oxy's sundry will waive the COGCC Table 910-1 concentration for As. In this particular situation, the below the pit liner (Post Reclaim 9/02/2008) concentration for As is above COGCC Table 910-1 standards, but is below undisturbed background levels (see sampling locations on included location map).

The sampling method Oxy employed was to take a representative random grab sample for each background sample location. 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 9/02/2008). Based on the background sample concentrations, Oxy's sundry notice request to apply different standards to the COGCC Table 910-1 concentration levels due to elevated background concentrations for As.



OXY USA WTP LP

760 Horizon Drive, Suite 101
Grand Junction, CO 81506

609-14 Blowdown Pit

Sampling Figure




Revised: July 14, 2011 Garfield County, Colorado

0 0.025 0.05 0.075 Miles



609-14

609-14 Annex

-  Approximate Location of Blowdown Pit
-  Post Reclaim sample location
-  Background sample location another project

Pit Reclaims - Collbran

Pad #:	609-14
Sample Date:	12/30/2008
Clearance Achieved Date:	

	MCL (mg/kg)	Sample Identifications (mg/kg)				
		Post Reclaim	Background 12/13/2010	Background 12/13/2010	Background 12/13/2010	Background 12/13/2010
Organics in Soil			609-14 North	609-14 West	609-14 South	609-14 South East
TPH (GRO and DRO) - Sen Area	500		-	-	-	-
Benzene	0.17		-	-	-	-
Toluene	85		-	-	-	-
Ethylbenzene	100		-	-	-	-
Xylenes	175		-	-	-	-
Organics in Soil (PAH's)						
Acenaphthene	1000		-	-	-	-
Anthracene	1000		-	-	-	-
Benzo(A)anthracene	0.22		-	-	-	-
Benzo(B)fluoranthene	0.22		-	-	-	-
Benzo(K)fluoranthene	2.2		-	-	-	-
Benzo(A)pyrene	0.022		-	-	-	-
Chrysene	22		-	-	-	-
Dibenzo(A,H)anthracene	0.022		-	-	-	-
Fluoranthene	1000		-	-	-	-
Flourene	1000		-	-	-	-
Indeno(1,2,3,C,D)pyrene	0.22		-	-	-	-
Napthalene	23		-	-	-	-
Pyrene	1000		-	-	-	-
Inorganics in Soil						
EC	<4 mmhos/cm or 2X background		0.035	0.040	0.047	0.063
SAR	<12		0.8	0.7	0.7	0.8
pH	6-9		6.8	6.8	7.0	6.9
Metals in Soils						
Arsenic	0.39		3.7	4.3	2.0	2.3
Barium (LDNR True Total)	15000		-	-	-	-
Boron (Hot Water Soluble)	2 (mg/L)		-	-	-	-
Cadmium	70		-	-	-	-
Chromium	12000		-	-	-	-
Chromium VI	23		-	-	-	-
Copper	3100		-	-	-	-
Lead	400		-	-	-	-
Mercury	23		-	-	-	-
Molybenum	(3) - See Below					
Nickel	1600		-	-	-	-
Selenium	(3)/390		-	-	-	-
Silver	390		-	-	-	-
Zinc	23000		-	-	-	-

(3) - Per the Old COGCC Rules, "Considerations are dependent on site specific conditions"



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Est. 1970

David Spencer
Walsh Env.- Grand Junction
535 Grand Avenue

Grand Junction, CO 81501

Report Summary

Monday November 03, 2008

Report Number: L370646

Samples Received: 10/17/08

Client Project: 7830-220

Description: Pit Bottom Sampling

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, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

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Where applicable, sampling conducted by ESC is performed per guidance provided
in laboratory standard operating procedures: 060302, 060303, and 060304.

4 Samples Reported: 11/03/08 14:50 Printed: 11/03/08 15:43

Page 1 of 7



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REPORT OF ANALYSIS

David Spencer
Walsh Env.- Grand Junction
535 Grand Avenue
Grand Junction, CO 81501

November 03, 2008

Date Received : October 17, 2008
Description : Pit Bottom Sampling

Sample ID : 609-14

Collected By : David Spencer
Collection Date : 10/15/08 12:25

ESC Sample # : L370646-01

Site ID :

Project # : 7830-220

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.3		su	9045D	10/18/08	1
Sodium Adsorption Ratio	3.6			Calc.	10/27/08	1
Specific Conductance	1200		umhos/cm	9050AMod	10/22/08	1
Mercury	BDL	0.020	mg/kg	7471	10/24/08	1
Arsenic	1.2	1.0	mg/kg	6010B	10/21/08	1
Beryllium	0.60	0.10	mg/kg	6010B	10/21/08	1
Cadmium	0.50	0.25	mg/kg	6010B	10/21/08	1
Chromium	23.	0.50	mg/kg	6010B	10/21/08	1
Copper	14.	1.0	mg/kg	6010B	10/21/08	1
Lead	12.	0.25	mg/kg	6010B	10/21/08	1
Molybdenum	0.80	0.25	mg/kg	6010B	10/21/08	1
Nickel	12.	1.0	mg/kg	6010B	10/21/08	1
Selenium	1.4	1.0	mg/kg	6010B	10/21/08	1
Silver	BDL	0.50	mg/kg	6010B	10/21/08	1
Zinc	39.	1.5	mg/kg	6010B	10/21/08	1
Benzene	BDL	0.0025	mg/kg	8021/8015	10/23/08	5
Toluene	BDL	0.025	mg/kg	8021/8015	10/23/08	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	10/23/08	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	10/23/08	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	10/23/08	5
Surrogate Recovery-%						
a,a,a-Trifluorotoluene(FID)	93.3		% Rec.	8021/8015	10/23/08	5
a,a,a-Trifluorotoluene(PID)	101.		% Rec.	8021/8015	10/23/08	5
TPH (GC/FID) High Fraction	46.	4.0	mg/kg	3546/DRO	10/23/08	1
Surrogate recovery(%)						
o-Terphenyl	76.4		% Rec.	3546/DRO	10/23/08	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: 11/03/08 14:50 Printed: 11/03/08 15:43
L370646-01 (PH) - 8.3@21.1c



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REPORT OF ANALYSIS

David Spencer
Walsh Env.- Grand Junction
535 Grand Avenue
Grand Junction, CO 81501

November 03, 2008

Date Received : October 17, 2008
Description : Pit Bottom Sampling

Sample ID : 609-14

Collected By : David Spencer
Collection Date : 10/15/08 12:25

ESC Sample # : L370646-02

Site ID :

Project # : 7830-220

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
SPLP Extraction	-			1312	10/22/08	1
Boron	0.35	0.25	mg/l	6010B	10/25/08	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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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: L493786

Samples Received: 12/15/10

Client Project:

Description: 609-14

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.

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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 : 609-14
Sample ID : 609-14-NB-121310
Collected By : Jake Harris
Collection Date : 12/13/10 12:00

ESC Sample # : L493786-01

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	6.8			su		9045D	12/18/10	1
Sodium Adsorption Ratio	0.83					Calc.	12/20/10	1
Specific Conductance	35.			umhos/cm		9050AMo	12/20/10	1
Arsenic	3.7	0.32	1.0	mg/kg		6010B	12/22/10	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.

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Reported: 12/24/10 15:08 Printed: 12/24/10 15:09
L493786-01 (PH) - 6.8@18.0c



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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 : 609-14
Sample ID : 609-14-WB-121310
Collected By : Jake Harris
Collection Date : 12/13/10 12:10

ESC Sample # : L493786-02

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	6.8			su		9045D	12/18/10	1
Sodium Adsorption Ratio	0.74					Calc.	12/20/10	1
Specific Conductance	40.			umhos/cm		9050AMo	12/20/10	1
Arsenic	4.3	0.32	1.0	mg/kg		6010B	12/22/10	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.

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Reported: 12/24/10 15:08 Printed: 12/24/10 15:09
L493786-02 (PH) - 6.8@17.9c



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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 : 609-14
Sample ID : 609-14-SB-121310
Collected By : Jake Harris
Collection Date : 12/13/10 12:20

ESC Sample # : L493786-03

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	7.0			su		9045D	12/18/10	1
Sodium Adsorption Ratio	0.72					Calc.	12/20/10	1
Specific Conductance	47.			umhos/cm		9050AMo	12/20/10	1
Arsenic	2.0	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

L493786-03 (PH) - 7.0@17.6c



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REPORT OF ANALYSIS

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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 : 609-14
Sample ID : 609-14-SEB-121310
Collected By : Jake Harris
Collection Date : 12/13/10 12:30

ESC Sample # : L493786-04

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	6.9			su		9045D	12/18/10	1
Sodium Adsorption Ratio	0.78					Calc.	12/20/10	1
Specific Conductance	63.			umhos/cm		9050AMo	12/20/10	1
Arsenic	2.3	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:

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

L493786-04 (PH) - 6.9@17.6c

Summary of Remarks For Samples Printed
12/24/10 at 15:09:17

TSR Signing Reports: 134
R5 - Desired TAT

Sample: L493786-01 Account: OXYWTPGJCO Received: 12/15/10 09:00 Due Date: 12/22/10 00:00 RPT Date: 12/24/10 15:08
Sample: L493786-02 Account: OXYWTPGJCO Received: 12/15/10 09:00 Due Date: 12/22/10 00:00 RPT Date: 12/24/10 15:08
Sample: L493786-03 Account: OXYWTPGJCO Received: 12/15/10 09:00 Due Date: 12/22/10 00:00 RPT Date: 12/24/10 15:08
Sample: L493786-04 Account: OXYWTPGJCO Received: 12/15/10 09:00 Due Date: 12/22/10 00:00 RPT Date: 12/24/10 15:08

