

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 2/7/2012  
Rifle COGCC  
Associated with  
doc #2597035

1. OGCC Operator Number: 10335		4. Contact Name Jess Peonio		Complete the Attachment Checklist	
2. Name of Operator: Axia Energy		Phone: (720) 746-5212		OPOGCC	
3. Address: 1430 Larimer St - #400		Fax: (720) 746-5201			
City: Denver State: CO Zip: 80202					
5. API Number 05- NA		OGCC Facility ID Number 421047		Survey Plat	
6. Well/Facility Name: Water Handling Facility		7. Well/Facility Number NA		Directional Survey	
8. Location (Qtr/Sec, Twp, Rng, Meridian): SWSE Section 23, T9S/R9SW				Surface Equipmt Diagram	
9. County: Mesa		10. Field Name: Kimball Creek		Technical Info Page	
11. Federal, Indian or State Lease Number: NA				Other	

## General Notice

<input type="checkbox"/> CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)	
Change of Surface Footage from Exterior Section Lines:	<input type="checkbox"/> FNL/FSL <input type="checkbox"/> FEL/FWL
Change of Surface Footage to Exterior Section Lines:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Change of Bottomhole Footage from Exterior Section Lines:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Change of Bottomhole Footage to Exterior Section Lines:	<input type="checkbox"/> <input type="checkbox"/> <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 (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"/> E&P Waste Disposal	
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well	<input type="checkbox"/> Beneficial Reuse of E&P Waste	
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested	<input type="checkbox"/> Status Update/Change of Remediation Plans	
<input type="checkbox"/> Casing/Cementing Program Change	<input checked="" type="checkbox"/> Other: Wtr Transfer - Analysis	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: Jess Peonio Date: 2-7-12 Email: jpeonio@axiaenergy.com  
 Print Name: Jess Peonio Title: Regulatory Manager

COGCC Approved: \_\_\_\_\_ Title: \_\_\_\_\_ Date: 2/13/2012

CONDITIONS OF APPROVAL, IF ANY:

**COA.** Analyze produced/flowback water for GROSS ALPHA AND BETA RADIOACTIVITY EPA METHOD 900.1 analysis and submit to COGCC, referencing this Sundry #, within 45 days of the sundry approval date.

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

Received 2/7/2012  
Rifle COGCC  
Associated with  
doc #2597035

1. OGCC Operator Number: 10335 API Number: NA
2. Name of Operator: Axia Energy OGCC Facility ID # 421047
3. Well/Facility Name: Water Handling Facility Well/Facility Number: NA
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): SWSE Section 23, T9S/R95W

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

Per the Conditions of Approval of previously approved Form 4 sundry, and Produced/Flowback Water Reuse and Waste Minimization Plan, please find the attached water analysis.

**Table 2**  
**Axia Water Handling Facility**  
**Water Sample Summary**

SAMPLE SUMMARY	
Location Description	Wtr Handling Facility
Sample Type	Water Grab
Sample Date	1/30/2012

LABORATORY DATA SUMMARY		
Sample ID	AXIA WP	UNITS
Analytical Parameters		
TPH		
TPH-GRO	21.0	mg/kg
TPH-DRO	46.4	mg/kg
Total TPH	67.4	mg/kg
BTEX		
Benzene	846	µg/L
Toluene	2760	µg/L
Ethylbenzene	218	µg/L
Total Xylene	3500	µg/L
VOC		
Acetone	5170	µg/L
Bromodichloromethane	<50	µg/L
Bromoform	<50	µg/L
Chlorobenzene	<50	µg/L
Chloroethane	<50	µg/L
Chloroform	<50	µg/L
2-Chloroethyl vinyl ether	<250	µg/L
Carbon disulfide	<50	µg/L
Carbon tetrachloride	<50	µg/L
1,1-Dichloroethane	<50	µg/L
1,1-Dichloroethylene	<50	µg/L
1,2-Dichloroethane	<50	µg/L
1,2-Dichloropropane	<50	µg/L
Dibromochloromethane	<50	µg/L
cis-1,2-Dichloroethylene	<25	µg/L
cis-1,3-Dichloropropene	<50	µg/L
m-Dichlorobenzene	<50	µg/L
o-Dichlorobenzene	<50	µg/L
p-Dichlorobenzene	<50	µg/L
trans-1,2-Dichloroethylene	<50	µg/L
trans-1,3-Dichloropropene	<50	µg/L
2-Hexanone	<50	µg/L
4-Methyl-2-pentanone	<250	µg/L
Methyl bromide	<130	µg/L
Methyl chloride	<50	µg/L
Methylene chloride	<130	µg/L
Methyl ethyl ketone	<250	µg/L
Styrene	<50	µg/L
1,1,1-Trichloroethane	<50	µg/L
1,1,2,2-Tetrachloroethane	<50	µg/L
1,1,2-Trichloroethane	<50	µg/L
Tetrachloroethylene	<50	µg/L
Trichloroethylene	<50	µg/L
Vinyl chloride	<50	µg/L
Vinyl acetate	<130	µg/L
SVOC		
Benzoic acid	<95	µg/L
2-Chlorophenol	<24	µg/L
4-Chloro-3-methyl phenol	<24	µg/L
2,4-Dichlorophenol	<24	µg/L

2,4-Dimethylphenol	67.9	µg/L
2,4-Dinitrophenol	<24	µg/L
4,6-Dinitro-o-cresol	<48	µg/L
2-Methylphenol	232	µg/L
4-Methylphenol	97.8	µg/L
2-Nitrophenol	<24	µg/L
4-Nitrophenol	<36	µg/L
Pentachlorophenol	<24	µg/L
Phenol	233	µg/L
2,4,5-Trichlorophenol	<24	µg/L
2,4,6-Trichlorophenol	<24	µg/L
Acenaphthene	<24	µg/L
Acenaphthylene	<24	µg/L
Anthracene	<24	µg/L
Benzo(a)anthracene	<24	µg/L
Benzo(a)pyrene	<24	µg/L
Benzo(b)fluoranthene	<24	µg/L
Benzo(g,h,i)perylene	<24	µg/L
Benzo(k)fluoranthene	<24	µg/L
4-Bromophenyl phenyl ether	<24	µg/L
Butyl benzyl phthalate	<24	µg/L
Benzyl alcohol	27.7	µg/L
2-Chloronaphthalene	<24	µg/L
4-Chloroaniline	<24	µg/L
Chrysene	<24	µg/L
bis(2-Chloroethoxy)methane	<24	µg/L
bis(2-Chloroethyl)ether	<24	µg/L
bis(2-Chloroisopropyl)ether	<24	µg/L
4-Chlorophenyl phenyl ether	<24	µg/L
1,2-Dichlorobenzene	<24	µg/L
1,3-Dichlorobenzene	<24	µg/L
1,4-Dichlorobenzene	<24	µg/L
2,4-Dinitrotoluene	<24	µg/L
2,6-Dinitrotoluene	<24	µg/L
3,3'-Dichlorobenzidine	<24	µg/L
Dibenzo(a,h)anthracene	<24	µg/L
Dibenzofuran	4.1	µg/L
Di-n-butyl phthalate	<24	µg/L
Di-n-octyl phthalate	<24	µg/L
Diethyl phthalate	<24	µg/L
Dimethyl phthalate	<24	µg/L
bis(2-Ethylhexyl)phthalate	<24	µg/L
Fluoranthene	<24	µg/L
Fluorene	13.9	µg/L
Hexachlorobenzene	<24	µg/L
Hexachlorobutadiene	<24	µg/L
Hexachlorocyclopentadiene	<48	µg/L
Hexachloroethane	<24	µg/L
Indeno(1,2,3-cd)pyrene	<24	µg/L
Isophorone	<24	µg/L
2-Methylnaphthalene	269	µg/L
2-Nitroaniline	<24	µg/L
3-Nitroaniline	<24	µg/L
4-Nitroaniline	<24	µg/L
Naphthalene	99.2	µg/L
Nitrobenzene	<24	µg/L
N-Nitroso-di-n-propylamine	<24	µg/L
N-Nitrosodiphenylamine	<24	µg/L
Phenanthrene	<24	µg/L

**Table 2**  
**Axia Water Handling Facility**  
**Water Sample Summary**

Pyrene	<24	µg/L
1,2,4-Trichlorobenzene	<24	µg/L
<b>Dissolved Metals</b>		
Arsenic	<0.025	mg/L
Calcium	157	mg/L
Iron	2.74	mg/L
Magnesium	29.3	mg/L
Manganese	0.474	mg/L
Potassium	57.6	mg/L
Selenium	<0.050	mg/L
Sodium	7030	mg/L
<b>General Chemistry</b>		
Alkalinity, Bicarbonate	1040	mg/L
Alkalinity, Carbonate	<5.0	mg/L
Total Alkalinity	1040	mg/L
Bromide	33.5	mg/L
Chloride	12200	mg/L
Nitrogen, Nitrate	<2.3	mg/L
Nitrogen, Nitrite	<15	mg/L
Phosphate, Ortho	<3.3	mg/L
Solids, Total Dissolved	21300	mg/L
Specific Conductivity	34900	µmhos/cm
Sulfate	56.6	mg/L
pH	7.54	su

mg/l - milligrams per liter

µg/l - micrograms per liter

umhos/cm - micromhos per centimeter

su - standard units



02/07/12

## Technical Report for

**Olsson Associates**

**AXIA Water Handling Facility**

**012-0250**

**Accutest Job Number: D31495**

**Sampling Date: 01/30/12**

### Report to:

**Olsson Associates**


**shall@oaconsulting.com**

**ATTN: Stuart Hall**

**Total number of pages in report: 20**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

  
**Brad Madadian**  
**Laboratory Director**

**Client Service contact: 303-425-6021**

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Test results relate only to samples analyzed.

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Sample Summary

Olsson Associates

Job No: D31495

AXIA Water Handling Facility  
Project No: 012-0250

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D31495-1	01/30/12	18:45 SH	02/01/12	AQ	Water	AXIA WP
D31495-1F	01/30/12	18:45 SH	02/01/12	AQ	Water Filtered	AXIA WP



## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Olsson Associates

**Job No** D31495

**Site:** AXIA Buzzard Creek Spill Response

**Report Date** 2/6/2012 3:27:48 PM

On 02/01/2012, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3.1 °C. The sample was intact and properly preserved, unless noted below. An AMS Job Number of D31495 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

<b>Matrix</b> AQ	<b>Batch ID:</b> V6V606
------------------	-------------------------

- The sample was analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D31305-1MS, D31305-1MSD were used as the QC samples indicated.
- The blank spike (BS) recovery(s) of 2-Hexanone, Methyl ethyl ketone are outside control limits.
- V6V606-BS for 2-Hexanone and Methyl ethyl ketone: Analyte is over range, but it is ND in associated samples.

### Extractables by GCMS By Method SW846 8270C

<b>Matrix</b> AQ	<b>Batch ID:</b> OP5279
------------------	-------------------------

- The sample was extracted and analyzed within the recommended method holding time.
- Sample(s) D31341-15MS, D31341-15MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- The blank spike (BS) recovery(s) of Pyrene are outside control limits.
- OP5279-BS for Pyrene: Outside control limits. Compounds are ND for associated samples.

### Volatiles by GC By Method SW846 8015B

<b>Matrix</b> AQ	<b>Batch ID:</b> GGA846
------------------	-------------------------

- The sample was analyzed within the recommended method holding time.
- Sample(s) D31495-1MS, D31495-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

### Extractables by GC By Method SW846-8015B

<b>Matrix</b> AQ	<b>Batch ID:</b> OP5278
------------------	-------------------------

- The sample was extracted and analyzed within the recommended method holding time.
- Sample(s) D31341-14MS, D31341-14MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

## Metals By Method SW846 6010C

**Matrix** AQ

**Batch ID:** MP6759

- The sample was digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D31447-1MS, D31447-1MSD were used as the QC samples for the metals analysis.

## Wet Chemistry By Method EPA 300/SW846 9056

**Matrix** AQ

**Batch ID:** GP6423

- The sample was prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D31484-1MS, D31484-1MSD were used as the QC samples for the Bromide, Chloride, Nitrogen, Nitrate, Nitrogen, Nitrite, Phosphate, Ortho, Sulfate, Bromide analysis.
- D31495-1 for Nitrogen, Nitrite/Nitrate and Phosphate, Ortho: Elevated detection limit due to matrix interference.

## Wet Chemistry By Method SM20 2320B

**Matrix** AQ

**Batch ID:** GN13515

- The sample was analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D31358-1DUP, D31358-1MS, D31358-1MSD were used as the QC samples for the Alkalinity, Total as CaCO<sub>3</sub> analysis.

**Matrix** AQ

**Batch ID:** GN13520

- The sample was analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

**Matrix** AQ

**Batch ID:** GN13521

- The sample was analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

## Wet Chemistry By Method SM20 2510B

**Matrix** AQ

**Batch ID:** GP6428

- The sample was prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D31495-1DUP were used as the QC samples for the Specific Conductivity analysis.

## Wet Chemistry By Method SM20 2540C

**Matrix** AQ

**Batch ID:** GN13519

- The sample was analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D31485-1DUP were used as the QC samples for the Solids, Total Dissolved analysis.

## Wet Chemistry By Method SM20 4500H

**Matrix** AQ

**Batch ID:** GN13506

- The following sample was ran outside of holding time for method SM20 4500H: D31495-1

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

### Sample Results

### Report of Analysis

## Report of Analysis

Page 1 of 2

<b>Client Sample ID:</b>	AXIA WP	<b>Date Sampled:</b>	01/30/12
<b>Lab Sample ID:</b>	D31495-1	<b>Date Received:</b>	02/01/12
<b>Matrix:</b>	AQ - Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AXIA Water Handling Facility		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6V11491.D	25	02/02/12	BR	n/a	n/a	V6V606
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	5170	250	130	ug/l	
71-43-2	Benzene	846	25	13	ug/l	
75-27-4	Bromodichloromethane	ND	50	13	ug/l	
75-25-2	Bromoform	ND	50	13	ug/l	
108-90-7	Chlorobenzene	ND	50	13	ug/l	
75-00-3	Chloroethane	ND	50	13	ug/l	
67-66-3	Chloroform	ND	50	13	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	250	130	ug/l	
75-15-0	Carbon disulfide	ND	50	35	ug/l	
56-23-5	Carbon tetrachloride	ND	50	13	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	13	ug/l	
75-35-4	1,1-Dichloroethylene	ND	50	19	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	13	ug/l	
78-87-5	1,2-Dichloropropane	ND	50	13	ug/l	
124-48-1	Dibromochloromethane	ND	50	13	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	25	8.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	50	13	ug/l	
541-73-1	m-Dichlorobenzene	ND	50	13	ug/l	
95-50-1	o-Dichlorobenzene	ND	50	14	ug/l	
106-46-7	p-Dichlorobenzene	ND	50	13	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	50	23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	50	13	ug/l	
100-41-4	Ethylbenzene	218	50	13	ug/l	
591-78-6	2-Hexanone	ND	50	13	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	250	63	ug/l	
74-83-9	Methyl bromide	ND	130	73	ug/l	
74-87-3	Methyl chloride	ND	50	15	ug/l	
75-09-2	Methylene chloride	ND	130	63	ug/l	
78-93-3	Methyl ethyl ketone	ND	250	63	ug/l	
100-42-5	Styrene	ND	50	13	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	50	13	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	13	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> AXIA WP	<b>Date Sampled:</b> 01/30/12
<b>Lab Sample ID:</b> D31495-1	<b>Date Received:</b> 02/01/12
<b>Matrix:</b> AQ - Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> AXIA Water Handling Facility	

## VOA HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	50	13	ug/l	
127-18-4	Tetrachloroethylene	ND	50	13	ug/l	
108-88-3	Toluene	2760	50	25	ug/l	
79-01-6	Trichloroethylene	ND	50	13	ug/l	
75-01-4	Vinyl chloride	ND	50	19	ug/l	
108-05-4	Vinyl Acetate	ND	130	63	ug/l	
1330-20-7	Xylene (total)	3500	100	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	87%		67-131%
2037-26-5	Toluene-D8	96%		65-130%
460-00-4	4-Bromofluorobenzene	126%		65-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 3

<b>Client Sample ID:</b>	AXIA WP	<b>Date Sampled:</b>	01/30/12
<b>Lab Sample ID:</b>	D31495-1	<b>Date Received:</b>	02/01/12
<b>Matrix:</b>	AQ - Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270C SW846 3510C		
<b>Project:</b>	AXIA Water Handling Facility		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G106414.D	5	02/02/12	DC	02/01/12	OP5279	E1G602
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

## ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	95	36	ug/l	
95-57-8	2-Chlorophenol	ND	24	2.8	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	24	2.4	ug/l	
120-83-2	2,4-Dichlorophenol	ND	24	2.5	ug/l	
105-67-9	2,4-Dimethylphenol	67.9	24	4.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	19	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	48	24	ug/l	
95-48-7	2-Methylphenol	232	24	2.6	ug/l	
106-44-5	4-Methylphenol	97.8	24	2.4	ug/l	
88-75-5	2-Nitrophenol	ND	24	2.7	ug/l	
100-02-7	4-Nitrophenol	ND	36	14	ug/l	
87-86-5	Pentachlorophenol	ND	24	3.3	ug/l	
108-95-2	Phenol	233	24	2.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	24	3.7	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	24	2.8	ug/l	
83-32-9	Acenaphthene	ND	24	3.0	ug/l	
208-96-8	Acenaphthylene	ND	24	3.0	ug/l	
120-12-7	Anthracene	ND	24	2.4	ug/l	
56-55-3	Benzo(a)anthracene	ND	24	2.4	ug/l	
50-32-8	Benzo(a)pyrene	ND	24	2.4	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	24	2.4	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	24	2.7	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	24	2.4	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	24	2.4	ug/l	
85-68-7	Butyl benzyl phthalate	ND	24	2.4	ug/l	
100-51-6	Benzyl Alcohol	27.7	24	3.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	24	3.1	ug/l	
106-47-8	4-Chloroaniline	ND	24	2.4	ug/l	
218-01-9	Chrysene	ND	24	2.4	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	24	3.3	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	24	3.4	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	24	3.2	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AXIA WP	<b>Date Sampled:</b>	01/30/12
<b>Lab Sample ID:</b>	D31495-1	<b>Date Received:</b>	02/01/12
<b>Matrix:</b>	AQ - Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270C SW846 3510C		
<b>Project:</b>	AXIA Water Handling Facility		

## ABN HSL List

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	24	2.7	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	24	3.5	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	24	4.3	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	24	3.6	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	24	2.4	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	24	2.4	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	24	2.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	24	3.9	ug/l	
132-64-9	Dibenzofuran	4.1	24	2.8	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	24	2.5	ug/l	
117-84-0	Di-n-octyl phthalate	ND	24	2.5	ug/l	
84-66-2	Diethyl phthalate	ND	24	2.4	ug/l	
131-11-3	Dimethyl phthalate	ND	24	2.4	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	24	8.1	ug/l	
206-44-0	Fluoranthene	ND	24	3.6	ug/l	
86-73-7	Fluorene	13.9	24	2.8	ug/l	J
118-74-1	Hexachlorobenzene	ND	24	2.4	ug/l	
87-68-3	Hexachlorobutadiene	ND	24	3.8	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	48	24	ug/l	
67-72-1	Hexachloroethane	ND	24	4.8	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	24	7.8	ug/l	
78-59-1	Isophorone	ND	24	2.9	ug/l	
91-57-6	2-Methylnaphthalene	269	24	3.4	ug/l	
88-74-4	2-Nitroaniline	ND	24	2.4	ug/l	
99-09-2	3-Nitroaniline	ND	24	2.8	ug/l	
100-01-6	4-Nitroaniline	ND	24	2.7	ug/l	
91-20-3	Naphthalene	99.2	24	3.7	ug/l	
98-95-3	Nitrobenzene	ND	24	3.3	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	24	3.3	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	24	2.4	ug/l	
85-01-8	Phenanthrene	ND	24	2.4	ug/l	
129-00-0	Pyrene	ND	24	2.4	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	24	4.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	52%		10-130%
4165-62-2	Phenol-d5	39%		10-136%
118-79-6	2,4,6-Tribromophenol	80%		10-153%
4165-60-0	Nitrobenzene-d5	91%		10-130%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



**Report of Analysis**

Page 3 of 3

<b>Client Sample ID:</b>	AXIA WP	<b>Date Sampled:</b>	01/30/12
<b>Lab Sample ID:</b>	D31495-1	<b>Date Received:</b>	02/01/12
<b>Matrix:</b>	AQ - Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8270C SW846 3510C		
<b>Project:</b>	AXIA Water Handling Facility		

**ABN HSL List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	80%		10-130%
1718-51-0	Terphenyl-d14	99%		13-130%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	AXIA WP	<b>Date Sampled:</b>	01/30/12
<b>Lab Sample ID:</b>	D31495-1	<b>Date Received:</b>	02/01/12
<b>Matrix:</b>	AQ - Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8015B		
<b>Project:</b>	AXIA Water Handling Facility		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA15056.D	10	02/02/12	SK	n/a	n/a	GGA846
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	21.0	2.0	1.0	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	107%		60-140%		

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	AXIA WP	<b>Date Sampled:</b>	01/30/12
<b>Lab Sample ID:</b>	D31495-1	<b>Date Received:</b>	02/01/12
<b>Matrix:</b>	AQ - Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846-8015B SW846 3510C		
<b>Project:</b>	AXIA Water Handling Facility		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH000983.D	1	02/03/12	TR	02/01/12	OP5278	GFH38
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	46.4	0.38	0.30	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	88%		25-146%		

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: AXIA WP

Lab Sample ID: D31495-1

Matrix: AQ - Water

Date Sampled: 01/30/12

Date Received: 02/01/12

Percent Solids: n/a

Project: AXIA Water Handling Facility

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	1040	5.0	mg/l	1	02/02/12	JK	SM20 2320B
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	02/02/12	JK	SM20 2320B
Alkalinity, Total as CaCO <sub>3</sub>	1040	5.0	mg/l	1	02/02/12	JK	SM20 2320B
Bromide	33.5	10	mg/l	50	02/01/12 13:45	GH	EPA 300/SW846 9056
Chloride	12200	250	mg/l	500	02/01/12 19:09	GH	EPA 300/SW846 9056
Fluoride	16.2	10	mg/l	50	02/01/12 13:45	GH	EPA 300/SW846 9056
Nitrogen, Nitrate <sup>a</sup>	< 2.3	2.3	mg/l	50	02/01/12 13:45	GH	EPA 300/SW846 9056
Nitrogen, Nitrite <sup>a</sup>	< 15	15	mg/l	250	02/01/12 18:58	GH	EPA 300/SW846 9056
Phosphate, Ortho <sup>a</sup>	< 3.3	3.3	mg/l	50	02/01/12 13:45	GH	EPA 300/SW846 9056
Solids, Total Dissolved	21300	10	mg/l	1	02/02/12	CJ	SM20 2540C
Specific Conductivity	34900	1.0	umhos/cm	1	02/02/12	JK	SM20 2510B
Sulfate	56.6	25	mg/l	50	02/01/12 13:45	GH	EPA 300/SW846 9056
pH	7.54		su	1	02/01/12 12:15	JK	SM20 4500H

(a) Elevated detection limit due to matrix interference.

RL = Reporting Limit

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b> AXIA WP	<b>Date Sampled:</b> 01/30/12
<b>Lab Sample ID:</b> D31495-1F	<b>Date Received:</b> 02/01/12
<b>Matrix:</b> AQ - Water Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> AXIA Water Handling Facility	

## Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 25	25	ug/l	1	02/01/12	02/02/12 JB	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>
Calcium	157000	400	ug/l	1	02/01/12	02/02/12 JB	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>
Iron	2740	70	ug/l	1	02/01/12	02/02/12 JB	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>
Magnesium	29300	200	ug/l	1	02/01/12	02/02/12 JB	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>
Manganese	474	5.0	ug/l	1	02/01/12	02/02/12 JB	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>
Potassium	57600	1000	ug/l	1	02/01/12	02/02/12 JB	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>
Selenium	< 50	50	ug/l	1	02/01/12	02/02/12 JB	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>
Sodium	7030000	4000	ug/l	10	02/01/12	02/02/12 JB	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA2158

(2) Prep QC Batch: MP6759

RL = Reporting Limit

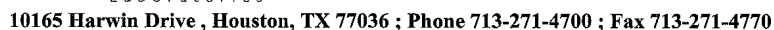
## Misc. Forms

### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



1 ok

## 4.1

Page 1 of 3

# Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D31495

Client: OLSSON

Immediate Client Services Action Required: No

Date / Time Received: 2/1/2012 9:00:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: AXIA

Airbill #'s: FEDEX

## Cooler Security

Y or N

Y or N

- |                           |                                     |                          |                       |                                     |                          |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

## Cooler Temperature

Y or N

- |                              |                                     |                          |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | Infrared gun                        |                          |
| 3. Cooler media:             | Ice (bag)                           |                          |

## Quality Control Preservation

Y or N

N/A

- |                                 |                                     |                          |                                     |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/>            | <input type="checkbox"/> |                                     |
| 2. Trip Blank listed on COC:    | <input type="checkbox"/>            | <input type="checkbox"/> |                                     |
| 3. Samples preserved property:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 4. VOCs headspace free:         | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

## Sample Integrity - Documentation

Y or N

- |  |                                     |                          |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

## Sample Integrity - Condition

Y or N

- |                                  |                                     |                          |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample:          | Intact                              |                          |

## Sample Integrity - Instructions

Y or N N/A

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume rec'd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Comments



**Job Change Order: D31495\_2/7/2012**

<b>Requested</b>	2/7/2012	<b>Received Date:</b>	2/1/2012
<b>Account Name:</b>	Olsson Associates	<b>Due Date:</b>	2/3/2012
<b>Project</b>	AXIA Buzzard Creek Spill Response	<b>Deliverable:</b>	COMMBN
<b>CSR:</b>	RR	<b>TAT (Days):</b>	0
<b>Sample #:</b> D31495-ALL	<b>Change:</b> Please change the project name from AXIA Buzzard Creek Spill Response to AXIA Water Handling Facility per an email from Stuart Hall 2/7/12 and reissue report. Thank you.		

**Above Changes Per:** Stuart Hall-Client **Date:** 2/7/2012

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

Page 1 of 1

**D31495: Chain of Custody**  
**Page 3 of 3**