

FORM
27
Rev 6/99

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



#7717

FOR OGCC USE ONLY

RECEIVED
4/9/2013

OGCC Employee:

Spill Complaint
 Inspection NOAV

Tracking No: 2231734

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

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 Operator Number: <u>10335</u>	Contact Name and Telephone: _____
Name of Operator: <u>Axia Energy, LLC</u>	<u>Jess Peonio</u>
Address: <u>1430 Larimer St - #400</u>	No: <u>(720) 746-5212</u>
City: <u>Denver</u> State: <u>CO</u> Zip: <u>80202</u>	Fax: <u>(720) 746-5200</u>

API Number: <u>NA - Facility</u>	County: <u>Moffat</u>
Facility Name: <u>Bulldog #5-31H-790 Completion Pit</u>	Facility Number: <u>COGCC Pit #429725</u>
Well Name: <u>NA</u>	Well Number: <u>NA</u>
Location: (QtrQtr, Sec, Twp, Rng, Meridian): <u>NWNE, Sec 5, T7N/R90W</u> Latitude: <u>40.600627</u> Longitude: <u>-107.512497</u>	

TECHNICAL CONDITIONS

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

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

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Dry Land Farming

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: 77: Forelle loam: 3-12%

Potential receptors (water wells within 1/4 mi, surface waters, etc.): No Water Wells within 1/2 mile - Intermittent drainage "Coon Gulch" +/- 1,000'

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

Impacted Media (check):	Extent of Impact:	How Determined:
<input checked="" type="checkbox"/> Soils	<u>759 sq. ft x 3 inches (estimated)</u>	<u>Visual</u>
<input type="checkbox"/> Vegetation	_____	_____
<input type="checkbox"/> Groundwater	_____	_____
<input type="checkbox"/> Surface Water	_____	_____

REMEDATION WORKPLAN

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

When investigation completed, the damaged 300 bbl tank and tank containment was removed. There was no standing or free water identified for clean-up.

Describe how source is to be removed:

When snow cover is no longer present, Axia energy will remove any contaminated gravel and/or soil and dispose at properly licensed disposal location.

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.:

Axia Energy will remove any contaminated gravel or soil associated with the release and properly dispose at a licensed disposal location. To insure all contaminated soil is removed, soil sampling will occur and be compared to representative baseline sampling in the area, if necessary, to comply with COGCC requirements.

Submit Page 2 with Page 1



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

Page 2 REMEDIATION WORKPLAN (Cont.)

OGCC Employee: _____

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

There is no indication that groundwater has been impacted. Depth to groundwater based on researching existing water wells nearest facility (greater than 1/2 mile) is determined to be 240'.

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.

Release occurred at existing facility and previously disturbed area that is not planned for reclamation at the current time.

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:

Snow cover has not allowed for full investigation of the site and impacts at the current time. Soil sample results to verify the remediation of impacts will be submitted in a follow up Form 27 once taken and analyzed.

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

TBD - will utilize a licensed disposal facility for any contaminated soil disposal.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 1/6/13 Date Site Investigation Completed: _____ Date Remediation Plan Submitted: 3/27/13 Remediation Start Date: Est 5/1/13 Anticipated Completion Date: 6/1/13 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: Jess Peonio Signed: [Signature] Title: Regulatory Manager Date: 3/27/13

OGCC Approved: Alex Fischer Title: Enviro. Supervisor Date: 4/11/2013 Western Colorado

COMMENTS AND CONDITIONS OF APPROVAL (COAs) FOR FORM 27

Axia Energy LLC

Bulldog 5-31-H Drilling and Multi-Well Pit-FACILITY ID 429725 and Spill Tracking Number 2231734

NWNE SEC 6 T7N R90W

Typically, prior to the Operator conducting a site investigation per Rule 909.c. the COGCC is allowed opportunity to review the Form 27 Site Investigation Remediation Workplan for approval. Please review the 900 Series Rules (in particular 906, 909, and 910). The following comments and COAs are in response to the Form 27 submitted on March 27, 2013.

INCIDENT BACKGROUND

Visual observations by COGCC staff noted that the compromised liners were burnt essentially to the fluid (condensate and water) level.

COMPLETIONS PIT & LINERS

Axia states that a thorough investigation was completed of the burnt and compromised pit liner and the potential upper liner compromise near the sump.

COA-Provide a report of the “thorough investigation” detailing how the investigation was conducted, locations and depth of samples that were collected, constituents that were analyzed. The report should include a summary table of the analytical results in addition to the complete analytical report. There should be discussion on the rationale for determining the sample locations. Was this based on visual and or the use of a photo ionization detector (PID)?

Ongoing /Future investigation and remediation recommended:

Sampling Sites #1, #2, and #3 –

It is unclear about the sampling locations and whether discrete samples were collected or if the samples were combined into one sample for each of the Sample Sites.

COA-The COGCC will require discrete samples and not combined samples for analysis of the 910-1 constituents.

UNLOADING TANK/MANIFOLD/CONTAINMENT

Axia states that a thorough investigation of potential contamination was completed with no significant indication of fluid release to the ground surface. During the January 3, 2013, COGCC inspection, there was visual staining of oil/condensate on the ground near the 300 bbl tank, secondary containment, and area immediately to the northwest of where the 300 bbl tank was lying outside of the secondary containment.

COMMENTS AND CONDITIONS OF APPROVAL (COAs) FOR FORM 27

Axia Energy LLC

Bulldog 5-31-H Drilling and Multi-Well Pit-FACILITY ID 429725 and Spill Tracking Number 2231734

NWNE SEC 6 T7N R90W

It is unclear whether the five (5) samples have already been collected or are proposed to be collected.

COA-The COGCC will be requiring discrete samples and not combined samples for analysis of the 910-1 constituents.

COA-Provide a report of the “thorough investigation” detailing how the investigation was conducted, locations and the depth of samples that were collected, constituents that were analyzed. The report should include a summary table of the analytical results in addition to the complete analytical report. There should be discussion on the rationale for determining the sample locations. Was this based on visual and or the use of a photo ionization detector (PID)?

COGCC Additional Comments

Immediately after the incident, the COGCC requested that Axia collect a sample of the fluids in the pit in addition to collecting a sample of fluids from the leak detection system. During the January 3, 2013 inspection, it stated to the COGCC that there were fluids in the leak detection as a result of the compromised upper liner.

COA-Provide a discussion of the analytical results of these sampling events.

The BULLDOG #5-31h-790 COMPLETION PIT – VOLUME IN PIT 1-7-13 table indicates that fluids to the pit came from several different sources including: fresh water, pond water, water from Bocco Pond, water from Bocco Pond to frac pit, water transferred from #20, Flowback from #20 to #5, Flowback water, water from #26 to #5, transfer water.

COA-Provide a detailed description of the sources (i.e. what is truly meant by fresh water, pond water, etc). Does Axia have chemical signatures of the above mentioned fluid sources? There should be some explanation for the condensate accumulation in the pit prior to the incident.

COMMENTS AND CONDITIONS OF APPROVAL (COAs) FOR FORM 27

Axia Energy LLC

Bulldog 5-31-H Drilling and Multi-Well Pit-FACILITY ID 429725 and Spill Tracking Number 2231734

NWNE SEC 6 T7N R90W

ATTACHMENT (TO FORM 27) – 4/9/13
SITE INVESTIGATION & REMEDIATION WORKPLAN

AXIA ENERGY, LLC
BULLDOG #5-31H-790 PIT FACILITY
COGCC PIT #429725
SPILL #2231734

This document summarizes the initial response and ongoing activities conducted to assess, contain and remediate impacts associated with a potential hydrocarbon release at the Bulldog #5-31H-790 pit facility.

SITE LOCATION

The site is located in a remote area of Moffat County, Colorado. Specifically, the site is located at LT 6, Section 5, Township 7 North, Range 90 West of the 6th Principle Meridian.

INCIDENT BACKGROUND

On January 3rd, 2013, a fire and incident occurred at the Bulldog #5-31H-790 pit facility. The fire was initiated at the unloading tank/facility to the pit. The fire spread to the completion pit itself and both pit liners were burnt/compromised above the fluid level. The unloading facility/tank/containment/manifold that provided access to the pit was also damaged. Below is a summary of actions taken to date and the proposed investigation and remediation plan for both portions of the facility.

COMPLETION PIT & LINERS

Actions Taken:

Immediately following the incident, the pit was taken out of service.

An accounting of the fluid volume at the time of the incident was provided to the COGCC per request. Attached please find data related to fluid volumes stored within the pit up to and including the time of the incident.

Following the incident, all production fluid was withdrawn from the pit as soon as possible. Attached is a volumetric accounting of the fluid withdrawn from the pit, the volumes of fluid disposed of and the disposal facility that received the fluid.

A thorough investigation was completed of the burnt and compromised pit liners and the potential upper liner compromise near the sump. A preliminary analysis of soil samples collected at the facility indicate that no production fluid was released from the pit to the surface or groundwater and that all fluid remained contained within the liners.

Ongoing/Future investigation and remediation recommended:

Soil sampling has been conducted to investigate possible contamination or release to the surface at the pit facility. Axia Energy is currently awaiting the final analysis results and will submit the appropriate data to the COGCC when available. Attached please find the “as built” plat of the pit with the sampling locations with details below:

Sampling Site #1 – Three soil samples collected in the burnt pit liner area of the pit and submitted for analysis. The samples were combined for the full Table 910-1 analysis.

Sampling Site #2 – Three soil samples collected in the pit sump area and submitted for analysis. The samples were combined for the full Table 910-1 analysis.

Sampling Site #3 – Three soil samples collected as “baseline” soil samples for comparison and submitted for analysis. The samples were combined for the full Table 910-1 analysis.

Once the final soil sample analysis’ are completed, Axia Energy will provide the data to the COGCC. If no contamination of soils is detected, Axia Energy will request approval to schedule and initiate liner repair operations. Should the analysis show contamination exceeding table 910-1 criteria, a subsequent Form 27 will be submitted with remediation plans for the contaminated soil at the pit. Soils will be sampled for TPH-GRO, TPH-DRO, and COGCC Table 910-1 concentration levels.

An outline of the planned liner repair plan and diagram showing the portion of the pit liner to be repaired are provided as an attachment to this document. 72 hours prior to initiating pit liner repair/replacement, Axia Energy will provide the COGCC notice of the intended activities.

Following pit liner repair/replacement, the pit fencing will be repaired and netting will be installed prior to putting the pit into service.

A hydrostatic test will be performed with leak detection monitoring prior to putting the pit into full service.

UNLOADING TANK/MANIFOLD/CONTAINMENT

Actions Taken:

Following the investigation of the incident, the tank and containment was removed from location.

A thorough investigation of potential contamination was completed with no significant indication of fluid release to the ground surface.

Ongoing/Future investigation and remediation recommended:

Remove any visible contaminated gravel and/or soil from the location and properly dispose.

Five soil samples to be collected in the tank/manifold/containment area to adequately sample the area and have analysis completed. Sampling locations attached and shown on "as built" pit survey plat. Analysis' results to be provided to COGCC. If contamination present, a subsequent Form 27 will be submitted to the COGCC with remediation plan. Soils will be sampled for TPH-GRO, TPH-DRO, and COGCC Table 910-1 concentration levels. If contamination below table 910-1 standards, Axia Energy will request approval to reassemble tank/manifold and off-loading facility.

BULLDOG #5-31H-790 COMPLETION PIT - VOLUME IN PIT 1-7-13

DATE	VOLUME (BBLs)	COMMENTS
10/9/2012	80	Fresh water
10/10/2012	6,160	Pond water
10/11/2012	6,510	water from Booco Pond
10/12/2012	12,650	water from Booco Pond
10/13/2012	13,650	water from Booco Pond
10/14/2012	12,550	water from Booco Pond
10/15/2012	13,280	water from Booco Pond to frac pit
10/16/2012	10,980	water from Booco Pond to frac pit
10/17/2012	5,000	Pond water for frac
10/17/2012	4,920	water transferred from #20
10/18/2012	3,750	water transferred from #20
10/18/2012	7,080	water from Booco Pond
10/19/2012	5,970	water transferred from #20
10/20/2012	2,130	water transferred from #20
10/21/2012	2,640	water transferred from #20
10/22/2012	910	water transferred from #20
10/23/2012	1,880	water transferred from #20
10/24/2012	1,950	Flowback
10/25/2012	2,060	water transferred from #20
10/27/2012	1,140	water transferred from #20
10/28/2012	1,260	water transferred from #20
10/29/2012	3,390	water from Booco Pond
10/30/2012	5,210	water from Booco Pond
10/31/2012	2,320	Fresh water
11/1/2012	5,620	water from pond
11/2/2012	6,680	water from Booco Pond
11/2/2012	940	Flowback from #20 to #5
11/3/2012	1,230	Flowback from #20 to #5
11/3/2012	6,100	Water from Booco Pond
11/4/2012	1,060	Flowback from #20 to #5
11/12/2012	12,700	Fresh and pond water
11/13/2012	20,845	Pond water
11/14/2012	18,720	Pond water
11/14/2012	780	Flowback water
11/15/2012	670	Flowback water
11/15/2012	21,460	Flowback water
11/16/2012	530	Flowback water
11/16/2012	820	Flowback water
11/16/2012	16,800	Flowback water
11/17/2012	18,170	Pond water
11/17/2012	710	Flowback water
11/17/2012	690	water from #26 to #5
11/18/2012	10,200	Pond water
11/18/2012	280	water from #20 to #5
11/18/2012	500	moved watr on site
11/19/2012	5,200	water from pond
11/19/2012	2,620	water from #26 to #5
11/19/2012	780	Flowback water
11/19/2012	120	water from pond
11/20/2012	150	Flowback water
11/20/2012	970	Flowback water
11/21/2012	18,930	Pond water
11/22/2012	600	Flowback water
11/23/2012	150	Flowback water
11/23/2012	150	Flowback water
11/23/2012	18,285	Pond water
11/24/2012	80	transfer water
11/24/2012	800	Flowback water
11/24/2012	945	Pond water
TOTAL:	322,755	Total to pit prior and during frac
11/12 - 11/24	345,534	Frac volume pumped (some water brought directly to tanks for frac)
11/12 - 11/24	8,750	Pit bottom (estimated) not pumped out for frac
11/25/2012	900	transfer water from tank to pit
11/25/2012	520	Flowback water
11/26/2012	5,000	transfer water from tank to pit
11/26/2012	3,390	water from #20 to #5
11/30/2012	1,000	transfer water from tank
12/1/2012	4,670	water from #26 to #5
12/1/2012	6,000	water transfer
12/10 - 12/17	8,260	flowback water
12/19-12/27	2,996	water from #20 to #5
12/19-12/27	5,460	flowback water to pit
1/3/2013	46,946	Date of incident - estimated volume in pit

BULLDOG #5-31H-790 COMPLETION PIT - VOLUME OUT

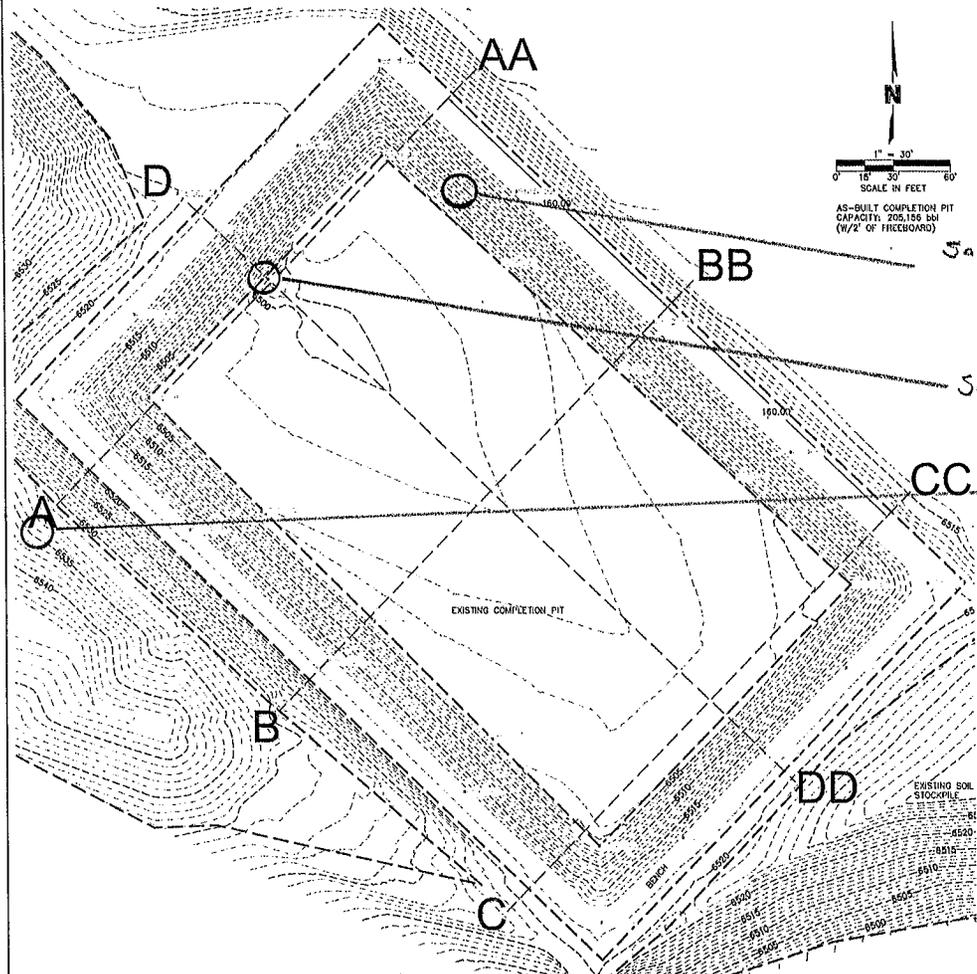
DATE	VOLUME (BBLs)	COMMENTS
1/9/2013	292	Hyland
1/9/2013	294	Hyland
1/10/2013	441	Hyland
1/10/2013	438	Hyland
1/10/2013	292	Hyland
2/8/2013	520	Hyland
2/8/2013	524	Hyland
2/8/2013	3,040	Herod
2/9/2013	392	Hyland
2/9/2013	390	Hyland
2/10/2013	437	Hyland
2/10/2013	521	Hyland
2/10/2013	520	Hyland
2/11/2013	525	Hyland
2/11/2013	441	Hyland
2/11/2013	450	Hyland
2/11/2013	520	Hyland
2/11/2013	1,080	Herod
2/12/2013	393	Hyland
2/12/2013	442	Hyland
2/12/2013	390	Hyland
2/12/2013	1,020	Herod
2/13/2013	1,110	Herod
2/14/2013	520	Hyland
2/15/2013	767	Hyland
2/16/2013	642	Hyland
2/17/2013	650	Hyland
2/17/2013	650	Hyland
2/18/2013	650	Hyland
2/18/2013	650	Hyland
2/19/2013	650	Hyland
2/19/2013	520	Hyland
2/20/2013	650	Hyland
2/21/2013	650	Hyland
2/22/2013	650	Hyland
2/23/2013	520	Hyland
2/23/2013	1,170	Hyland
2/24/2013	260	Hyland
2/24/2013	390	Hyland
2/25/2013	520	Hyland
2/25/2013	390	Hyland
2/26/2013	130	Hyland
2/26/2013	130	Hyland
2/26/2013	390	Hyland
2/27/2013	235	Hyland
2/27/2013	60	Hyland
2/27/2013	70	Hyland
2/1-28-2013	20,800	B.I. Service Group
	47,186	Volume of fluid transferred out of pit - 1/9/13 to present

PIT VOLUMES AND DISPOSAL LOCATIONS

VOLUME (BBLs)	LOCATION
29,246	GREAT DIVIDE DISPOSAL
<u>17,940</u>	<u>ELK SPRINGS DISPOSAL</u>
47,186	

* Volumes based on invoices

PIT SAMPLING LOCATIONS

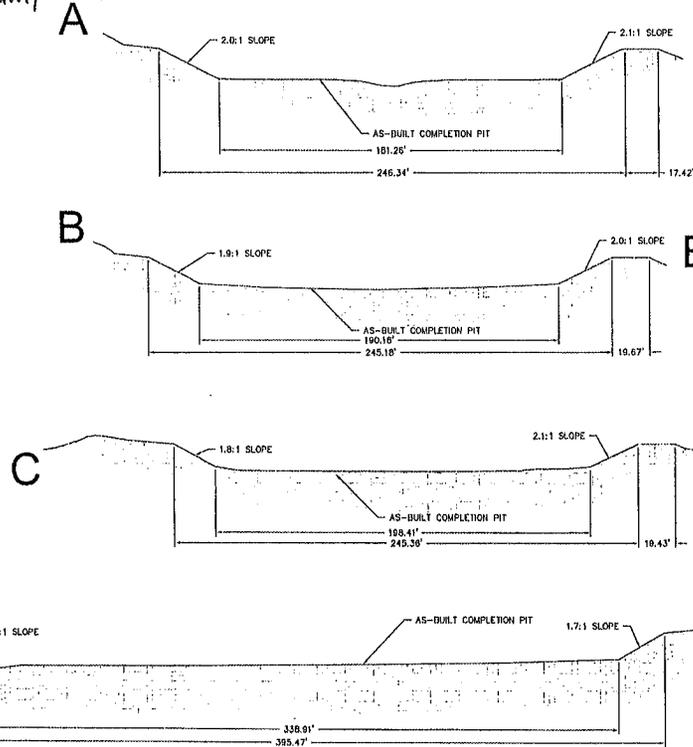


NOTES:

- AS-BUILT EXHIBIT IS BASED UPON SURVEY DATA AND OTHER PERTINENT DATA PROVIDED BY UNITAL ENGINEERING & LAND SURVEYING DATED AUGUST 29, 2012. CONSTRUCTION OBSERVATION CONDUCTED PERIODICALLY BETWEEN AUGUST 8, 2012 THROUGH AUGUST 27, 2012 AND COMPACTION TEST RESULTS PROVIDED BY H.P. GEDDECH. THE FACILITY SHOWN ON THIS AS-BUILT EXHIBIT WAS CONSTRUCTED IN COMPLIANCE WITH THE APPROVED DRAINAGE REPORT AND/OR CONSTRUCTION DRAWINGS AND ENGINEER INTENT.
- LINEWORK FOR EXHIBIT PROVIDED BY UNITAL ENGINEERING & LAND SURVEYING, 85 300 300 EAST VERONA, UT 84078, 435.789.1074

STAGE STORAGE TABLE		
ELEV.	ACCU. VOLUME (CF)	ACCU. VOLUME (GAL)
6,499.00	0	0
6,500.00	764	136
6,501.00	6,987	1,245
6,502.00	29,289	5,217
6,503.00	69,292	12,335
6,504.00	123,661	22,029
6,505.00	188,392	33,654
6,506.00	256,342	46,659
6,507.00	326,786	58,707
6,508.00	399,307	71,124
6,509.00	473,825	84,415
6,510.00	550,698	98,083
6,511.00	629,570	112,138
6,512.00	710,727	126,594
6,513.00	794,174	141,458
6,514.00	879,803	156,738
6,515.00	966,134	172,443
6,516.00	1,058,729	188,580
6,517.00	1,151,790	205,156
6,518.00	1,247,358	222,178
6,519.00	1,716,698	305,776

*MAXIMUM WATER SURFACE ELEVATION PROVIDING OF 2" FREEBOARD.



MOLSSON ASSOCIATES

MOLSSON ASSOCIATES ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS (HORIZONTAL OR VERTICAL) THE EXISTING UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PHOTOGRAPHED FROM THE BEST AVAILABLE INFORMATION. IT IS HOWEVER THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.



REVISIONS DESCRIPTION	DATE	REV.	BY

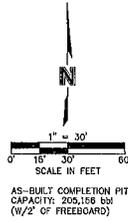
AS-BUILT AXIA ENERGY COMPLETION PIT
AXIA ENERGY COMPLETION PIT
CRAIG, COLORADO
MOFFATT COUNTY

Drawn by: _____
Checked by: _____
QC'd by: _____
Project No.: _____
Sheet No.: _____

* = TANK / CONTAINMENT / MANIFOLD SAMPLING LOCATIONS

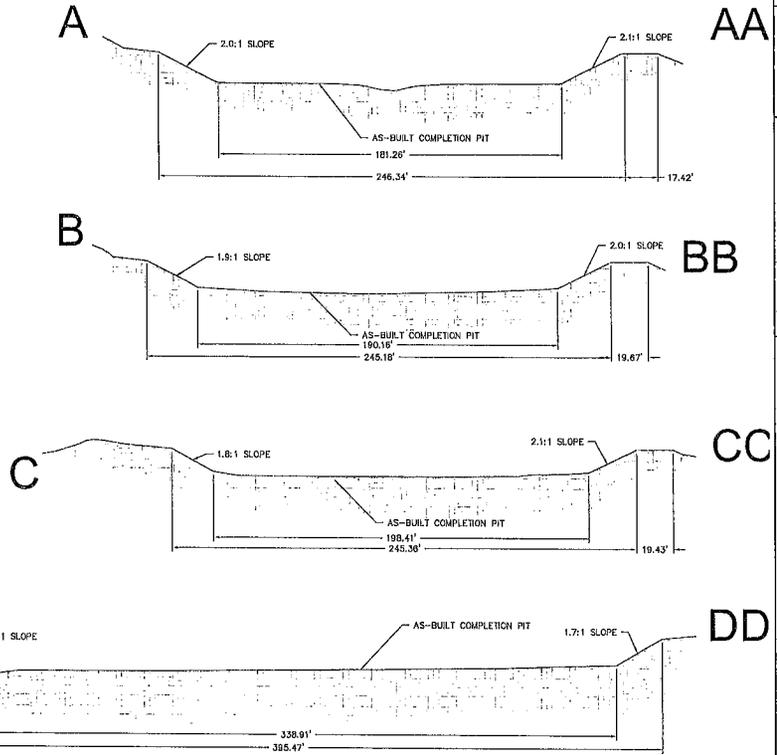
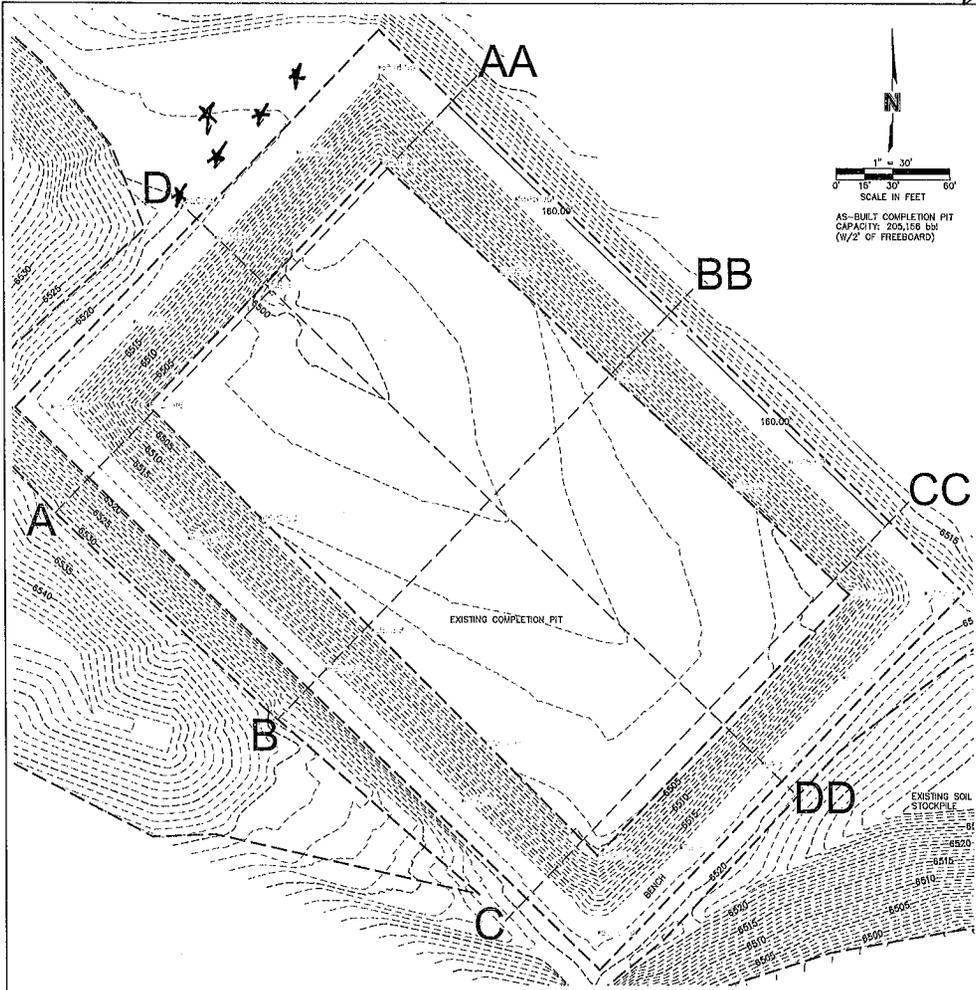
NOTES:

- AS-BUILT EXHIBIT IS BASED UPON SURVEY DATA AND OTHER PERTINENT DATA PROVIDED BY LINTECH ENGINEERING & LAND SURVEYING DATED AUGUST 29, 2012. CONSTRUCTION OBSERVATION CONDUCTED PERIODICALLY BETWEEN AUGUST 6, 2012 THROUGH AUGUST 27, 2012 AND COMPACTION TEST RESULTS PROVIDED BY H.P. GEOTECH. THE FACILITY SHOWN ON THIS AS-BUILT EXHIBIT WAS CONSTRUCTED IN COMPLIANCE WITH THE APPROVED DRAINAGE REPORT AND/OR CONSTRUCTION DRAWINGS AND ENGINEER INTENT.
- LINEWORK FOR EXHIBIT PROVIDED BY LINTECH ENGINEERING & LAND SURVEYING, 25 SO. 230 EAST, VERNAL, UT 84076, 438.798.1017



STAGE STORAGE TABLE		
ELEV	ACCUM. VOLUME (CF)	ACCUM. VOLUME (BBL)
8,499.00	0	0
8,500.00	784	136
8,501.00	6,987	1,245
8,502.00	29,289	5,217
8,503.00	69,292	12,335
8,504.00	123,681	22,028
8,505.00	188,382	33,554
8,506.00	256,342	45,659
8,507.00	326,788	58,207
8,508.00	399,307	71,124
8,509.00	473,925	84,415
8,510.00	550,658	98,083
8,511.00	629,570	112,138
8,512.00	710,727	126,594
8,513.00	794,174	141,458
8,514.00	879,983	156,739
8,515.00	968,134	172,443
8,516.00	1,058,729	188,580
8,517.00	1,151,790	205,155
8,518.00	1,247,358	222,178
8,519.00	1,716,696	305,778

* MAXIMUM WATER SURFACE ELEVATION PROVIDING OF 2' FREEBOARD.



COLLISON ASSOCIATES

COLLISON ASSOCIATES ASSURES NO RESPONSIBILITY FOR ERRORS OR OMISSIONS, EITHER HORIZONTAL OR VERTICAL, THE ENGINEER WILL BE RESPONSIBLE FOR THIS DRAWING. ANY CHANGES MADE TO THIS DRAWING SHALL BE MADE IN WRITING. THE ENGINEER'S RESPONSIBILITY IS LIMITED TO THE DESIGN OF THE CONTRACTED TO FIELD WORK. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF ANY CONSTRUCTION ACTIVITIES.



NO.	DATE	REVISION DESCRIPTION

AS-BUILT AXIA ENERGY COMPLETION PIT
AXIA ENERGY COMPLETION PIT
CRAIG, COLORADO
MOFFAT COUNTY

Drawn by: _____
Checked by: _____
Approved by: _____
Project no.: _____
Scale: _____

LIQUID LOGIC

Oil Field Services

**2482 Commerce Blvd.
Grand Junction, Co 81505
970-434-7599
970-434-7602 fax**

April 8th, 2013

Procedure to Repair Bulldog #5-31H-790

Remove all dirt and debris from existing liners, by necessary means. (Pressure washing)
Hand dig new anchor trench between existing concrete and original liner. Once existing liner is cleaned and all solid and foreign materials have been removed, Liquidlogic will then measure area to be cut matching provided panels for replacement. New geocomposite will be placed over area to be repaired. Liquidlogic will then cut panels to fit over edges by the needed material to perform a field weld to existing liner. Once the field weld has been completed each entry and exit point will be patched with 30 mil material by Leister Gun Method and an Extrusion weld to finalize patch at every entry and exit point. The next patch will be sized to fit the next layer of liner and same procedure will be used. Leak detection will be reinstalled and liner will be secured in the anchor trench and back filled.

Please reference to the drawing we have attached with this letter.

Thank You,

Rob Anderson
President

