02157029

Page 1

FORM 4
Rev 12/05

State of Colorado
Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax:(303)894-2109

RECEIVED
APR 22 2013
COGCC

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: 96850
2. Name of Operator: WPX Energy Rocky Mountain LLC
3. Address: 1058 County Road 215
City: Parachute State: CO Zip: 81635
4. Contact Name: Karolina Blaney
Phone: 970 683 2295
Fax: 970 285 9573

Complete the Attachment Checklist — OP OGCC

5. API Number 05- NA
6. Well/Facility Name:
7. OGCC Facility ID Number 422672
Well/Facility Number Mautz Ranch
8. Location (QtrQtr, Sec, Twp, Rng, Meridian): SENW S19 T2S R98W 6TH P.M.
9. County: Rio Blanco
10. Field Name: Ryan Gulch
11. Federal, Indian or State Lease Number:

Survey Plat		
Directional Survey		
Surface Eqpmt Diagram		
Technical Info Page	X	
Other		X

General Notice

☐ CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)

	FNL/FSL		FEL/FWL	
Change of **Surface** Footage **from** Exterior Section Lines:				
Change of **Surface** Footage **to** Exterior Section Lines:				
Change of **Bottomhole** Footage **from** Exterior Section Lines:				
Change of **Bottomhole** Footage **to** Exterior Section Lines:				attach directional survey

Bottomhole location Qtr/Qtr, Sec, Twp, Rng, Mer
Latitude — Distance to nearest property line — Distance to nearest bldg, public rd, utility or RR
Longitude — Distance to nearest lease line — Is location in a High Density Area (rule 603b)? Yes/No
Ground Elevation — Distance to nearest well same formation — Surface owner consultation date:

GPS DATA:
Date of Measurement — PDOP Reading — Instrument Operator's Name

☐ CHANGE SPACING UNIT

Formation	Formation Code	Spacing order number	Unit Acreage	Unit configuration

☐ Remove from surface bond
Signed surface use agreement attached

☐ CHANGE OF OPERATOR (prior to drilling):
Effective Date:
Plugging Bond: ☐ Blanket ☐ Individual

☐ CHANGE WELL NAME NUMBER
From:
To:
Effective Date:

☐ ABANDONED LOCATION:
Was location ever built? ☐ Yes ☐ No
Is site ready for Inspection? ☐ Yes ☐ No
Date Ready for Inspection:

☐ NOTICE OF CONTINUED SHUT IN STATUS
Date well shut in or temporarily abandoned:
Has Production Equipment been removed from site? ☐ Yes ☐ No
MIT required if shut in longer than two years. Date of last MIT

☐ SPUD DATE:

☐ REQUEST FOR CONFIDENTIAL STATUS (6 mos from date casing set)

☐ 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

☐ RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.
Final reclamation will commence on approximately
☐ Final reclamation is completed and site is ready for inspection.

Technical Engineering/Environmental Notice

☐ Notice of Intent
Approximate Start Date:

☒ Report of Work Done
Date Work Completed: 8/30/2012

Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)

☐ Intent to Recomplete (submit form 2)	☐ Request to Vent or Flare	☐ E&P Waste Disposal
☐ Change Drilling Plans	☐ Repair Well	☐ Beneficial Reuse of E&P Waste
☐ Gross Interval Changed?	☐ Rule 502 variance requested	☐ Status Update/Change of Remediation Plans
☐ Casing/Cementing Program Change	☒ Other: Form 15 COAs + 3 year lifespan	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: Karolina Blaney Date: 10-1-2012 Email: Karolina.Blaney@WPXEnergy.com
Print Name: Karolina Blaney Title: Environmental Specialist

COGCC Approved: David Kubyto Title: Location Assessment Specialist Date: 4-22-13
CONDITIONS OF APPROVAL, IF ANY:

FORM 4 Rev 12/05

TECHNICAL INFORMATION PAGE

FOR OGCC USE ONLY

RECEIVED
APR 22 2013
COGCC

1. OGCC Operator Number: 96850 API Number:
2. Name of Operator: WPX Energy Rocky Mountain LLC OGCC Facility ID # 422672
3. Well/Facility Name: Well/Facility Number: Mautz Ranch
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): SENW S19 T2S R98W 6TH P.M.

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**

In accordance with the Mautz Ranch Pit Permit Form 15 conditions of approval (see attached), WPX Energy is submitting the following documents in order to stay in compliance:

- COA 20 - Surface water analytical report of samples collected from the Ryan Gulch. The ditch located south of the pit was dry.
- COA 22 - Hydrotest monitoring report
- COA 27 - list of disposal facilities:

Facility Name	Permit #
GM 14-36	159262
GM 523-36	159266
GM 923-1D	159295
GM 943-1D	159296
GM 931-1D	159297
GM 239-36	159369
RMV 215-21	159388
RWF 434-21	159386
RWF 623-21	159387
Fed 299-27-5	159317
Parachute C E&P WMF	149015
Rulison C E&P WMF	149006

In order to report completion of construction and liner installation at the Mautz Ranch Multi-well pit, thereby starting the 3-year lifespan of this Form 15 permitted pit, WPX Energy is submitting the following documents:

- Colorado Lining Inc Liner Installation Reports

Pit Permit Good through 8-30-2015

Form 15

FORM 15 Rev 10/11

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109

OGCC RECEPTION

Document Number:
400267136

EARTHEN PIT REPORT / PERMIT

This form is to be used for both reporting and permitting pits. Rule 903 describes when a Permit with prior approval, or a Report within 30 days is required for pits. Submit required attachments and forms.

Form Type: [X] **PERMIT** [ ] **REPORT** OGCC PIT NUMBER: 428428

NOTE: Operator to provide OGCC Pit Number only if available on an existing pit for pit report

ATTACHMENTS

Detailed Site Plan	
Design/Cross Sec	
Topo Map	
Calculations	
Sensitive Area Info	
Mud Program	
Form 2A	
Form 26	
Water Analysis	

OGCC Operator Number: 96850 Contact Name: Karolina Blaney

Name of Operator: WPX ENERGY ROCKY MOUNTAIN LLC

Address: 1001 17TH STREET - SUITE #1200 Phone: (970) 683-2295

City: DENVER State: CO Zip: 80202 Email: karolina.blaney@wpxenergy.com

Pit Location Information

Operator's Pit/Facility Name: Mautz Ranch Operator's Pit/Facility Number:

API Number (associated well): 05- 00

OGCC Location ID (associated location): 422672 Or Form 2A #

Pit Location (QtrQtr, Sec, Twp, Rng, Meridian): SENW-19-2S-98W-6

Latitude: 39.863494 Longitude: -108.437370 County: RIO BLANCO

Operation Information

Pit Use/Type (Check all that apply): Pit Type: [X] Lined [ ] Unlined

[ ] Drilling: (Ancillary, Completion, Flowback, Reserve Pits) [ ] Oil-based Mud; [ ] Salt Sections or High Chloride Mud

[ ] Production: [ ] Skimming/Settling; [ ] Produced Water Storage; [ ] Percolation; [ ] Evaporation

[ ] Special Purpose: [ ] Flare; [ ] Emergency; [ ] Blowdown; [ ] Workover; [ ] Plugging; [ ] BS&W/Tank Bottoms

[X] Multi-Well Pit: Construction Date: 06/01/2011 Actual or Planned: Planned

Method of treatment prior to discharge into pit: Filtering

Offsite disposal of pit contents: [X] Injection; [ ] Commercial; [X] Reuse/Recycle; [ ] NPDES; Permit Number:

Other Information: THis Location Assessment is to construct a multi well pit which will be used for temporary storage of produced water that will be recycled for fracture stimulation in the Ryan Gulch Fields.

Site Conditions

Distance (in feet) to the nearest surface water: 843 Ground Water (depth): 47 Water Well: 14062

Is this location in a Sensitive Area? Yes Existing Location?

Pit Design and Construction

Size of Pit (in feet): Length: 350 Width: 150 Depth: 15 Calculated Working Volume (in barrels): 121000

Flow Rates (in bbl/day): Inflow: 2000 Outflow: Evaporation: 0 Percolation: 0

Primary Liner. Type: polyethylene Thickness (mil): 60

Seconday Liner (if present): Type: polyethylene/clay Thickness (mil): 35

Is Pit Fenced? Yes Is Pit Netted? Yes Leak Detection? Yes

Other Information:

Operator Comments:

Certification

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

Signed: Print Name: Karolina Blaney

Title: Environmental Specialist Email: karolina.blaney@wpxenergy.com Date: 03/23/2011

Approval

Signed: _____ Title: Director of Cogcc Date: 03/30/2012

BMP

Type	Comment

Total: 0 comment(s)

CONDITIONS OF APPROVAL:

FORM 15 SITE SPECIFIC AND ROAN RIM COAs:

COA 21 - Operator must comply with all provisions of the June 12, 2008 Notice to Operators (NTO) Drilling Wells Within ¾ Mile of the Rim of the Roan Plateau in Garfield County – Pit Design, Construction, and Monitoring Requirements.

COA 90 - Notify COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) and the COGCC Field Inspection Supervisor for Northwest Colorado (Shaun Kellerby; email shaun.kellerby@state.co.us) 48 hours prior to start of construction of the pad and pit.

COA 22 - After installation of the uppermost liner and prior to operating the pit, the synthetic liner(s) shall be tested by filling the pit with produced water up to 90 percent of the working capacity, not to exceed the 2-foot freeboard requirement. The operator shall monitor the pit for leaks for a period of 72 hours prior to commencing operations. Operator shall notify the COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) 48 hours prior to start of the hydrotest. Hydrotest monitoring results must be maintained by the operator for the life of the pit and provided to COGCC prior to using the pit.

COA 23 - Operator must ensure 110 percent secondary containment for any volume of fluids contained at the water handling facility site during natural gas development activities and operations; including, but not limited to, construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures (i.e., best management practices (BMPs) associated with stormwater management) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals (at least every 14 days), and maintained in good condition.

COA 5 - Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via buried or temporary surface pipelines.

COA 39 - No portion of any pit that will be used to hold liquids shall be constructed on fill material, unless the pit and fill slope are designed and certified by a professional engineer, subject to review and approval by the director prior to construction of the pit. The construction and lining of the pit shall be supervised by a professional engineer or their agent. The entire base of the pit must be in cut.

COA 47 - The completion/flowback fluids multi-well pit must be double-lined. The pit will also require a leak detection system (Rule 904.e).

COA 48 - Operator must submit a professional engineer (PE) approved/stamped as-built drawing (plan view and cross-sections) of the completion/flowback pit within 14 calendar days of construction.

COA 41 - The nearby hillside and any fill-material bermed portions of the pit must be monitored for any day-lighting of fluids throughout pit operations.

COA 49 - The completion/flowback fluids multi-well pit must be fenced and netted. The operator must maintain the fencing and netting until the pit is closed in accordance with Rule 905. Closure of Pits, and Buried or Partially Buried Produced Water Vessels.

COA 25 - Flowback and stimulation fluids must be sent to tanks to allow the sand to settle out before the fluids can be placed into any pipeline or pit. The flowback and stimulation fluid tanks must be placed on the pad in an area with additional downgradient perimeter berming. The area where flowback fluids will be stored/reused must be constructed to be sufficiently impervious to contain any spilled or released material (per Rule 604.a.(4)).

COA 27 - Submit additional disposal facilities (wells, pits, etc.) for pit contents to COGCC via a Form 4 Sundry prior to disposal.

COA 20 - Surface water samples from the ditch and Ryan Gulch (both upgradient and downgraidient of the proposed multi well pit) shall be collected prior to pit use and every 12 months to evaluate potential impacts from pit operations. At a minimum, the surface water samples will be analyze for the following parameters: major cations/anions (chloride, fluoride, sulfate, sodium); total dissolved solids (TDS); and BTEX/DRO.

COA 91 - At the time of pit closure, operator must submit disposal information via a Form 4 Sundry Notice to the COGCC Loacation Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us). The disposal method will need to be approved prior to operator starting pit closure. In addition, operator will collect a pit water sample and, at a minimum, analyze for the following parameters: pH; alkalinity; specific conductance; major cations/anions (chloride, fluoride, sulfate, sodium); total dissolved solids (TDS); BTEX/DRO; TPH; PAH's (including benzo[a]pyrene); and metals (arsenic, barium, calcium, chromium, iron, magnesium, selenium). At the time of closure/disposal of pit water, COGCC may require additional analytes, as appropriate.

Hydrostatic Test Results

Fox Engineering Solutions, Inc.

September 6, 2012

Karolina Blaney
Environmental Specialist
WPX Energy Rocky Mountain, LLC
1058 County Road 215
Parachute, CO 81635

Re: Mautz Ranch Pit – Hydrotest Results
SE ¼ NW ¼ Section 19, Township 2 South, Range 98 West, 6th P.M. Rio Blanco County, CO

Dear Karolina,

Attached are the results of the 72-hour hydrotest conducted August 27 through August 30, 2012 at WPX Energy's Mautz Ranch Pit. The hydrotest indicated no observed loss in liner system integrity. The summary results, attached, include a data and calculation sheet, survey plat with water surface area and elevation data, and an outline of the procedures employed.

As per COGCC requirements, the pit was filled with fresh water to a depth of approximately15 to 17 feet and the pit monitored for 72 hours. A weather station, consisting of a National Weather Service Class A evaporation pan and two precipitation gauges, was installed at the site. Survey data including vertical and horizontal control points along with pit water elevations and surface areas, were established and collected by Bookcliff Surveying Services, Inc.

The lining system consists of a primary 60 mil polypropylene liner and a secondary 40 mil polypropylene liner underlain with a tertiary geo-synthetic clay liner. An interstitial monitoring sump is located on the east side of the pit. Visible portions of liner, approximately the top 7 to 8 ft., had no visible tears, delamination or seam failures. The liner installation had recently been completed and appeared to be in excellent condition.

The fluid level of the pit dropped 0.300 inches over the 72-hour test duration. Correspondingly, evaporation and precipitation measurements provided a calculated or expected fluid level drop of 0.432 inches. An evaporation pan coefficient of 0.72 was applied to the gross pan evaporation.

Water levels in the interstitial monitoring sump were measured at the initiation and termination of the hydrotest. The water level in the sump did not change over the 72-hour test period. Side slope measurements to the water surface in the interstitial sump taken on August 27th and August 30th were both 45.93 ft. It was reported that construction water was present between the primary and secondary liners.

In conclusion, the hydrotest results indicated no observed loss in liner system integrity. The mass balance calculations, utilizing measured evaporation and precipitation data, correlated with the fluid level change in the pit. The interstitial monitoring sump water level showed no apparent change over the 72-hour hydrotest period. Continued monitoring of the interstitial sump is recommended.

Should you have any questions or require additional information, please let me know.

Best regards,

David Fox, P.E.
Fox Engineering Solutions, Inc.
670 Canyon Creek Drive
Grand Junction, CO 81503
Ph: (970) 250-5505 Fax (626) 784-0667
Email: coloradofox@bresnan.net

Hydrostatic Pit Testing
Data Collection & Computation Form

Fox Engineering Solutions, Inc.

Pit Owner:	WPX Energy Rocky Mountain, LLC
Pit Name:	Mautz Ranch Pit
COGCC Facility No.	
Pit Location:	SE 1/4 NW 1/4 Section 19, T2S, R98W, 6th P.M.
	Latitude: N 39.51485° Longitude: W108.26145° (NAD83)
Reported Liner:	60/40 mil Polyethylene with GCL
Approximate Elevation:	6689 ft. msl
Test Conducted By:	David Fox P.E., Fox Engineering Solutions, Inc.

Test Initiation:

Date:	8/27/2017
Time:	10:30 AM
Total Duration:	72 hours

Test Termination:

Date:	8/30/2012
Time:	10:30 AM

	Length	Width	Area		Comments
Tributary Pit Liner Surface Area (ft^2):	-	-	52,604	$ft.^2$	**Surveyed by Bookcliff Survey**
Initial Pit Water Surface Area:	-	-	42,842	$ft.^2$	**Surveyed by Bookcliff Survey**
Final Pit Water Surface Area:	-	-	42,842	$ft.^2$	**Surveyed by Bookcliff Survey**
Average Pit Surface Area:			42,842	$ft.^2$	

Initial Pit Fluid Level:		**6684.788 ft.**
Final Pit Fluid Level:		**6684.763 ft**
Difference		**0.025 ft or**
Est. Fluid Depth:	**15 - 17** ft.	**0.300 inches**

Evaporation Pan Installed: Yes	**Location:** NE side of pit	**Measured Gross Pan Evap.:** (During Test Duration)	**0.684 inches**
		Evaporation w/ Pan Coeff. 0.72 (During Test Duration)	**0.492 inches**
Rain Gauge Installed: Yes - 2 Gauges	**Location:** NE side of pit	**Recorded Precipitation:**	**0.05 inches**
		Equiv. 72-Hour Precip. Inflow:	**0.06 inches**

Other Inflow/Outflow:	**Inflow (gal)**	**0**	**Equivalent Inflow:**	**0.00 inches**
	Outflow (gal)	**0**	**Equivalent Outflow:**	**0.00 inches**

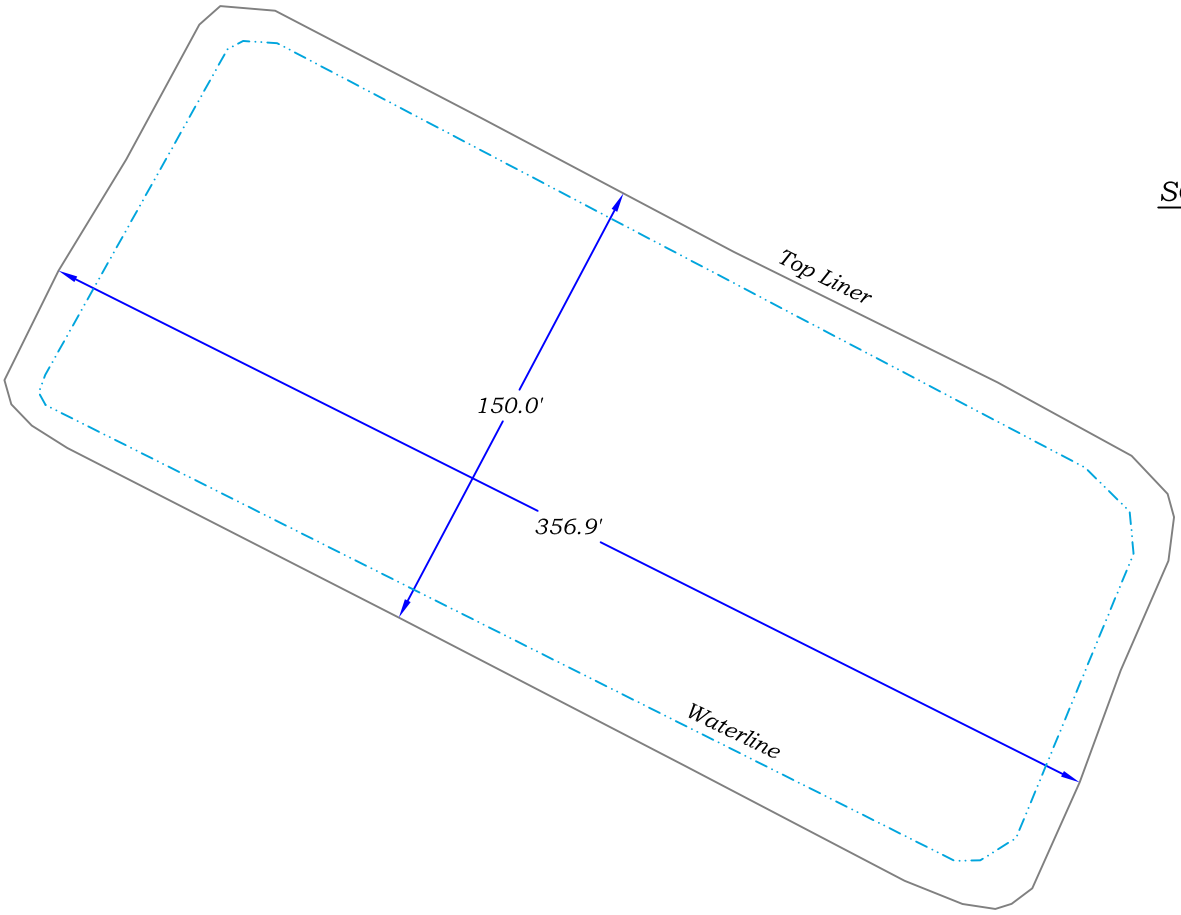
Calculated Fluid Level Change in Inches: (+ indicates fluid level increased)		
	(Precipitation - Pan Evaporation + Inflows - Outflows)	**-0.624 inches**
	(Precipitation - 72% Pan Evaporation + Inflows - Outflows)	**-0.432 inches**
Measure Change in Inches: (+ indicates fluid level increased)		**-0.300 inches**
Difference between Calculated and Measured Pit Fluid Level:	**(With Gross Pan Evaporation)**	**0.324 inches**
	(With 72% Pan Evaporation)	**0.132 inches**

Summary: No observed loss in liner integrity. Fluid level drop correlated with evaporation & precipitation measurements.
Weather: Mostly sunny with intermittent clouds. Temperatures 60° - 85°.

Produced water fluid level at approximate 15 to 17 ft. depth. Liner is relatively new.
Visible portion of liner, approximately the top 7 to 8 ft., had no visible tears, delamination or seam failures.

Comments: Bookcliff Survey utilized a Trimble Total Station for required area and elevation measurements.
WPX Energy staff indicated that no fluids were transferred from or to the pit during the duration of the test.
Evaporation pan placed within the fenced and netted area of the pit site.

HYDRO-TEST EXHIBIT
Mautz Ranch Produced Water Pit



SCALE: 1"= 60'

Benchmark
Elevation= 6691.02'

PIT DETAILS

TEST @ 10:30 A.M.

TOP WATER ELEV. (AUGUST 27, 2012)= 6684.788'
TOP WATER ELEV. (AUGUST 30, 2012)= 6684.763'

TOP OF TRIBUTARY AREA SURFACE AREA = 52,604 sq. ft.
TOP WATER SURFACE AREA = 42,842 sq. ft.
TRIBUTARY AREA = 9,762 sq. ft.

PIT LOCATION

SE1/4NW1/4 SECTION 19,
TOWNSHIP 2 SOUTH,
RANGE 98 WEST OF THE SIXTH P.M.

COSP NAD83 CENTRAL ZONE
LATITUDE: 39.51485°
LONGITUDE: -108.26145°

WPX Energy Rocky Mountain, LLC

136 East Third Street
Rifle, Colorado 81650
Ph. (970) 625-1330
Fax (970) 625-2773
BOOKCLIFF Survey Services, Inc.

Fox Engineering Solutions
670 Canyon Creek Dr.
Grand Junction, CO 81503

MAUTZ RANCH
PRODUCED WATER PIT

DATE: 8/30/12
SHEET: 1 OF 1
PROJECT: HYDROTEST
DFT: SRB

Hydrostatic Testing Procedures for COGCC Earthen Pits

Vers. 6.0 12-15-11 ©

Fox Engineering Solutions, Inc

The purpose for hydrostatic testing earthen pits is to comply with COGCC approval conditions for verifying the fluid holding integrity of the pit lining system. These procedures are specific to existing or active earthen pits holding oil and gas related fluids including, but not limited to, produced water. During testing, the pit shall have fluid level as high as practical, without encroaching into the 2 ft. freeboard, and the test shall be conducted for a minimum of 72 hours, if practical. Visible portions of the liner, including the anchor trench and seams, shall be inspected for defects. The test shall be scheduled and coordinated with personnel to ensure that oil and gas activities do not interfere with the test. Testing procedures may be subject to changes as dictated by field and climatic factors. All personnel involved with testing, while onsite, shall comply with their respective EH&S requirements.

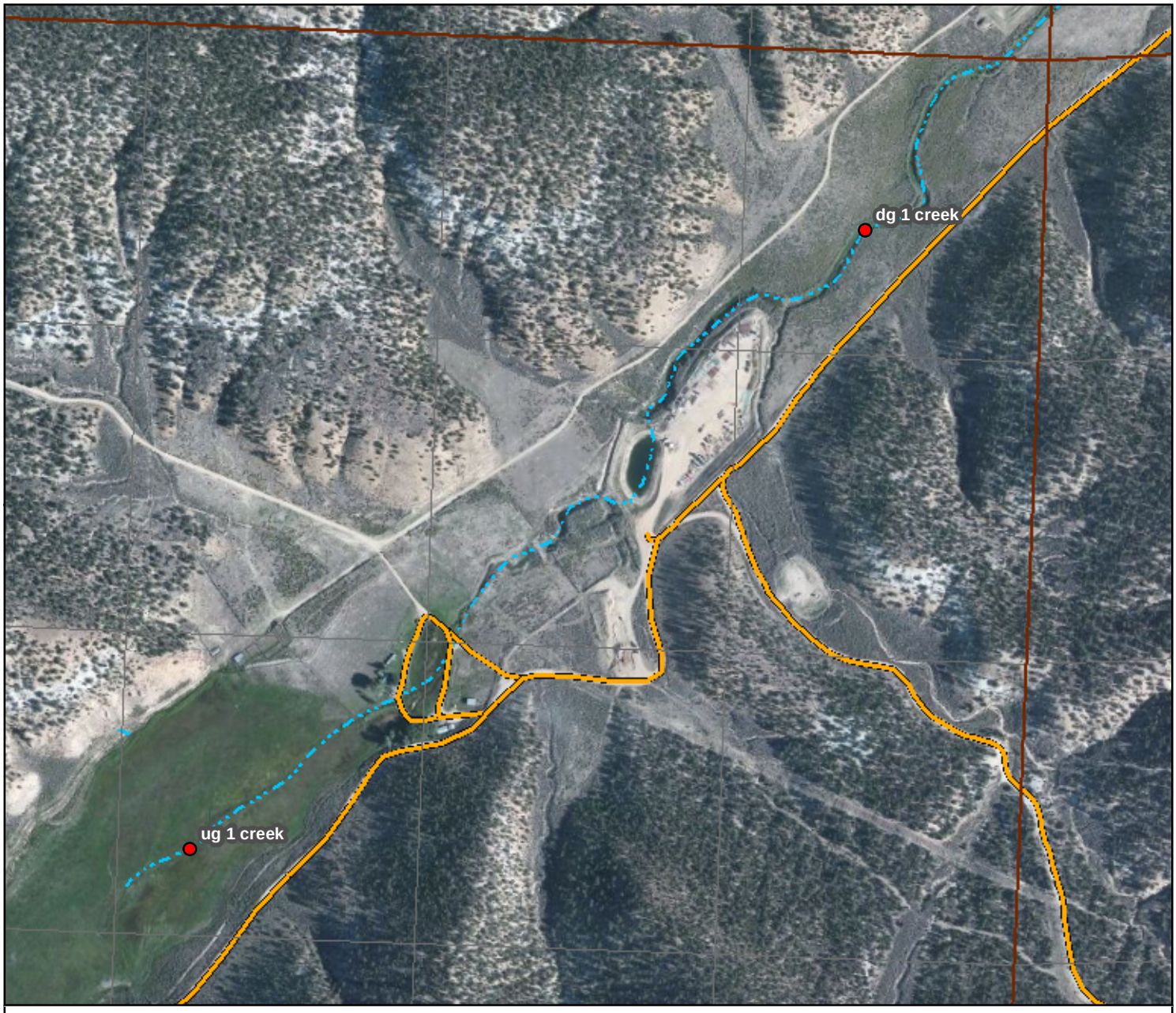
- If practical, a sign shall be placed in a conspicuous location during the test stating “Hydrostatic testing in Progress, Pit Closed to All Water Hauling Activities”. Contact information shall also be placed on the sign.
- A semi-permanent datum elevation point shall be established at the pit location. The surface area of the water surface and the surface area of the liner area, tributary to the pit shall be measured. The date and time of each measurement shall be documented.
- The pit fluid level; fluid surface area; and the lined surface area, tributary to the pit, shall be measured and recorded at the beginning of the test. The pit fluid level shall be measured again at the end of the test. A survey grade total station shall be utilized for accuracy to capture this information. The date and time of measurements shall be documented.
- A 4” diameter official rain gauge with funnel inlet shall be installed at the pit site. Precipitation shall be recorded for the duration of the hydrostatic test.
- During ice-free periods, pan evaporation shall be measured during the duration of the test following the procedures established by the National Weather Service – NOAA in the document entitled “National Weather Service - Observing Handbook No. 2, dated July 1989. A Class A evaporation pan shall be placed at the site, or as near as practical, with evaporation measured per established procedures. During ice-over periods at the pit, evaporation is assumed negligible and evaporation measurements will not be taken.
- For the duration of the test, all inflows and outflows, such as truck and piped transfers, shall cease. If the cessation of inflows and outflows is not practical, all pit inflows and outflows shall be accurately metered and documented during the test. 24-hour surveillance monitoring may be warranted.
- If no precipitation has occurred during the test, compare the change in the pit fluid level with the recorded pan evaporation. During ice-over periods, compare the pit levels taken at the start and end of the tests.
- If precipitation has occurred during the test, precipitation falling onto tributary portions of the liner, outside of the fluid surface area, may be added as an inflow to the pit and converted into inches of depth over the fluid surface area. During ice-over and snow conditions, precipitation inflow from tributary portions of the liner may be estimated from snow depth and corresponding water equivalent comparisons at the start and termination of the test. Other factors may also be utilized.
- The calculated change in pit level during the test is: $\Delta L = P + I - O - E$ (all measurements converted to inches)

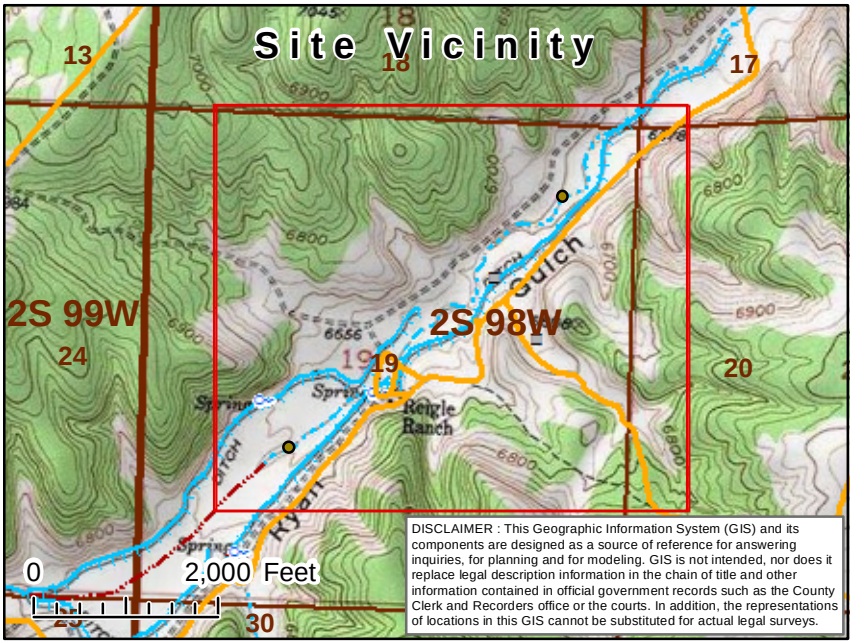
  Where: ΔL = Change in pit fluid level, P = Precipitation Inflow, E = Evaporation, I = Measured Inflows, O = Measured Outflows
- The measured change in the pit fluid level shall be compared to the calculated change, utilizing precipitation and evaporation data, in the pit fluid level during the test duration. The test procedures and results will be reviewed and analyzed for discrepancies. If the test results indicate integrity issues with the lining system, the test will be repeated.

Fox Engineering Solutions, Inc.
670 Canyon Creek Drive
Grand Junction, CO 81507-9594

Cell (970) 250-5505
Email: coloradofox@bresnan.net

Analytical Data





Water Sample Locations

Location: Mautz Ranch

WPX Energy Rocky Mountain, LLC

Legend

PLSS

- Township
- Section

- WPX Access Roads

Hydrographic Features

- Perennial Stream
- Intermittent Stream

N
W E
S

0 250 500 1,000 Feet

HCSI
ENVIRONMENTAL CONSULTANTS

T:\Client_Specific\2008\Williams_EP\Waste Management\2012\Mautz Ranch Water Sampling\Mautz Ranch Water Sampling.mxd HCSI_jharris

Revision Date: 9/13/2012 9:08:41 AM

12-Sep-2012

Mark Mumby
HRL Compliance Solutions
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **WPX Ryan Gulch Creek 9/6/12** Work Order: **1209125**

Dear Mark,

ALS Environmental received 2 samples on 07-Sep-2012 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 16.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Ann Preston

Electronically approved by: Ann Preston

Ann Preston
Project Manager

Certificate No: MN331938

ALS Group USA, Corp

Date: 12-Sep-12

Client: HRL Compliance Solutions
Project: WPX Ryan Gulch Creek 9/6/12
Work Order: **1209125**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1209125-01	Ryan Gulch DG Creek	Water		9/6/2012 11:30	9/7/2012 09:30	☐
1209125-02	Ryan Gulch UG Creek	Water		9/6/2012 11:00	9/7/2012 09:30	☐

ALS Group USA, Corp

Date: 12-Sep-12

Client: HRL Compliance Solutions
Project: WPX Ryan Gulch Creek 9/6/12
Work Order: 1209125

Case Narrative

Batch R10954 MS/MSD data for Chloride and Sulfate is not related to this project's samples. No data requires qualification.

Batch 43368 MS/MSD data for DRO is not related to this project's samples. No data requires qualification.

Batch 43405 sample Ryan Gulch DG Creek MS recovery for Sodium was above control limits, however the amount of Sodium in the parent sample was greater than 4x the amount spiked. No data requires qualification.

ALS Group USA, Corp

Date: 12-Sep-12

Client: HRL Compliance Solutions
Project: WPX Ryan Gulch Creek 9/6/12
WorkOrder: **1209125**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
SD	Serial Dilution
TDL	Target Detection Limit

Units Reported	Description
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

ALS Group USA, Corp

Date: *12-Sep-12*

Client: HRL Compliance Solutions
Project: WPX Ryan Gulch Creek 9/6/12
Work Order: 1209125
Sample ID: Ryan Gulch DG Creek
Lab ID: 1209125-01
Collection Date: 9/6/2012 11:30 AM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **9/10/2012**	Analyst: **CW**
DRO (C10-C28)	ND		0.10	mg/L	1	9/10/2012 06:54 PM
Surr: 4-Terphenyl-d14	*71.1*		*21-90*	*%REC*	1	9/10/2012 06:54 PM
METALS BY ICP-MS			**SW6020A**		Prep Date: **9/11/2012**	Analyst: **CES**
Sodium	**160**		**0.20**	**mg/L**	1	9/11/2012 03:41 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **AK**
Benzene	ND		1.0	µg/L	1	9/7/2012 08:26 PM
Ethylbenzene	ND		1.0	µg/L	1	9/7/2012 08:26 PM
m,p-Xylene	ND		2.0	µg/L	1	9/7/2012 08:26 PM
o-Xylene	ND		1.0	µg/L	1	9/7/2012 08:26 PM
Toluene	ND		1.0	µg/L	1	9/7/2012 08:26 PM
Xylenes, Total	ND		3.0	µg/L	1	9/7/2012 08:26 PM
Surr: 1,2-Dichloroethane-d4	*104*		*70-120*	*%REC*	1	9/7/2012 08:26 PM
Surr: 4-Bromofluorobenzene	*95.9*		*75-120*	*%REC*	1	9/7/2012 08:26 PM
Surr: Dibromofluoromethane	*98.4*		*85-115*	*%REC*	1	9/7/2012 08:26 PM
Surr: Toluene-d8	*96.9*		*85-120*	*%REC*	1	9/7/2012 08:26 PM
ANIONS BY ION CHROMATOGRAPHY			**SW9056**			Analyst: **ED**
Chloride	**20**		**4.0**	**mg/L**	4	9/11/2012 04:29 PM
Fluoride	**0.20**		**0.10**	**mg/L**	1	9/10/2012 04:50 PM
Sulfate	**700**		**50**	**mg/L**	50	9/10/2012 06:10 PM
TOTAL DISSOLVED SOLIDS			**A2540 C**			Analyst: **KV**
Total Dissolved Solids	**1,200**		**10**	**mg/L**	1	9/7/2012 02:27 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: *12-Sep-12*

Client: HRL Compliance Solutions
Project: WPX Ryan Gulch Creek 9/6/12 **Work Order:** 1209125
Sample ID: Ryan Gulch UG Creek **Lab ID:** 1209125-02
Collection Date: 9/6/2012 11:00 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID			**SW8015M**		Prep Date: **9/10/2012**	Analyst: **CW**
DRO (C10-C28)	ND		0.10	mg/L	1	9/10/2012 07:21 PM
Surr: 4-Terphenyl-d14	*66.4*		*21-90*	*%REC*	1	9/10/2012 07:21 PM
METALS BY ICP-MS			**SW6020A**		Prep Date: **9/11/2012**	Analyst: **CES**
Sodium	**150**		**0.20**	**mg/L**	1	9/11/2012 04:14 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260**			Analyst: **AK**
Benzene	ND		1.0	µg/L	1	9/7/2012 08:49 PM
Ethylbenzene	ND		1.0	µg/L	1	9/7/2012 08:49 PM
m,p-Xylene	ND		2.0	µg/L	1	9/7/2012 08:49 PM
o-Xylene	ND		1.0	µg/L	1	9/7/2012 08:49 PM
Toluene	ND		1.0	µg/L	1	9/7/2012 08:49 PM
Xylenes, Total	ND		3.0	µg/L	1	9/7/2012 08:49 PM
Surr: 1,2-Dichloroethane-d4	*103*		*70-120*	*%REC*	1	9/7/2012 08:49 PM
Surr: 4-Bromofluorobenzene	*95.8*		*75-120*	*%REC*	1	9/7/2012 08:49 PM
Surr: Dibromofluoromethane	*100*		*85-115*	*%REC*	1	9/7/2012 08:49 PM
Surr: Toluene-d8	*97.6*		*85-120*	*%REC*	1	9/7/2012 08:49 PM
ANIONS BY ION CHROMATOGRAPHY			**SW9056**			Analyst: **ED**
Chloride	**19**		**1.0**	**mg/L**	1	9/10/2012 05:10 PM
Fluoride	**0.26**		**0.10**	**mg/L**	1	9/10/2012 05:10 PM
Sulfate	**610**		**50**	**mg/L**	50	9/10/2012 06:31 PM
TOTAL DISSOLVED SOLIDS			**A2540 C**			Analyst: **KV**
Total Dissolved Solids	**1,100**		**10**	**mg/L**	1	9/7/2012 02:27 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

QC BATCH REPORT

Batch ID: **43368** Instrument ID **GC8** Method: **SW8015M**

MBLK Sample ID: **DBLKW1-43368-43368** Units: **mg/L** Analysis Date: **9/10/2012 04:38 PM**

Client ID: Run ID: **GC8_120910A** SeqNo: **2074019** Prep Date: **9/10/2012** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	0.10								
Surr: 4-Terphenyl-d14	*0.03467*	0	*0.05*	0	*69.3*	*21-90*	0			

LCS Sample ID: **DLCSW1-43368-43368** Units: **mg/L** Analysis Date: **9/10/2012 05:05 PM**

Client ID: Run ID: **GC8_120910A** SeqNo: **2074021** Prep Date: **9/10/2012** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	3.27	0.10	5	0	65.4	44-116	0			
Surr: 4-Terphenyl-d14	*0.03303*	0	*0.05*	0	*66.1*	*21-90*	0			

MS Sample ID: **1209142-01D MS** Units: **mg/L** Analysis Date: **9/10/2012 05:32 PM**

Client ID: Run ID: **GC8_120910A** SeqNo: **2074023** Prep Date: **9/10/2012** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	32.23	1.0	50	0	64.5	44-116	0			
Surr: 4-Terphenyl-d14	*0.2736*	0	*0.5*	0	*54.7*	*21-90*	0			

MSD Sample ID: **1209142-01D MSD** Units: **mg/L** Analysis Date: **9/10/2012 05:59 PM**

Client ID: Run ID: **GC8_120910A** SeqNo: **2074025** Prep Date: **9/10/2012** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	33.34	1.0	50	0	66.7	44-116	32.23	3.38	30	
Surr: 4-Terphenyl-d14	*0.3731*	0	*0.5*	0	*74.6*	*21-90*	0.2736	*30.8*	*30*	*R*

The following samples were analyzed in this batch: 1209125-01B 1209125-02B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1209125
Project: WPX Ryan Gulch Creek 9/6/12

QC BATCH REPORT

Batch ID: **43405** Instrument ID **ICPMS1** Method: **SW6020A**

MBLK Sample ID: **MBLK-43405-43405** Units: **mg/L** Analysis Date: **9/11/2012 03:30 PM**
Client ID: Run ID: **ICPMS1_120911A** SeqNo: **2074801** Prep Date: **9/11/2012** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	0.08052	0.20								J

LCS Sample ID: **LCS-43405-43405** Units: **mg/L** Analysis Date: **9/11/2012 03:36 PM**
Client ID: Run ID: **ICPMS1_120911A** SeqNo: **2074802** Prep Date: **9/11/2012** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	9.781	0.20	10	0	97.8	80-120	0			

MS Sample ID: **1209125-01DMS** Units: **mg/L** Analysis Date: **9/11/2012 04:03 PM**
Client ID: **Ryan Gulch DG Creek** Run ID: **ICPMS1_120911A** SeqNo: **2075191** Prep Date: **9/11/2012** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	174.5	0.20	10	160.9	136	75-125	0			SO

MSD Sample ID: **1209125-01DMSD** Units: **mg/L** Analysis Date: **9/11/2012 04:09 PM**
Client ID: **Ryan Gulch DG Creek** Run ID: **ICPMS1_120911A** SeqNo: **2075192** Prep Date: **9/11/2012** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	171.8	0.20	10	160.9	109	75-125	174.5	1.56	20	O

The following samples were analyzed in this batch: 1209125-01D 1209125-02D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1209125
Project: WPX Ryan Gulch Creek 9/6/12

QC BATCH REPORT

Batch ID: **R109459A** Instrument ID **VMS8** Method: **SW8260**

MBLK Sample ID: **VBLKW1-120907-R109459A** Units: **µg/L** Analysis Date: **9/7/2012 04:03 PM**
Client ID: Run ID: **VMS8_120907A** SeqNo: **2072722** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Toluene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 1,2-Dichloroethane-d4	*20.05*	0	*20*	0	*100*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*19.44*	0	*20*	0	*97.2*	*75-120*	0			
Surr: Dibromofluoromethane	*20.08*	0	*20*	0	*100*	*85-115*	0			
Surr: Toluene-d8	*20.13*	0	*20*	0	*101*	*85-120*	0			

LCS Sample ID: **VLCSW1-120907-R109459A** Units: **µg/L** Analysis Date: **9/7/2012 03:15 PM**
Client ID: Run ID: **VMS8_120907A** SeqNo: **2072098** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	19.66	1.0	20	0	98.3	80-120	0			
Ethylbenzene	19.63	1.0	20	0	98.2	75-125	0			
m,p-Xylene	39.23	2.0	40	0	98.1	75-130	0			
o-Xylene	20.64	1.0	20	0	103	80-120	0			
Toluene	20	1.0	20	0	100	75-120	0			
Xylenes, Total	59.87	3.0	60	0	99.8	75-130	0			
Surr: 1,2-Dichloroethane-d4	*20.55*	0	*20*	0	*103*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*20.37*	0	*20*	0	*102*	*75-120*	0			
Surr: Dibromofluoromethane	*20.37*	0	*20*	0	*102*	*85-115*	0			
Surr: Toluene-d8	*20.25*	0	*20*	0	*101*	*85-120*	0			

MS Sample ID: **1209125-01A MS** Units: **µg/L** Analysis Date: **9/8/2012 12:48 PM**
Client ID: **Ryan Gulch DG Creek** Run ID: **VMS8_120907A** SeqNo: **2072753** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.11	1.0	20	0	101	80-120	0			
Ethylbenzene	19.35	1.0	20	0	96.8	75-125	0			
m,p-Xylene	38.38	2.0	40	0	96	75-130	0			
o-Xylene	19.81	1.0	20	0	99	80-120	0			
Toluene	20.18	1.0	20	0	101	75-120	0			
Xylenes, Total	58.19	3.0	60	0	97	75-130	0			
Surr: 1,2-Dichloroethane-d4	*20.61*	0	*20*	0	*103*	*70-120*	0			
Surr: 4-Bromofluorobenzene	*19.64*	0	*20*	0	*98.2*	*75-120*	0			
Surr: Dibromofluoromethane	*20.66*	0	*20*	0	*103*	*85-115*	0			
Surr: Toluene-d8	*19.38*	0	*20*	0	*96.9*	*85-120*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1209125
Project: WPX Ryan Gulch Creek 9/6/12

QC BATCH REPORT

Batch ID: **R109459A** Instrument ID **VMS8** Method: **SW8260**

MSD Sample ID: **1209125-01A MSD** Units: **µg/L** Analysis Date: **9/8/2012 01:11 AM**
Client ID: **Ryan Gulch DG Creek** Run ID: **VMS8_120907A** SeqNo: **2072750** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	20.11	1.0	20	0	101	80-120	20.11	0	30	
Ethylbenzene	19.44	1.0	20	0	97.2	75-125	19.35	0.464	30	
m,p-Xylene	38.39	2.0	40	0	96	75-130	38.38	0.0261	30	
o-Xylene	20.04	1.0	20	0	100	80-120	19.81	1.15	30	
Toluene	19.88	1.0	20	0	99.4	75-120	20.18	1.5	30	
Xylenes, Total	58.43	3.0	60	0	97.4	75-130	58.19	0.412	30	
Surr: 1,2-Dichloroethane-d4	*20.79*	0	*20*	0	*104*	*70-120*	20.61	*0.87*	*30*	
Surr: 4-Bromofluorobenzene	*19.81*	0	*20*	0	*99*	*75-120*	19.64	*0.862*	*30*	
Surr: Dibromofluoromethane	*20.66*	0	*20*	0	*103*	*85-115*	20.66	*0*	*30*	
Surr: Toluene-d8	*19.52*	0	*20*	0	*97.6*	*85-120*	19.38	*0.72*	*30*	

The following samples were analyzed in this batch: 1209125-01A 1209125-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1209125
Project: WPX Ryan Gulch Creek 9/6/12

QC BATCH REPORT

Batch ID: **R109484** Instrument ID **TDS** Method: **A2540 C**

MBLK Sample ID: **BLANK-R109484** Units: **mg/L** Analysis Date: **9/7/2012 02:27 PM**
Client ID: Run ID: **TDS_120907A** SeqNo: **2072667** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids	ND	10								

LCS Sample ID: **LCS-R109484** Units: **mg/L** Analysis Date: **9/7/2012 02:27 PM**
Client ID: Run ID: **TDS_120907A** SeqNo: **2072668** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids	470	10	495	0	94.9	80-120	0			

DUP Sample ID: **1209103-01A DUP** Units: **mg/L** Analysis Date: **9/7/2012 02:27 PM**
Client ID: Run ID: **TDS_120907A** SeqNo: **2072651** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids	2308	10	0	0	0	0-0	2278	1.31	20	

DUP Sample ID: **1209134-09A DUP** Units: **mg/L** Analysis Date: **9/7/2012 02:27 PM**
Client ID: Run ID: **TDS_120907A** SeqNo: **2072665** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids	1258	10	0	0	0	0-0	1184	6.06	20	

The following samples were analyzed in this batch: 1209125-01C 1209125-02C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1209125
Project: WPX Ryan Gulch Creek 9/6/12

QC BATCH REPORT

Batch ID: **R109540** Instrument ID **IC3** Method: **SW9056**

MBLK Sample ID: **MBLK-R109540** Units: **mg/L** Analysis Date: **9/10/2012 03:29 PM**
Client ID: Run ID: **IC3_120910B** SeqNo: **2074112** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	1.0								
Fluoride	ND	0.10								
Sulfate	ND	1.0								

LCS Sample ID: **LCS-R109540** Units: **mg/L** Analysis Date: **9/10/2012 03:09 PM**
Client ID: Run ID: **IC3_120910B** SeqNo: **2074111** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	9.563	1.0	10	0	95.6	88-107	0			
Fluoride	1.909	0.10	2	0	95.5	86-111	0			
Sulfate	9.863	1.0	10	0	98.6	85-110	0			

MS Sample ID: **1209082-02A MS** Units: **mg/L** Analysis Date: **9/10/2012 08:12 PM**
Client ID: Run ID: **IC3_120910B** SeqNo: **2074125** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	2.053	0.10	2	0.178	93.8	75-125	0			

MS Sample ID: **1209082-02A MS** Units: **mg/L** Analysis Date: **9/10/2012 09:32 PM**
Client ID: Run ID: **IC3_120910B** SeqNo: **2074129** Prep Date: DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	42.26	4.0	10	35.24	70.3	75-125	0			S
Sulfate	28.62	4.0	10	21.01	76.1	75-125	0			

MSD Sample ID: **1209082-02A MSD** Units: **mg/L** Analysis Date: **9/10/2012 08:32 PM**
Client ID: Run ID: **IC3_120910B** SeqNo: **2074126** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	2.047	0.10	2	0.178	93.4	75-125	2.053	0.317	20	

MSD Sample ID: **1209082-02A MSD** Units: **mg/L** Analysis Date: **9/10/2012 09:53 PM**
Client ID: Run ID: **IC3_120910B** SeqNo: **2074130** Prep Date: DF: **4**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	42.34	4.0	10	35.24	71	75-125	42.26	0.185	20	S
Sulfate	28.17	4.0	10	21.01	71.7	75-125	28.62	1.56	20	S

The following samples were analyzed in this batch: 1209125-01C 1209125-02C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions
Work Order: 1209125
Project: WPX Ryan Gulch Creek 9/6/12

QC BATCH REPORT

Batch ID: **R109603** Instrument ID **IC4** Method: **SW9056**

MBLK Sample ID: **MBLK-R109603** Units: **mg/L** Analysis Date: **9/11/2012 10:07 AM**
Client ID: Run ID: **IC4_120911A** SeqNo: **2075658** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	1.0								

LCS Sample ID: **LCS-R109603** Units: **mg/L** Analysis Date: **9/11/2012 09:47 AM**
Client ID: Run ID: **IC4_120911A** SeqNo: **2075657** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	10.02	1.0	10	0	100	88-107	0			

MS Sample ID: **1209133-11A MS** Units: **mg/L** Analysis Date: **9/11/2012 03:08 PM**
Client ID: Run ID: **IC4_120911A** SeqNo: **2075682** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	13.41	1.0	10	1.811	116	75-125	0			

MSD Sample ID: **1209133-11A MSD** Units: **mg/L** Analysis Date: **9/11/2012 03:29 PM**
Client ID: Run ID: **IC4_120911A** SeqNo: **2075683** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	12.81	1.0	10	1.811	110	75-125	13.41	4.54	20	

The following samples were analyzed in this batch: 1209125-01C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Chain of Custody Form

ALS Environmental

Page ____ of ____

COC ID: 00545

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ALS Project Manager: | Work Order #: 1209125

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Ryan Gulch creek	A	BTEX
Work Order		Project Number		B	DRO
Company Name	HRL compliance	Bill To Company	WPX	C	TDS
Send Report To	Mark Mumby / Rod Wold	Invoice Attn:	Karolina Blaney	D	chloride, fluoride
Address	2385 F 1/2 Rd	Address		E	Sulfate
City/State/Zip	Grand Junction Co 81506	City/State/Zip	Parachute CO, 81635	F	Sodium
Phone	970-243-3271	Phone	970-589-0743	G	
Fax		Fax		H	
e-Mail Address	Mmumby@hrlcomp.com RWold@hrlcomp.com	e-Mail Address	Karolina.blaney@WPxenergy.com	I	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Ryan Gulch Dn creek	9/6/12	11:30	W	1,4,4	6	X	X	X	X	X	X					
2	Ryan Gulch Up creek	9/6/12	11:00	W	1,4,8	6	X	X	X	X	X	X					
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign: Rod Wold Rod Wold

Shipment Method: FedEx

Required Turnaround Time: ☐ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☑ Other 3 day

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Notes:
Rod Wold	9/6/12	1600	Lab Hub, LLC Parachute, CO	
Relinquished by:	Date:	Time:	Received by (Laboratory):	Cooler Temp.
	9/6/12	1630	9/7/12 0930	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	3.8 c
DES	9/7/12	1200		

QC Package: (Check Box Below)
☐ Level II: Standard QC
☐ Level III: Std QC + Raw Data
☐ Level IV: SW846 CLP-Like
☐ Other: _____

Preservative Key: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4 degrees C 9-5035

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.

ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **HRL** Date/Time Received: **07-Sep-12 09:30**

Work Order: **1209125** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 07-Sep-12 (Date) Reviewed by: Ann Preston (eSignature) 10-Sep-12 (Date)

Matrices: Water
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.8 c		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	9/7/2012 12:11:26 PM		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Lab Hub LLC **CUSTODY SEAL**

Date: 9/6/12

Signature: Parachute, CO

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number

From: (970) 285-5783
COLBY KOERNER
LAB HUB LLC
127 E FIRST STREET

PARACHUTE, CO 81635

Origin ID: RILA

FedEx Express

J1113110606/1225

Ship Date: 06SEP12
ActWgt: 56.0 LB MAN
CAD: 0980261/CAFE2511

Dims: 24 X 14 X 14 IN

Delivery Address Bar Code

Ref # 1001-090612-3
Invoice #
PO #
Dept #

SHIP TO: (616) 218-5574

BILL RECIPIENT

SAMPLE RECEIVING
ALS ENVIRONMENTAL
3352 128TH AVE

HOLLAND, MI 49424

FRI - 07 SEP A4
STANDARD OVERNIGHT

TRK# 0201 5413 4493 0720

XX GRRA

49424
MI-US
GRR

50DC1/0D3A/10BC

Liner Installation Report

COLORADO LINING INTERNATIONAL

Installation Reports

for

Ryan Gulch Mautz Ranch

COLORADO LINING INTERNATIONAL

Daily Installation Report

Date: 3/26/12
Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Installation Supervisor: Cesar Gonzalez
Material: GCL, 40 mil , Geo-Net , 60 Mil

Fusion Weld _____ **Extrusion Weld _____**

DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value Inside/Outside	Sheer Value	Welding Tech.	Unit No.	Pass/ Fail
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				

DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing

Comments: Crew on site at 7:00am. Crew worked on filling sandbags, setting up the collapsible spreader bar and sorting the liner. I measured the dimensions of the pond and compared it to the liner on site. The GCL quantity seems to be off from the others. It seems to be a little short on GCL.

COLORADO LINING INTERNATIONAL

Daily Installation Report

Date: 3/27/12
Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Installation Supervisor: Cesar Gonzalez
Material: GCL, 40 mil, Geo-Net , 60 Mil

Fusion Weld x **Extrusion Weld** _____

DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value Inside/Outside	Sheer Value	Welding Tech.	Unit No.	Pass/ Fail
3/27/12	8:45am	59	800		12fpm	98/88	132	AP	27	Pass
						97/92	137			
						99/90	142			
						87/92	132			
						87/93	148			
3/27/12	9:10am	60	800		12fpm	99/90	134	SP	10	Pass
						87/92	146			
						97/91	129			
						92/90	138			
						87/84	132			
						/				
						/				

DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing
GCL 40 Mil	**Sunny/Windy**	**N/A**	**N/A**

Comments: Crew on site at 7:00am. Crew worked on deployment of GCL and liner. The wind picked at around noon so it slowed the deployment.

COLORADO LINING INTERNATIONAL

Daily Installation Report

Date: 3/28/12
Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Installation Supervisor: Cesar Gonzalez
Material: GCL, 40 mil , Geo-Net , 60 Mil

Fusion Weld x **Extrusion Weld** _____

DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value Inside/Outside	Sheer Value	Welding Tech.	Unit No.	Pass/ Fail
3/28/12	8:02am	60	800		12	99/89	132	AP	27	Pass
						89/91	134			
						82/98	141			
						78/79	132			
						89/90	128			
3/28/12	1:02pm	65			12	93/90	131	AP	27	Pass
						89/93	128			
						90/93	131			
						78/90	143			
						89/94	131			
						/				
						/				

DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing
GCL 40 mil	Sunny/ Windy	N/A	N/A

Comments: Crew on site at 7:00am. Crew worked on deployment of liner and GCL. Around 10:00am the wind started blowing hard, gusts up to 30 mph.

COLORADO LINING INTERNATIONAL

Daily Installation Report

Date: 3/29/12
Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Installation Supervisor: Cesar Gonzalez
Material: GCL, 40 mil , Geo-Net , 60 Mil

Fusion Weld x **Extrusion Weld** x

DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value Inside/Outside	Sheer Value	Welding Tech.	Unit No.	Pass/ Fail
3/29/12	8:10am	60	800		12fpm	93/91	133	SP	27	Pass
						89/93	143			
						84/98	128			
						81/99	149			
						78/90	138			
3/29/12	1:10pm	67	500	400		/92	141	AP	123	Pass
						/87	137			
						/78	134			
						/				
						/				
						/				
						/				

DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing
GCL 40 Mil	**Sunny**	**N/A**	**N/A**

Comments: Crew on site at 7:00am. Crew worked on deployment of GCL and liner. Crew finished deployment around noon. Crew began repairs. I went to pick up a partial roll of textile for the sump detail.

COLORADO LINING INTERNATIONAL

Daily Installation Report

Date: 3-30-12
Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Installation Supervisor: Derek Huffman/Cesar
Material: GCL/40 mil HDS/Net/60 mil HDS

Fusion Weld ____ **Extrusion Weld _x___**

DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value Inside/Outside	Sheer Value	Welding Tech.	Unit No.	Pass/ Fail
3-30-12	7:21	40	500	450	n/a	87	91	FH		Pass
						85	93			
						87	89			
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				

DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing
none	**Sunny and warm**		

Comments: On site at 7:00. Finished all patching except South slope and all testing on 40 mil secondary liner today. We will install net tomorrow.

COLORADO LINING INTERNATIONAL

Daily Installation Report

Date: 3-31-12
Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Installation Supervisor: Derek Huffman
Material: GCL/40 mil/net/60 mil

Fusion Weld ____ **Extrusion Weld** __x__

DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value Inside/Outside	Sheer Value	Welding Tech.	Unit No.	Pass/ Fail
3-31	7:00	38	500	450		89	97	AP		Pass
						93	101			
						91	99			
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				

DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing

Comments: On site at 7:00. We are ready to start the 60 mil primary liner on Monday.

Crew worked on remaining patches at the top of South slope today.

Crew installed all geo-net today (16 rolls) and installed detection pipe as well as the rock in sump.

COLORADO LINING INTERNATIONAL

Daily Installation Report

Date: 4-2-12
Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Installation Supervisor: Derek Huffman
Material: GCL/40 HDS/NET/60 HDS

Fusion Weld _____ **Extrusion Weld _____**

DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value Inside/Outside	Sheer Value	Welding Tech.	Unit No.	Pass/ Fail
						/				
						/				
						/				
						/				
						/				
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						/				
						/				
						/				
						/				

DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing

Comments: On site at 6:15. No work today due to snow all morning.

COLORADO LINING INTERNATIONAL

Daily Installation Report

Date: 4-3-12
Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Installation Supervisor: Derek Huffman
Material: 40 HDS/GCL/60 HDS/Net

Fusion Weld ____ **Extrusion Weld ____**

DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value Inside/Outside	Sheer Value	Welding Tech.	Unit No.	Pass/ Fail
						/				
						/				
						/				
						/				
						/				
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						/				
						/				
						/				
						/				
						/				

DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing

Comments: On site at 6:30. Snow removal all morning. Remaining snow on slopes should melt off enough today so that we can at least get a good start on the 60 mil first thing in the morning.

COLORADO LINING INTERNATIONAL

Daily Installation Report

Date: 4-4-12
Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Installation Supervisor: Derek Huffman
Material: 60 HDPE

Fusion Weld ____ **Extrusion Weld ____**

DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value Inside/Outside	Sheer Value	Welding Tech.	Unit No.	Pass/ Fail
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				

DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing
	Sunny/warm/ windy	none	

Comments: On site at 6:30. Deployed 60 mil panels #1 thru #22 all day today. Off site at 5:00. We will deploy remainder of 60 mil tomorrow and start testing/patching. Work was slow today due to the snow and water removal.

COLORADO LINING INTERNATIONAL

Daily Installation Report

Date: 4-5-12
Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Installation Supervisor: Derek Huffman
Material:

Fusion Weld ____ **Extrusion Weld ____**

DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value Inside/Outside	Sheer Value	Welding Tech.	Unit No.	Pass/ Fail
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				
						/				

DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing

Comments: On site at 6:15. All remaining 60 mil deployed and welded before lunch (#23-41). After lunch I had the guys complete all air testing and start patching while I started trench back fill.
Joe Lobato and some representatives from WPX/Williams were on site today for liner inspection and asked me a few questions about holes they saw etc.

COLORADO LINING INTERNATIONAL

Daily Installation Report

Date: 4-6-12
Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Installation Supervisor: Derek Huffman
Material:

Fusion Weld ____ **Extrusion Weld ____**

DAILY SEAM STRENGTH TEST

Date of Test	Time of Test	Ambient Air Temp.	Unit Temp.	Pre-Heat Temp.	Unit Speed	Peel Value Inside/Outside	Sheer Value	Welding Tech.	Unit No.	Pass/ Fail
						/				
						/				
						/				
						/				
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						/				
						/				
						/				
						/				
						/				

DAILY RECAP

Quantity Installed	Weather	Contract Labor Hours	Equipment Maintenance / Greasing

Comments: On site at 6:30. All testing/patching and final work done today. Site cleaned up and off site at 4:30.

COLORADO LINING INTERNATIONAL

Quality Control Air Testing

Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Supervisor: Derek Huffman/Cesar Gonzales
Material: 40 mil HDS

Date of Test	Start Time	End Time	Seam No.	Seam Length	A C	A L	V B	S T	Pass/Fail	Welding Technician	Welder No.	Welder Speed	Welder Temp.
3-30-12	859	904	1-2	179	x				Pass	SP	0010	12.0	800
3-30-12	930	935	2-3	179	x				Pass	AP	0027	12.0	800
3-30-12	934	939	3-4	55	x				Pass	AP	0027	12.0	800
3-30-12	940	945	4-5	30	x				Pass	SP	0010	12.0	800
3-30-12	815	820	5-6	25	x				Pass	AP	0027	12.0	800
3-30-12	817	822	4-7	30	x				Pass	AP	0027	12.0	800
3-30-12	955	1000	7-8	55	x				Pass	AP	0027	12.0	800
3-30-12	958	1003	8-9	53	x				Pass	SP	0010	12.0	800
3-30-12	1005	1010	9-10	55	x				Pass	SP	0010	12.0	800
3-30-12	1009	1014	10-11	56	x				Pass	AP	0027	12.0	800
3-30-12	1012	1017	11-12	27	x				Pass	AP	0027	12.0	800
3-30-12	1013	1018	11-14	35	x				Pass	SP	0010	12.0	800
3-30-12	1013	1018	13-14	29	x				Pass	AP	0027	12.0	800
3-30-12	1015	1020	12-13	24	x				Pass	AP	0027	12.0	800
3-30-12	1008	1013	3-12	51	x				Pass	SP	0010	12.0	800
3-30-12	957	1002	3-8	22	x				Pass	SP	0010	12.0	800
3-30-12	959	1004	3-9	22	x				Pass	SP	0010	12.0	800
3-30-12	1004	1009	3-10	22	x				Pass	SP	0010	12.0	800
3-30-12	1008	1013	3-11	6	x				Pass	SP	0010	12.0	800
3-30-12	905	910	1-15	179	x				Pass	AP	0027	12.0	800
3-30-12	852	857	15-16	179	x				Pass	AP	0027	12.0	800

AC=Air Channel Test AL=Air Lance Test VB=Vacuum Box Test ST=Spark Test

COLORADO LINING INTERNATIONAL

Quality Control Air Testing

Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Supervisor: Derek Huffman
Material: 40 HDS

Date of Test	Start Time	End Time	Seam No.	Seam Length	A C	A L	V B	S T	Pass/Fail	Welding Technician	Welder No.	Welder Speed	Welder Temp.
3-30	848	853	16-17	179	x				Pass	AP	0027	12.0	800
3-30	822	827	17-18	179	x				Pass	AP	0027	12.0	800
3-30	805	810	18-19	179	x				Pass	SP	0010	12.0	800
3-30	715	720	19-20	179	x				Pass	AP	0027	12.0	800
3-29	315	320	20-21	179	x				Pass	SP	0010	12.0	800
3-29	235	240	21-22	179	x				Pass	SP	0010	12.0	800
3-29	205	210	22-23	179	x				Pass	SP	0010	12.0	800
3-29	1209	1214	23-24	56	x				Pass	SP	0010	12.0	800
3-29	1215	1220	24-25	36	x				Pass	SP	0010	12.0	800
3-29	1151	1156	25-26	29	x				Pass	SP	0010	12.0	800
3-29	1151	1156	26-27	18	x				Pass	SP	0010	12.0	800
3-29	1147	1152	27-28	44	x				Pass	SP	0010	12.0	800
3-29	1153	1158	28-29	55	x				Pass	SP	0010	12.0	800
3-29	1154	1159	29-30	60	x				Pass	SP	0010	12.0	800
3-29	1201	1206	30-31	32	x				Pass	SP	0010	12.0	800
3-29	1207	1212	31-32	29	x				Pass	SP	0010	12.0	800
3-29	1255	100	32-33	36	x				Pass	SP	0010	12.0	800
3-29	1257	102	33-23	60	x				Pass	SP	0010	12.0	800
3-29	1140	1145	23-28	22	x				Pass	SP	0010	12.0	800
3-29	144	149	23-29	22	x				Pass	SP	0010	12.0	800
3-29	1207	1212	30-33	30	x				Pass	SP	0010	12.0	800
AC=Air Channel Test AL=Air Lance Test VB=Vacuum Box Test ST=Spark Test													

COLORADO LINING INTERNATIONAL

Panel Placement Log

Project: Mautz Pit Ryan Gulch
Owner:
Engineer:
Contractor: WPX
Supervisor: Cesar Gonzalez
Material: 40 Mil

Panel No.	Roll Number	Date	Material Type	Width	Length
1	5690	3/27/12	40 Mil	22.5	178
2	5690	3/27/12	40 Mil	22.5	178
3	5690	3/27/12	40 Mil	22.5	178
4	5690	3/27/12	40 Mil	22.5	55
5	5690	3/27/12	40 Mil	22.5	30
6	5690	3/27/12	40 Mil	22.5	29
7	5690	3/27/12	40 Mil	22.5	55
8	5690	3/27/12	40 Mil	22.5	55
9	5690	3/27/12	40 Mil	22.5	55
10	5690	3/27/12	40 Mil	22.5	55
11	5690	3/27/12	40 Mil	22.5	55
12	5692	3/27/12	40 Mil	22.5	51
13	5692	3/27/12	40 Mil	22.5	24
14	5692	3/27/12	40 Mil	22.5	35
15	5692	3/28/12	40 Mil	22.5	178
16	5692	3/28/12	40 Mil	22.5	178
17	5692	3/28/12	40 Mil	22.5	178
18	5693	3/28/12	40 Mil	22.5	178
19	5693	3/28/12	40 Mil	22.5	178
20	5693	3/28/12	40 Mil	22.5	178
21	5693	3/28/12	40 Mil	22.5	178
22	5691	3/28/12	40 Mil	22.5	178
23	5691	3/29/12	40 Mil	22.5	178
24	5693	3/29/12	40 Mil	22.5	56
25	5693	3/29/12	40 Mil	22.5	36
26	5692	3/29/12	40 Mil	22.5	29
27	5692	3/29/12	40 Mil	22.5	44
28	5691	3/29/12	40 Mil	22.5	55
29	5691	3/29/12	40 Mil	22.5	59
30	5691	3/29/12	40 Mil	22.5	60
31	5691	3/29/12	40 Mil	22.5	59
32	5691	3/29/12	40 Mil	22.5	55
33	5691	3/29/12	40 Mil	22.5	32
34	5691	3/29/12	40 Mil	22.5	36
35	5691	3/29/12	40 Mil	22.5	50

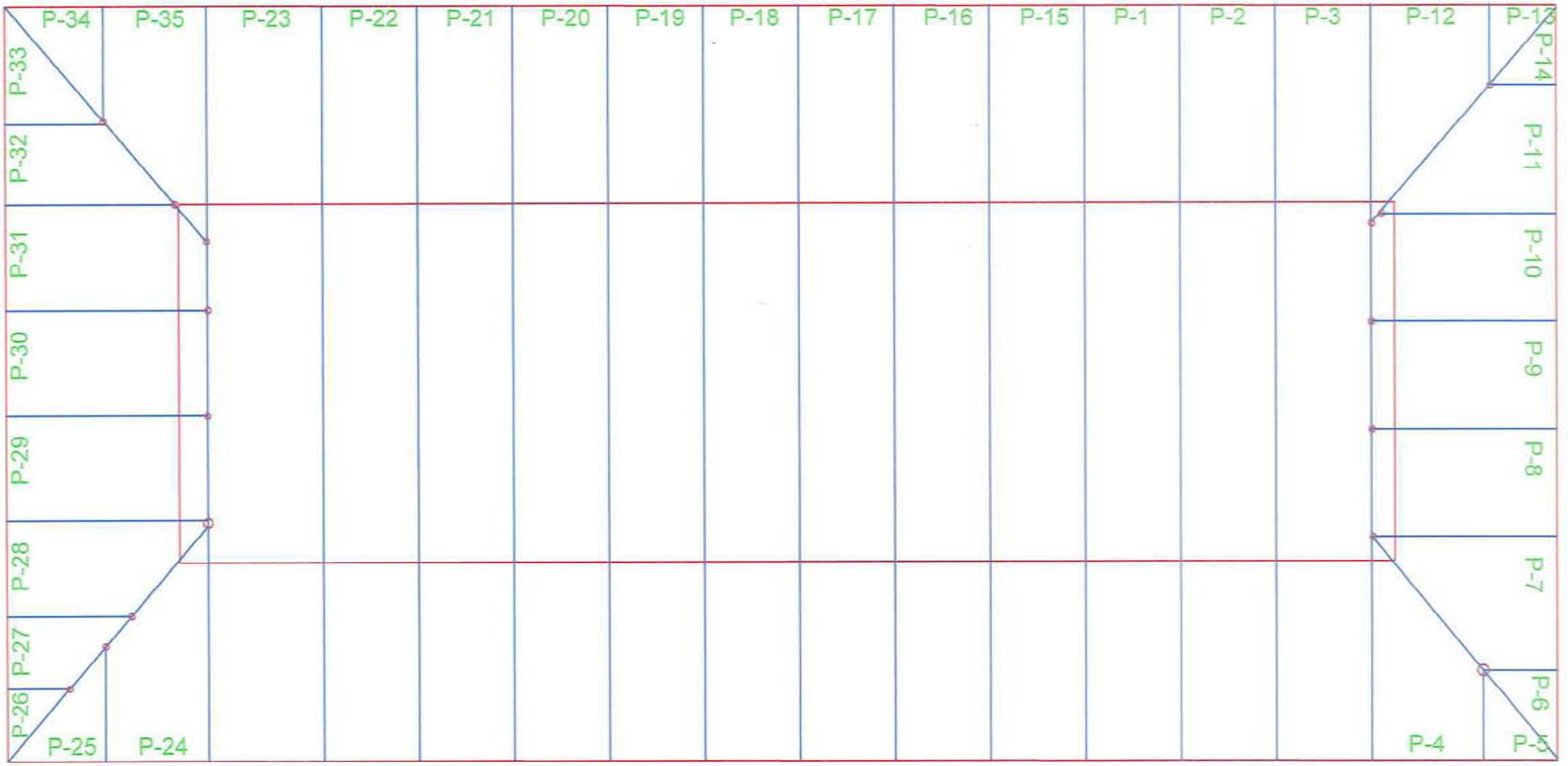
COLORADO LINING INTERNATIONAL

1062 Singing Hills Rd. Parker, CO 80138

Ryan Gulch Mautz Pit / 40 Mil Layer

* P Represents Panels

○ * Represent Patches



COLORADO LINING INTERNATIONAL

Quality Control Air Testing

Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Supervisor: Derek Huffman
Material: 60 mil HD

Date of Test	Start Time	End Time	Seam No.	Seam Length	A C	A L	V B	S T	Pass/Fail	Welding Technician	Welder No.	Welder Speed	Welder Temp.
4-5-12	441	446	1-2	60	x				Pass	SP	1099	5.0	850
4-5-12	447	452	2-3	40	x				Pass	AP	1885	5.0	850
4-5-12	448	453	3-5	27	x				Pass	AP	1885	5.0	850
4-5-12	441	446	2-4	29	x				Pass	AP	1885	5.0	850
4-5-12	453	458	4-5	34	x				Pass	SP	1099	5.0	850
4-5-12	442	447	4-6	60	x				Pass	AP	1885	5.0	850
4-5-12	501	506	6-7	60	x				Pass	SP	1099	5.0	850
4-5-12	503	508	7-8	60	x				Pass	AP	1885	5.0	850
4-5-12	513	518	8-9	45	x				Pass	SP	1099	5.0	850
4-5-12	522	527	9-10	7	x				Pass	SP	1099	5.0	850
4-5-12	522	527	10-12	20	x				Pass	SP	1099	5.0	850
4-5-12	513	518	9-11	31	x				Pass	SP	1099	5.0	850
4-5-12	511	516	1-11	55	x				Pass	SP	1099	5.0	850
4-5-12	434	439	1-13	178	x				Pass	AP	1885	5.0	850
4-5-12	432	437	13-14	176	x				Pass	SP	1099	5.0	850
4-5-12	524	529	14-15	101	x				Pass	AP	1885	5.0	850
4-5-12	425	430	14-16	23	x				Pass	AP	1885	5.0	850
4-5-12	423	428	14-17	47	x				Pass	AP	1885	5.0	850
4-5-12	412	417	15-16	22	x				Pass	SP	1099	5.0	850
4-5-12	406	411	16-17	22	x				Pass	SP	1099	5.0	850
4-5-12	412	417	15-18	101	x				Pass	AP	1885	5.0	850

AC=Air Channel Test AL=Air Lance Test VB=Vacuum Box Test ST=Spark Test

COLORADO LINING INTERNATIONAL

Quality Control Air Testing

Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Supervisor: Derek Huffman
Material: 60 mil HD

Date of Test	Start Time	End Time	Seam No.	Seam Length	AC	AL	VB	ST	Pass/Fail	Welding Technician	Welder No.	Welder Speed	Welder Temp.
4-5-12	406	411	16-18	23	x				Pass	AP	1885	5.0	850
4-5-12	359	404	17-18	47	x				Pass	AP	1885	5.0	850
4-5-12	357	402	18-19	179	x				Pass	AP	1885	5.0	850
4-5-12	355	400	19-20	135	x				Pass	AP	1885	5.0	850
4-5-12	355	400	19-21	47	x				Pass	AP	1885	5.0	850
4-5-12	346	351	20-21	22	x				Pass	AP	1885	5.0	850
4-5-12	346	351	20-22	135	x				Pass	AP	1885	5.0	850
4-5-12	339	344	21-22	47	x				Pass	AP	1885	5.0	850
4-5-12	338	343	22-23	179	x				Pass	AP	1885	5.0	850
4-5-12	331	336	23-24	135	x				Pass	SP	1099	5.0	850
4-5-12	331	336	23-25	47	x				Pass	SP	1099	5.0	850
4-5-12	329	334	24-25	22	x				Pass	SP	1099	5.0	850
4-5-12	312	317	24-29	56	x				Pass	AP	1885	5.0	850
4-5-12	313	318	24-26	23	x				Pass	AP	1885	5.0	850
4-5-12	320	325	24-27	25	x				Pass	AP	1885	5.0	850
4-5-12	322	327	24-28	30	x				Pass	AP	1885	5.0	850
4-5-12	304	309	26-29	22	x				Pass	SP	1099	5.0	850
4-5-12	256	301	26-27	22	x				Pass	SP	1099	5.0	850
4-5-12	247	252	27-28	22	x				Pass	AP	1885	5.0	850
4-5-12	329	334	25-28	45	x				Pass	AP	1885	5.0	850

AC=Air Channel Test AL=Air Lance Test VB=Vacuum Box Test ST=Spark Test

COLORADO LINING INTERNATIONAL

Quality Control Air Testing

Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Supervisor: Derek Huffman
Material: 60 mil HD

Date of Test	Start Time	End Time	Seam No.	Seam Length	A C	A L	V B	S T	Pass/Fail	Welding Technician	Welder No.	Welder Speed	Welder Temp.
4-5-12	304	309	29-30	56	x				Pass	AP	1885	5.0	850
4-5-12	256	301	26-30	23	x				Pass	AP	1885	5.0	850
4-5-12	248	253	27-30	25	x				Pass	AP	1885	5.0	850
4-5-12	247	252	28-30	75	x				Pass	AP	1885	5.0	850
4-5-12	237	242	30-31	48	x				Pass	AP	1885	5.0	850
4-5-12	230	235	31-32	34	x				Pass	AP	1885	5.0	850
4-5-12	226	231	32-41	14	x				Pass	AP	1885	5.0	850
4-5-12	227	232	40-41	18	x				Pass	AP	1885	5.0	850
4-5-12	219	224	31-40	26	x				Pass	AP	1885	5.0	850
4-5-12	216	221	39-40	60	x				Pass	AP	1885	5.0	850
4-5-12	209	215	33-39	60	x				Pass	AP	1885	5.0	850
4-5-12	202	207	34-33	60	x				Pass	AP	1885	5.0	850
4-5-12	157	202	34-35	60	x				Pass	SP	1099	5.0	850
4-5-12	150	155	35-36	30	x				Pass	SP	1099	5.0	850
4-5-12	147	152	36-38	29	x				Pass	SP	1099	5.0	850
4-5-12	148	153	35-37	26	x				Pass	SP	1099	5.0	850
4-5-12	147	152	37-38	30	x				Pass	SP	1099	5.0	850
4-5-12	200	205	30-37	47	x				Pass	SP	1099	5.0	850
4-5-12	217	222	30-40	6	x				Pass	AP	1099	5.0	850
4-5-12	209	214	30-39	22	x				Pass	SP	1099	5.0	850
4-5-12	202	207	30-33	22	x				Pass	SP	1099	5.0	850

AC=Air Channel Test AL=Air Lance Test VB=Vacuum Box Test ST=Spark Test

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COLORADO LINING INTERNATIONAL

Quality Control Air Testing

Project: Mautz Pit
Owner:
Engineer:
Contractor: WPX
Supervisor: Derek Huffman
Material: 60 mil HD

Date of Test	Start Time	End Time	Seam No.	Seam Length	AC	AL	VB	ST	Pass/Fail	Welding Technician	Welder No.	Welder Speed	Welder Temp.
4-5-12	159	204	30-34	22	x				Pass	SP	1099	5.0	850
4-5-12	501	506	1-6	22	x				Pass	AP	1885	5.0	850
4-5-12	501	506	1-7	22	x				Pass	AP	1885	5.0	850
4-5-12	503	508	1-8	22	x				Pass	AP	1885	5.0	850

AC=Air Channel Test AL=Air Lance Test VB=Vacuum Box Test ST=Spark Test

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COLORADO LINING INTERNATIONAL

Repair Log

Project: Mautz Pit
Owner: WPX
Engineer:
Contractor: WPX
Installation Supervisor: Derek Huffman
Material: 60 mil HDS

Date of Test	Techs. Initials	Repair Date	Repair No.	A C	A L	V B	S T	Pass/Fail	Location	Welder No.	Pre-Heat	Welder Temp.
4-6-12	AP	4-5-12	1			X		Pass	T	1631	400	500
4-6-12	AP	4-5-12	2			X		Pass	T	1631	400	500
4-6-12	AP	4-5-12	3			X		Pass	T	1631	400	500
4-6-12	AP	4-5-12	4			X		Pass	T	1631	400	500
4-6-12	AP	4-5-12	5			X		Pass	T	1631	400	500
4-6-12	AP	4-5-12	6			X		Pass	T	1631	400	500
4-6-12	AP	4-5-12	7			X		Pass	T	1631	400	500
4-6-12	AP	4-5-12	8			X		Pass	Top 18' of corner	1631	400	500
4-6-12	AP	4-5-12	9			X		Pass	T	1631	400	500
4-6-12	AP	4-5-12	10			X		Pass	T	1631	400	500
4-6-12	AP	4-5-12	11			X		Pass	T	1631	400	500
4-6-12	AP	4-5-12	12			X		Pass	T	1631	400	500
4-6-12	AP	4-5-12	13			X		Pass	T	1631	400	500
4-6-12	AP	4-5-12	14			X		Pass	T	1631	400	500
4-6-12	AP	4-6-12	15			X		Pass	T	1631	400	500
4-6-12	AP	4-6-12	16			X		Pass	T	1631	400	500
4-6-12	AP	4-6-12	17			X		Pass	T	1631	400	500
4-6-12	AP	4-6-12	18			X		Pass	T	1631	400	500
4-6-12	AP	4-6-12	19			X		Pass	T	1631	400	500
4-6-12	AP	4-6-12	20			X		Pass	T	1631	400	500
4-6-12	AP	4-6-12	21			X		Pass	SEAM MID-SLOPE	1631	400	500
4-6-12	AP	4-6-12	22			x		Pass	T	1631	400	500

AC=Air Channel Test AL=Air Lance Test VB=Vacuum Box Test ST=Spark Test

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COLORADO LINING INTERNATIONAL

Repair Log

Project: Mautz Pit
Owner: WPX
Engineer:
Contractor: WPX
Installation Supervisor: Derek Huffman
Material: 60 mil HDS

Date of Test	Techs. Initials	Repair Date	Repair No.	A C	A L	V B	S T	Pass/Fail	Location	Welder No.	Pre-Heat	Welder Temp.
4-6-12	AP	4-6-12	23			X		Pass	T	1631	400	500
4-6-12	AP	4-6-12	24			X		Pass	T	1631	400	500
4-6-12	AP	4-6-12	25			X		Pass	T	1631	400	500
4-6-12	AP	4-6-12	26			X		Pass	T	1631	400	500
4-6-12	AP	4-6-12	27			X		Pass	BOTTOM OF CORNER (2 T's)	1631	400	500
4-6-12	AP	4-6-12	28			X		Pass	T	1631	400	500
4-6-12	AP	4-6-12	29			X		Pass	T	1631	400	500
4-6-12	AP	4-6-12	30			X		Pass	T	1631	400	500
4-6-12	AP	4-6-12	31			X		Pass	T	1631	400	500
4-6-12	AP	4-6-12	32			X		Pass	T	1631	400	500
4-6-12	AP	4-6-12	33			X		Pass	T	1631	400	500

AC=Air Channel Test AL=Air Lance Test VB=Vacuum Box Test ST=Spark Test

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Date of test	Time of Test	Air Temp.	Unit Temp	Pre Heat Temp	Unit Speed	Peel Value	Shear Value	Welding Tech	Unit #	Pass/Fail
3/30/2012	7:30	40	450	400		87	108	AP	1631	PASS
						93	106			
						87				
3/30/2012	12:55	56	450	400		90	112	AP	1631	PASS
						89	107			
						88				

Date of test	Time of Test	Air Temp.	Unit Temp	Pre Heat Temp	Unit Speed	Peel Value	Shear Value	Welding Tech	Unit #	Pass/Fail
4/4/2012	7:20	40	850		5	134/138	191	SP	1099	PASS
						135/136	183			
						143/135				
4/4/2012	7:39	40	850		5	138/128	178	AP	1885	PASS
						149/129	182			
						128/138				
4/4/2012	1:00	56	850		5	143/137	189	AP	1885	PASS
						144/147	187			
						151/149				
4/4/2012	12:50	56	850		5	145/139	192			
						146/156	186	SP	1099	PASS
						151/143				

Date of test	Time of Test	Air Temp.	Unit Temp	Pre Heat Temp	Unit Speed	Peel Value	Shear Value	Welding Tech	Unit #	Pass/Fail
4/5/2012	7:15	39	850		5	143/127	169	AP	1885	PASS
						133/137	172			
						133/126				
4/5/2012	7:25	39	850		5	134/134	153	SP	1099	PASS
						130/132	158			
						129/132				
4/5/2012	1:00	59	500	450	N/A	107	144	AP	1631	PASS
						127	140			
						120				

Date of test	Time of Test	Air Temp.	Unit Temp	Pre Heat Temp	Unit Speed	Peel Value	Shear Value	Welding Tech	Unit #	Pass/Fail
4/6/2012	7:40	41	500	450	N/A	116	157	AP	1631	PASS
						107	150			
						120				

COLORADO LINING INTERNATIONAL

Panel Placement Log

Project: Mautz Pit
Owner: WPX
Engineer:
Contractor: WPX
Supervisor: Derek Huffman
Material: 60 HDS

Panel No.	Roll Number	Date	Material Type	Width	Length
1	102165688	4-4-12	60 HDS	22.5	179
2	688	4-4-12	60 HDS	22.5	50
3	688	4-4-12	60 HDS	22.5	29
4	688	4-4-12	60 HDS	22.5	55
5	688	4-4-12	60 HDS	22.5	28
6	688	4-4-12	60 HDS	22.5	60
7	688	4-4-12	60 HDS	22.5	59
8	688	4-4-12	60 HDS	22.5	55
9	688	4-4-12	60 HDS	22.5	47
10	687 start	4-4-12	60 HDS	22.5	10
11	687	4-4-12	60 HDS	22.5	46
12	687	4-4-12	60 HDS	22.5	35
13	687	4-4-12	60 HDS	22.5	179
14	687	4-4-12	60 HDS	22.5	179
15	687 end	4-4-12	60 HDS	22.5	101
16	688 end	4-4-12	60 HDS	22.5	24
17	685 start	4-4-12	60 HDS	22.5	47
18	685	4-4-12	60 HDS	22.5	179
19	685	4-4-12	60 HDS	22.5	179
20	685	4-4-12	60 HDS	22.5	135
21	684 start	4-4-12	60 HDS	22.5	47
22	684	4-4-12	60 HDS	22.5	179
23	684	4-5-12	60 HDS	22.5	179
24	684	4-5-12	60 HDS	22.5	135
25	689 start	4-5-12	60 HDS	22.5	47

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COLORADO LINING INTERNATIONAL

Panel Placement Log

Project: Mautz Pit
Owner: WPX
Engineer:
Contractor: WPX
Supervisor: Derek Huffman
Material: 60 HDS

Panel No.	Roll Number	Date	Material Type	Width	Length
26	684 end	4-5-12	60 HDS	22.5	23
27	685 end	4-5-12	60 HDS	22.5	25
28	689 start	4-5-12	60 HDS	22.5	75
29	689	4-5-12	60 HDS	22.5	56
30	689	4-5-12	60 HDS	22.5	179
31	689	4-5-12	60 HDS	22.5	55
32	689	4-5-12	60 HDS	22.5	35
33	689	4-5-12	60 HDS	22.5	60
34	686 start	4-5-12	60 HDS	22.5	60
35	686	4-5-12	60 HDS	22.5	60
36	686	4-5-12	60 HDS	22.5	30
37	686	4-5-12	60 HDS	22.5	50
38	686	4-5-12	60 HDS	22.5	30
39	686	4-5-12	60 HDS	22.5	60
40	686	4-5-12	60 HDS	22.5	60
41	686	4-5-12	60 HDS	22.5	18

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Panel Placement Log

Project: Mautz Pit Ryan Gulch
Owner:
Engineer:
Contractor: WPX
Supervisor: Cesar Gonzalez
Material: GCL

Panel No.	Roll Number	Date	Material Type	Width	Length
1	924	3/27/12	GCL	15.5	94
2	913	3/27/12	GCL	15.5	36
3	923	3/27/12	GCL	15.5	46
4	924	3/27/12	GCL	15.5	55
5	922	3/27/12	GCL	15.5	68
6	923	3/27/12	GCL	15.5	55
7	922	3/27/12	GCL	15.5	81
8	920	3/27/12	GCL	15.5	34
9	923	3/27/12	GCL	15.5	51
10	926	3/27/12	GCL	15.5	63
11	926	3/27/12	GCL	15.5	63
12	921	3/27/12	GCL	15.5	45
13	926	3/27/12	GCL	15.5	12
14	926	3/27/12	GCL	15.5	24
15	921	3/27/12	GCL	15.5	42
16	937	3/27/12	GCL	15.5	75
17	937	3/27/12	GCL	15.5	75
18	935	3/27/12	GCL	15.5	75
19	935	3/27/12	GCL	15.5	75
20	917	3/27/12	GCL	15.5	54
21	917	3/27/12	GCL	15.5	16
22	920	3/27/12	GCL	15.5	38
23	917	3/27/12	GCL	15.5	46
24	920	3/27/12	GCL	15.5	19
25	917	3/27/12	GCL	15.5	21
26	920	3/27/12	GCL	15.5	31
27	932	3/28/12	GCL	15.5	65
28	913	3/28/12	GCL	15.5	114
29	932	3/28/12	GCL	15.5	60
30	919	3/28/12	GCL	15.5	44
31	925	3/28/12	GCL	15.5	75
32	925	3/28/12	GCL	15.5	75

33	932	3/28/12	GCL	15.5	25
34	934	3/28/12	GCL	15.5	79
35	934	3/28/12	GCL	15.5	71
36	932	3/28/12	GCL	15.5	34
37	919	3/28/12	GCL	15.5	75
38	941	3/28/12	GCL	15.5	100
39	928	3/28/12	GCL	15.5	76
40	928	3/28/12	GCL	15.5	74
41	931	3/28/12	GCL	15.5	29
42	936	3/28/12	GCL	15.5	75
43	931	3/28/12	GCL	15.5	104
44	936	3/28/12	GCL	15.5	75
45	942	3/28/12	GCL	15.5	75
46	931	3/28/12	GCL	15.5	17
47	927	3/28/12	GCL	15.5	86
48	927	3/28/12	GCL	15.5	64
49	938	3/28/12	GCL	15.5	30
50	942	3/28/12	GCL	15.5	75
51	943	3/28/12	GCL	15.5	84
52	938	3/28/12	GCL	15.5	90
53	933	3/28/12	GCL	15.5	70
54	938	3/28/12	GCL	15.5	30
55	929	3/28/12	GCL	15.5	75
56	929	3/28/12	GCL	15.5	75
57	940	3/28/12	GCL	15.5	22
58	933	3/28/12	GCL	15.5	80
59	940	3/28/12	GCL	15.5	128
60	939	3/29/12	GCL	15.5	50
61	939	3/29/12	GCL	15.5	55
62	944	3/29/12	GCL	15.5	51
63	930	3/29/12	GCL	15.5	60
64	940	3/29/12	GCL	15.5	15
65	930	3/29/12	GCL	15.5	27
66	944	3/29/12	GCL	15.5	20
67	944	3/29/12	GCL	15.5	46
68	944	3/29/12	GCL	15.5	27
69	930	3/29/12	GCL	15.5	62
70	6389	3/29/12	GCL	15.5	50
71	6389	3/29/12	GCL	15.5	50
72	6382	3/29/12	GCL	15.5	50
73	6382	3/29/12	GCL	15.5	50
74	6382	3/29/12	GCL	15.5	20
75	6382	3/29/12	GCL	15.5	18
76	6389	3/29/12	GCL	15.5	46
77	939	3/29/12	GCL	15.5	46

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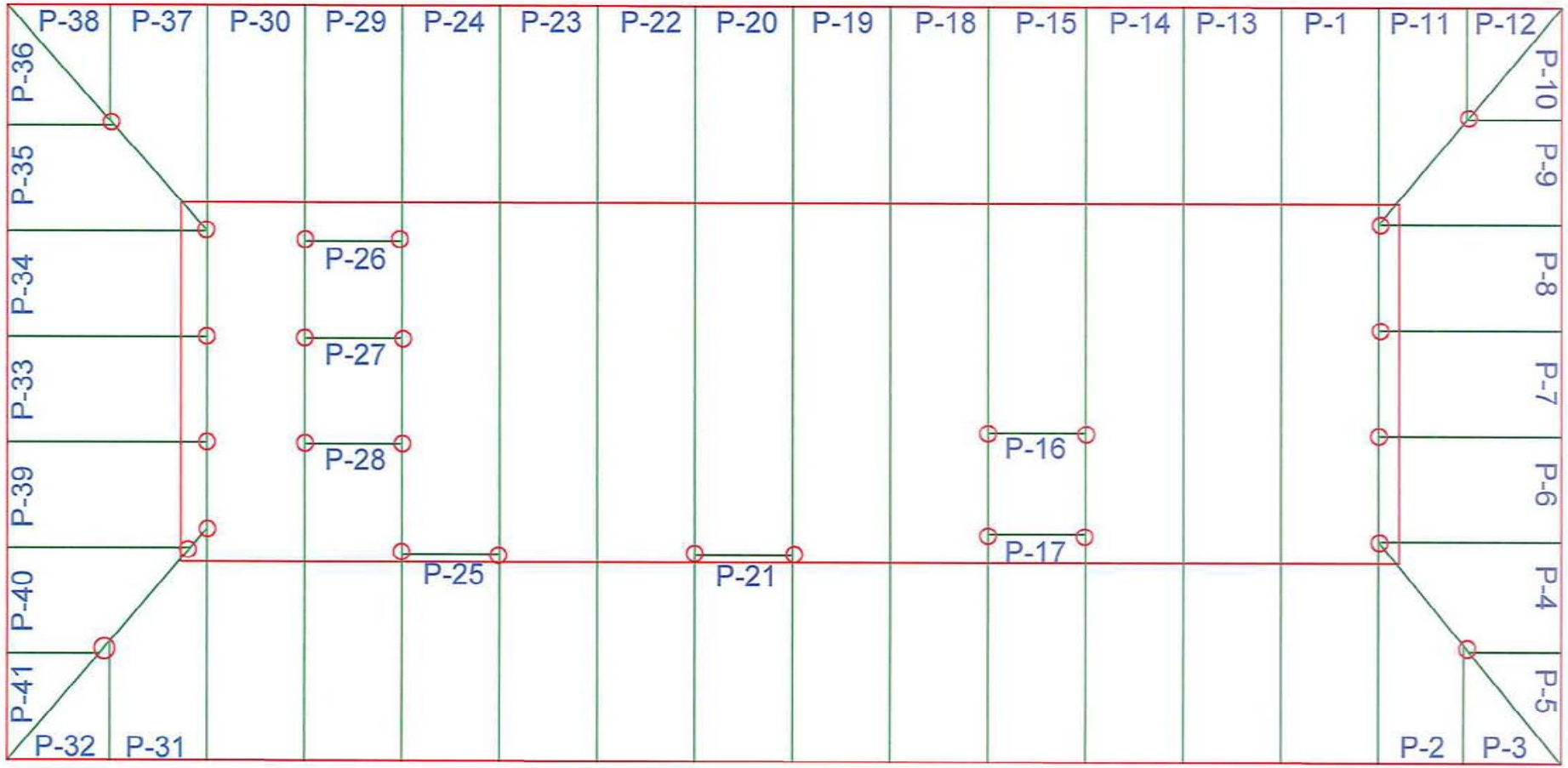
Ryan Gulch Mautz Pit / 60 Mil Layer

* P Represents Panels

○ * Represent Patches

N



COLORADO LINING INTERNATIONAL

Geomembrane Installation Approval

Project: WPX Energy/Mautz Pit
Owner: WPX Energy Rocky Mountain, LLC
Engineer: Fox Engineering Soulutions
Contractor: WPX Energy
Supervisor: Derek Huffman
Material: BentoLiner NSL GCL/40 HDPE/200 Mil Geonet/60 HDPE

The Geomembrane on this project has been installed, inspected and tested in accordance with Industry Standards and Manufacturer recommendations.

Date: 4/6/12

Accepted By: (Signature)

Print Name/Title: Tyler B Hunter Production Eng Team Lead

Company: WPX Energy

Comments:

All warranties to begin on the date of completion.
Warranties to be issued upon receipt of final payment.