

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT

<b>APPLICATION FOR PERMIT TO DRILL</b>		<b>1. WELL NAME and NUMBER</b> LC Tribal 15-18D-56
<b>2. TYPE OF WORK</b> DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>		<b>3. FIELD OR WILDCAT</b> UNDESIGNATED
<b>4. TYPE OF WELL</b> Oil Well Coalbed Methane Well: NO		<b>5. UNIT or COMMUNITIZATION AGREEMENT NAME</b>
<b>6. NAME OF OPERATOR</b> LINN OPERATING, INC.		<b>7. OPERATOR PHONE</b> 435 722-1325
<b>8. ADDRESS OF OPERATOR</b> Rt. 2 Box 7735, Roosevelt, UT, 84066		<b>9. OPERATOR E-MAIL</b> kwilson@linnenergy.com
<b>10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b> 20G0005500	<b>11. MINERAL OWNERSHIP</b> FEDERAL <input type="checkbox"/> INDIAN <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>	<b>12. SURFACE OWNERSHIP</b> FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
<b>13. NAME OF SURFACE OWNER (if box 12 = 'fee')</b> DWR		<b>14. SURFACE OWNER PHONE (if box 12 = 'fee')</b>
<b>15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')</b>		<b>16. SURFACE OWNER E-MAIL (if box 12 = 'fee')</b>
<b>17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')</b> Ute Indian Tribe	<b>18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS</b> YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>	<b>19. SLANT</b> VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	788 FSL 1407 FWL	SESW	18	5.0 S	6.0 W	U
Top of Uppermost Producing Zone	530 FSL 2250 FEL	SWSE	18	5.0 S	6.0 W	U
At Total Depth	510 FSL 2185 FEL	SWSE	18	5.0 S	6.0 W	U

<b>21. COUNTY</b> DUCHESNE	<b>22. DISTANCE TO NEAREST LEASE LINE (Feet)</b> 510	<b>23. NUMBER OF ACRES IN DRILLING UNIT</b> 640
<b>27. ELEVATION - GROUND LEVEL</b> 7721	<b>25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completion)</b> 2	<b>26. PROPOSED DEPTH</b> MD: 7408 TVD: 7120
	<b>28. BOND NUMBER</b> RLB0005647	<b>29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b> 43-12400

Hole, Casing, and Cement Information										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
SURF	13.5	8.625	0 - 2000	32.0	J-55 ST&C	9.5	Type V	350	3.82	11.0
							Class G	400	1.15	15.8
PROD	7.875	5.3125	0 - 7408	17.0	N-80 LT&C	9.5	Type V	200	3.82	11.0
							Premium Plus	480	1.7	13.1

**ATTACHMENTS**

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input checked="" type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP

<b>NAME</b>	<b>TITLE</b>	<b>PHONE</b>
<b>SIGNATURE</b>	<b>DATE</b> 04/12/2013	<b>EMAIL</b>
<b>API NUMBER ASSIGNED</b> 43013521420000		<b>APPROVAL</b>

**Received: February 19, 2015**

BERRY PETROLEUM COMPANY  
 LC Tribal 15-18D-56  
 Section 18, T5S, R6W, U.S.B.&M.  
 SHL: 788' FSL & 1407' FWL (SE/4SW/4)  
 BHL: 510' FSL & 2185' FEL (SW/4SE/4)  
 Duchesne County, Utah

ONSHORE ORDER NO. 1

DRILLING PROGRAM

**A,B Estimated Tops of Geological Markers and Formations Expected to Contain Water, Oil and Gas and Other Minerals**

FORMATION	DRILL DEPTH * @ SHL (TVD)	DRILL DEPTH* @ BHL (TVD)	Measured Depth
Uintah	0'	0'	0'
Green River	1302'	1395'	1308'
Green River Upper Marker	1986'	2022'	2105'
Mahogany	2567'	2604'	2739'
Tgr3	3602'	3637'	3870'
*Douglas Creek	4372'	4407'	4686'
*Black Shale	5017'	5043'	5339'
*Castle Peak	5302'	5333'	5624'
*Uteland Butte	5651'	5684'	5973'
* Wasatch	5886'	5920'	6208'
*CR-6 (base U Wasatch)	7086'	7120'	7408'
TD	7086'	7120'	7408'
Base of Moderate Saline Water	7711'	7533'	

\*PROSPECTIVE PAY

Berry is locating the well at the proposed surface location and directionally drilling to the proposed bottom hole location. By drilling directionally, Berry Petroleum Company will improve field development efficiency by potentially combining multiple surface hole locations together. This will significantly reduce total surface disturbance plus combine the use of access roads and existing pipelines.

Furthermore, Berry hereby certifies that it is the sole working interest owner with 460 feet of the entire directional well bore and the remainder of the Ute Tribal section.

**C Pressure Control Equipment :** (Schematic Attached)

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc. A 3M system will be utilized. The attached diagram depicts the use of an annular in conjunction with double rams. However, an annular, double rams or both may be used depending on the drilling rig contracted.

- Chart recorders will be used for all pressure tests.
- Test charts, with individual test results identified, shall be maintained on location while drilling and shall be made available to a representative upon request.
- Mud volumes will be monitored visually.
- Upper and Lower Kelly cocks will be utilized.
- A gas buster will be utilized, if necessary.

<u>Depth Intervals</u>	<u>BOP Equipment</u>
0 – 2000'	No Pressure Control
2000' – 7408'	11" 3000# Ram Type BOP 11" 3000# Annular BOP

**D,E Proposed Casing and Cementing Program**

<u>Purpose</u>	<u>Depth</u>	<u>Hole Size</u>	<u>Casing Size</u>	<u>Type</u>	<u>Connection</u>	<u>Weight</u>
Surface	2000'	13.50"	8.625"	J of K-55	ST&C	32#
Parasite String	1900'	13.50"	1.90"	J-55	IJ	2.76#
Production	7408'	7.875"	5-1/2"	N-80 or Lida 80	LT&C	17#

Surface Type & Amount

0' – 2000'

Lead with approximately 350 sx Premium Type 5 cement with additives mixed at 11.0 ppg (yield = 3.82 cuft/sx), calculated hole volume with 100% excess.

Tail with approximately 400 sx Premium G cement with additives mixed at 15.8 ppg (yield = 1.15 cuft/sx).

Top out cement, if required: 150sx of Premium cement with additives mixed at 15.8 ppg (yield = 1.15 cuft/sx).

Parasite

We will run an air injection collar +/- 1900' that contains a check valve (delta P = +/- 3500 psi) for our air injection into the annulus of the DP X 8-5/8" surface casing during production hole drilling. Once we drill our production hole section with aerated mud we will case and cement as usual. We will then abandon our parasite string with cement to assure future isolation of that string.

Production	Type & Amount
0' – 3500'	Lead: +/- 200 SX Premium Type V + additives or similar slurry with a minimum weight of 11.0 #/gal and approximate yield of 3.82 cuft/sx
3500' – 7408'	Tail: +/- 480 SX Premium Lite Tail + additives or similar slurry with a minimum weight of 13.1 #/gal and approximate yield of 1.70cuft/sk.

For production casing, actual cement volumes will be determined from the caliper log plus a minimum of 15% excess.

#### F Drilling Fluids Program

Interval	Weight	Viscosity	Fluid Loss	Remarks
0' – 2000'	8.4 – 9.5	27	NC	DAP Mud
2000'-7408'	8.4 – 9.5	27	NC	DAP Water

#### G Evaluation Program

Logging Program: HRI-GR-SP with SDL-DSN-PE, surface casing to TD. Preserve samples from all show intervals.

Sampling: 10' dry cut samples: Douglas Creek to TD. Preserve samples from all show intervals.

Surveys: As deemed necessary

Mud Logger: As deemed necessary

Drill Stem Tests: As deemed necessary

Cores: As deemed necessary

#### H Anticipated Abnormal Pressures or Temperatures

No abnormal temperatures or pressures or other hazards are anticipated.

Shallow gas and/or water flows are possible below surface casing.

Maximum anticipated bottom hole pressure equals approximately 3564 psi\* and maximum anticipated surface pressure equals approximately 1977\*\*psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

\*Max Mud Wt x 0.052 x TD = A (bottom hole pressure)

\*\*Maximum surface pressure = A – (0.22xTD)

#### I Anticipated Starting Dates and Notification of Operations

Drilling Activity:

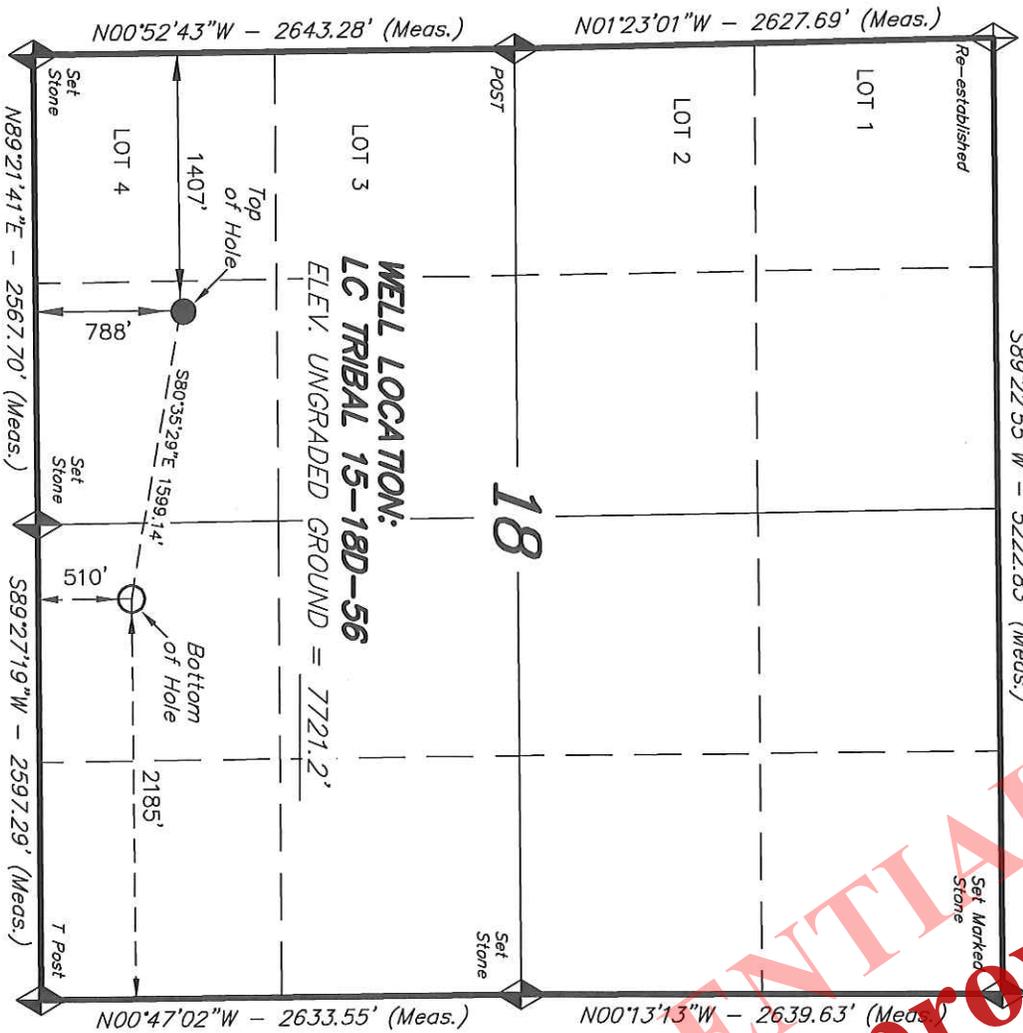
Anticipated Commencement Date:	Upon approval of the APD.
Drilling Days:	Approximately 10 days.
Completion Days:	Approximately 7 days.

# T5S, R6W, U.S.B.&M.

589°22'55"W - 5222.83' (Meas.)

**BERRY PETROLEUM COMPANY**

WELL LOCATION, LC TRIBAL 15-18D-56, LOCATED AS SHOWN IN THE SE 1/4 SW 1/4 OF SECTION 18, T5S, R6W, U.S.B.&M. DUCHESNE COUNTY, UTAH.

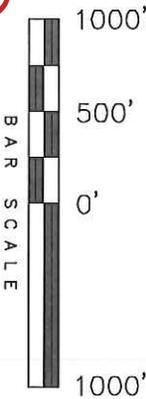


**WELL LOCATION:**  
**LC TRIBAL 15-18D-56**  
 ELEV. UNGRADED GROUND = 7721.2'

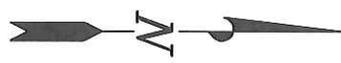
◆ = SECTION CORNERS LOCATED

BASIS OF ELEV: Elevations are base on an N.G.S. OPUS Correction. LOCATION: LAT. 39°58'55.06" LONG. 110°22'05.00" (Tristate Aluminum Cap) Elev. 7307.99'

<b>MAD 83 (SURFACE LOCATION)</b>	LATITUDE = 40°02'29.34" (40.041483)
	LONGITUDE = 110°35'22.55" (110.606284)
<b>MAD 27 (SURFACE LOCATION)</b>	LATITUDE = 40°02'29.48" (40.041523)
	LONGITUDE = 110°35'19.99" (110.605553)
<b>MAD 83 (BOTTOM HOLE LOCATION)</b>	LATITUDE = 40°02'26.60" (40.040722)
	LONGITUDE = 110°36'02.51" (110.600641)
<b>MAD 27 (BOTTOM HOLE LOCATION)</b>	LATITUDE = 40°02'26.74" (40.040762)
	LONGITUDE = 110°35'59.74" (110.599930)



**NOTES:**  
 Well footages are measured at right angles to the Section Lines.  
 2. Bearings are based on Global Positioning Satellite observations.



THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM THE FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



**TRI STATE LAND SURVEYING & CONSULTING**  
 180 NORTH VERNAL AVE. - VERNAL, UTAH 84078  
 (435) 781-2501

DATE SURVEYED: 07-20-12  
 SURVEYED BY: K.G.S.

DATE DRAWN: 07-25-12  
 DRAWN BY: L.C.S.

REVISED:  
 SCALE: 1" = 1000'

# Access Road Map

LC TRIBAL 15-18D-56 (Proposed Well)  
 LC TRIBAL 13-18D-56 (Proposed Well)  
 LC TRIBAL 11-18D-56 (Proposed Well)

See Topo "B"

Duchesne ± 3.5 mi.  
 US 191

± 6.5 mi.

± 7.2 mi.

## Legend

-  US Highway
-  Major Road
-  Minor Road
-  Existing Road
-  Existing 2-Track to be Upgraded
-  Proposed Road (30' Wide R-O-W)

CONFIDENTIAL  
 Returned Unapproved

**Tri State**  
 Land Surveying, Inc.  
 180 NORTH VERNAL AVE. VERNAL, UTAH 84078

P: (435) 781-2501  
 F: (435) 781-2518



## BERRY PETROLEUM COMPANY

LC TRIBAL 15-18D-56, 13-18D-56,  
 11-18D-56 (Proposed Wells)  
 SEC. 18, T5S, R6W, U.S.B.&M.  
 Duchesne County, UT.

DRAWN BY: J.A.S.  
 DATE: 07-26-2012

TOPOGRAPHIC MAP

SHEET  
**A**

Received: April 12, 2013

# Archer

## Berry Petroleum Company

Duchesne Co., UT (UT27C)

Sec.18-T5S-R6W

LC Tribal 15-18D-56

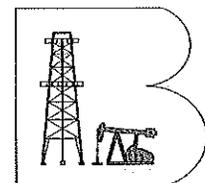
Wellbore #1

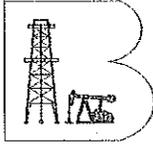
Plan: Design #1

## Standard Planning Report

29 August, 2012

**CONFIDENTIAL**  
**Returned Unapproved**





Project: Duchesne Co., UT (UT27C)  
 Site: Sec.18-T5S-R6W  
 Well: LC Tribal 15-18D-56  
 Wellbore: Wellbore #1  
 Design: Design #1  
 Latitude: 40° 2' 29.483 N  
 Longitude: 110° 36' 19.991 W  
 Ground Level: 7920.00  
 WELL @ 7940.00usft (Original Well Elev)

# Archer

PROJECT DETAILS: Duchesne Co., UT (UT27C)			
Geodetic System: US State Plane 1927 (Exact solution)			
Datum: NAD 1927 (NADCON CONUS)			
Ellipsoid: Clarke 1866			
Zone: Utah Central 4302			
System Datum: Mean Sea Level			

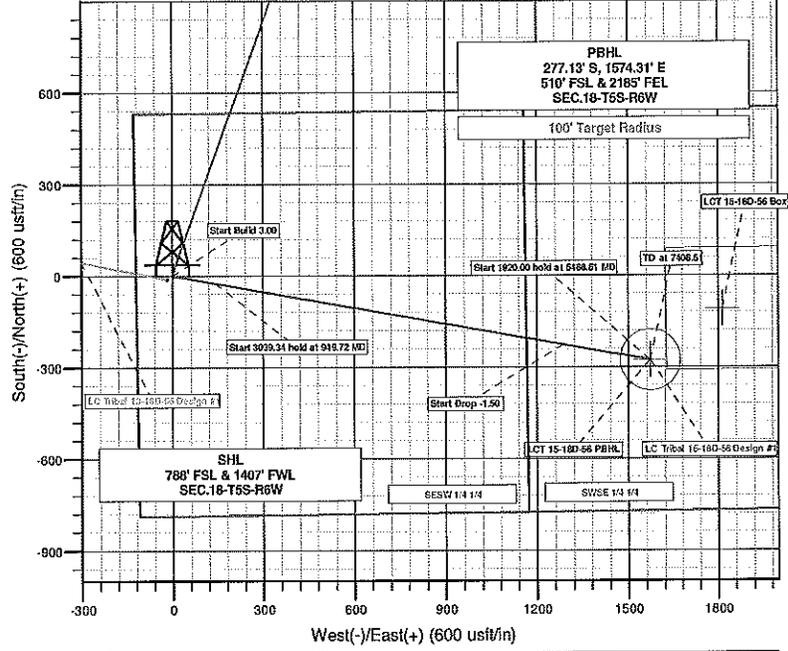
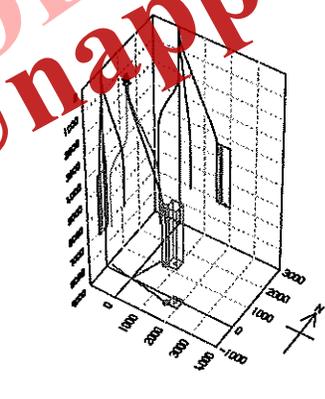
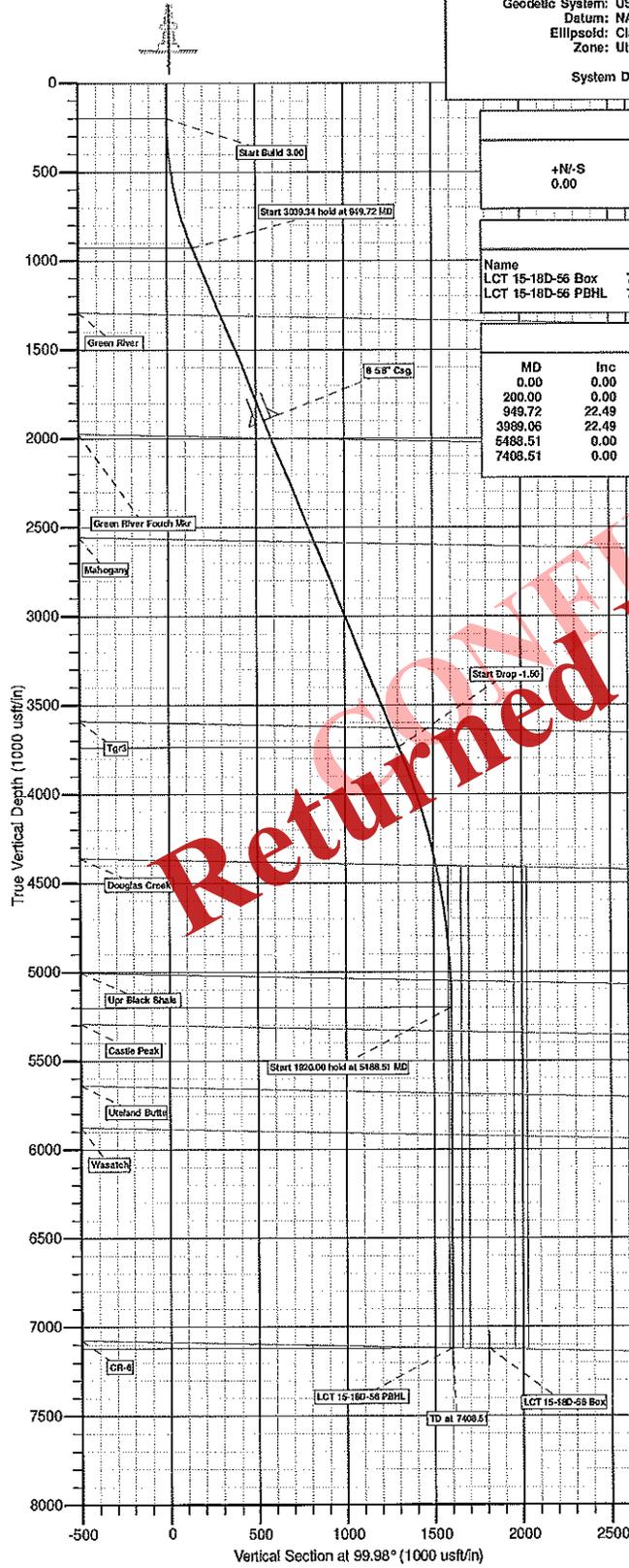
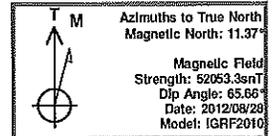
REFERENCE INFORMATION			
Co-ordinate (N/E) Reference: Well LC Tribal 15-18D-56, True North			
Vertical (TVD) Reference: WELL @ 7940.00usft (Original Well Elev)			
Section (VS) Reference: Slot - (0.00N, 0.00E)			
Measured Depth Reference: WELL @ 7940.00usft (Original Well Elev)			
Calculation Method: Minimum Curvature			

WELL DETAILS: LC Tribal 15-18D-56						
+N/-S	+E/-W	Northing	Ground Level:	7920.00	Latitude	Longitude
0.00	0.00	623421.946	Easting	2250417.809	40° 2' 29.483 N	110° 36' 19.991 W
Slot						

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
LCT 15-18D-56 Box	7120.00	-109.83	1614.13	623330.263	2252232.947	40° 2' 28.396 N	110° 35' 56.664 W	Polygon
LCT 15-18D-56 PBHL	7120.00	-277.13	1574.31	623160.573	2251994.814	40° 2' 26.743 N	110° 35' 59.748 W	Circle (Radius: 100.00)

SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFact	Sec	Annotation	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	Start 3039.34 hold at 949.72 MD
949.72	22.49	99.98	930.62	-26.19	143.07	3.00	59.98	145.27	1307.97	Start Drop -1.50
3099.06	22.49	99.98	3738.77	-226.76	1288.16	0.00	0.00	1598.52	1598.52	Start 1920.00 hold at 5488.51 MD
5488.51	0.00	0.00	5200.00	-277.13	1574.31	1.50	16.00	1598.52	1598.52	TD at 7408.51
7408.51	0.00	0.00	7120.00	-277.13	1574.31	0.00	0.00	1598.52	1598.52	

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1308.43	1358.64	Green River
1998.51	2105.53	Green River Fouch Mkr
2584.68	2739.96	Mahogany
3628.89	3870.13	Tgr3
4404.26	4666.90	Douglas Creek
5050.98	5339.45	Upr Black Shale
5336.04	5624.55	Castle Peak
5685.04	5973.55	Uteland Butte
5920.04	6208.55	Wasatch



Plan: Design #1 (LC Tribal 15-18D-56/Wellbore #1)  
 Created By: Dusty Moyer, Date: 14:10, August 29 2012  
 Received: April 12, 2013

# Archer

## Archer Planning Report



<b>Database:</b>	EDMDBBW	<b>Local Co-ordinate Reference:</b>	Well LC Tribal 15-18D-56
<b>Company:</b>	Berry Petroleum Company	<b>TVD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Project:</b>	Duchesne Co., UT (UT27C)	<b>MD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Site:</b>	Sec.18-T5S-R6W	<b>North Reference:</b>	True
<b>Well:</b>	LC Tribal 15-18D-56	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	Duchesne Co., UT (UT27C)		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Utah Central 4302		

<b>Site</b>	Sec.18-T5S-R6W				
<b>Site Position:</b>		<b>Northing:</b>	626,027.074 usft	<b>Latitude:</b>	40° 2' 54.924 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,253,483.037 usft	<b>Longitude:</b>	110° 35' 40.240 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16"	<b>Grid Convergence:</b>	0.58 °

<b>Well</b>	LC Tribal 15-18D-56					
<b>Well Position</b>	<b>+N/-S</b>	-2,573.96 usft	<b>Northing:</b>	623,421.946 usft	<b>Latitude:</b>	40° 2' 29.483 N
	<b>+E/-W</b>	-3,091.44 usft	<b>Easting:</b>	2,250,417.809 usft	<b>Longitude:</b>	110° 36' 19.991 W
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	7,920.00 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
	IGRF2010	08/21/12	11.37	65.66	52,053

<b>Design</b>	Design #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00	
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>	
	(usft)	(usft)	(usft)	(°)	
	0.00	0.00	0.00	99.98	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
949.72	22.49	99.98	930.62	-25.19	143.07	3.00	3.00	0.00	99.98	
3,989.06	22.49	99.98	3,738.77	-226.76	1,288.16	0.00	0.00	0.00	0.00	
5,488.51	0.00	0.00	5,200.00	-277.13	1,574.31	1.50	-1.50	0.00	180.00	
7,408.51	0.00	0.00	7,120.00	-277.13	1,574.31	0.00	0.00	0.00	0.00	LCT 15-18D-56 PBHL

# Archer

## Archer Planning Report



<b>Database:</b>	EDMDBBW	<b>Local Co-ordinate Reference:</b>	Well LC Tribal 15-18D-56
<b>Company:</b>	Berry Petroleum Company	<b>TVD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Project:</b>	Duchesne Co., UT (UT27C)	<b>MD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Site:</b>	Sec.18-T5S-R6W	<b>North Reference:</b>	True
<b>Well:</b>	LC Tribal 15-18D-56	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 3.00</b>										
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	3.00	99.98	299.95	-0.45	2.58	2.62	3.00	3.00	3.00	0.00
400.00	6.00	99.98	399.63	-1.81	10.30	10.46	3.00	3.00	3.00	0.00
500.00	9.00	99.98	498.77	-4.08	23.16	23.51	3.00	3.00	3.00	0.00
600.00	12.00	99.98	597.08	-7.24	41.10	41.74	3.00	3.00	3.00	0.00
700.00	15.00	99.98	694.31	-11.28	64.09	65.08	3.00	3.00	3.00	0.00
800.00	18.00	99.98	790.18	-16.21	92.06	93.48	3.00	3.00	3.00	0.00
900.00	21.00	99.98	884.43	-21.99	124.93	126.85	3.00	3.00	3.00	0.00
<b>Start 3039.34 hold at 949.72 MD</b>										
949.72	22.49	99.98	930.62	-25.19	143.07	145.27	3.00	3.00	3.00	0.00
1,000.00	22.49	99.98	977.07	-28.52	162.02	164.54	0.00	0.00	0.00	0.00
1,100.00	22.49	99.98	1,069.46	-35.15	195.89	202.75	0.00	0.00	0.00	0.00
1,200.00	22.49	99.98	1,161.86	-41.78	237.37	241.02	0.00	0.00	0.00	0.00
1,300.00	22.49	99.98	1,254.25	-48.42	276.04	279.27	0.00	0.00	0.00	0.00
<b>Green River</b>										
1,358.64	22.49	99.98	1,308.43	-52.31	297.13	301.70	0.00	0.00	0.00	0.00
1,400.00	22.49	99.98	1,349.64	-55.05	312.72	317.53	0.00	0.00	0.00	0.00
1,500.00	22.49	99.98	1,439.04	-61.68	350.39	355.78	0.00	0.00	0.00	0.00
1,600.00	22.49	99.98	1,531.43	-68.31	388.07	394.04	0.00	0.00	0.00	0.00
1,700.00	22.49	99.98	1,623.82	-74.94	425.75	432.29	0.00	0.00	0.00	0.00
1,800.00	22.49	99.98	1,716.22	-81.58	463.42	470.55	0.00	0.00	0.00	0.00
1,900.00	22.49	99.98	1,808.61	-88.21	501.10	508.80	0.00	0.00	0.00	0.00
<b>8 5/8" Csg.</b>										
2,000.00	22.49	99.98	1,901.00	-94.84	538.77	547.06	0.00	0.00	0.00	0.00
2,100.00	22.49	99.98	1,993.40	-101.47	576.45	585.31	0.00	0.00	0.00	0.00
<b>Green River Touch Mkr</b>										
2,109.58	22.49	99.98	1,998.51	-101.84	578.53	587.43	0.00	0.00	0.00	0.00
2,200.00	22.49	99.98	2,085.79	-108.11	614.12	623.57	0.00	0.00	0.00	0.00
2,300.00	22.49	99.98	2,178.18	-114.74	651.80	661.82	0.00	0.00	0.00	0.00
2,400.00	22.49	99.98	2,270.58	-121.37	689.47	700.08	0.00	0.00	0.00	0.00
2,500.00	22.49	99.98	2,362.97	-128.00	727.15	738.33	0.00	0.00	0.00	0.00
2,600.00	22.49	99.98	2,455.36	-134.63	764.83	776.59	0.00	0.00	0.00	0.00
2,700.00	22.49	99.98	2,547.76	-141.27	802.50	814.84	0.00	0.00	0.00	0.00
<b>Mahogany</b>										
2,739.96	22.49	99.98	2,584.68	-143.92	817.56	830.13	0.00	0.00	0.00	0.00
2,800.00	22.49	99.98	2,640.15	-147.90	840.18	853.10	0.00	0.00	0.00	0.00
2,900.00	22.49	99.98	2,732.54	-154.53	877.85	891.35	0.00	0.00	0.00	0.00
3,000.00	22.49	99.98	2,824.94	-161.16	915.53	929.61	0.00	0.00	0.00	0.00
3,100.00	22.49	99.98	2,917.33	-167.79	953.20	967.86	0.00	0.00	0.00	0.00
3,200.00	22.49	99.98	3,009.73	-174.43	990.88	1,006.12	0.00	0.00	0.00	0.00
3,300.00	22.49	99.98	3,102.12	-181.06	1,028.56	1,044.37	0.00	0.00	0.00	0.00
3,400.00	22.49	99.98	3,194.51	-187.69	1,066.23	1,082.63	0.00	0.00	0.00	0.00
3,500.00	22.49	99.98	3,286.91	-194.32	1,103.91	1,120.88	0.00	0.00	0.00	0.00
3,600.00	22.49	99.98	3,379.30	-200.96	1,141.58	1,159.13	0.00	0.00	0.00	0.00
3,700.00	22.49	99.98	3,471.69	-207.59	1,179.26	1,197.39	0.00	0.00	0.00	0.00
3,800.00	22.49	99.98	3,564.09	-214.22	1,216.93	1,235.64	0.00	0.00	0.00	0.00
<b>Tgr3</b>										
3,870.13	22.49	99.98	3,628.89	-218.87	1,243.36	1,262.47	0.00	0.00	0.00	0.00
3,900.00	22.49	99.98	3,656.48	-220.85	1,254.61	1,273.90	0.00	0.00	0.00	0.00
<b>Start Drop -1.50</b>										

# Archer

## Archer Planning Report



**Database:** EDMDBBW  
**Company:** Berry Petroleum Company  
**Project:** Duchesne Co., UT (UT27C)  
**Site:** Sec.18-T5S-R6W  
**Well:** LC Tribal 15-18D-56  
**Wellbore:** Wellbore #1  
**Design:** Design #1

**Local Co-ordinate Reference:**  
**TVD Reference:**  
**MD Reference:**  
**North Reference:**  
**Survey Calculation Method:**

Well LC Tribal 15-18D-56  
 WELL @ 7940.00usft (Original Well Elev)  
 WELL @ 7940.00usft (Original Well Elev)  
 True  
 Minimum Curvature

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,989.06	22.49	99.98	3,738.77	-226.76	1,288.16	1,307.97	0.00	0.00	0.00
4,000.00	22.33	99.98	3,748.88	-227.48	1,292.27	1,312.14	1.50	-1.50	0.00
4,100.00	20.83	99.98	3,841.87	-233.86	1,328.49	1,348.92	1.50	-1.50	0.00
4,200.00	19.33	99.98	3,935.79	-239.81	1,362.30	1,383.24	1.50	-1.50	0.00
4,300.00	17.83	99.98	4,030.58	-245.33	1,393.67	1,415.10	1.50	-1.50	0.00
4,400.00	16.33	99.98	4,126.16	-250.42	1,422.59	1,444.47	1.50	-1.50	0.00
4,500.00	14.83	99.98	4,222.49	-255.08	1,449.04	1,471.32	1.50	-1.50	0.00
4,600.00	13.33	99.98	4,319.48	-259.30	1,473.00	1,495.64	1.50	-1.50	0.00
<b>Douglas Creek</b>									
4,686.90	12.02	99.98	4,404.26	-262.60	1,491.77	1,514.71	1.50	-1.50	0.00
4,700.00	11.83	99.98	4,417.08	-263.07	1,494.44	1,517.42	1.50	-1.50	0.00
4,800.00	10.33	99.98	4,515.21	-268.40	1,513.36	1,536.59	1.50	-1.50	0.00
4,900.00	8.83	99.98	4,613.82	-269.29	1,529.75	1,553.27	1.50	-1.50	0.00
5,000.00	7.33	99.98	4,712.82	-271.72	1,543.59	1,567.92	1.50	-1.50	0.00
5,100.00	5.83	99.98	4,812.16	-273.71	1,554.17	1,578.73	1.50	-1.50	0.00
5,200.00	4.33	99.98	4,911.76	-275.24	1,562.39	1,587.63	1.50	-1.50	0.00
5,300.00	2.83	99.98	5,011.57	-276.32	1,569.73	1,593.87	1.50	-1.50	0.00
<b>Upr Black Shale</b>									
5,339.45	2.24	99.98	5,050.33	-276.63	1,571.45	1,595.61	1.50	-1.50	0.00
5,400.00	1.33	99.98	5,111.50	-276.95	1,573.30	1,597.49	1.50	-1.50	0.00
<b>Start 1920.00 hold at 6488.51 MD</b>									
5,488.51	0.00	0.00	5,200.00	-277.13	1,574.31	1,598.52	1.50	-1.50	0.00
5,500.00	0.00	0.00	5,211.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
5,600.00	0.00	0.00	5,311.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
<b>Castle Peak</b>									
5,624.55	0.00	0.00	5,336.04	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
5,700.00	0.00	0.00	5,411.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
5,800.00	0.00	0.00	5,511.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
5,900.00	0.00	0.00	5,611.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
<b>Uteland Butte</b>									
5,973.55	0.00	0.00	5,685.04	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
6,000.00	0.00	0.00	5,711.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
6,100.00	0.00	0.00	5,811.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
6,200.00	0.00	0.00	5,911.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
<b>Wasatch</b>									
6,208.55	0.00	0.00	5,920.04	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
6,300.00	0.00	0.00	6,011.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
6,400.00	0.00	0.00	6,111.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
6,500.00	0.00	0.00	6,211.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
6,600.00	0.00	0.00	6,311.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
6,700.00	0.00	0.00	6,411.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
6,800.00	0.00	0.00	6,511.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
6,900.00	0.00	0.00	6,611.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
7,000.00	0.00	0.00	6,711.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
7,100.00	0.00	0.00	6,811.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
7,200.00	0.00	0.00	6,911.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
7,300.00	0.00	0.00	7,011.49	-277.13	1,574.31	1,598.52	0.00	0.00	0.00
<b>TD at 7408.51</b>									
7,408.51	0.00	0.00	7,120.00	-277.13	1,574.31	1,598.52	0.00	0.00	0.00

# Archer

## Archer Planning Report



<b>Database:</b>	EDMDBBW	<b>Local Co-ordinate Reference:</b>	Well LC Tribal 15-18D-56
<b>Company:</b>	Berry Petroleum Company	<b>TVD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Project:</b>	Duchesne Co., UT (UT27C)	<b>MD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Site:</b>	Sec.18-T5S-R6W	<b>North Reference:</b>	True
<b>Well:</b>	LC Tribal 15-18D-56	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

### Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LCT 15-18D-56 PBHL - plan hits target center - Circle (radius 100.00)	0.00	0.00	7,120.00	-277.13	1,574.31	623,160.573	2,251,994.814	40° 2' 26.743 N	110° 35' 59.748 W
LCT 15-18D-56 Box - plan misses target center by 292.41usft at 7408.51usft MD (7120.00 TVD, -277.13 N, 1574.31 E) - Polygon	0.00	0.00	7,120.00	-109.83	1,814.13	623,330.263	2,252,232.947	40° 2' 28.396 N	110° 35' 56.664 W
Point 1			7,120.00	197.07	-191.26	623,525.41	2,252,039.73		
Point 2			7,120.00	200.46	186.40	623,532.58	2,252,417.33		
Point 3			7,120.00	-197.21	191.39	623,134.98	2,252,426.30		
Point 4			7,120.00	-200.80	-186.71	623,127.61	2,252,048.25		
Point 5			7,120.00	197.07	-191.26	623,525.41	2,252,039.73		

### Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
2,000.00	1,901.00	8 5/8" Csg.	8-5/8	11

### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,358.64	1,302.00	Green River		1.22	99.98
2,105.33	2,086.00	Green River Fouch Mkr		1.22	99.98
2,738.96	2,567.00	Mahogany		1.22	99.98
3,670.13	3,602.00	Tgr3		1.22	99.98
4,686.90	4,372.00	Douglas Creek		1.22	99.98
5,339.45	5,017.00	Upr Black Shale		1.22	99.98
5,624.55	5,302.00	Castle Peak		1.22	99.98
5,973.55	5,651.00	Uteland Butte		1.22	99.98
6,208.55	5,886.00	Wasatch		1.22	99.98

### Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
200.00	200.00	0.00	0.00	Start Build 3.00
949.72	930.62	-25.19	143.07	Start 3039.34 hold at 949.72 MD
3,989.06	3,738.77	-226.76	1,288.16	Start Drop -1.50
5,488.51	5,200.00	-277.13	1,574.31	Start 1920.00 hold at 5488.51 MD
7,408.51	7,120.00	-277.13	1,574.31	TD at 7408.51

# Archer

## Berry Petroleum Company

Duchesne Co., UT (UT27C)

Sec.18-T5S-R6W

LC Tribal 15-18D-56

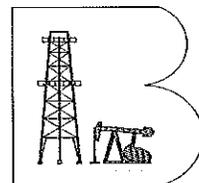
Wellbore #1

Design #1

## Anticollision Report

29 August, 2012

**CONFIDENTIAL**  
**Returned Unapproved**



**Received: April 12, 2013**

# Archer

## Archer Anticollision Report



<b>Company:</b>	Berry Petroleum Company	<b>Local Co-ordinate Reference:</b>	Well LC Tribal 15-18D-56
<b>Project:</b>	Duchesne Co., UT (UT27C)	<b>TVD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec.18-T5S-R6W	<b>MD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	LC Tribal 15-18D-56	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMDBBW
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	<b>Design #1</b>
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria
<b>Interpolation Method:</b>	Stations
<b>Depth Range:</b>	Unlimited
<b>Results Limited by:</b>	Maximum center-center distance of 9,999.98 usft
<b>Warning Levels Evaluated at:</b>	2.00 Sigma
<b>Error Model:</b>	ISCWSA
<b>Scan Method:</b>	Closest Approach 3D
<b>Error Surface:</b>	Elliptical Conic
<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b> 08/28/12			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	7,408.51	Design #1 (Wellbore #1)	MWD	MWD - Standard

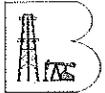
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec.18-T5S-R6W						
LC Tribal 11-18D-56 - Wellbore #1 - Design #1	200.00	200.00	20.11	19.48	31.958	CC, ES
LC Tribal 11-18D-56 - Wellbore #1 - Design #1	400.00	398.07	28.21	26.66	18.250	SF
LC Tribal 13-18D-56 - Wellbore #1 - Design #1	200.00	200.00	21.38	20.75	33.965	CC, ES
LC Tribal 13-18D-56 - Wellbore #1 - Design #1	400.00	399.63	29.89	28.35	19.371	SF

Offset Design Sec.18-T5S-R6W - LC Tribal 11-18D-56 - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: MWD													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/S (usft)	Offset Wellbore Centre +E/W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	12.05		19.67	4.20	20.11				
100.00	100.00	100.00	100.00	0.09	0.09	12.05		19.67	4.20	20.11	19.93	0.18	111.853	
200.00	200.00	200.00	200.00	0.31	0.31	12.05		19.67	4.20	20.11	19.48	0.63	31.958	CC, ES
300.00	299.95	299.24	299.22	0.53	0.54	-94.06		21.28	4.79	21.86	20.79	1.07	20.439	
400.00	399.63	398.07	397.91	0.77	0.77	-107.18		26.09	6.56	28.21	26.66	1.55	18.250	SF
500.00	498.77	496.08	495.55	1.05	1.01	-118.81		34.02	9.47	40.60	38.53	2.08	19.537	
600.00	597.08	592.87	591.64	1.42	1.28	-126.39		44.91	13.48	59.26	56.60	2.56	22.247	
700.00	694.31	688.09	685.73	1.87	1.59	-130.94		68.60	18.51	83.87	80.56	3.31	25.345	
800.00	790.18	781.37	777.39	2.42	1.92	-133.64		74.85	24.49	114.11	110.08	4.02	28.368	
900.00	884.43	872.42	866.26	3.07	2.30	-135.25		93.40	31.30	149.70	144.89	4.81	31.116	
949.72	930.62	916.76	909.31	3.44	2.50	-135.76		103.39	34.98	169.32	164.09	5.23	32.369	
1,000.00	977.07	961.15	952.22	3.83	2.71	-136.49		114.02	38.89	189.99	184.32	5.67	33.504	
1,100.00	1,069.46	1,048.62	1,038.26	4.61	3.15	-137.06		136.78	47.25	232.16	225.58	6.58	35.260	
1,200.00	1,161.86	1,137.72	1,121.28	5.41	3.64	-137.05		161.82	56.46	275.37	267.82	7.55	36.465	
1,300.00	1,254.25	1,227.88	1,207.26	6.21	4.15	-137.02		187.27	65.82	318.64	310.10	8.54	37.331	
1,400.00	1,346.64	1,318.03	1,293.24	7.01	4.67	-137.00		212.72	75.17	361.91	352.37	9.54	37.936	
1,500.00	1,439.04	1,408.19	1,379.22	7.82	5.19	-136.98		238.16	84.53	405.18	394.63	10.55	38.409	
1,600.00	1,531.43	1,498.34	1,465.20	8.63	5.71	-136.97		263.61	93.88	448.45	436.88	11.57	38.774	
1,700.00	1,623.82	1,588.49	1,551.18	9.44	6.24	-136.96		289.06	103.24	491.72	479.13	12.59	39.062	
1,800.00	1,716.22	1,678.65	1,637.16	10.25	6.77	-136.95		314.51	112.59	534.99	521.37	13.61	39.294	
1,900.00	1,808.61	1,768.80	1,723.14	11.07	7.30	-136.94		339.96	121.95	578.26	563.61	14.64	39.485	
2,000.00	1,901.00	1,858.96	1,809.12	11.88	7.83	-136.93		365.40	131.31	621.53	605.85	15.68	39.644	
2,100.00	1,993.40	1,949.11	1,895.10	12.69	8.36	-136.93		390.85	140.66	664.80	648.08	16.71	39.778	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

# Archer

## Archer Anticollision Report



<b>Company:</b>	Berry Petroleum Company	<b>Local Co-ordinate Reference:</b>	Well LC Tribal 15-18D-56
<b>Project:</b>	Duchesne Co., UT (UT27C)	<b>TVD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec. 18-T5S-R6W	<b>MD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	LC Tribal 15-18D-56	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMDBBW
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Sec. 18-T5S-R6W - LC Tribal 11-18D-56 - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,200.00	2,085.79	2,039.26	1,981.08	13.51	8.89	-136.92	416.30	150.02	708.07	690.32	17.75	39.892		
2,300.00	2,178.18	2,129.42	2,067.06	14.32	9.42	-136.92	441.75	159.37	751.34	732.55	18.79	39.690		
2,400.00	2,270.58	2,219.57	2,153.04	15.14	9.96	-136.91	467.19	168.73	794.61	774.78	19.83	40.076		
2,500.00	2,362.97	2,309.72	2,239.02	15.95	10.49	-136.91	492.64	178.08	837.88	817.01	20.87	40.150		
2,600.00	2,455.36	2,399.88	2,325.00	16.77	11.03	-136.90	518.09	187.44	881.15	859.24	21.91	40.216		
2,700.00	2,547.76	2,490.03	2,410.98	17.59	11.66	-136.90	543.54	196.79	924.42	901.46	22.95	40.274		
2,800.00	2,640.15	2,580.19	2,498.96	18.40	12.10	-136.90	568.98	206.15	967.68	943.69	24.00	40.326		
2,900.00	2,732.55	2,670.34	2,582.94	19.22	12.63	-136.90	594.43	215.51	1,010.95	985.91	25.00	40.372		
3,000.00	2,824.94	2,760.49	2,668.92	20.04	13.17	-136.89	619.88	224.86	1,054.22	1,028.14	26.09	40.414		
3,100.00	2,917.33	2,850.65	2,754.91	20.85	13.70	-136.89	645.33	234.22	1,097.49	1,070.33	27.13	40.452		
3,200.00	3,009.73	2,940.80	2,840.89	21.67	14.24	-136.89	670.78	243.57	1,140.76	1,112.59	28.18	40.486		
3,300.00	3,102.12	3,030.96	2,926.87	22.49	14.77	-136.89	696.22	252.93	1,184.03	1,144.81	29.22	40.518		
3,400.00	3,194.51	3,121.11	3,012.85	23.30	15.31	-136.89	721.67	262.28	1,227.30	1,197.03	30.27	40.546		
3,500.00	3,286.91	3,211.26	3,098.83	24.12	15.84	-136.88	747.12	271.53	1,270.57	1,239.26	31.32	40.572		
3,600.00	3,379.30	3,301.42	3,184.81	24.94	16.38	-136.88	772.57	280.78	1,313.84	1,281.48	32.36	40.597		
3,700.00	3,471.69	3,391.57	3,270.79	25.75	16.92	-136.88	798.01	290.03	1,357.11	1,323.70	33.41	40.619		
3,800.00	3,564.09	3,481.73	3,356.77	26.57	17.45	-136.88	823.46	299.27	1,400.38	1,365.92	34.46	40.639		
3,900.00	3,656.48	3,571.88	3,442.75	27.39	17.99	-136.88	848.91	309.06	1,443.65	1,408.14	35.51	40.658		
3,989.06	3,738.77	3,652.17	3,519.33	28.12	18.47	-136.88	871.57	317.39	1,482.19	1,445.75	36.44	40.674		
4,000.00	3,748.88	3,662.04	3,528.73	28.20	18.53	-136.88	874.36	318.42	1,488.91	1,450.35	36.56	40.674		
4,100.00	3,841.87	3,758.76	3,621.04	28.84	19.17	-136.88	901.49	328.39	1,529.04	1,491.48	37.57	40.703		
4,200.00	3,935.79	3,864.66	3,722.57	29.48	19.87	-137.73	929.74	338.78	1,568.72	1,530.21	38.52	40.725		
4,300.00	4,030.58	3,972.26	3,826.28	29.99	20.03	-138.05	956.63	348.66	1,605.77	1,566.35	39.42	40.739		
4,400.00	4,126.16	4,081.47	3,902.08	30.50	20.48	-138.34	982.05	358.01	1,640.12	1,599.85	40.27	40.726		
4,500.00	4,222.49	4,192.20	4,035.95	30.97	20.92	-138.58	1,005.89	366.77	1,671.73	1,630.65	41.09	40.689		
4,600.00	4,319.48	4,304.11	4,149.44	31.39	21.33	-138.79	1,028.03	374.91	1,700.55	1,658.70	41.85	40.634		
4,700.00	4,417.08	4,411.98	4,260.84	31.78	21.72	-138.97	1,048.38	382.39	1,726.54	1,683.98	42.56	40.663		
4,800.00	4,515.41	4,512.43	4,373.77	32.12	22.09	-139.11	1,066.83	389.18	1,749.66	1,706.43	43.23	40.477		
4,900.00	4,613.52	4,618.13	4,488.13	32.42	22.43	-139.22	1,083.30	395.23	1,769.86	1,726.03	43.83	40.379		
5,000.00	4,712.82	4,714.76	4,603.75	32.68	22.74	-139.31	1,097.71	400.53	1,787.13	1,742.75	44.38	40.269		
5,100.00	4,812.16	4,822.20	4,720.46	32.91	23.03	-139.37	1,109.98	405.04	1,801.42	1,756.55	44.87	40.148		
5,200.00	4,911.76	5,000.30	4,838.07	33.09	23.28	-139.40	1,120.06	408.76	1,812.72	1,767.42	45.30	40.016		
5,300.00	5,011.57	5,118.92	4,956.39	33.24	23.50	-139.41	1,127.88	411.62	1,821.00	1,775.34	45.67	39.877		
5,400.00	5,111.50	5,237.92	5,075.24	33.35	23.69	-139.39	1,133.42	413.66	1,826.26	1,780.29	45.97	39.726		
5,488.51	5,200.00	5,343.43	5,180.70	33.42	23.84	-39.36	1,136.40	414.75	1,828.39	1,782.20	46.19	39.583		
5,500.00	5,211.49	5,357.14	5,194.41	33.43	23.85	-39.36	1,136.65	414.85	1,828.50	1,782.28	46.22	39.581		
5,600.00	5,311.49	5,474.23	5,311.49	33.50	23.98	-39.33	1,137.56	415.18	1,828.92	1,782.47	46.45	39.374		
5,700.00	5,411.49	5,574.23	5,411.49	33.57	24.08	-39.33	1,137.56	415.18	1,828.92	1,782.26	46.65	39.203		
5,800.00	5,511.49	5,674.23	5,511.49	33.65	24.18	-39.33	1,137.56	415.18	1,828.92	1,782.06	46.86	39.030		
5,900.00	5,611.49	5,774.23	5,611.49	33.72	24.28	-39.33	1,137.56	415.18	1,828.92	1,781.85	47.07	38.856		
6,000.00	5,711.49	5,874.23	5,711.49	33.80	24.38	-39.33	1,137.56	415.18	1,828.92	1,781.63	47.28	38.681		
6,100.00	5,811.49	5,974.23	5,811.49	33.88	24.49	-39.33	1,137.56	415.18	1,828.92	1,781.42	47.50	38.504		
6,200.00	5,911.49	6,074.23	5,911.49	33.96	24.59	-39.33	1,137.56	415.18	1,828.92	1,781.20	47.72	38.327		
6,300.00	6,011.49	6,174.23	6,011.49	34.04	24.70	-39.33	1,137.56	415.18	1,828.92	1,780.97	47.94	38.148		
6,400.00	6,111.49	6,274.23	6,111.49	34.12	24.81	-39.33	1,137.56	415.18	1,828.92	1,780.75	48.17	37.969		
6,500.00	6,211.49	6,374.23	6,211.49	34.21	24.92	-39.33	1,137.56	415.18	1,828.92	1,780.52	48.40	37.789		
6,600.00	6,311.49	6,474.23	6,311.49	34.29	25.03	-39.33	1,137.56	415.18	1,828.92	1,780.29	48.63	37.609		
6,700.00	6,411.49	6,574.23	6,411.49	34.38	25.15	-39.33	1,137.56	415.18	1,828.92	1,780.05	48.87	37.428		
6,800.00	6,511.49	6,674.23	6,511.49	34.47	25.26	-39.33	1,137.56	415.18	1,828.92	1,779.81	49.10	37.246		
6,900.00	6,611.49	6,774.23	6,611.49	34.55	25.38	-39.33	1,137.56	415.18	1,828.92	1,779.57	49.35	37.064		
7,000.00	6,711.49	6,874.23	6,711.49	34.64	25.50	-39.33	1,137.56	415.18	1,828.92	1,779.33	49.59	36.881		
7,100.00	6,811.49	6,974.23	6,811.49	34.74	25.62	-39.33	1,137.56	415.18	1,828.92	1,779.08	49.84	36.698		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Archer

## Archer Anticollision Report



<b>Company:</b>	Berry Petroleum Company	<b>Local Co-ordinate Reference:</b>	Well LC Tribal 15-18D-56
<b>Project:</b>	Duchesne Co., UT (UT27C)	<b>TVD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec.18-T5S-R6W	<b>MD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	LC Tribal 15-18D-56	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMDBBW
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference													Warning	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+EJ-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
7,200.00	6,911.49	7,074.23	6,911.49	34.83	25.74	-39.33	1,137.56	415.18	1,828.92	1,778.83	50.09	36.515		
7,300.00	7,011.49	7,174.23	7,011.49	34.92	25.86	-39.33	1,137.56	415.18	1,828.92	1,778.58	50.34	38.332		
7,370.59	7,082.08	7,244.82	7,082.08	34.99	25.95	-39.33	1,137.56	415.18	1,828.92	1,778.40	50.52	36.202		
7,408.51	7,120.00	7,277.74	7,115.00	35.02	25.99	-39.33	1,137.56	415.18	1,828.92	1,778.31	50.61	36.138		

CONFIDENTIAL  
 Returned Unapproved

# Archer

## Archer Anticollision Report



<b>Company:</b>	Berry Petroleum Company	<b>Local Co-ordinate Reference:</b>	Well LC Tribal 15-18D-56
<b>Project:</b>	Duchesne Co., UT (UT27C)	<b>TVD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec.18-T5S-R6W	<b>MD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	LC Tribal 15-18D-56	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMDBBW
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Sec.18-T5S-R6W - LC Tribal 13-18D-56 - Wellbore #1 - Design #1													Offset Site Error:	0.00 usft
Survey Program: O-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Hlghside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-123.04	-11.66	-17.92	21.38					
100.00	100.00	100.00	100.00	0.09	0.09	-123.04	-11.66	-17.92	21.38	21.20	0.18	118.878		
200.00	200.00	200.00	200.00	0.31	0.31	-123.04	-11.66	-17.92	21.38	20.75	0.63	33.965 CC, ES		
300.00	299.95	299.95	299.95	0.53	0.54	141.32	-11.66	-17.92	23.36	22.28	1.08	21.668		
400.00	399.63	399.63	399.63	0.77	0.76	150.86	-11.66	-17.92	28.89	28.35	1.54	19.371 SF		
500.00	498.77	498.77	498.77	1.05	0.99	159.33	-11.66	-17.92	41.77	39.75	2.02	20.662		
600.00	597.08	597.08	597.08	1.42	1.21	165.43	-11.66	-17.92	59.19	56.68	2.50	20.654		
700.00	694.31	694.31	694.31	1.87	1.43	169.40	-11.66	-17.92	82.01	79.03	2.98	20.189		
800.00	790.18	790.18	790.18	2.42	1.64	172.00	-11.66	-17.92	110.07	106.61	3.41	31.724		
900.00	884.43	884.43	884.43	3.07	1.85	173.74	-11.66	-17.92	143.22	139.27	3.95	36.240		
949.72	930.62	930.62	930.62	3.44	1.96	174.40	-11.66	-17.92	161.56	157.95	4.49	38.518		
1,000.00	977.07	977.07	977.07	3.83	2.06	174.99	-11.66	-17.92	180.77	176.21	4.44	40.676		
1,100.00	1,069.46	1,069.46	1,069.46	4.61	2.27	175.87	-11.66	-17.92	209.87	203.93	4.95	44.258		
1,200.00	1,161.86	1,161.86	1,161.86	5.41	2.48	176.48	-11.66	-17.92	250.06	251.60	5.46	47.112		
1,300.00	1,254.25	1,254.25	1,254.25	6.21	2.68	176.94	-11.66	-17.92	299.26	289.29	5.97	49.430		
1,400.00	1,346.64	1,346.64	1,346.64	7.01	2.89	177.29	-11.66	-17.92	353.47	326.98	6.49	51.344		
1,500.00	1,439.04	1,439.04	1,439.04	7.82	3.10	177.57	-11.66	-17.92	371.69	364.67	7.02	52.947		
1,600.00	1,531.43	1,531.43	1,531.43	8.63	3.31	177.79	-11.66	-17.92	409.92	402.37	7.55	54.307		
1,700.00	1,623.82	1,623.82	1,623.82	9.44	3.51	177.98	-11.66	-17.92	448.16	440.08	8.08	55.473		
1,800.00	1,716.22	1,716.22	1,716.22	10.25	3.72	178.04	-11.66	-17.92	486.39	477.78	8.61	56.484		
1,900.00	1,808.61	1,808.61	1,808.61	11.07	3.93	178.28	-11.66	-17.92	524.63	515.49	9.15	57.367		
2,000.00	1,901.00	1,901.00	1,901.00	11.89	4.14	178.39	-11.66	-17.92	562.87	553.19	9.68	58.145		
2,100.00	1,993.40	1,993.40	1,993.40	12.69	4.35	178.50	-11.66	-17.92	601.11	590.90	10.22	58.835		
2,200.00	2,085.79	2,085.79	2,085.79	13.51	4.55	178.59	-11.66	-17.92	639.36	628.60	10.75	59.451		
2,300.00	2,178.18	2,157.70	2,147.70	14.32	4.71	178.65	-11.49	-18.77	678.78	667.54	11.25	60.347		
2,400.00	2,270.58	2,223.92	2,223.92	15.14	4.85	178.72	-10.88	-21.86	721.38	709.65	11.73	61.479		
2,500.00	2,362.97	2,300.00	2,299.63	15.95	5.01	178.79	-9.65	-28.19	767.17	754.93	12.24	62.687		
2,600.00	2,455.36	2,349.00	2,349.07	16.77	5.12	178.84	-8.53	-33.93	816.60	802.91	12.69	64.282		
2,700.00	2,547.75	2,400.00	2,398.77	17.59	5.24	178.89	-7.14	-40.99	866.99	853.85	13.14	65.987		
2,800.00	2,640.15	2,466.76	2,464.51	18.40	5.40	178.96	-4.92	-52.37	920.84	907.22	13.62	67.604		
2,900.00	2,732.55	2,521.94	2,518.52	19.22	5.55	179.02	-2.75	-63.48	977.21	963.13	14.08	69.404		
3,000.00	2,824.94	2,574.97	2,570.09	20.04	5.71	179.07	-0.38	-75.58	1,036.91	1,021.37	14.63	71.273		
3,100.00	2,917.33	2,625.89	2,619.27	20.85	5.87	179.12	2.15	-88.53	1,096.78	1,081.80	14.98	73.195		
3,200.00	3,009.73	2,674.75	2,666.11	21.67	6.04	179.17	4.82	-102.15	1,159.71	1,144.28	15.43	75.160		
3,300.00	3,102.12	2,721.62	2,710.70	22.49	6.22	179.21	7.59	-116.33	1,224.66	1,208.69	15.87	77.160		
3,400.00	3,194.51	2,766.57	2,753.12	23.30	6.41	179.25	10.44	-130.92	1,291.23	1,274.92	16.31	79.180		
3,500.00	3,286.91	2,800.00	2,784.43	24.12	6.55	179.28	12.69	-142.41	1,359.65	1,342.93	16.72	81.300		
3,600.00	3,379.30	2,850.96	2,831.75	24.94	6.82	179.33	16.31	-160.95	1,429.55	1,412.37	17.18	83.220		
3,700.00	3,471.69	2,900.00	2,876.81	25.75	7.08	179.37	20.03	-179.97	1,501.06	1,483.44	17.62	85.207		
3,800.00	3,564.09	2,936.66	2,910.19	26.57	7.30	179.40	22.94	-194.84	1,573.82	1,555.78	18.05	87.216		
3,900.00	3,656.48	3,004.80	2,972.17	27.39	7.72	179.46	28.37	-222.63	1,647.01	1,628.50	18.51	88.972		
3,989.06	3,738.77	3,065.49	3,027.37	28.12	8.12	179.50	33.21	-247.38	1,712.19	1,693.26	18.93	90.443		
4,000.00	3,748.88	3,072.95	3,034.15	28.20	8.17	179.51	33.81	-250.43	1,720.18	1,701.19	18.99	90.594		
4,100.00	3,841.87	3,142.25	3,097.18	28.84	8.65	179.56	39.33	-278.69	1,792.27	1,772.78	19.49	91.973		
4,200.00	3,935.79	3,213.41	3,161.91	29.43	9.16	179.62	45.01	-307.72	1,862.52	1,842.54	19.98	93.240		
4,300.00	4,030.58	3,286.38	3,228.28	29.99	9.69	179.66	50.83	-337.48	1,930.88	1,910.42	20.46	94.394		
4,400.00	4,126.16	3,361.12	3,296.26	30.50	10.26	179.70	56.79	-367.97	1,997.31	1,976.38	20.93	95.448		
4,500.00	4,222.49	3,437.58	3,365.80	30.97	10.85	179.74	62.89	-399.15	2,061.76	2,040.37	21.38	96.413		
4,600.00	4,319.48	3,515.69	3,436.84	31.39	11.46	179.77	69.12	-431.01	2,124.18	2,102.35	21.83	97.296		
4,700.00	4,417.08	3,595.41	3,509.35	31.78	12.10	179.80	75.48	-463.53	2,184.64	2,162.27	22.27	98.099		
4,800.00	4,515.21	3,676.68	3,583.28	32.12	12.76	179.83	81.96	-496.68	2,242.80	2,220.10	22.69	98.825		
4,900.00	4,613.82	3,835.91	3,728.95	32.42	13.90	179.88	94.29	-569.73	2,298.06	2,274.78	23.28	98.707		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



<b>Company:</b>	Berry Petroleum Company	<b>Local Co-ordinate Reference:</b>	Well LC Tribal 15-18D-56
<b>Project:</b>	Duchesne Co., UT (UT27C)	<b>TVD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec.18-T5S-R6W	<b>MD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	LC Tribal 15-18D-56	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMDBBW
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Sec.18-T5S-R6W - LC Tribal 13-18D-56 - Wellbore #1 - Design #1														Offset Site Error:	0.00 usft
Survey Program: 0-MWD														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance					Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Hlghside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
5,000.00	4,712.82	4,058.88	3,937.10	32.68	15.25	179.93	109.60	-638.05	2,346.84	2,322.64	23.99	97.797			
5,100.00	4,812.16	4,298.88	4,165.96	32.91	16.53	179.97	123.46	-708.90	2,387.46	2,362.72	24.74	96.504			
5,200.00	4,911.76	4,554.09	4,413.77	33.09	17.65	180.00	135.13	-768.60	2,419.82	2,394.33	25.49	94.933			
5,300.00	5,011.57	4,821.65	4,677.32	33.24	18.68	-179.98	143.93	-813.61	2,443.09	2,416.87	26.22	93.188			
5,400.00	5,111.50	5,097.86	4,952.04	33.35	19.25	-179.97	149.28	-840.97	2,456.79	2,429.90	26.89	91.361			
5,488.51	5,200.00	5,345.98	5,200.00	33.42	19.63	-79.98	150.83	-848.88	2,460.69	2,433.26	27.43	89.723			
5,500.00	5,211.49	5,357.47	5,211.49	33.43	19.65	-79.98	150.83	-848.88	2,460.69	2,433.23	27.46	89.604			
5,600.00	5,311.49	5,457.47	5,311.49	33.50	19.77	-79.98	150.83	-848.88	2,460.69	2,432.90	27.79	88.146			
5,700.00	5,411.49	5,557.47	5,411.49	33.57	19.89	-79.98	150.83	-848.88	2,460.69	2,432.56	28.11	87.411			
5,800.00	5,511.49	5,657.47	5,511.49	33.65	20.02	-79.98	150.83	-848.88	2,460.69	2,432.22	28.46	86.449			
5,900.00	5,611.49	5,757.47	5,611.49	33.72	20.15	-79.98	150.83	-848.88	2,460.69	2,431.88	28.81	85.425			
6,000.00	5,711.49	5,857.47	5,711.49	33.80	20.28	-79.98	150.83	-848.88	2,460.69	2,431.54	29.15	84.416			
6,100.00	5,811.49	5,957.47	5,811.49	33.88	20.41	-79.98	150.83	-848.88	2,460.69	2,431.19	29.50	83.424			
6,200.00	5,911.49	6,057.47	5,911.49	33.96	20.55	-79.98	150.83	-848.88	2,460.69	2,430.84	29.85	82.447			
6,300.00	6,011.49	6,157.47	6,011.49	34.04	20.68	-79.98	150.83	-848.88	2,460.69	2,430.49	30.20	81.487			
6,400.00	6,111.49	6,257.47	6,111.49	34.12	20.82	-79.98	150.83	-848.88	2,460.69	2,430.14	30.55	80.542			
6,500.00	6,211.49	6,357.47	6,211.49	34.21	20.96	-79.98	150.83	-848.88	2,460.69	2,429.78	30.91	79.612			
6,600.00	6,311.49	6,457.47	6,311.49	34.29	21.10	-79.98	150.83	-848.88	2,460.69	2,429.42	31.27	78.698			
6,700.00	6,411.49	6,557.47	6,411.49	34.38	21.24	-79.98	150.83	-848.88	2,460.69	2,429.06	31.63	77.800			
6,800.00	6,511.49	6,657.47	6,511.49	34.47	21.38	-79.98	150.83	-848.88	2,460.69	2,428.70	31.99	76.917			
6,900.00	6,611.49	6,757.47	6,611.49	34.55	21.53	-79.98	150.83	-848.88	2,460.69	2,428.33	32.36	76.048			
7,000.00	6,711.49	6,857.47	6,711.49	34.64	21.67	-79.98	150.83	-848.88	2,460.69	2,427.96	32.72	75.195			
7,100.00	6,811.49	6,957.47	6,811.49	34.74	21.82	-79.98	150.83	-848.88	2,460.69	2,427.59	33.09	74.356			
7,200.00	6,911.49	7,057.47	6,911.49	34.83	21.97	-79.98	150.83	-848.88	2,460.69	2,427.22	33.46	73.531			
7,300.00	7,011.49	7,157.47	7,011.49	34.92	22.12	-79.98	150.83	-848.88	2,460.69	2,426.85	33.84	72.721			
7,340.26	7,051.75	7,197.73	7,051.75	34.96	22.18	-79.98	150.83	-848.88	2,460.69	2,426.70	33.99	72.398			
7,408.51	7,128.00	7,274.98	7,088.00	35.02	22.21	-79.98	150.83	-848.88	2,461.22	2,427.08	34.14	72.094			

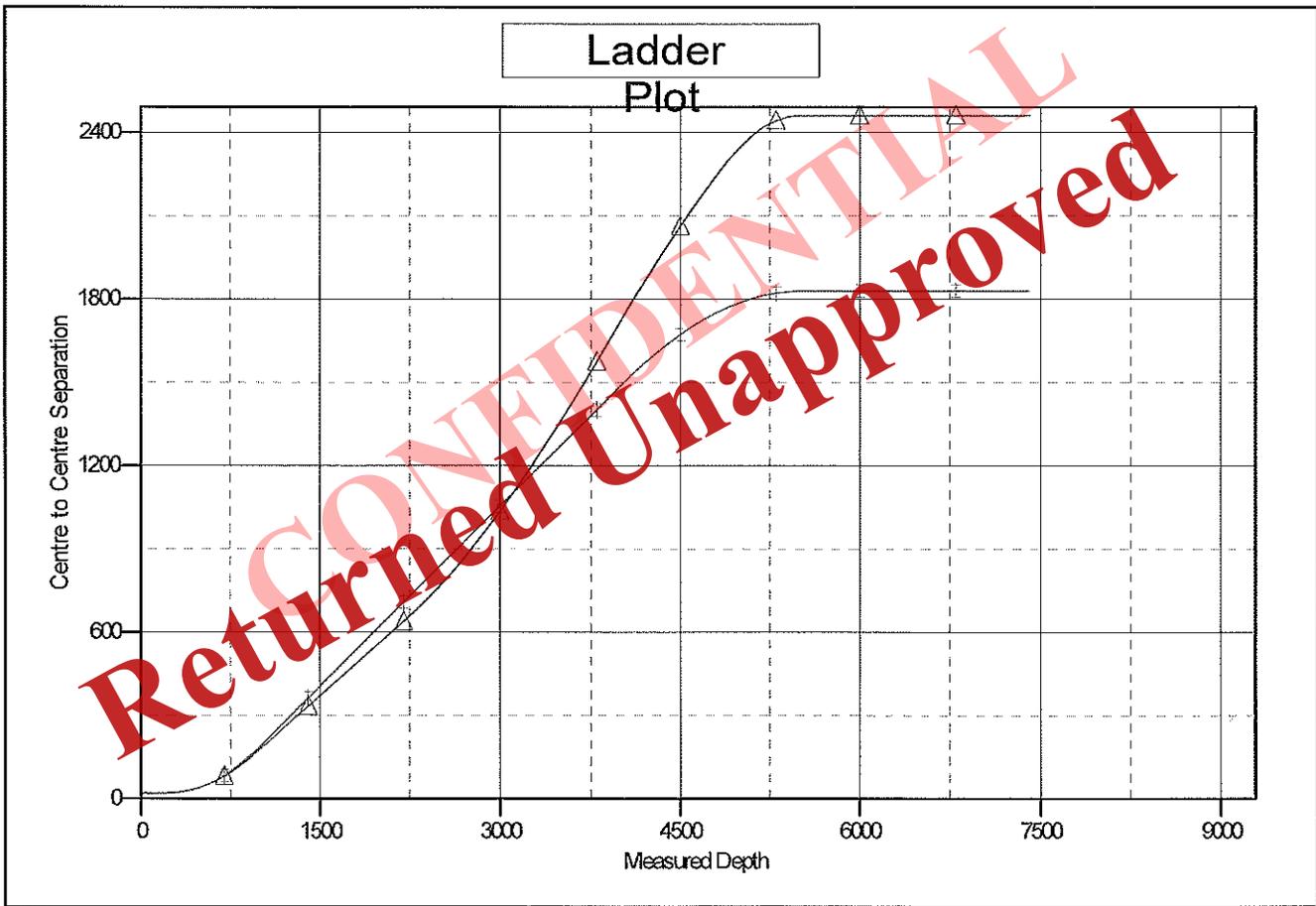
Returned Unapproved



<b>Company:</b>	Berry Petroleum Company	<b>Local Co-ordinate Reference:</b>	Well LC Tribal 15-18D-56
<b>Project:</b>	Duchesne Co., UT (UT27C)	<b>TVD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec.18-T5S-R6W	<b>MD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	LC Tribal 15-18D-56	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMDBBW
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 7940.00usft (Original Well E  
 Offset Depths are relative to Offset Datum  
 Central Meridian is 111° 30' 0.000 W

Coordinates are relative to: LC Tribal 15-18D-56  
 Coordinate System is US State Plane 1927 (Exact solution), Utah Central 4302  
 Grid Convergence at Surface is: 0.57°



**LEGEND**

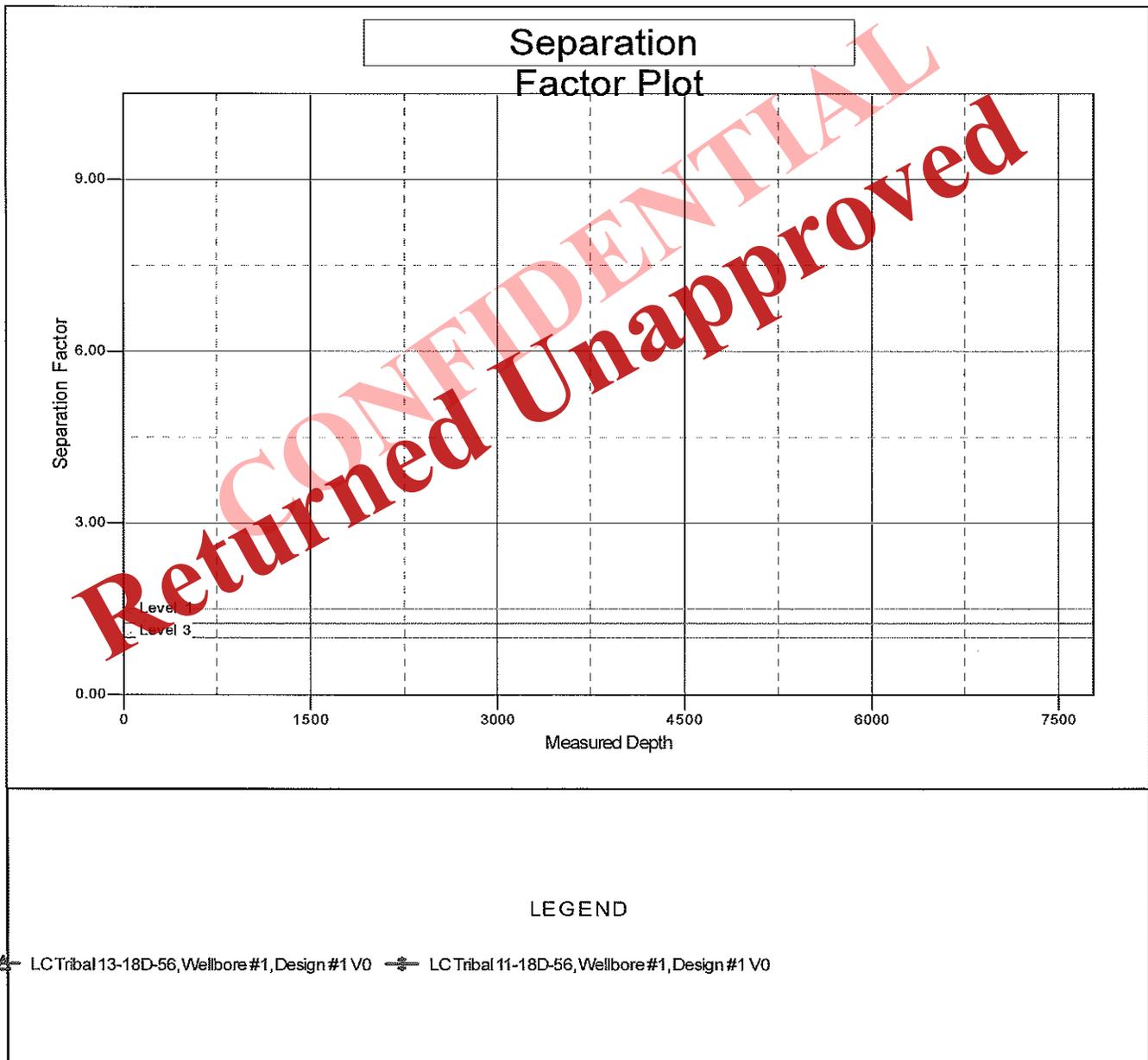
▲ LC Tribal 13-18D-56, Wellbore #1, Design #1 V0    ✕ LC Tribal 11-18D-56, Wellbore #1, Design #1 V0



<b>Company:</b>	Berry Petroleum Company	<b>Local Co-ordinate Reference:</b>	Well LC Tribal 15-18D-56
<b>Project:</b>	Duchesne Co., UT (UT27C)	<b>TVD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Reference Site:</b>	Sec.18-T5S-R6W	<b>MD Reference:</b>	WELL @ 7940.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	LC Tribal 15-18D-56	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMDBBW
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 7940.00usft (Original Well E  
Offset Depths are relative to Offset Datum  
Central Meridian is 111° 30' 0.000 W

Coordinates are relative to: LC Tribal 15-18D-56  
Coordinate System is US State Plane 1927 (Exact solution), Utah Central 4302  
Grid Convergence at Surface is: 0.57°



**AFFIDAVIT OF SURFACE DAMAGE AGREEMENT**

SHAWN HAWK, the Affiant herein, is a Production Superintendent for Berry Petroleum Company, a Delaware corporation, with an office located at 4000 S 4028 W, Rt 2 Box 7735, Roosevelt, Utah 84066, being of lawful age and duly sworn upon his oath and being duly authorized to make this affidavit on behalf of said corporation hereby deposes and states to the best of his knowledge as follows:

That Berry Petroleum Company has a Surface Damage Agreement signed by the current surface owner covering the following described property, hereinafter referred to as the Land:

**TOWNSHIP 5 SOUTH, RANGE 6 WEST, USB&M**  
Section 18 SE ¼ SW ¼

Affiant further states said Surface Damage Agreement GRANTS, SELLS, and CONVEYS unto Berry Petroleum Company an easement for ingress and egress to, along with a right to use, that portion of the herein described property as may be necessary to construct, use, and maintain a well site or well sites (including location of additional wells on each well site in the case of directional or horizontal drilling) for the drilling, completion and operation of an oil and gas well or wells (including but not limited to pumping facilities and tank batteries) over, under and through the herein described Land.

Affiant further states said Surface Damage Agreement GRANTS, SELLS, and CONVEYS unto Berry Petroleum Company the right to construct, entrench, maintain, operate, replace, remove, protect, or abandon a pipeline or pipelines for water or gas with appurtenances thereto, including, but not limited to, valves, metering equipment, and cathodic equipment; to construct, maintain, relocate, or abandon a road (said well sites, pipelines, appurtenance, valves, metering equipment, cathodic equipment and road being sometimes collectively call the "facilities") over, under, and through the herein described Land.

Executed and effective as of this 5th day of April 2013.

**Berry Petroleum Company**

By: Shawn Hawk  
Shawn Hawk  
Field Landman

## SURFACE USE PLAN of OPERATIONS

### *Attachment for Permit to Drill:*

**Name of Operator:** Berry Petroleum Company  
**Address:** 4000 South 4028 West/Rt. 2 Box 7735  
Roosevelt, Utah 80466  
**Well Location:** LC Tribal 15-18D-56  
*Surface: 788' FSL & 1407' FWL*  
*Target: 510' FSL & 2185' FEL*  
SE/4SW/4 of Sec. 18, T5S, R6W

The surface owner or surface owner representative and dirt contractor will be proved with an approved copy of the surface use plan of operations and approved conditions of approval before initiating construction.

The onsite inspection for the referenced well was conducted per UDOGM.

#### **A Existing Roads**

To reach the Berry Petroleum Company well, LC Tribal 15-18D-56, in Section 18-T5S-R6W:

The proposed well site is approximately 20.2 miles southwest of Duchesne, Utah.

Proceed in a southerly direction from Duchesne, Utah long US Highway 191 for approximately 3.5 miles to the junction of this road and an existing road to the west. Turn right and proceed in a westerly direction for approximately 6.5 miles to the junction of this road and an existing road to the southeast. Turn left and proceed in a southeasterly thence southwesterly direction for approximately 7.2 miles to the junction of this road an existing road to the southwest. Turn left and proceed in a southwesterly direction for approximately 0.4 miles to the junction of this road and an existing road to the northeast. Turn right and proceed in a northeasterly direction for approximately 0.3 miles to the beginning of the proposed access road to the southwest. Follow the road flags in a southwesterly, thence northwesterly, direction, meandering on an off an existing jeep trail for approximately 12,161 feet (2.3 miles) to the proposed LC Tribal 11-18D-56, 13-18D-56 and 15-18D-56 location.

Berry Petroleum Company will improve or maintain existing roads in a condition the same or better than before operations began. Best Management Practices will be considered when improving or maintaining existing roads. In general this would involve the need for some surface material or fill to prevent or repair holes in the road due to heavy truck traffic during the drilling and completion operations. If repairs are made the operator will secure the appropriate material from private sources.

#### **B New or Reconstructed Access Roads**

See Topographic Map "A & B" for the location of the proposed access road. Berry Petroleum Company will construct a new access road for approximately 12,161 feet (2.3 miles) to the proposed LC Tribal 11-18D-56, 13-18D-56 & 15-18D-56 location.

**C Location of Existing Wells**

See Topographic Map "D" for the location of existing wells within a 1mile radius.

**D Location of Tank Batteries, Production Facilities and Production Gathering and Service Lines**

A containment dike will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks). This dike will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank. The site specific APD will address additional capacity if such is needed due to environmental concerns. The use of topsoil for the construction of dikes will not be allowed. If a Spill Prevention, Control, and Countermeasure (SPCC) Plan is required by the Environmental Protection Agency, the containment dike may be expanded with the Authorized Agency Officer's approval to meet SPCC requirements.

The proposed pipeline will tie in at an existing pipeline. Map "C" illustrating the proposed route is attached. The proposed pipeline will be 4"-6" polypipe and be placed above ground. The pipeline will run in the same corridor as the above proposed access road.

All site security guidelines identified in Federal regulation 43 CFR 3126.7, will be adhered to. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease production will have prior written approval from the Authorized Agency Officer.

Gas meter runs will be located approximately 100 feet from the wellhead. Where necessary, the gas line will be anchored down from the wellhead to the meter.

**E Location and Type of Water Supply**

Water for the drilling and completion will be pumped or trucked from one of the following Berry source wells:

- Water Permit # 43-12400, Sec. 23, T5S, R5W
- Water Permit # 43-12400, Sec. 24, T5S, R5W
- Water Permit # 43-1221, Sec. 30, T3S, R8W
- Water Permit # 43-1226, Sec. 30, T3S, R8W
- Water Permit # 43-1627, Sec. 30, T3S, R8W
- Water Permit # 43-1628, Sec. 12, T5S, R6W (Douglas E. & Yordis Nielsen )
- Duchesne City Culinary Water Dock located in Sec. 1, T4S, R5W
- East Duchesne Water, Arcadia Feedlot, Sec. 28, T3S, R3W
- Petroglyph Operating Company 08-04 Waterplant, Sec. 8, T5S, R3W.

**F Source of Construction Materials**

All construction materials for this location site and access road shall be borrow material accumulated during the construction of the location site and access road.

Additional gravel or pit lining material will be obtained from a private source.

The use of materials under Authorized Agency jurisdiction will conform to 43 CFR 3610.2-3.

**G Methods of Handling Waste Materials**

Drill fluids will be contained in a closed loop system. Cuttings will be contained on site and buried in a pit or used on location and/or access roads, whichever is deemed appropriate by the authorized agency.

After first production, produced wastewater from Berry Petroleum Company wells will be used for injection in our enhanced oil recovery project(s) in the Brundage Canyon Field or they will be trucked to one of the following approved waste water disposal sites:

- R.N. Industries, Inc. Sec. 4, T2S, R2W, Bluebell
- MC & MC Disposal Sec. 12, T6S, R19E, Vernal
- LaPoint Recycle & Storage Sec. 12, T5S, R19E, LaPoint
- Water Disposal Inc. Sec. 32, T1S, R1W, Roosevelt
- ITL 4461 W 3000 So Roosevelt Location Pleasant Valley
- IWM PO Box 430 Altamont or 20250 W 2000 S Duchesne Location – Blue Bench
- Pro Water 12223 Highland Ave Ste B503 Rancho Cucamonga CA 91739 Location – Blue Bench

Should operations of the field be prohibited by the Authorized Officer, the wastewater shall be confined to the approved pit or storage tank for a period not to exceed 90 days. The use of such pit is hereby approved as part of this Application for Permit to Drill.

Production fluids will be contained in leak-proof tanks. All production fluids will be disposed of at approved disposal sites. Produced water, oil, and other byproducts will not be applied to roads or well pads for control of dust or weeds. The indiscriminate dumping of produced fluids on roads, well sites, or other areas will not be allowed.

Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

A chemical portable toilet will be furnished with the drilling rig.

Garbage, trash, and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. Trash will not be burned on location.

All debris and other waste materials not contained in the trash cage will be cleaned up and removed from the location promptly after removal of the completion rig (weather permitting).

Any open pits will be fenced during the operations. The fencing will be maintained with best efforts until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of wells. Furthermore, extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will not be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completing of wells within these areas.

#### **H Ancillary Facilities**

There are no ancillary facilities planned for at this time and none are foreseen in the future.

#### **I Well site Layout**

The attached Location Layout diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, pipe racks, trailer parking, spoil dirt stockpile(s) and surface material stockpile(s)

**J Plans for Restoration of the Surface**

**Interim**

The dirt contractor will be provided with approved copies of the Surface Use Plan prior to construction activities.

Upon well completion, within a reasonable time, the location and surrounding area will be cleared of all unused tubing, materials, trash, and debris not required for production.

Abandoned well sites, roads, and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions may include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions, and the re-establishment of vegetation as specified.

All disturbed areas will be re-contoured to the approximate natural contours.

Any drainage rerouted during the construction activities shall be restored to its original line of flow or as near as possible.

All areas of disturbance (including surface pipelines) must have appropriate surface use agreements or approvals in place with the proper owner and/or agency before such action is started.

The conditions of approval, as set forth by those owners and/or agencies, shall be adhered to.

Interim Reclamation consisting of minimizing the footprint of disturbance shall be accomplished by reclaiming all portions of the well site not needed for safe production operations. The portions of the well site not needed for operational and safety purposes will be recontoured to a final appearance that blends with the surrounding topography. Topsoil will be spread over these areas. The operator will spread the topsoil over the entire location except where an all-weather surface, access route or turnaround is needed. Production facilities should be clustered or placed offsite to maximize the opportunity for interim reclamation. Any incidental use on interim reclamation may require restoration of damage. This may require recontouring and seeding of the damaged area.

Paint all production facilities and equipment, not otherwise regulated (OSHA, etc.), Vama Green.

Install Hospital muffler to the Pump-jack to minimize engine noise.

**Final**

Prior to the construction of the location, the top 12 inches of soil material (if present) will be stripped and stockpiled. Placement of the topsoil is noted on the location plat attached. Topsoil shall be stockpiled separately from subsoil materials. Topsoil salvaged from the reserve pit shall be stockpiled separately near the reserve pit.

When restoration activities have been completed, the location site and new access road cuts and shoulders shall be reseeded. Prior to reseeding, all disturbed areas, including the old access road will be scarified and left with a rough surface.

The Authorized Agency Officer shall be contacted for the required seed mixture. Seed will be broadcast and the amount of seed mixture per acre will be doubled. The seeded area will then be "walked" with a dozer to assure coverage of the seeds. The seed mixture will reflect the recommendation from the Archeology study done.

At final abandonment, all casing shall be cut off at the base of the cellar or 3 feet below final restored ground level, whichever is deeper, and cap the casing with a metal plate a minimum of 0.25 inches thick. The cap will be welded in place and the well location and identity will be permanently inscribed on the cap. The cap also will be constructed with a weep hole.

**K Well Surface & Access Ownership:**

Division of Wildlife Resources  
1594 West North Temple, Ste 2110  
Salt Lake City, Utah 84114  
Local Contact: Ben Williams – (435) 823-0946

**L Other information**

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

Berry will control noxious weeds along access road use authorizations, pipeline route authorizations, well sites or other applicable facilities. A list of noxious weeds may be obtained from the Authorized Agency or the appropriate County Extension Office.

Drilling rigs and/or equipment used during drilling operations on this location will not be stacked or stored on administered lands after the conclusion of drilling operations or at any other time without authorization by the Authorized Agency Officer. If authorization is obtained, such storage is only a temporary measure.

Travel is restricted to approved routes only.

Outlaw Engineering Inc. has conducted a Class I archaeological survey. A copy of this report has been submitted under separate cover by Outlaw Engineering Inc. to the appropriate agencies.

Outlaw Engineering Inc. has conducted a Biological Assessment survey. A copy of this report has been submitted under separate cover by Outlaw Engineering Inc. to the appropriate agencies.

All personnel will refrain from collecting artifacts and from disturbing any significant cultural resources in the area. The operator is responsible for informing all persons in the area who are associated with this project that they may be subject to prosecution for knowingly disturbing historic or archaeological sites or for collecting artifacts. All vehicular traffic, personnel movement, construction, and restoration activities shall be confined to the areas examined, as referenced in the archaeological report, and to the existing roadways and/or evaluated access routes. If historic or archaeological materials are uncovered during construction, Berry Petroleum Company is to immediately stop work that might further disturb such materials and contact the Authorized Agency Officer.

Within five working days, the Authorized Agency Officer will inform the operator as to:

- Whether the materials appear eligible for the National Historic Register of Historic Places;
- The mitigation measures Berry will likely have to undertake before the site can be used (assuming in-situ preservation is not necessary); and a time frame for the Authorized Officer to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the Authorized Officer are correct and that the mitigation measures are appropriate.

If Berry wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the Authorized Agency Officer and/or the surface owner will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise the operator will be responsible for mitigation costs. The Authorized Agency Officer and/or the surface owner will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Authorized Agency Officer that required mitigation has been completed, Berry will then be allowed to resume construction.

All Surface Use Conditions of Approval associated with the Landowner Surface Use Agreement and Environmental Analysis Mitigation Stipulations will be adhered to.

All well site locations will have appropriate signs indicating the name of the operator, the lease serial number, the well name and number, the survey description of the well (footages or the quarter/quarter section, the section, township, and range).

**M. Air Emissions Analysis**

Table 4-1. Proposed Action Annual Emissions (tons/year)<sup>1</sup>

Pollutant	Development	Production	Total
NO <sub>x</sub>	5.7	8.1	13.8
CO	3.9	7.5	11.4
VOC	1.5	59.7	60.6
SO <sub>2</sub>	0.009	0.42	0.429
PM <sub>10</sub>	2.7	0.78	3.48
PM <sub>2.5</sub>	0.9	0.78	1.68
Benzene	0.03	0.3	0.33
Toluene	0.012	0.606	0.618
Ethylbenzene	0.003	0.582	0.585
Xylene	0.009	0.981	0.99
n-Hexane	0	3.21	3.21
Formaldehyde	0.09	0.489	0.579

<sup>1</sup> Emissions include 3 producing well and associated operations traffic during the year in which the project is developed.

CONFIDENTIAL  
 Returned Unapproved

**BERRY PETROLEUM COMPANY**

**LC TRIBAL 15-18D-56, 13-18D-56 & 11-18D-56 (Proposed Wells)**

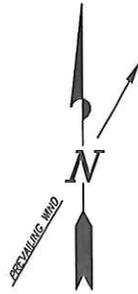
**SECTION 18, T5S, R6W, U.S.B.&M.**

PROCEED IN A SOUTHERLY DIRECTION FROM DUCHESNE, UTAH ALONG U.S. HIGHWAY 191 APPROXIMATELY 3.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE WEST; TURN RIGHT PROCEED IN A WESTERLY DIRECTION APPROXIMATELY 6.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY THENCE SOUTHERLY THENCE SOUTHWESTERLY DIRECTION APPROXIMATELY 7.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN LEFT AND PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 0.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN RIGHT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE BEGINNING OF THE PROPOSED ACCESS ROAD TO THE SOUTHWEST; FOLLOW ROAD FLAGS IN A SOUTHWESTERLY; THENCE NORTHWESTERLY DIRECTION, MEANDERING ON AND OFF AN EXISTING JEEP TRAIL, APPROXIMATELY 12,161' (2.3 MILES) TO THE PROPOSED LOCATION FOR THE LC TRIBAL 15-18D-56, 13-18D-56 & 11-18D-56.

**CONFIDENTIAL**  
**Returned Unapproved**

# BERRY PETROLEUM COMPANY

WELL PAD INTERFERENCE PLAT  
 LC TRIBAL 15-18D-56 (Proposed Well)  
 LC TRIBAL 11-18D-56 (Proposed Well)  
 LC TRIBAL 13-18D-56 (Proposed Well)  
 Pad Location: SESW Section 18,  
 T5S, R6W, U.S.B.&M.

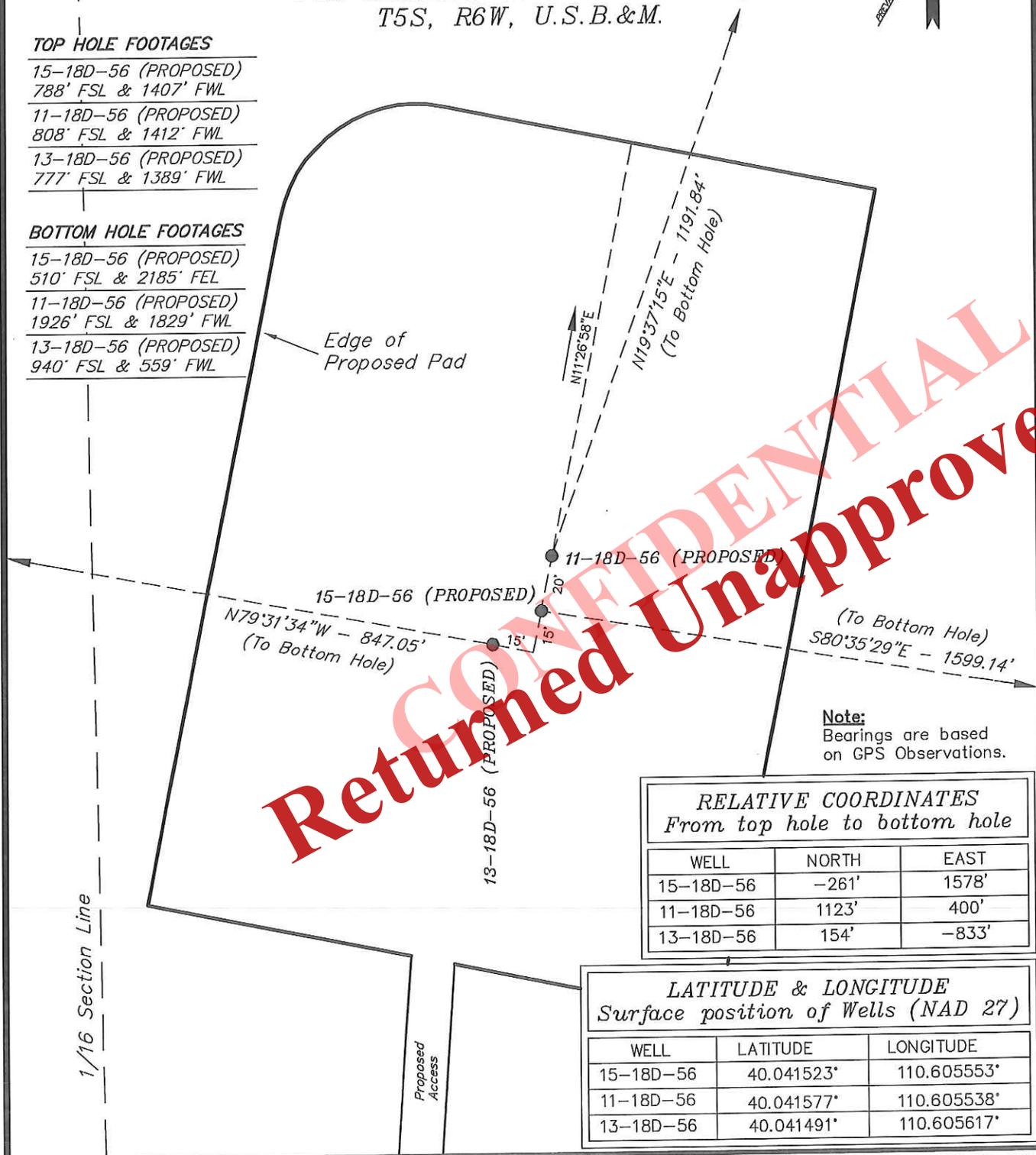


**TOP HOLE FOOTAGES**

15-18D-56 (PROPOSED)  
 788' FSL & 1407' FWL  
 11-18D-56 (PROPOSED)  
 808' FSL & 1412' FWL  
 13-18D-56 (PROPOSED)  
 777' FSL & 1389' FWL

**BOTTOM HOLE FOOTAGES**

15-18D-56 (PROPOSED)  
 510' FSL & 2185' FEL  
 11-18D-56 (PROPOSED)  
 1926' FSL & 1829' FWL  
 13-18D-56 (PROPOSED)  
 940' FSL & 559' FWL



CONFIDENTIAL  
 Returned Unapproved

**Note:**  
 Bearings are based  
 on GPS Observations.

**RELATIVE COORDINATES**  
 From top hole to bottom hole

WELL	NORTH	EAST
15-18D-56	-261'	1578'
11-18D-56	1123'	400'
13-18D-56	154'	-833'

**LATITUDE & LONGITUDE**  
 Surface position of Wells (NAD 27)

WELL	LATITUDE	LONGITUDE
15-18D-56	40.041523°	110.605553°
11-18D-56	40.041577°	110.605538°
13-18D-56	40.041491°	110.605617°

SURVEYED BY: K.G.S.	DATE SURVEYED: 07-20-12
DRAWN BY: L.C.S.	DATE DRAWN: 07-25-12
SCALE: 1" = 50'	REVISED:

**Tri State**  
 Land Surveying, Inc.  
 180 NORTH VERNAL AVE. VERNAL, UTAH 84078  
 (435) 781-2501

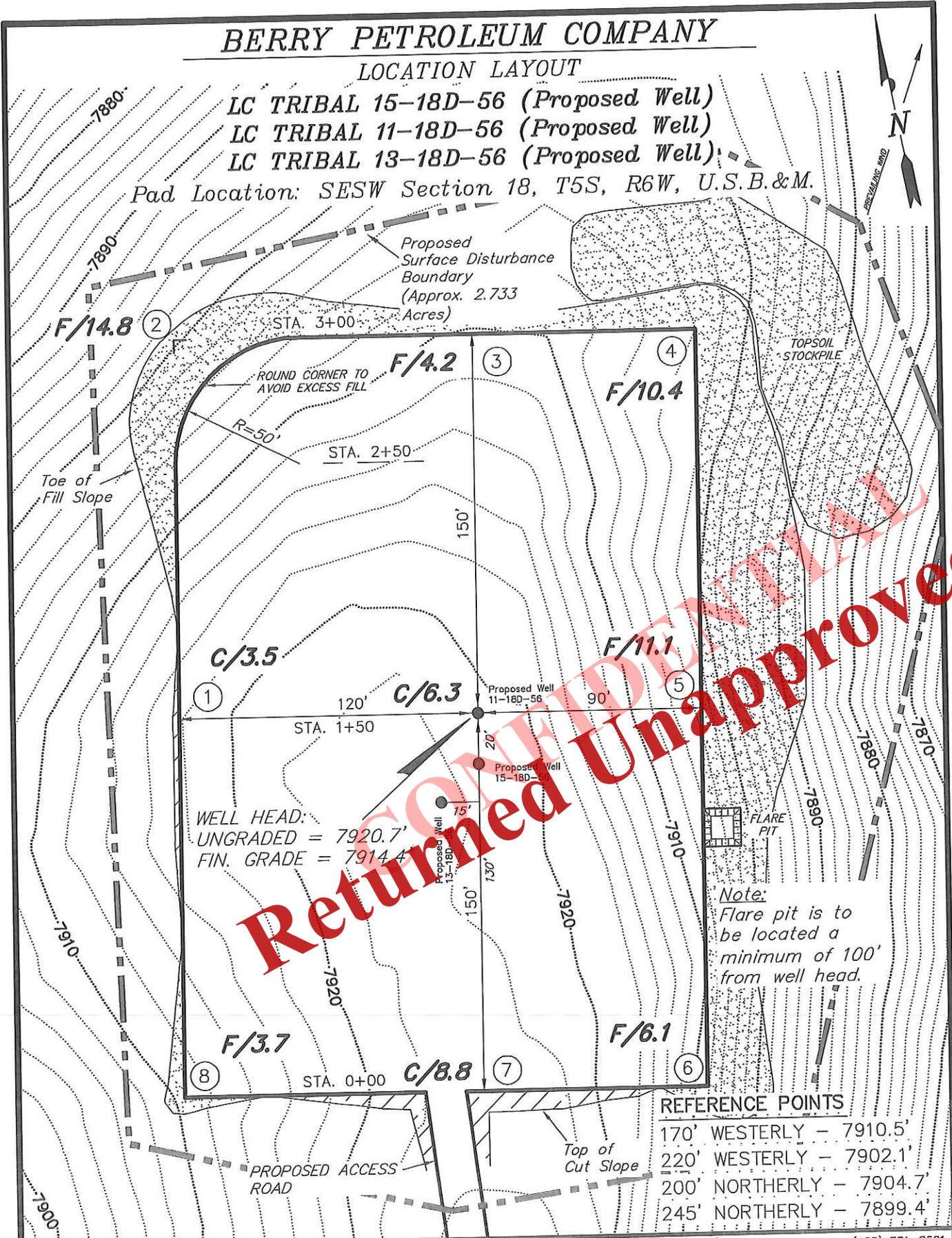
Received: April 12, 2013

# BERRY PETROLEUM COMPANY

## LOCATION LAYOUT

LC TRIBAL 15-18D-56 (Proposed Well)  
 LC TRIBAL 11-18D-56 (Proposed Well)  
 LC TRIBAL 13-18D-56 (Proposed Well)

Pad Location: SESW Section 18, T5S, R6W, U.S.B.&M.



WELL HEAD:  
 UNGRADED = 7920.7'  
 FIN. GRADE = 7914.4'

Note:  
 Flare pit is to be located a minimum of 100' from well head.

REFERENCE POINTS	
170' WESTERLY	- 7910.5'
220' WESTERLY	- 7902.1'
200' NORTHERLY	- 7904.7'
245' NORTHERLY	- 7899.4'

SURVEYED BY: K.G.S	DATE SURVEYED: 07-20-12
DRAWN BY: L.C.S.	DATE DRAWN: 07-25-12
REVISD:	

Tri State Land Surveying, Inc.  
 180 NORTH VERNAL AVE, VERNAL, UTAH 84078  
 (435) 781-2501

Received: April 12, 2013

# BERRY PETROLEUM COMPANY

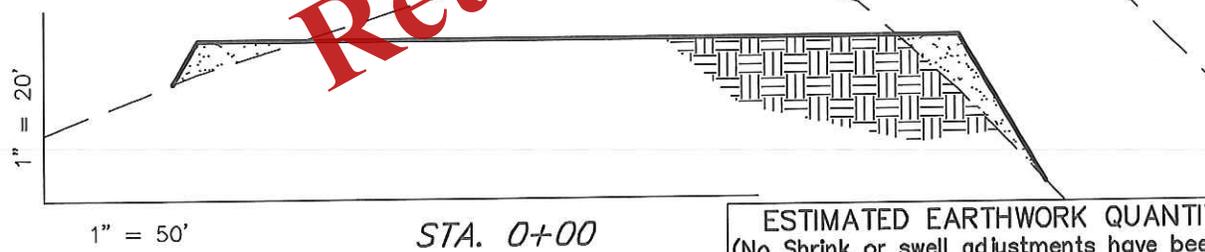
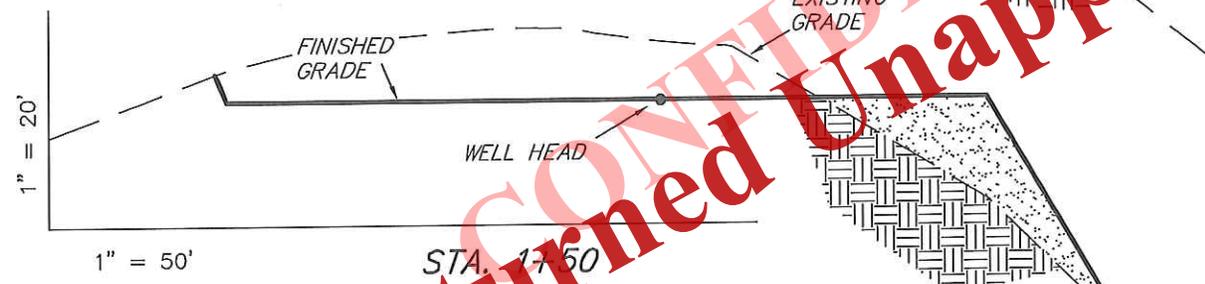
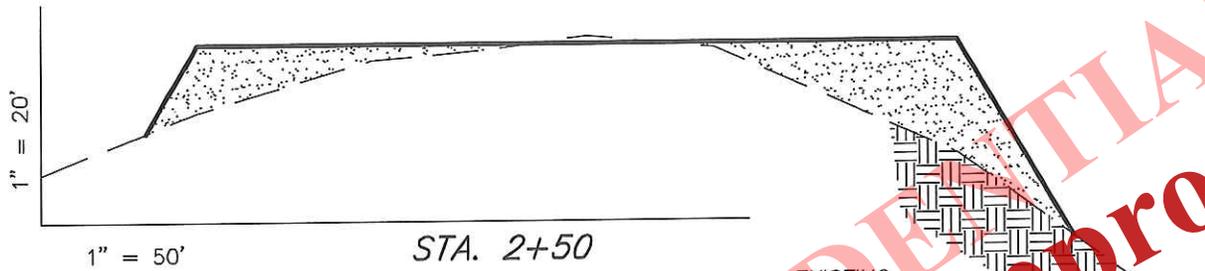
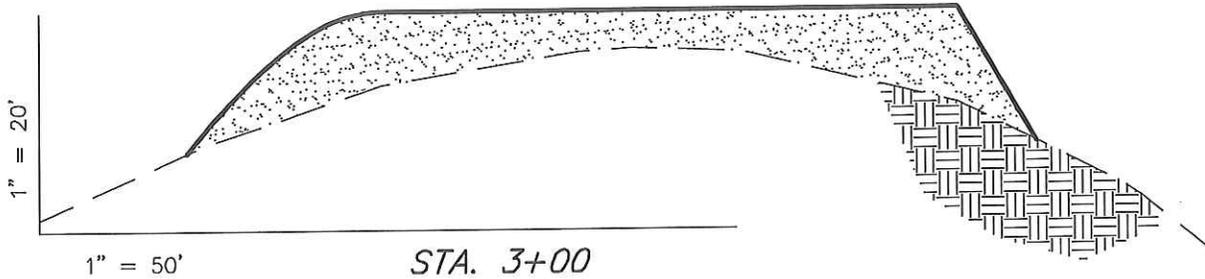
## CROSS SECTIONS

LC TRIBAL 15-18D-56 (Proposed Well)

LC TRIBAL 11-18D-56 (Proposed Well)

LC TRIBAL 13-18D-56 (Proposed Well)

Pad Location: SESW Section 18, T5S, R6W, U.S.B.&M.



CONFIDENTIAL  
Returned Unapproved

**ESTIMATED EARTHWORK QUANTITIES**  
(No Shrink or swell adjustments have been used)  
(Expressed in Cubic Yards)

ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	7,050	7,050	Topsail is not included in Pad Cut	0
PIT	0	0		0
<b>TOTALS</b>	<b>7,050</b>	<b>7,050</b>	<b>1,450</b>	<b>0</b>

NOTE:  
UNLESS OTHERWISE NOTED  
CUT SLOPES ARE AT 1:1  
FILL SLOPES ARE AT 1.5:1

SURVEYED BY: K.G.S	DATE SURVEYED: 07-20-12
DRAWN BY: L.C.S.	DATE DRAWN: 07-25-12
SCALE: 1" = 50'	REVISED:

(435) 781-2501

**Tri State**  
Land Surveying, Inc.  
180 NORTH VERNAL AVE, VERNAL, UTAH 84078

Received: April 12, 2013

# BERRY PETROLEUM COMPANY

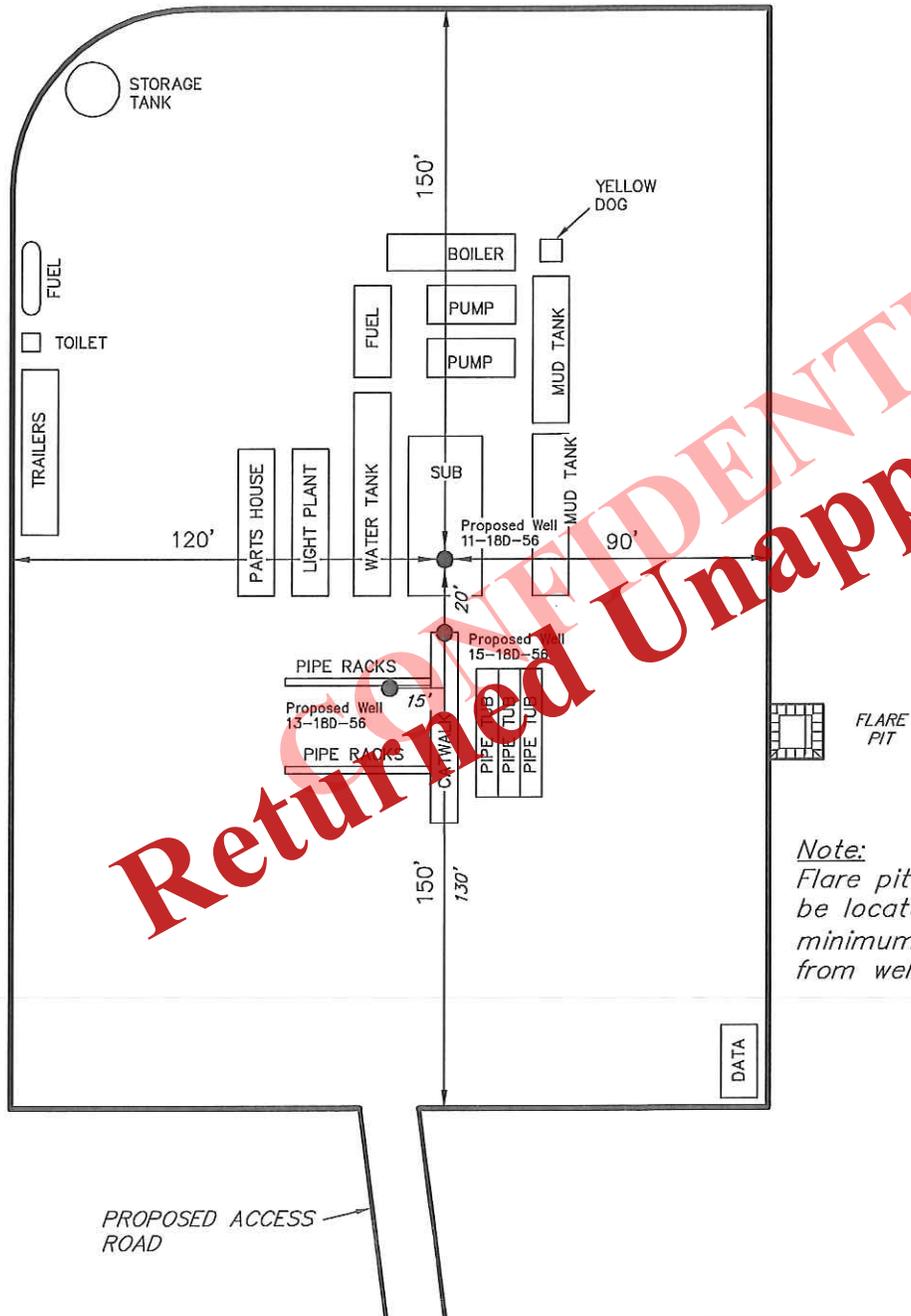
## TYPICAL RIG LAYOUT

LC TRIBAL 15-18D-56 (Proposed Well)

LC TRIBAL 11-18D-56 (Proposed Well)

LC TRIBAL 13-18D-56 (Proposed Well)

Pad Location: SESW Section 18, T5S, R6W, U.S.B.&M.



CONFIDENTIAL  
Returned Unapproved

*Note:*  
Flare pit is to be located a minimum of 100' from well head.

SURVEYED BY: K.G.S	DATE SURVEYED: 07-20-12
DRAWN BY: L.C.S.	DATE DRAWN: 07-25-12
SCALE: 1" = 50'	REVISED:

SW 1/4

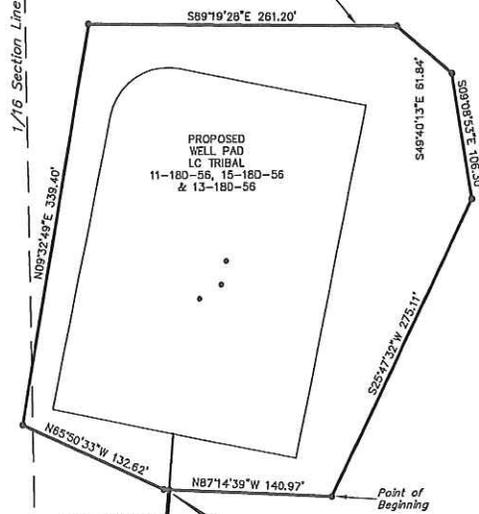
Sec. 18

### BERRY PETROLEUM COMPANY

#### PROPOSED CORRIDOR RIGHT-OF-WAY & DAMAGE AREA ON DIVISION OF WILDLIFE RESOURCES

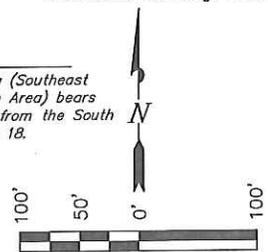
For LC TRIBAL 11-18D-56, 15-18D-56 & 13-18D-56  
Located in Section 18, T5S, R6W, U.S.B.&M.  
Duchesne County, Utah

PROPOSED DAMAGE AREA  
LC TRIBAL 11-18D-56, 15-18D-56  
& 13-18D-56  
(Contains 2.733 Acres)



#### CORNER TIE NOTE:

The Point of Beginning (Southeast Corner of the Damage Area) bears N61°02'03\"/>



#### CORRIDOR RIGHT-OF-WAY DESCRIPTION

A 30' WIDE RIGHT-OF-WAY LOCATED IN SECTION 18, T5S, R6W, U.S.B.&M. THE WIDTH OF SAID RIGHT-OF-WAY BEING 15' ON EITHER SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

BEGINNING A 30' WIDE RIGHT-OF-WAY AT A POINT IN THE SE 1/4 SW 1/4 OF SECTION 18, T5S, R6W, U.S.B.&M. WHICH BEARS N63°34'43\"/>

#### DAMAGE AREA DESCRIPTION

BEGINNING AT A POINT IN THE SE 1/4 SW 1/4 OF SECTION 18, T5S, R6W, U.S.B.&M. WHICH BEARS N61°02'03\"/>

BEGINNING OF PROPOSED CORRIDOR RIGHT-OF-WAY STA. 0+46.77 (At Damage Area)

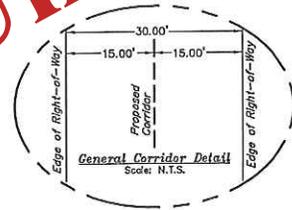
CORNER TIE NOTE:  
Begin Sta. 0+46.77 bears N63°34'43\"/>

Division of Wildlife Resources  
LOT 4

- P.I. 1+03.14
- P.I. 2+67.24
- P.I. 2+94.96
- P.I. 3+49.63
- P.I. 4+14.28
- P.I. 4+90.52
- P.I. 5+62.99
- P.I. 6+09.58
- P.I. 6+55.66

Centerline of Proposed Corridor Right-of-Way

RIGHT-OF-WAY LENGTH - Division of Wildlife Resources
Section 18 = 6+30.00'



2567.70' (Measured)  
N89°21'41\"/>

1289.80'  
Section Corner 24 19 (Set Stone)

END OF PROPOSED CORRIDOR RIGHT-OF-WAY P.O.S.L. 6+93.07 (At Section Line)

THIS IS TO CERTIFY THAT THE ABOVE MAP WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Stacy W. Steward  
REGISTERED LAND SURVEYOR  
REGISTRATION No. 189377  
STATE OF UTAH

#### LEGEND

- ◆ = SECTION CORNERS FOUND
- P.I. = POINT OF INTERSECTION
- P.O.S.L. = POINT ON SECTION LINE

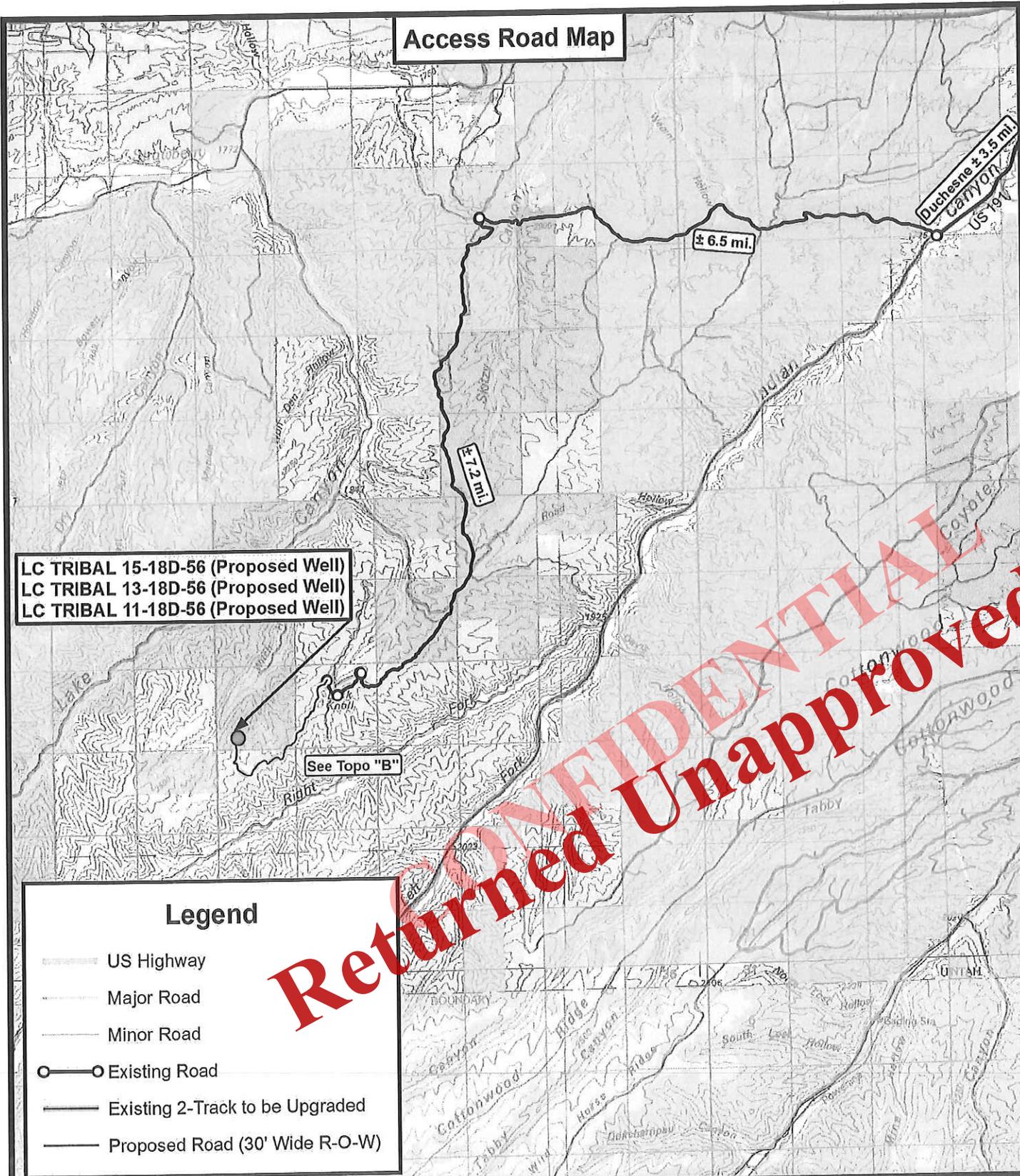
SURVEYED BY: K.G.S.
DRAWN BY: L.C.S.
DATE: 07-26-12
SCALE: 1" = 100'
DWG: 12-0509

Tri State Land Surveying, Inc.  
(435) 781-2501  
180 NORTH VERNAL AVE. - VERNAL, UTAH 184078

Received: April 12, 2013



**Access Road Map**



LC TRIBAL 15-18D-56 (Proposed Well)  
 LC TRIBAL 13-18D-56 (Proposed Well)  
 LC TRIBAL 11-18D-56 (Proposed Well)

See Topo "B"

**Legend**

- US Highway
- Major Road
- Minor Road
- Existing Road
- Existing 2-Track to be Upgraded
- Proposed Road (30' Wide R-O-W)

**Tri State**  
**Land Surveying, Inc.**  
 180 NORTH VERNAL AVE. VERNAL, UTAH 84078

P: (435) 781-2501  
 F: (435) 781-2518



**BERRY PETROLEUM COMPANY**  
 LC TRIBAL 15-18D-56, 13-18D-56,  
 11-18D-56 (Proposed Wells)  
 SEC. 18, T5S, R6W, U.S.B.&M.  
 Duchesne County, UT.

DRAWN BY: J.A.S.  
 DATE: 07-26-2012

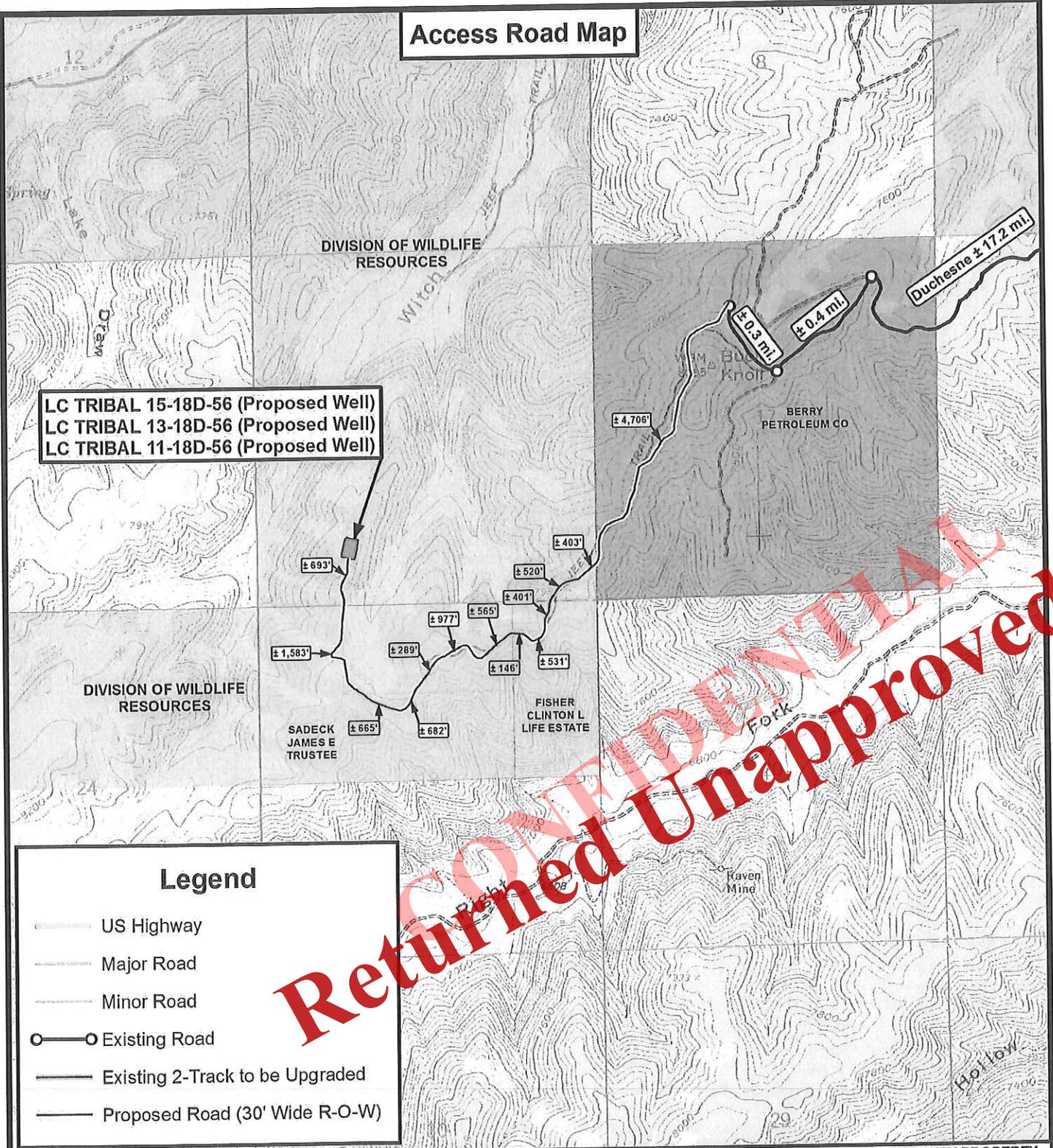
**TOPOGRAPHIC MAP**

SHEET  
**A**

**Received: April 12, 2013**

# Access Road Map

LC TRIBAL 15-18D-56 (Proposed Well)  
 LC TRIBAL 13-18D-56 (Proposed Well)  
 LC TRIBAL 11-18D-56 (Proposed Well)



## Legend

- US Highway
- Major Road
- Minor Road
- Existing Road
- Existing 2-Track to be Upgraded
- Proposed Road (30' Wide R-O-W)

THE PARCEL INFORMATION SHOWN HAS NOT BEEN SURVEYED BY TRI-STATE LAND SURVEYING, INC. - TRI-STATE DOES NOT WARRANTY PROPERTY PARCEL DATA OR ANY ASSOCIATED INFORMATION. A PROPERTY SURVEY IS REQUIRED TO DETERMINE THE ACTUAL LOCATION OF PROPERTY LINES AND SHOW ACCURATE DISTANCES ACROSS PARCELS.

**Tri State Land Surveying, Inc.**  
 180 NORTH VERNAL AVE. VERNAL, UTAH 84078  
 P: (435) 781-2501  
 F: (435) 781-2518



**BERRY PETROLEUM COMPANY**  
 LC TRIBAL 15-18D-56, 13-18D-56,  
 11-18D-56 (Proposed Wells)  
 SEC. 18, T5S, R6W, U.S.B.&M.  
 Duchesne County, UT.

DRAWN BY: J.A.S.  
 DATE: 07-26-2012

**TOPOGRAPHIC MAP**

SHEET  
**B**

**Received: April 12, 2013**

# Proposed Pipeline Map

LC TRIBAL 15-18D-56 (Proposed Well)  
 LC TRIBAL 13-18D-56 (Proposed Well)  
 LC TRIBAL 11-18D-56 (Proposed Well)

Tie in at Proposed Pipeline

BERRY PETROLEUM CO  
 ± 4,706'

SADECK JAMES E TRUSTEE  
 ± 4,761'

FISHER CANTON LIFE STATE  
 ± 1,078'

## Legend

- US Highway
- Major Road
- Minor Road
- Existing Road
- Proposed Pipeline (30' Wide R-O-W)

CONFIDENTIAL  
 Returned Unapproved

THE PARCEL INFORMATION SHOWN HAS NOT BEEN SURVEYED BY TRI-STATE LAND SURVEYING, INC. - TRI-STATE DOES NOT WARRANTY PROPERTY PARCEL DATA OR ANY ASSOCIATED INFORMATION. A PROPERTY SURVEY IS REQUIRED TO DETERMINE THE ACTUAL LOCATION OF PROPERTY LINES AND SHOW ACCURATE DISTANCES ACROSS PARCELS.

**Tri State Land Surveying, Inc.**  
 180 NORTH VERNAL AVE. VERNAL, UTAH 84078  
 P: (435) 781-2501  
 F: (435) 781-2518



## BERRY PETROLEUM COMPANY

LC TRIBAL 15-18D-56, 13-18D-56,  
 11-18D-56 (Proposed Wells)  
 SEC. 18, T5S, R6W, U.S.B.&M.  
 Duchesne County, UT.

DRAWN BY: J.A.S.  
 DATE: 07-26-2012

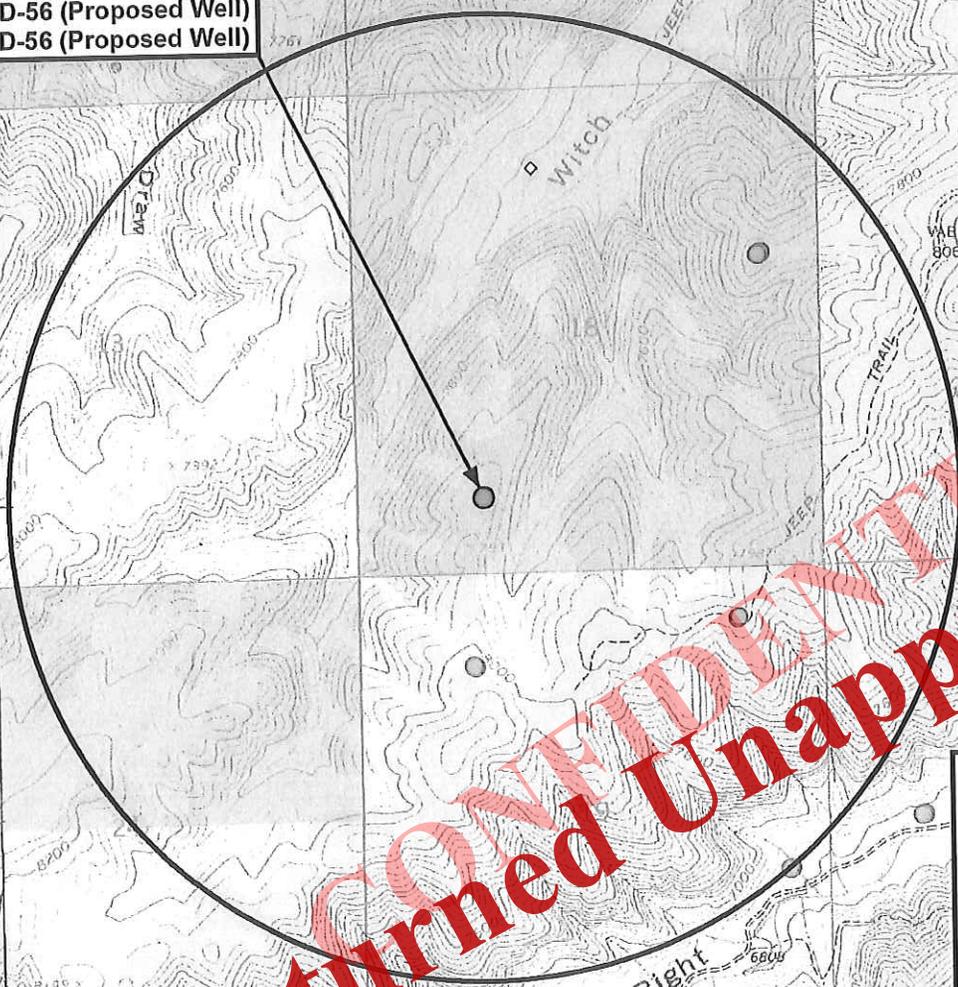
TOPOGRAPHIC MAP

SHEET  
**C**

Received: April 12, 2013

**Exhibit "B" Map**

LC TRIBAL 15-18D-56 (Proposed Well)  
 LC TRIBAL 13-18D-56 (Proposed Well)  
 LC TRIBAL 11-18D-56 (Proposed Well)



RETURNED UNAPPROVED

DNR Well Status	
◇	Approved Perm
○	Spudded Drilling
×	Location Abandoned
⊕	Now Location
△	Drilling Operations Suspended
◇	Plugged Abandoned
⊙	Producing Gas Well
⊙	Producing Oil Well
⊙	Relined APD
⊙	Shut-in Gas Well
⊙	Shut-in Water Well
⊙	Temporarily Abandoned
⊙	Water Disposal Well
⊙	Water Injection Well

Legend	
●	Proposed Location
○	1 Mile Radius

THE PARCEL INFORMATION SHOWN HAS NOT BEEN SURVEYED BY TRI-STATE LAND SURVEYING, INC. - TRI-STATE DOES NOT WARRANTY PROPERTY PARCEL DATA OR ANY ASSOCIATED INFORMATION. A PROPERTY SURVEY IS REQUIRED TO DETERMINE THE ACTUAL LOCATION OF PROPERTY LINES AND SHOW ACCURATE DISTANCES ACROSS PARCELS.

**Tri State Land Surveying, Inc.**  
 180 NORTH VERNAL AVE. VERNAL, UTAH 84078  
 P: (435) 781-2501  
 F: (435) 781-2518



**BERRY PETROLEUM COMPANY**  
 LC TRIBAL 15-18D-56, 13-18D-56,  
 11-18D-56 (Proposed Wells)  
 SEC. 18, T5S, R6W, U.S.B.&M.  
 Duchesne County, UT.

DRAWN BY: J.A.S.  
 DATE: 07-26-2012

**TOPOGRAPHIC MAP**

SHEET  
**D**

Received: April 12, 2013

**Location  
Photos**

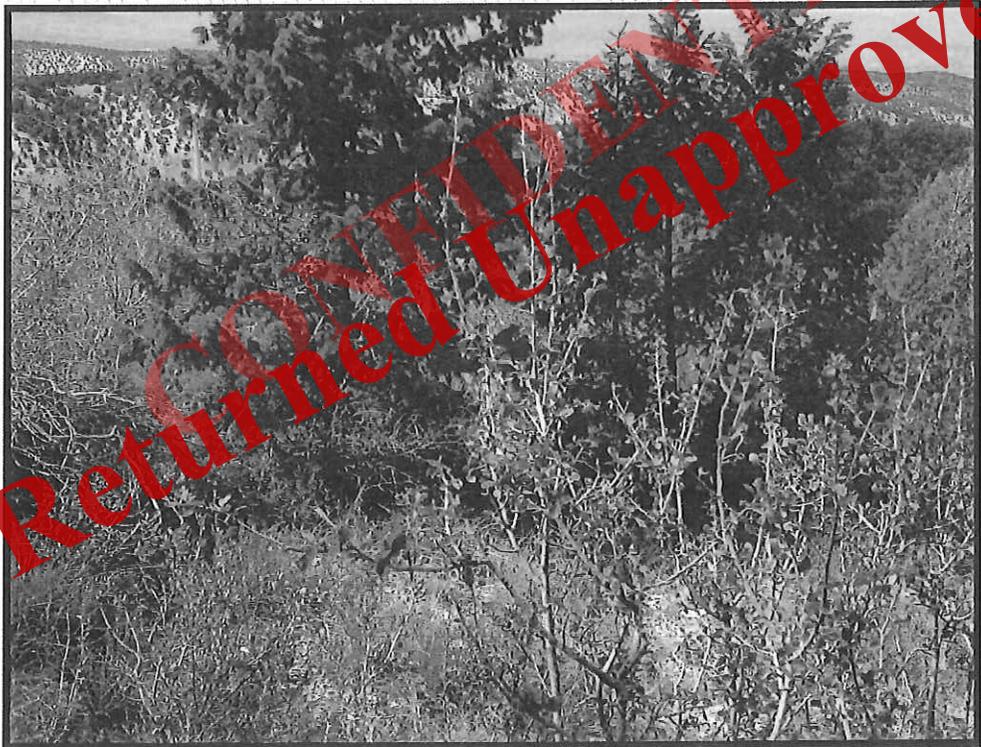


**Center Stake**

Looking Northwesterly

Date Photographed: 07/20/2012

Photographed By: K. Stewart



**Access**

Looking Northwesterly

Date Photographed: 07/20/2012

Photographed By: K. Stewart



**Tri State  
Land Surveying, Inc.**

180 NORTH VERNAL AVE. VERNAL, UTAH 84078

P: (435) 781-2501  
F: (435) 781-2518

**BERRY PETROLEUM COMPANY**

LC TRIBAL 15-18D-56, 13-18D-56,  
11-18D-56 (Proposed Wells)  
SEC. 18, T5S, R6W, U.S.B.&M.  
Duchesne County, UT.

DRAWN BY: J.A.S. | REVISED:  
DATE: 07-26-2012

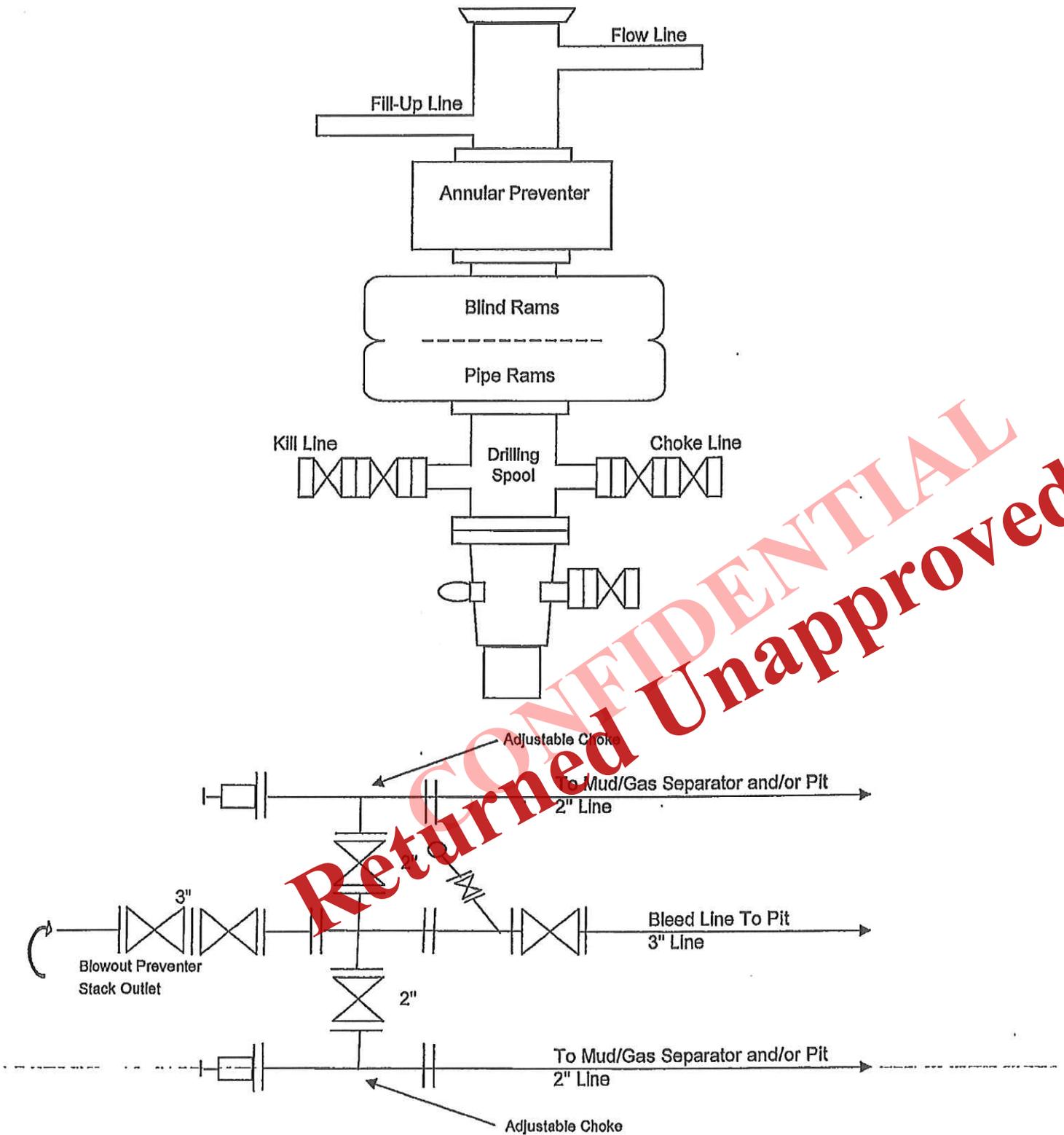
**COLOR PHOTOGRAPHS**

SHEET

P

**Received: April 12, 2013**

# SCHEMATIC DIAGRAM OF 3,000 PSI BOP STACK



**CONFIDENTIAL**  
**Returned Unapproved**

## AFFIDAVIT OF NOTICE

I, **Kathy Fieldsted**, the affiant herein, being of lawful age and duly sworn upon his oath deposes and states to the best of my knowledge as follows:

Kathy Fieldsted is a Sr Regulatory & Permitting Tech. for **Berry Petroleum Company**, a Delaware Corporation, with headquarters located at 1999 Broadway, Suite 3700, Denver, Colorado 80202, and is duly authorized to make this affidavit on behalf of said corporation. This Affidavit is made in accordance with Utah's Oil, Gas and Mining regulation R649-3-22.

Berry Petroleum Company has submitted notices to commingle production from the Wasatch and Green River formations in the following wells:

LC Tribal 4-9D-56	LC Tribal 15-22D-57
LC Tribal 11-14D-57	LC Tribal 11-18D-56
LC Tribal 9-15D-57	LC Tribal 13-18D-56
LC Tribal 13-21D-57	LC Tribal 15-18D-56
LC Tribal 5-22D-57	

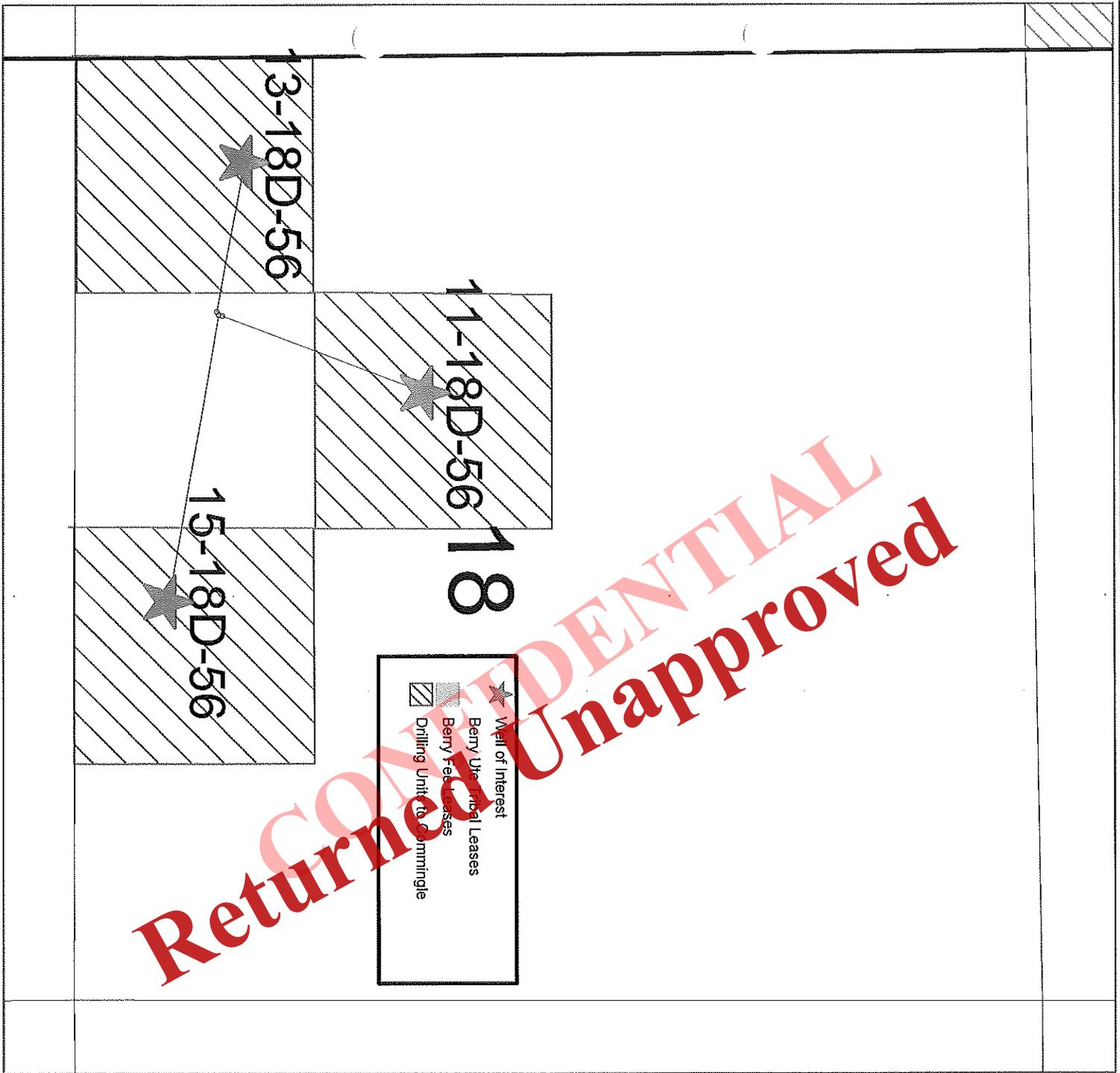
Per the terms of the Ute Tribal Lake Canyon Exploration and Development Agreement BIA Lease # 14-20-H62-5500, Berry Petroleum Company is the owner of contiguous oil and gas leases or drilling units or has the right to the minerals overlying the pool for the aforementioned wells. Notice of intent to commingle production is hereby waived.

This instrument is executed this 12<sup>th</sup> day of December, 2012.

**Berry Petroleum Company**

By: 

**Received: February 19, 2015**



Berry Petroleum Company

Statewide Utah  
Commingle Map



December 11, 2012



SELF-CERTIFICATION STATEMENT

The following self -certification statement is provided per federal requirements dated May 7, 2007.

Please be advised that Berry Petroleum Company is considered to be the operator of the following well.

LC Tribal 15-18D-56  
Section 18, T5S, R6W, U.S.B.& M.  
Surface: 788' FSL & 1407' FWL (SE/4SW/4)  
BHL: 510' FSL & 2185' FEL (SW/4SE/4)  
Duchesne, County, Utah

Berry Petroleum Company is responsible under the terms of the lease for the operations conducted upon the lease lands.

**Operator's Representative and Certification**

A) Representative  
NAME: Krista M. Mecham  
ADDRESS: Berry Petroleum Company  
4000 South 4028 West  
Route 2, Box 7735  
Roosevelt, Utah 84066  
PHONE: 435-722-1325

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations and onshore oil and gas orders. Berry Petroleum Company is fully responsible for the actions of its subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

The drilling permit will be valid for a period of two years from the date of approval. After permit termination, a new application will be filed for approval for any future operations.

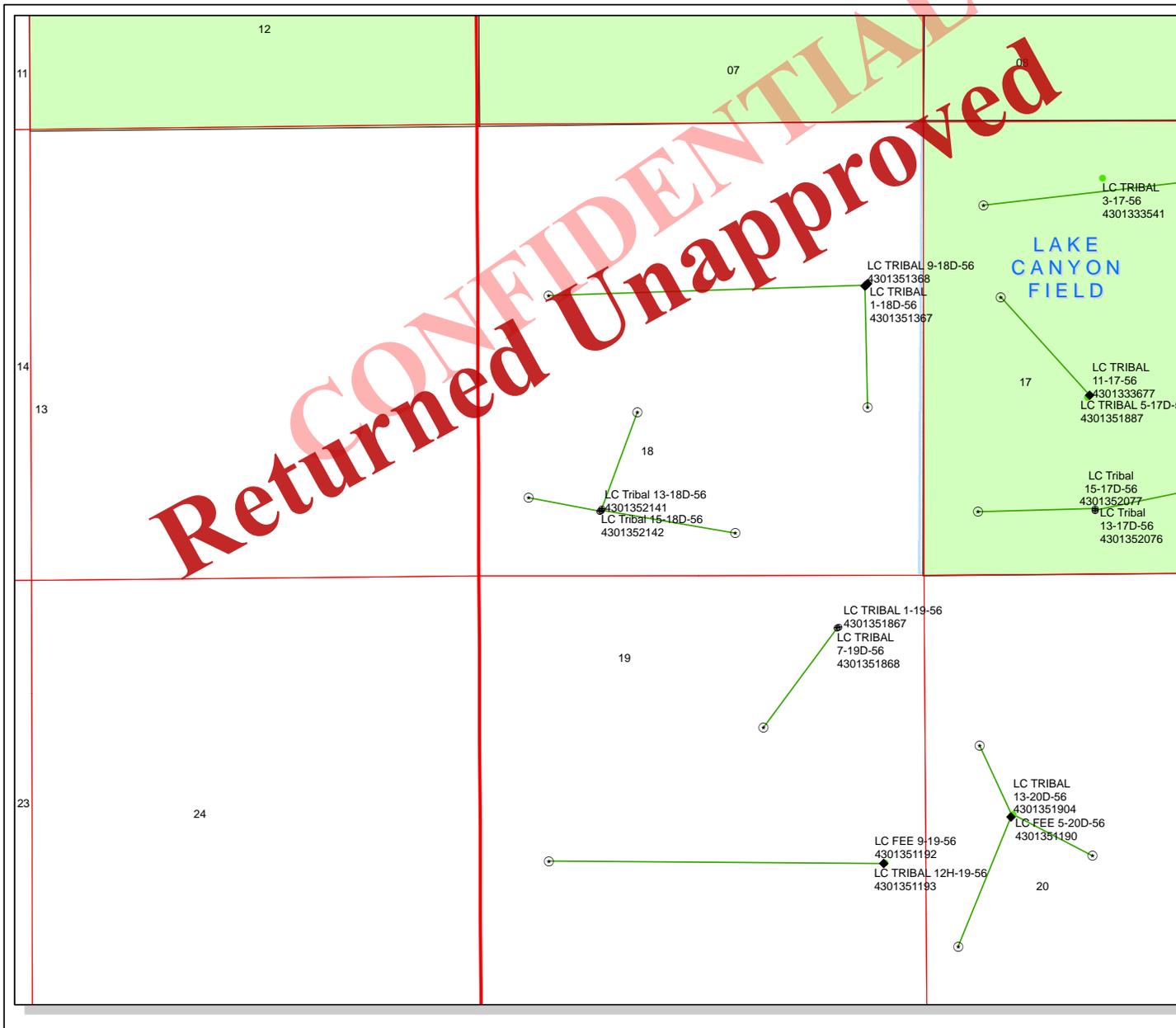
B) Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge and belief, true and correct; and that the work associated with the operations proposed herein will be performed by Berry Petroleum Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

4/12/13  
\_\_\_\_\_  
DATE

Krista Mecham  
\_\_\_\_\_  
Krista M. Mecham  
Sr. Regulatory & Permitting Tech.

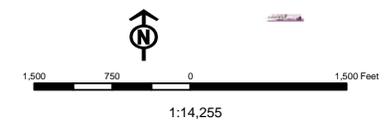
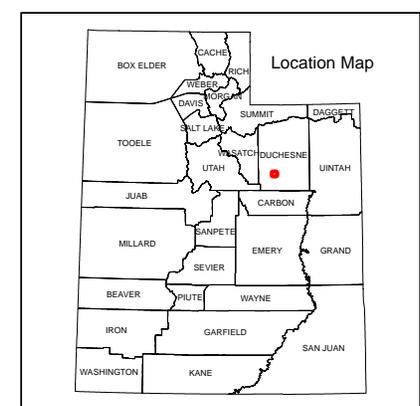
CONFIDENTIAL  
 Returned Unapproved



**API Number: 4301352142**  
**Well Name: LC Tribal 15-18D-56**  
**Township T05.0S Range R06.0W Section 18**  
**Meridian: UBM**  
**Operator: BERRY PETROLEUM COMPANY**

Map Prepared:  
 Map Produced by Diana Mason

- Units**
- ACTIVE
  - EXPLORATORY
  - GAS STORAGE
  - NF PP OIL
  - NF SECONDARY
  - PI OIL
  - PP GAS
  - PP GEOTHERMAL
  - PP OIL
  - SECONDARY
  - TERMINATED
- Fields**
- Unknown
  - ABANDONED
  - ACTIVE
  - COMBINED
  - INACTIVE
  - STORAGE
  - TERMINATED





GARY R. HERBERT  
*Governor*

SPENCER J. COX  
*Lieutenant Governor*

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
*Executive Director*

### Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

April 14, 2015

LINN OPERATING, INC.  
Rt. 2 Box 7735  
Roosevelt, UT 84066

Re: Application for Permit to Drill - DUCHESNE County, Utah

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the LC Tribal 15-18D-56 well, API 43013521420000 that was submitted April 12, 2013 is being returned unapproved. If you plan on drilling this well in the future, you must first submit a new application.

Should you have any questions regarding this matter, please call me at (801) 538-5312.

Sincerely,

Diana Mason  
Environmental Scientist

Enclosure

cc: Bureau of Land Management, Vernal, Utah



