

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> Murphy 34-20-2-1W					
<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> BLUEBELL					
<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> BADLANDS ENERGY-UTAH, LLC						<b>7. OPERATOR PHONE</b> 303 996-1813					
<b>8. ADDRESS OF OPERATOR</b> 7979 E Tufts Ave, Suite 1150, Denver, CO, 80237						<b>9. OPERATOR E-MAIL</b> mdecker@gascoenergy.com					
<b>10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b> FEE			<b>11. MINERAL OWNERSHIP</b> FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>			<b>12. SURFACE OWNERSHIP</b> FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>					
<b>13. NAME OF SURFACE OWNER (if box 12 = 'fee')</b> Merlan Murphy						<b>14. SURFACE OWNER PHONE (if box 12 = 'fee')</b> 435-823-3420					
<b>15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')</b> 550 Crescent Rd, Roosevelt, UT 84066						<b>16. SURFACE OWNER E-MAIL (if box 12 = 'fee')</b> mhanberg@stratanetworks.com					
<b>17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')</b>			<b>18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS</b> YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			<b>19. SLANT</b> VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>					
<b>20. LOCATION OF WELL</b>		<b>FOOTAGES</b>		<b>QTR-QTR</b>	<b>SECTION</b>	<b>TOWNSHIP</b>	<b>RANGE</b>	<b>MERIDIAN</b>			
LOCATION AT SURFACE		465 FSL 2475 FEL		SWSE	20	2.0 S	1.0 W	U			
Top of Uppermost Producing Zone		660 FSL 2073 FEL		SWSE	20	2.0 S	1.0 W	U			
At Total Depth		660 FSL 2073 FEL		SWSE	20	2.0 S	1.0 W	U			
<b>21. COUNTY</b> UINTAH			<b>22. DISTANCE TO NEAREST LEASE LINE (Feet)</b> 465			<b>23. NUMBER OF ACRES IN DRILLING UNIT</b> 640					
			<b>25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completion)</b> 1735			<b>26. PROPOSED DEPTH</b> MD: 13300 TVD: 13300					
<b>27. ELEVATION - GROUND LEVEL</b> 5068			<b>28. BOND NUMBER</b> SUR0027845			<b>29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b> 43-3610					
<b>Hole, Casing, and Cement Information</b>											
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement		Sacks	Yield	Weight
COND	20	16	0 - 420	65.0	H-40 ST&C	9.5	Class G		423	1.17	15.8
SURF	12.25	9.625	0 - 9900	40.0	HCN-80 LT&C	9.5	Varocem		690	2.722	11.5
							Varocem		180	1.306	14.3
I1	8.75	7	0 - 10200	26.0	HCP-110 LT&C	10.5	Varocem		783	1.774	12.5
							Varocem		320	1.41	13.5
PROD	6.125	5	9900 - 13300	18.0	P-110 LT&C	12.5	Halliburton Premium , Type Unknown		206	1.351	15.0
<b>ATTACHMENTS</b>											
<b>VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES</b>											
<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> Jack Kuskie			<b>TITLE</b> Regulatory Analyst			<b>PHONE</b> 303 996-1857					
<b>SIGNATURE</b>			<b>DATE</b> 06/16/2016			<b>EMAIL</b> jkuskie@badlandsenergy.com					
<b>API NUMBER ASSIGNED</b> 43047555440000			<b>APPROVAL</b>			 Permit Manager					

**Badlands Energy - Utah, LLC**  
**Murphey 34-20-1S-1W**  
**SWSE, Section 20 T 2S, R1W U.S.B.&M.**  
**Uintah County, UT**

**Drilling Program**

<b>1. Formation Tops</b>	TVD
Duchesne River /Uintah	Surface
Upper Green River	6,590'
MGMK Marker	8,185'
Lower Green River	8,255'
Wasatch	9,615'
Total Depth	13,300'

**2. Depth to Oil, Gas, Water, or Minerals**

Upper Green River	6,590'	-	8,255'	(Oil)
Lower Green River	8,255'	-	9,615'	(Oil)
Wasatch	9,615'	-	TD	(Oil)

Fresh water may be encountered in the Duchesne Formation, but is not expected below about 420'. The closest water well is completed at 420' deep. Conductor will be set at 450' to protect any fresh water zones.

**3. Pressure Control**

Section                      BOP Description

The BOP and related equipment shall be in accordance with the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc for a 10M system.

Surface                      A diverter stack w/ rotating head on conductor.

Intermediate

A 10M BOP stack w/ a rotating head, spacer spool, a 5m annular, pipe rams, blind rams, single w flex rams, drilling spool w/ the choke side being 3" minimum and the kill side being 2" minimum. This kill side will have 2 valves w/ one being a check valve. There will be 2 chokes w/ one being remotely controlled from the rig floor. Upper and lower kelly cock valves w/ handles will be available. Safety vavles adn subs to fit all drill string connections will be in use. An inside BOP or float sub will be available. There will be a pressure gauge on the choke manifold. The fill up line will be above the uppermost preventor.

Production

A 10M BOP stack w/ a rotating head, spacer spool, a 5m annular, pipe rams, blind rams, single w flex rams, drilling spool w/ the choke side being 3" minimum and the kill side being 2" minimum. This kill side will have 2 valves w/ one being a check valve. There will be 2 chokes w/ one being remotely controlled from the rig floor. Upper and lower kelly cock valves w/ handles will be available. Safety vavles adn subs to fit all drill string connections will be in use. An inside BOP or float sub will be available. There will be a pressure gauge on the choke manifold. The fill up line will be above the uppermost preventor.

At a minimum, the BOP,choke manifold, and related equipment will be pressure tested to the approved working pressure of the BOP stack if isolated from the surface casing by a test plug, or to 70% of the internal yield strength of the surface casing if not isolated by a test plug.

A low pressure test shall be preformed to 250 psia for 5 minutes and a high pressure test shall be preformed to 10M for 10 minutes. The annular will be tested to 50% of its rating for the high test.

The testing frequency will be on initial installation, drilling out, whenever a seal is broken, following any related repairs and at 30 day intervals.

Annular preventer will be function operated at least weekly.

Pipe and blind rams shall be activated each trip.

A BOPE pit level drill well be conducted weekly for each drilling crew.

All tests and drill will be recorded in the IADC drilling book.

Remote controls shall be readily accesible to the driller. Master controls will be at the accumulator.

The accumulator will have sufficient capacity to open the HCR valve, close all rams plus the accumulator preventer and retain 200 psi above the pre-charge pressure w/o the use of a closing unit, The system will have two independent closing sources.

#### 4. Casing

Description	Interval (MD)		Weight (ppf)	Grade	Coupling	Burst	Collapse	Tension
	Top	Bottom				psia	psia	lbs
Conductor 16	0'	420	65	H-40	STC	1640	630	439,000
Surface 9 5/8	0'	4,500'	40	HCL-80	LTC	5750	4230	827,000
Intermediate 7	0'	10,200'	26	HCP-110	LTC	9950	7800	693,000
Production 5	9900'	13,300'	18	P-110	LTC	13620	10070	495,000

#### Assumptions:

The minimum value of the pipe or connection is listed under tension.

All casing will meet or exceed the following design safety factors:

Burst = 1.0

Collapse = 1.125

Tension = 1.2 including 100,000 lbs overpull.

All collapse calculations assume fully evacuated casing with a gas gradient

Gas gradient = 0.22 psi/ft

All tension calculations assume air weight of casing for worst case scenario.

Listed factors are the lessor of the pipe or coupling.

All casing shall be new.

All casing strings shall have a minimum of 1 centralizer on each of the bottom 3 joints w/ a stop ring utilized on the shoe joint. The centralizers will be spaced every third joint thereafter.

Casing strings will be pressure tested to 0.22 psi/ft of casing or 1,500 psia, whichever is greater (not to exceed 70% of the internal yield strength of the casing), after cementing and prior to drilling out.

## 5. Cement

Job	Hole Size	Fill	Slurry Description	ft <sup>3</sup>	OH excess	Weight (ppg)	Yield (ft <sup>3</sup> /sk)
				sacks			
<b>Conductor:</b>	20	420	Class G w/ 2% KCl + 0.25 lbs/sk Cello Flake	495	50%	15.8	1.17
				423			
<b>Surface</b>	12 1/4	4,000'	Varicem 0.25 lbm Kwik Seal, 0.125 lbm Poly-E-Flake+2% Cal-seal	1879	50%	11.5	2.722
Lead				690			
<b>Surface</b>	12 1/4	500'	Varicem 0.25 lbm Kwik Seal, 0.125 lbm Poly-E-Flake	235	50%	14.3	1.306
Tail				180			
<b>Intermediate</b>	8 3/4	7,700'	Varicem+0.4% HR-5+0.25Poly-E-Flake	1389	20%	12.5	1.774
Lead				783			
<b>Intermediate</b>	8 3/4	2,500'	Varicem+0.4% HR-5+0.25Poly-E-Flake	451	20%	13.5	1.410
Tail				320			
<b>Production</b>	6 1/8	3,400'	Expandacem +0.7% HR-5	279	20%	15.0	1.351
				206			

The conductor shall be air drilled w a cement excess of 50%. If drilled conventionally the excess will be 100%. If cement does not reach surface during the primary job it will be topped out to surface.

The surface casing will be cemented to surface using a minimum of 50% excess over the hole volume. In the event that cement does not reach surface during the primary cement job, a remedial job will be performed.

Actual cement volumes for the production casing string will be calculated from an open hole caliper log, plus 20% excess.

All waiting on cement (WOC) time will be adequate to achieve a minimum of 500 psia compressive strength at the casing shoe prior to drilling out.

## 6. Type and Characteristics of Proposed Circulating Medium

### Interval

### Description

Surface - 4,500' A fresh water system will be utilized.  
Mud weight = 9.0-9.5 ppg.

4,500' - 10200' A water based mud system will be utilized. Hole stability may be improved with additions of KCl or a similar inhibitive substance. In order to control formation pressure the system will be weighted with additions of bentonite, and if conditions warrant, with barite.  
Mud weight = 10.0-10.5 ppg

10200 -TD A water based mud system will be utilized. Hole stability may be improved with additions of KCl or a similar inhibitive substance. In order to control formation pressure the system will be weighted with additions of bentonite, and if conditions warrant, with barite.  
Mud weight = 12.0-12.5 ppg

Anticipated maximum mud weight is 12.5 ppg.

## 7. Logging, Coring, and Testing

**Logging:** A dual induction, gamma ray, and caliper log will be run from TD to the base of the surface casing. A compensated neutron/formation density log will be run from TD to the top of the Garden Gulch formation. A cement bond log will be run from PBDT to the cement top behind the production casing.

**Cores:** As deemed necessary.

**DST:** There are no DST's planned for this well.

**8. Anticipated Abnormal Pressure or Temperature**

Maximum anticipated bottomhole pressure will be approximately equal to total depth (feet) multiplied by a 0.65 psi/ft gradient. ( 12.5 ppg mud weight at TD).

$$13,300' \times 0.65 \text{ psi/ft} = 8645 \text{ psia}$$

Maximum anticipated surface pressure for the intermediate hole is calculated using the EMW at Casing point minus a partially vacuated hole using a gradient of 0.22 psi/ft).

$$( 10,200' \times 0.052 \text{ } 10.50 ) - ( 10,200' \times 0.22 ) = 3325 \text{ psia}$$

Maximum anticipated surface pressure for the production hole is calculated using the EMW at Casing point minus a partially vacuated hole using a gradient of 0.22 psi/ft).

$$( 13,300' \times 0.052 \text{ } 12.50 ) - ( 13,300' \times 0.22 ) = 5719 \text{ psia}$$

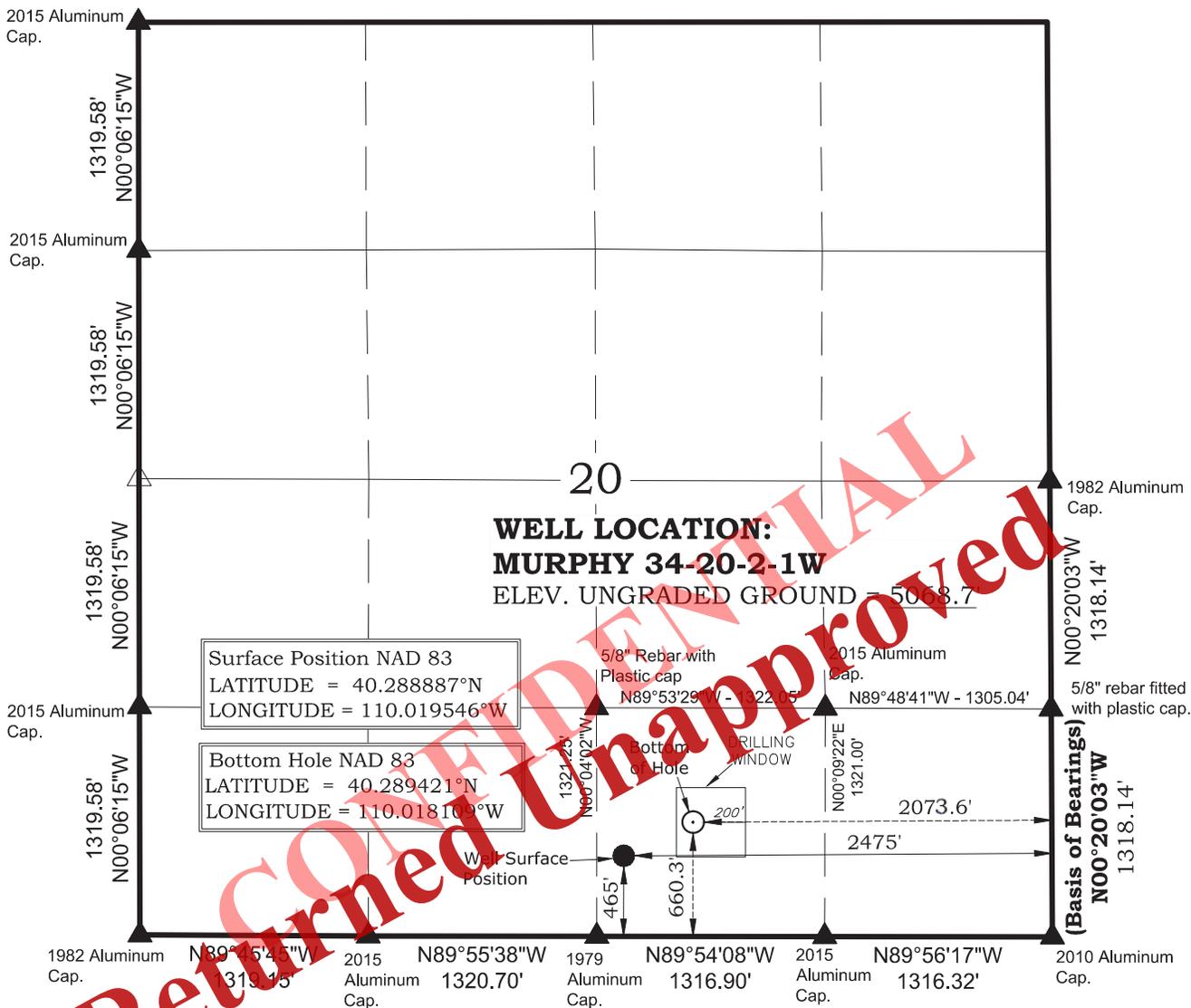
No abnormal temperature is expected. No H<sub>2</sub>S is expected.

**9. Other Aspects**

This is planned as a directional well. Directional plan is attached.  
Badlands Energy will only complete formations within the drilling window.

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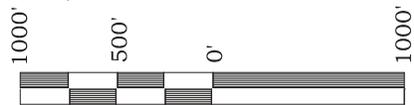
# T2S, R1W, U.S.B.&M.



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**NOTES:**

- ▲ = Section Corners Located
- △ = Section Corners Located Not Monumented
- 1. Well footages are measured at right angles to the Section Lines.
- 2. The Bottom of hole bears N64°07'41"E 445.68' from the Surface Position.
- 3. Bearings and distances shown on this plat are based upon a local Cartesian Grid which is oriented to Geodetic North at the SE Corner of Section 36, T2S, R1W, U.S.B.&M. the grid having a mean project height of 5,100'. Lineal units used are U.S. Survey Foot. Trimble G.P.S. equipment was used in performance of this survey.
- 4. Elevations are NAVD 88 derived from the Utah Virtual Reference Station Control System (VRS)



**SURVEYOR'S CERTIFICATE**

THIS IS TO CERTIFY THAT THE ABOVE PLAT 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.

BROCK J. SLAGH  
 PROFESSIONAL LAND SURVEYOR  
 LICENCE No. 8704293  
 STATE OF UTAH

**BADLANDS ENERGY-UTAH, LLC**

**WELL PLAT**

**MURPHY 34-20-2-1W**

**660.3' FSL, 2073.6' FEL (Bottom Hole)**

**SW ¼ SE ¼ OF SECTION 20, T2S, R1W,**

**U.S.B.&M., DUCHESNE COUNTY, UTAH.**

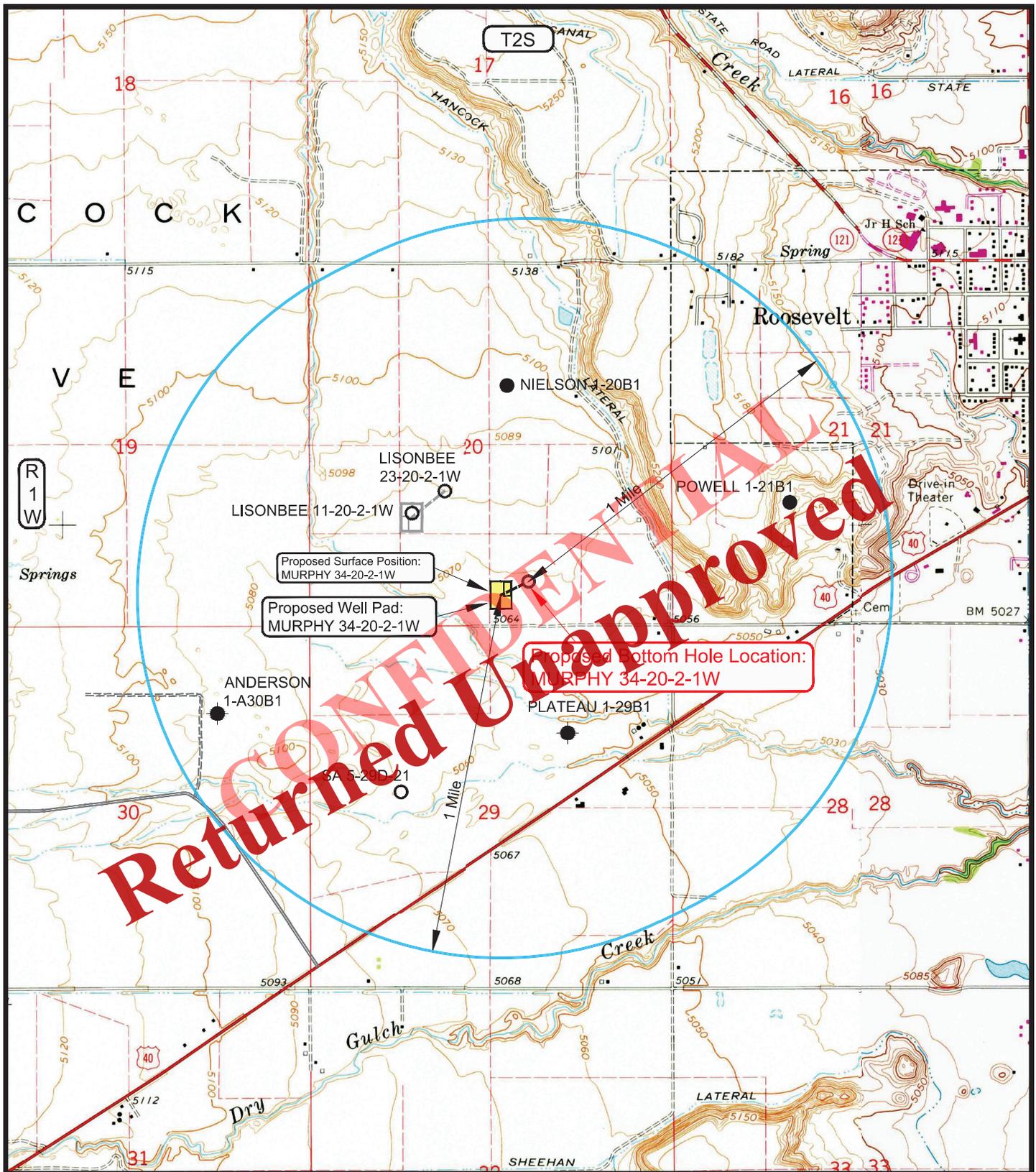


(435) 789-1365

**TIMBERLINE**  
 ENGINEERING & LAND SURVEYING, INC.  
 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 5-19-15	SURVEYED BY: T.A.	<b>1</b> OF 13
DATE DRAWN: 6-1-15	DRAWN BY: M.W.W.	
SCALE: 1" = 1000'	Date Last Revised: 6-30-16 M.W.W.	





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Proposed Surface Position:  
MURPHY 34-20-2-1W

Proposed Well Pad:  
MURPHY 34-20-2-1W

Proposed Bottom Hole Location:  
MURPHY 34-20-2-1W

**LEGEND**

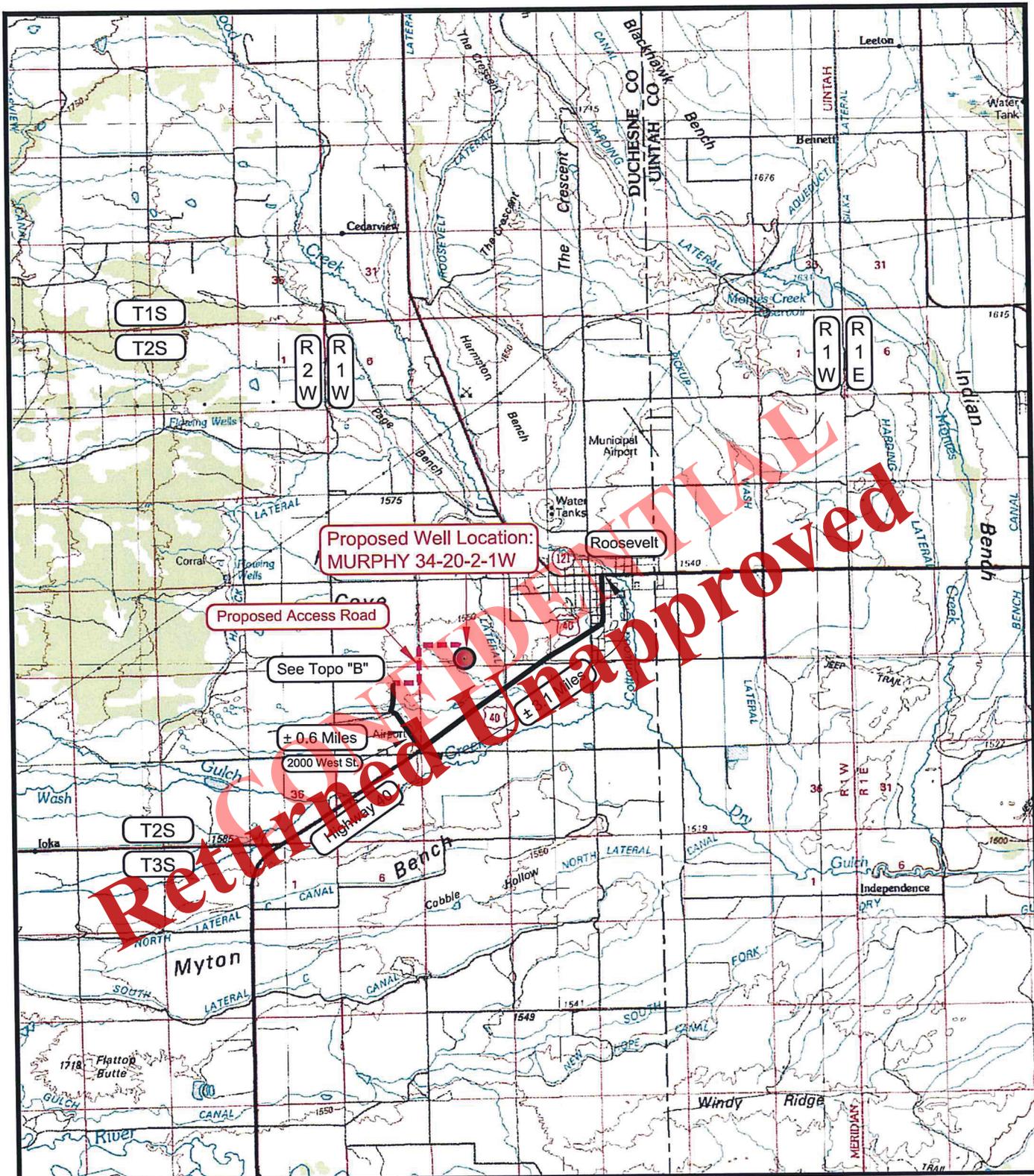
- ⊗ = DISPOSAL WELL
- = PRODUCING WELL
- = SHUT IN WELL
- = PROPOSED WELL
- ⊗ = WATER WELL
- = ABANDONED WELL
- = TEMPORARILY ABANDONED WELL
- ⊗ = ABANDONED LOCATION

**BADLANDS ENERGY-UTAH, LLC**

**WELL - MURPHY 34-20-2-1W**  
**660.3' FSL & 2072.6' FEL (Bottom Hole)**  
**LOCATED IN SECTION 20, T2S, R1W,**  
**U.S.B.&M., DUCHESNE COUNTY, UTAH.**

TOPOGRAPHIC MAP "C"	DATE SURVEYED: 5-19-15
SCALE: 1" = 2000'	DATE DRAWN: 6-1-15
DRAWN BY: M.W.W.	REVISED: 6-30-16 M.W.W.

**TIMBERLINE** (435) 789-1365 SHEET  
 ENGINEERING & LAND SURVEYING, INC. **8**  
 209 NORTH 300 WEST - VERNAL, UTAH 84078 OF 13



Proposed Well Location:  
MURPHY 34-20-2-1W

Proposed Access Road

See Topo "B"

± 0.6 Miles

T2S

T3S

**BADLANDS ENERGY-UTAH, LLC**

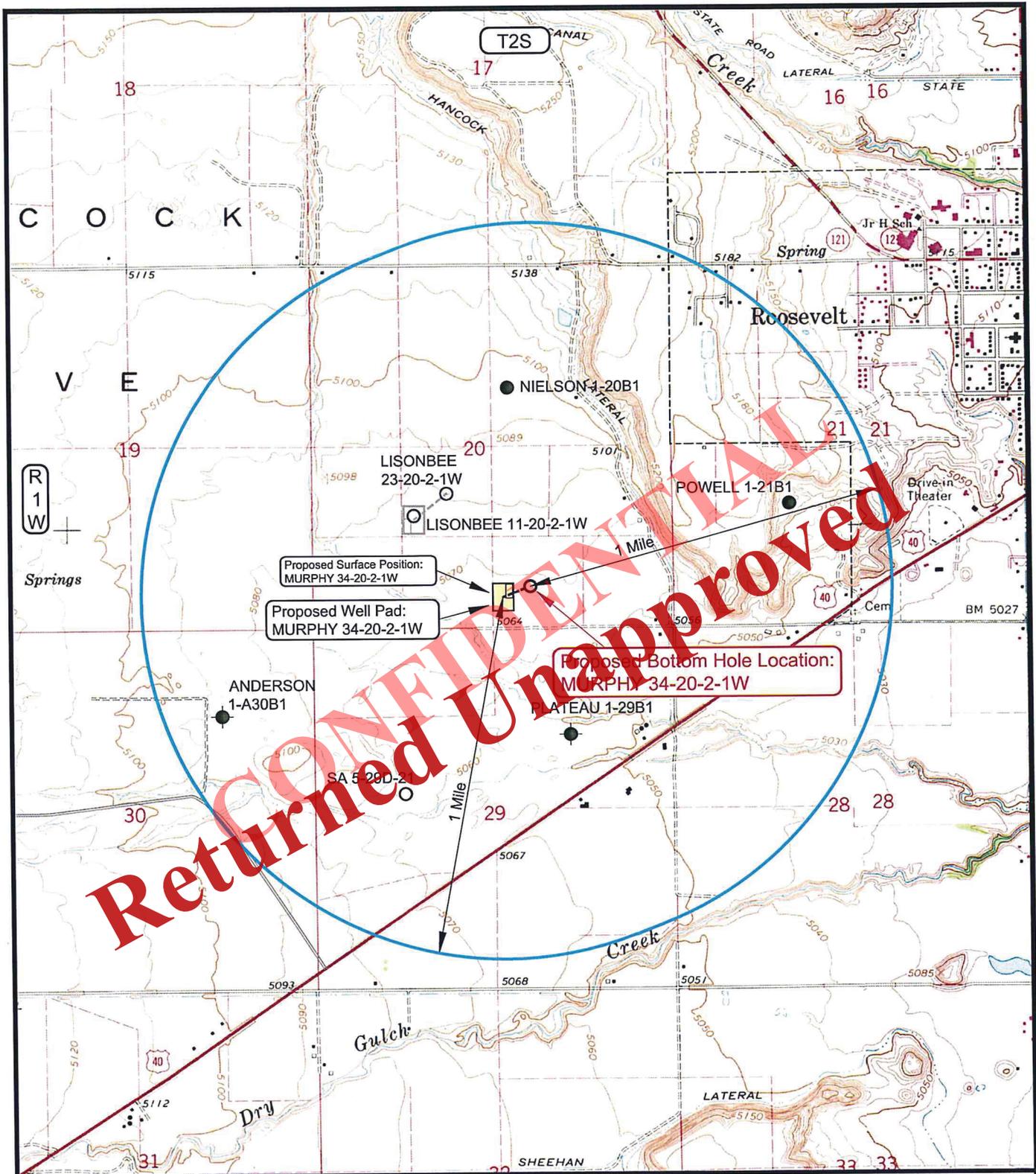
**WELL- MURPHY 34-20-2-1W**  
**465' FSL & 2475' FEL**  
**LOCATED IN SECTION 20, T2S, R1W,**  
**U.S.B.&M., DUCHESNE COUNTY, UTAH.**

- LEGEND**
- PROPOSED ACCESS ROAD
  - = SUBJECT WELL
  - ==== = OTHER WELLS
  - = EXISTING ROAD
  - = EXISTING ROAD (TO BE IMPROVED)
  - (B-5460) = COUNTY ROAD CLASS & NUMBER

TOPOGRAPHIC MAP "A"	DATE SURVEYED: 5-19-15
	DATE DRAWN: 6-1-15
SCALE: 1:100,000	REVISED:
DRAWN BY: M.W.W.	

**TIMBERLINE** (435) 789-1365 SHEET  
 ENGINEERING & LAND SURVEYING, INC. **6**  
 209 NORTH 300 WEST - VERNAL, UTAH 84078 OF 13





**LEGEND**

- ⊘ = DISPOSAL WELL
- = PRODUCING WELL
- = SHUT IN WELL
- = PROPOSED WELL
- ⊘ = WATER WELL
- = ABANDONED WELL
- = TEMPORARILY ABANDONED WELL
- ⊘ = ABANDONED LOCATION

**BADLANDS ENERGY-UTAH, LLC**

**WELL - MURPHY 34-20-2-1W**  
**660.3' FSL, 2073.6' FEL (Bottom Hole)**  
**LOCATED IN SECTION 20, T2S, R1W,**  
**U.S.B.&M., DUCHESNE COUNTY, UTAH.**

TOPOGRAPHIC MAP "C"	DATE SURVEYED: 5-19-15
	DATE DRAWN: 6-1-15
	REVISED: 6-15-16 M.W.W.
SCALE: 1" = 2000'	DRAWN BY: M.W.W.

	(435) 789-1365	SHEET
	ENGINEERING & LAND SURVEYING, INC.	8
	209 NORTH 300 WEST - VERNAL, UTAH 84078	OF 13



**BADLANDS ENERGY, INC.**

## **Badlands Energy- Utah, LLC**

Duchesne County  
SECTION 20 T2S, R1W  
Murphy 34-20-2-1W

Wellbore #1

Plan: Design #4

## **Standard Planning Report**

27 June, 2016

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**Payzone Directional**  
Planning Report



<b>Database:</b>	MasterDB	<b>Local Co-ordinate Reference:</b>	Well Murphy 34-20-2-1W
<b>Company:</b>	Badlands Energy- Utah, LLC	<b>TVD Reference:</b>	Murphy 34-20-2-1W @ 5095.7usft (PLAN KB)
<b>Project:</b>	Duchesne County	<b>MD Reference:</b>	Murphy 34-20-2-1W @ 5095.7usft (PLAN KB)
<b>Site:</b>	SECTION 20 T2S, R1W	<b>North Reference:</b>	True
<b>Well:</b>	Murphy 34-20-2-1W	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #4		

<b>Project</b>	Duchesne County		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Utah Central Zone		

<b>Site</b>	SECTION 20 T2S, R1W				
<b>Site Position:</b>		<b>Northing:</b>	7,278,479.44 usft	<b>Latitude:</b>	40° 17' 31.146 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,052,063.90 usft	<b>Longitude:</b>	110° 1' 27.167 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.95 °

<b>Well</b>	Murphy 34-20-2-1W, SHL LAT: 40.288887 LONG: -110.019546					
<b>Well Position</b>	<b>+N/-S</b>	-1,128.5 usft	<b>Northing:</b>	7,277,372.56 usft	<b>Latitude:</b>	40° 17' 19.993 N
	<b>+E/-W</b>	1,301.9 usft	<b>Easting:</b>	2,053,384.24 usft	<b>Longitude:</b>	110° 1' 10.366 W
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>	5,095.7 usft	<b>Ground Level:</b>	5,068.7 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 (nT)</b>
	IGRF2010	5/31/2016	10.69	65.88	51,922

<b>Design</b>	Design #4				
<b>Audit Notes:</b>					
<b>Version:</b>	Present	PROTOTYPE	<b>Tie On Depth:</b>	0.0	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	64.06	

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,011.9	9.36	64.06	5,010.5	11.1	22.8	3.00	3.00	0.00	64.06	
7,367.0	9.36	64.06	7,334.3	178.6	367.1	0.00	0.00	0.00	0.00	
7,834.8	0.00	0.00	7,800.0	195.3	401.4	2.00	-2.00	0.00	180.00	
13,334.8	0.00	0.00	13,300.0	195.3	401.4	0.00	0.00	0.00	0.00	



**Payzone Directional**  
Planning Report



<b>Database:</b>	MasterDB	<b>Local Co-ordinate Reference:</b>	Well Murphy 34-20-2-1W
<b>Company:</b>	Badlands Energy- Utah, LLC	<b>TVD Reference:</b>	Murphy 34-20-2-1W @ 5095.7usft (PLAN KB)
<b>Project:</b>	Duchesne County	<b>MD Reference:</b>	Murphy 34-20-2-1W @ 5095.7usft (PLAN KB)
<b>Site:</b>	SECTION 20 T2S, R1W	<b>North Reference:</b>	True
<b>Well:</b>	Murphy 34-20-2-1W	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #4		

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,725.0	0.00	0.00	3,725.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Uintah</b>									
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Start Build 3.00</b>									
4,800.0	3.00	64.06	4,800.0	1.1	2.4	2.6	3.00	3.00	0.00
4,900.0	6.00	64.06	4,899.6	4.6	9.4	10.5	3.00	3.00	0.00
5,000.0	9.00	64.06	4,998.8	10.3	21.1	23.5	3.00	3.00	0.00



**Payzone Directional**  
Planning Report



<b>Database:</b>	MasterDB	<b>Local Co-ordinate Reference:</b>	Well Murphy 34-20-2-1W
<b>Company:</b>	Badlands Energy- Utah, LLC	<b>TVD Reference:</b>	Murphy 34-20-2-1W @ 5095.7usft (PLAN KB)
<b>Project:</b>	Duchesne County	<b>MD Reference:</b>	Murphy 34-20-2-1W @ 5095.7usft (PLAN KB)
<b>Site:</b>	SECTION 20 T2S, R1W	<b>North Reference:</b>	True
<b>Well:</b>	Murphy 34-20-2-1W	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #4		

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)	
5,011.9	9.36	64.06	5,010.5	11.1	22.8	25.4	3.00	3.00	0.00	
<b>Start 2355.1 hold at 5011.9 MD</b>										
5,100.0	9.36	64.06	5,097.4	17.4	35.7	39.7	0.00	0.00	0.00	
5,200.0	9.36	64.06	5,196.1	24.5	50.4	56.0	0.00	0.00	0.00	
5,300.0	9.36	64.06	5,294.8	31.6	65.0	72.2	0.00	0.00	0.00	
5,400.0	9.36	64.06	5,393.5	38.7	79.6	88.5	0.00	0.00	0.00	
5,500.0	9.36	64.06	5,492.1	45.8	94.2	104.8	0.00	0.00	0.00	
5,600.0	9.36	64.06	5,590.8	52.9	108.8	121.0	0.00	0.00	0.00	
5,700.0	9.36	64.06	5,689.5	60.0	123.4	137.3	0.00	0.00	0.00	
5,800.0	9.36	64.06	5,788.1	67.2	138.1	153.5	0.00	0.00	0.00	
5,900.0	9.36	64.06	5,886.8	74.3	152.7	169.8	0.00	0.00	0.00	
6,000.0	9.36	64.06	5,985.5	81.4	167.3	186.0	0.00	0.00	0.00	
6,100.0	9.36	64.06	6,084.1	88.5	181.9	202.3	0.00	0.00	0.00	
6,200.0	9.36	64.06	6,182.8	95.6	196.5	218.6	0.00	0.00	0.00	
6,300.0	9.36	64.06	6,281.5	102.7	211.2	234.9	0.00	0.00	0.00	
6,400.0	9.36	64.06	6,380.1	109.8	225.8	251.1	0.00	0.00	0.00	
6,500.0	9.36	64.06	6,478.8	116.9	240.4	267.3	0.00	0.00	0.00	
6,590.0	9.36	64.06	6,567.6	123.3	253.6	282.0	0.00	0.00	0.00	
<b>U Green River</b>										
6,600.0	9.36	64.06	6,577.5	124.1	255.0	283.6	0.00	0.00	0.00	
6,700.0	9.36	64.06	6,676.2	131.2	269.6	299.8	0.00	0.00	0.00	
6,800.0	9.36	64.06	6,774.9	138.3	284.3	316.1	0.00	0.00	0.00	
6,900.0	9.36	64.06	6,873.5	145.4	298.9	332.4	0.00	0.00	0.00	
7,000.0	9.36	64.06	6,972.2	152.5	313.5	348.6	0.00	0.00	0.00	
7,100.0	9.36	64.06	7,070.8	159.6	328.1	364.9	0.00	0.00	0.00	
7,200.0	9.36	64.06	7,169.5	166.7	342.7	381.1	0.00	0.00	0.00	
7,300.0	9.36	64.06	7,268.2	173.8	357.4	397.4	0.00	0.00	0.00	
7,367.0	9.36	64.06	7,334.3	178.6	367.1	408.3	0.00	0.00	0.00	
<b>Start Drop -2.00</b>										
7,400.0	8.70	64.06	7,366.9	180.9	371.8	413.5	2.00	-2.00	0.00	
7,500.0	6.70	64.06	7,466.0	186.7	383.8	426.9	2.00	-2.00	0.00	
7,600.0	4.70	64.06	7,565.5	191.1	392.8	436.8	2.00	-2.00	0.00	
7,700.0	2.70	64.06	7,665.3	193.9	398.6	443.2	2.00	-2.00	0.00	
7,800.0	0.70	64.06	7,765.2	195.2	401.2	446.2	2.00	-2.00	0.00	
7,834.8	0.00	0.00	7,800.0	195.3	401.4	446.4	2.00	-2.00	0.00	
<b>Start 5500.0 hold at 7834.8 MD</b>										
7,900.0	0.00	0.00	7,865.2	195.3	401.4	446.4	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,965.2	195.3	401.4	446.4	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,065.2	195.3	401.4	446.4	0.00	0.00	0.00	
8,185.0	0.00	0.00	8,150.2	195.3	401.4	446.4	0.00	0.00	0.00	
<b>MGNK Marker</b>										
8,200.0	0.00	0.00	8,165.2	195.3	401.4	446.4	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,265.2	195.3	401.4	446.4	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,365.2	195.3	401.4	446.4	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,465.2	195.3	401.4	446.4	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,565.2	195.3	401.4	446.4	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,665.2	195.3	401.4	446.4	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,765.2	195.3	401.4	446.4	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,865.2	195.3	401.4	446.4	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,965.2	195.3	401.4	446.4	0.00	0.00	0.00	
9,100.0	0.00	0.00	9,065.2	195.3	401.4	446.4	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,165.2	195.3	401.4	446.4	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,265.2	195.3	401.4	446.4	0.00	0.00	0.00	



**Payzone Directional**  
Planning Report



<b>Database:</b>	MasterDB	<b>Local Co-ordinate Reference:</b>	Well Murphy 34-20-2-1W
<b>Company:</b>	Badlands Energy- Utah, LLC	<b>TVD Reference:</b>	Murphy 34-20-2-1W @ 5095.7usft (PLAN KB)
<b>Project:</b>	Duchesne County	<b>MD Reference:</b>	Murphy 34-20-2-1W @ 5095.7usft (PLAN KB)
<b>Site:</b>	SECTION 20 T2S, R1W	<b>North Reference:</b>	True
<b>Well:</b>	Murphy 34-20-2-1W	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #4		

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)	
9,400.0	0.00	0.00	9,365.2	195.3	401.4	446.4	0.00	0.00	0.00	
9,500.0	0.00	0.00	9,465.2	195.3	401.4	446.4	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,565.2	195.3	401.4	446.4	0.00	0.00	0.00	
9,615.0	0.00	0.00	9,580.2	195.3	401.4	446.4	0.00	0.00	0.00	
<b>Wasatch</b>										
9,700.0	0.00	0.00	9,665.2	195.3	401.4	446.4	0.00	0.00	0.00	
9,800.0	0.00	0.00	9,765.2	195.3	401.4	446.4	0.00	0.00	0.00	
9,900.0	0.00	0.00	9,865.2	195.3	401.4	446.4	0.00	0.00	0.00	
10,000.0	0.00	0.00	9,965.2	195.3	401.4	446.4	0.00	0.00	0.00	
10,100.0	0.00	0.00	10,065.2	195.3	401.4	446.4	0.00	0.00	0.00	
10,200.0	0.00	0.00	10,165.2	195.3	401.4	446.4	0.00	0.00	0.00	
10,300.0	0.00	0.00	10,265.2	195.3	401.4	446.4	0.00	0.00	0.00	
10,400.0	0.00	0.00	10,365.2	195.3	401.4	446.4	0.00	0.00	0.00	
10,500.0	0.00	0.00	10,465.2	195.3	401.4	446.4	0.00	0.00	0.00	
10,600.0	0.00	0.00	10,565.2	195.3	401.4	446.4	0.00	0.00	0.00	
10,700.0	0.00	0.00	10,665.2	195.3	401.4	446.4	0.00	0.00	0.00	
10,800.0	0.00	0.00	10,765.2	195.3	401.4	446.4	0.00	0.00	0.00	
10,900.0	0.00	0.00	10,865.2	195.3	401.4	446.4	0.00	0.00	0.00	
11,000.0	0.00	0.00	10,965.2	195.3	401.4	446.4	0.00	0.00	0.00	
11,100.0	0.00	0.00	11,065.2	195.3	401.4	446.4	0.00	0.00	0.00	
11,200.0	0.00	0.00	11,165.2	195.3	401.4	446.4	0.00	0.00	0.00	
11,300.0	0.00	0.00	11,265.2	195.3	401.4	446.4	0.00	0.00	0.00	
11,400.0	0.00	0.00	11,365.2	195.3	401.4	446.4	0.00	0.00	0.00	
11,500.0	0.00	0.00	11,465.2	195.3	401.4	446.4	0.00	0.00	0.00	
11,600.0	0.00	0.00	11,565.2	195.3	401.4	446.4	0.00	0.00	0.00	
11,630.0	0.00	0.00	11,595.2	195.3	401.4	446.4	0.00	0.00	0.00	
<b>L Wasatch</b>										
11,700.0	0.00	0.00	11,665.2	195.3	401.4	446.4	0.00	0.00	0.00	
11,800.0	0.00	0.00	11,765.2	195.3	401.4	446.4	0.00	0.00	0.00	
11,900.0	0.00	0.00	11,865.2	195.3	401.4	446.4	0.00	0.00	0.00	
12,000.0	0.00	0.00	11,965.2	195.3	401.4	446.4	0.00	0.00	0.00	
12,100.0	0.00	0.00	12,065.2	195.3	401.4	446.4	0.00	0.00	0.00	
12,200.0	0.00	0.00	12,165.2	195.3	401.4	446.4	0.00	0.00	0.00	
12,300.0	0.00	0.00	12,265.2	195.3	401.4	446.4	0.00	0.00	0.00	
12,400.0	0.00	0.00	12,365.2	195.3	401.4	446.4	0.00	0.00	0.00	
12,500.0	0.00	0.00	12,465.2	195.3	401.4	446.4	0.00	0.00	0.00	
12,600.0	0.00	0.00	12,565.2	195.3	401.4	446.4	0.00	0.00	0.00	
12,700.0	0.00	0.00	12,665.2	195.3	401.4	446.4	0.00	0.00	0.00	
12,800.0	0.00	0.00	12,765.2	195.3	401.4	446.4	0.00	0.00	0.00	
12,900.0	0.00	0.00	12,865.2	195.3	401.4	446.4	0.00	0.00	0.00	
13,000.0	0.00	0.00	12,965.2	195.3	401.4	446.4	0.00	0.00	0.00	
13,100.0	0.00	0.00	13,065.2	195.3	401.4	446.4	0.00	0.00	0.00	
13,200.0	0.00	0.00	13,165.2	195.3	401.4	446.4	0.00	0.00	0.00	
13,300.0	0.00	0.00	13,265.2	195.3	401.4	446.4	0.00	0.00	0.00	
<b>TD</b>										
13,334.8	0.00	0.00	13,300.0	195.3	401.4	446.4	0.00	0.00	0.00	
<b>TD at 13334.8</b>										



**Payzone Directional**  
Planning Report



<b>Database:</b>	MasterDB	<b>Local Co-ordinate Reference:</b>	Well Murphy 34-20-2-1W
<b>Company:</b>	Badlands Energy- Utah, LLC	<b>TVD Reference:</b>	Murphy 34-20-2-1W @ 5095.7usft (PLAN KB)
<b>Project:</b>	Duchesne County	<b>MD Reference:</b>	Murphy 34-20-2-1W @ 5095.7usft (PLAN KB)
<b>Site:</b>	SECTION 20 T2S, R1W	<b>North Reference:</b>	True
<b>Well:</b>	Murphy 34-20-2-1W	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #4		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
34-20-2-1W TGT	0.00	0.00	13,300.0	195.3	401.4	7,277,574.44	2,053,782.38	40° 17' 21.923 N	110° 1' 5.185 W
- hit/miss target - Shape - plan hits target center - Rectangle (sides W400.0 H400.0 D0.0)									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,725.0	3,725.0	Uintah		0.00		
6,590.0	6,567.6	U Green River		0.00		
8,185.0	8,150.2	MGNK Marker		0.00		
9,615.0	9,580.2	Wasatch		0.00		
11,630.0	11,595.2	L Wasatch		0.00		
13,300.0	13,265.2	TD		0.00		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
4,700.0	4,700.0	0.0	0.0	Start Build 3.00	
5,011.9	5,010.5	11.1	22.8	Start 2355.1 hold at 5011.9 MD	
7,367.0	7,334.3	178.6	367.1	Start Drop -2.00	
7,834.8	7,800.0	195.3	401.4	Start 5500.0 hold at 7834.8 MD	
13,334.8	13,300.0	195.3	401.4	TD at 13334.8	

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Well Name: Murphy 34-20-2-1W  
 Surface Location: SECTION 20 T2S, R1W  
 North American Datum 1983, US State Plane 1983, Utah Central Zone  
 Ground Elevation: 5068.7  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 7277372.56 2053384.25 40° 17' 19.993 N 110° 1' 10.366 W  
 PLAN KB Murphy 34-20-2-1W @ 5095.7usft (PLAN KB)



Azimuths to True North  
 Magnetic North: 10.69°  
 Magnetic Field  
 Strength: 51921.5snT  
 Dip Angle: 65.88°  
 Date: 5/31/2016  
 Model: IGRF2010

SECTION 20 T2S, R1W  
 Murphy 34-20-2-1W  
 Design #4  
 20:32, June 27 2016

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
34-20-2-1W TGT	13300.0	195.3	401.4	7277574.44	2053782.38	40° 17' 21.923 N	110° 1' 5.185 W	Rectangle (Sides: L400.0 W400.0)

ANNOTATIONS

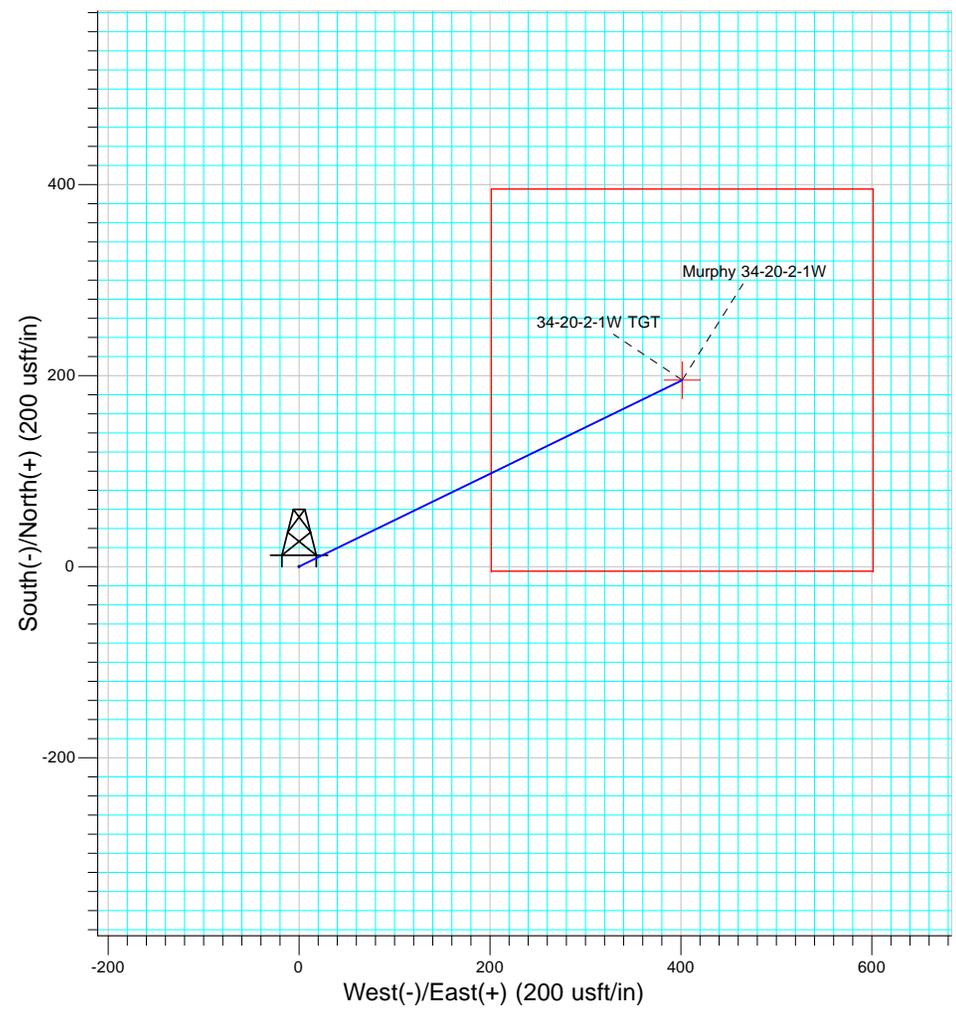
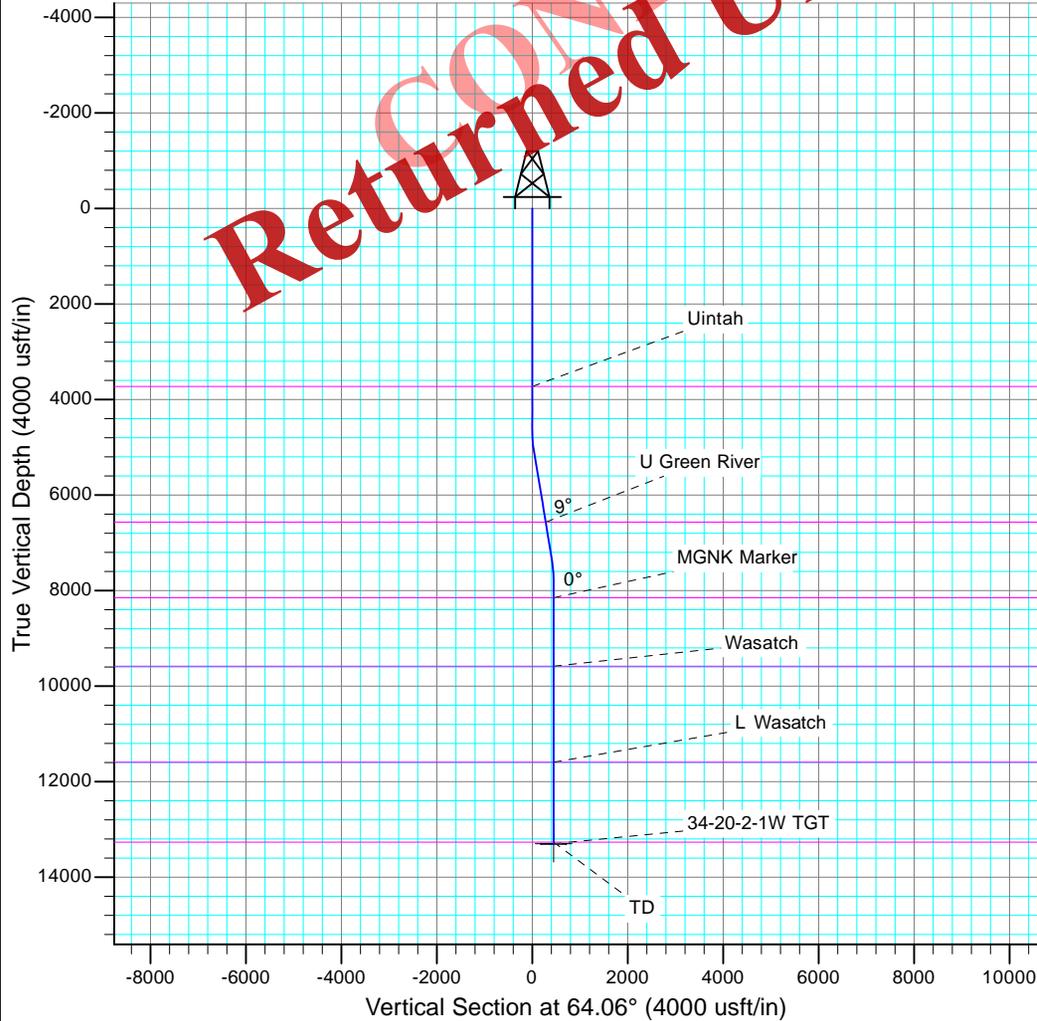
TVD	MD	Annotation
4700.0	4700.0	Start Build 3.00
5010.5	5011.9	Start 2355.1 hold at 5011.9 MD
7334.3	7367.0	Start Drop -2.00
7800.0	7834.8	Start 5500.0 hold at 7834.8 MD
13300.0	13334.8	TD at 13334.8

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4700.0	0.00	0.00	4700.0	0.0	0.0	0.00	0.00	0.0	
3	5011.9	9.36	64.06	5010.5	11.1	22.8	3.00	64.06	25.4	
4	7367.0	9.36	64.06	7334.3	178.6	367.1	0.00	0.00	408.3	
5	7834.8	0.00	0.00	7800.0	195.3	401.4	2.00	180.00	446.4	
6	13334.8	0.00	0.00	13300.0	195.3	401.4	0.00	0.00	446.4	

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
3725.0	3725.0	Uintah	0.00	
6567.6	6590.0	U Green River	0.00	
8150.2	8185.0	MGNK Marker	0.00	
9580.2	9615.0	Wasatch	0.00	
11595.2	11630.0	L Wasatch	0.00	
13265.2	13300.0	TD	0.00	



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**AFFIDAVIT**

Brandon Casey, of lawful age, after having first duly sworn upon his oath, disposes and states:

That he is employed by Badlands Energy – Utah, L.L.C. (“Badlands”) as a Landman. Badlands has submitted the Application for Permit to Drill to produce from the Green River and Wasatch formations in the following well:

Murphy 34-20-2-1W

Section 20: W2SE

more specifically described as follows:

BEGINNING AT A POINT IN THE SW 1/4 SE 1/4 OF SECTION 20, T2S, R1W, U.S.B.&M. DUCHESNE COUNTY, UTAH WHICH BEARS N00°29'39"E 202.39' FROM THE SOUTH 1/4 CORNER OF SAID SECTION; THENCE N00°14'50"W 527.51'; THENCE N89°42'40"E 345.94'; THENCE S45°17'20"E 41.77'; THENCE S00°23'46"W 454.06'; THENCE S51°13'50"W 70.61'; THENCE S89°42'40"W 315.16' TO THE POINT OF BEGINNING. BASIS OF BEARINGS IS THE SOUTH LINE OF SAID SW 1/4 SE 1/4 WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N89°54'08"W. CONTAINS 4.478 ACRES MORE OR LESS.

That in compliance with Utah OGM regulation R649-3-11, Badlands is the owner of oil and gas rights within a 460 foot radius along the intended well bore. It is further stated that the subject well location is in compliance with Utah OGM regulation R649-3-2.

Date: May 18, 2016

Affiant

  
\_\_\_\_\_  
Brandon Casey  
Landman

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**Acknowledgements**

STATE OF Colorado )  
 ) SS.  
COUNTY OF Denver )

On this 18<sup>th</sup> day of May, 2016, before me, the undersigned Notary Public in and for said county and state, personally appeared Brandon Casey, known to me to be the person or persons whose names are subscribed to the foregoing instrument, and acknowledged that the same was executed and delivered as their free and voluntary act for the purposes therein set forth. In witness whereof I hereunto set my hand and official seal as of the date hereinabove stated.

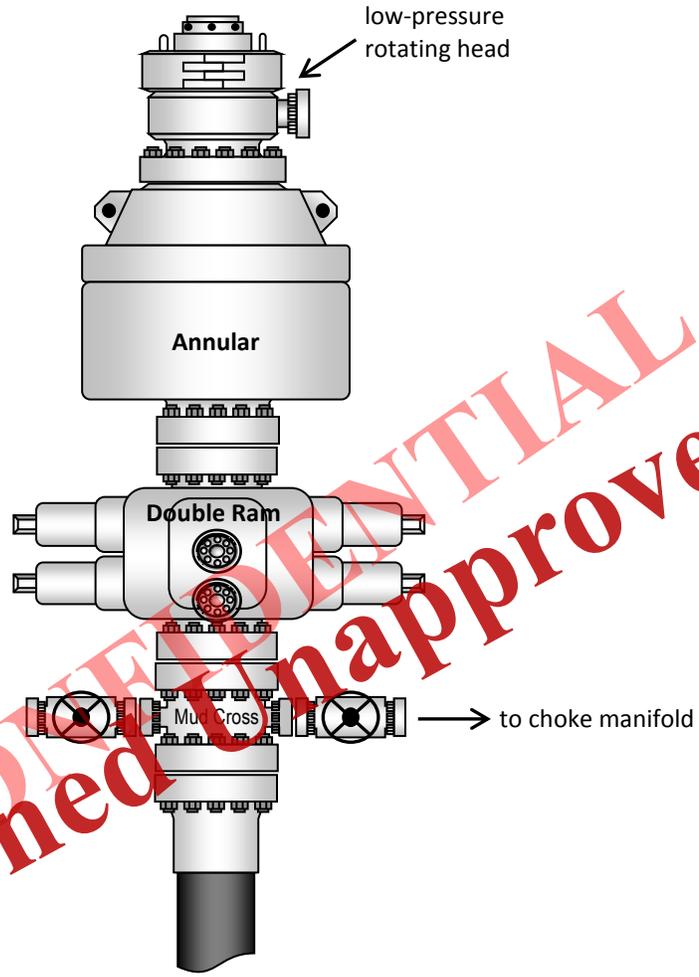
My Commission Expires: 1/17/18

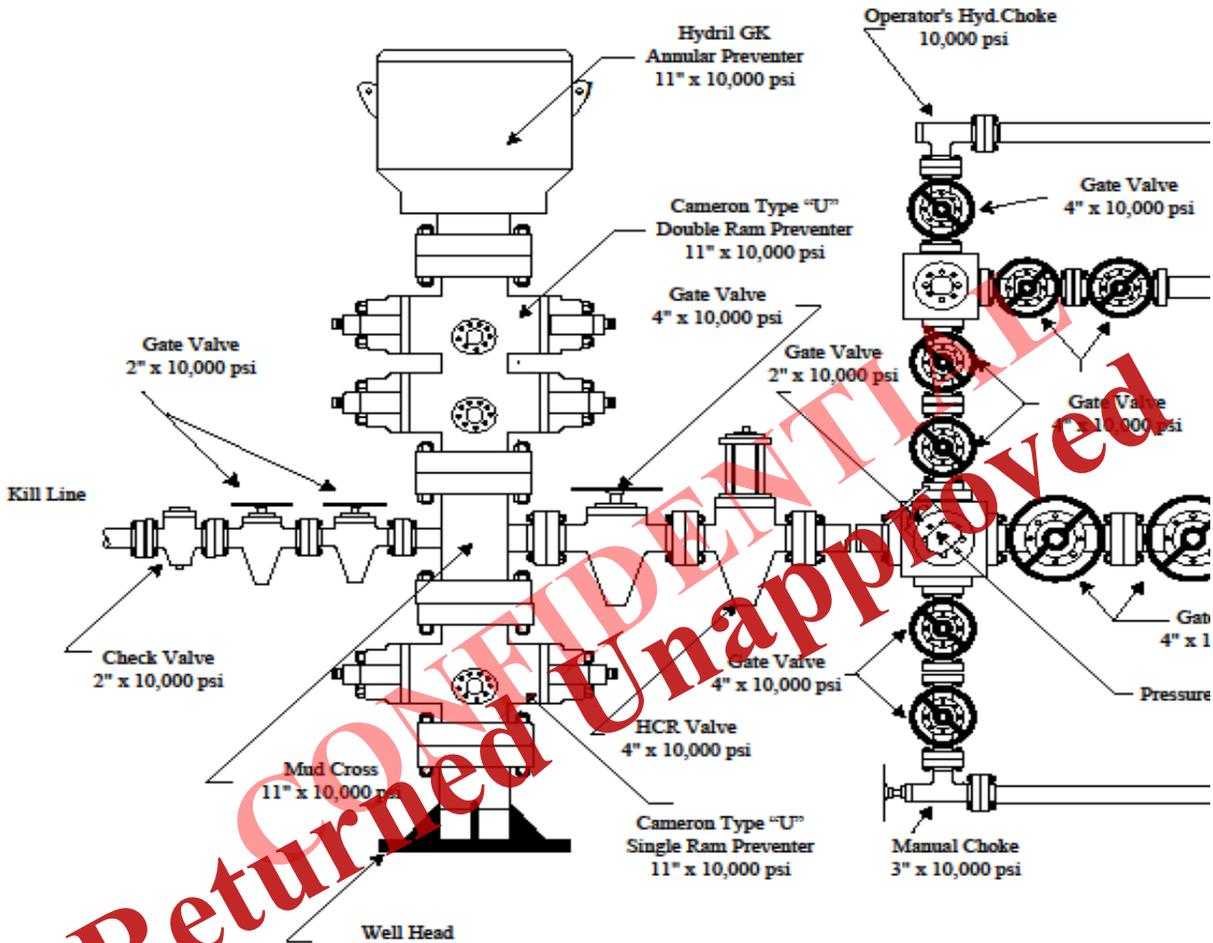
[Signature]  
Notary Public

JOSHUA RYAN CRIST  
NOTARY PUBLIC  
STATE OF COLORADO  
NOTARY ID 20144002561  
MY COMMISSION EXPIRES JANUARY 17, 2018

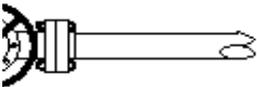
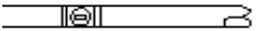
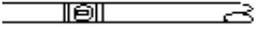
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Typical 5M BOP stack configuration



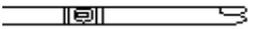


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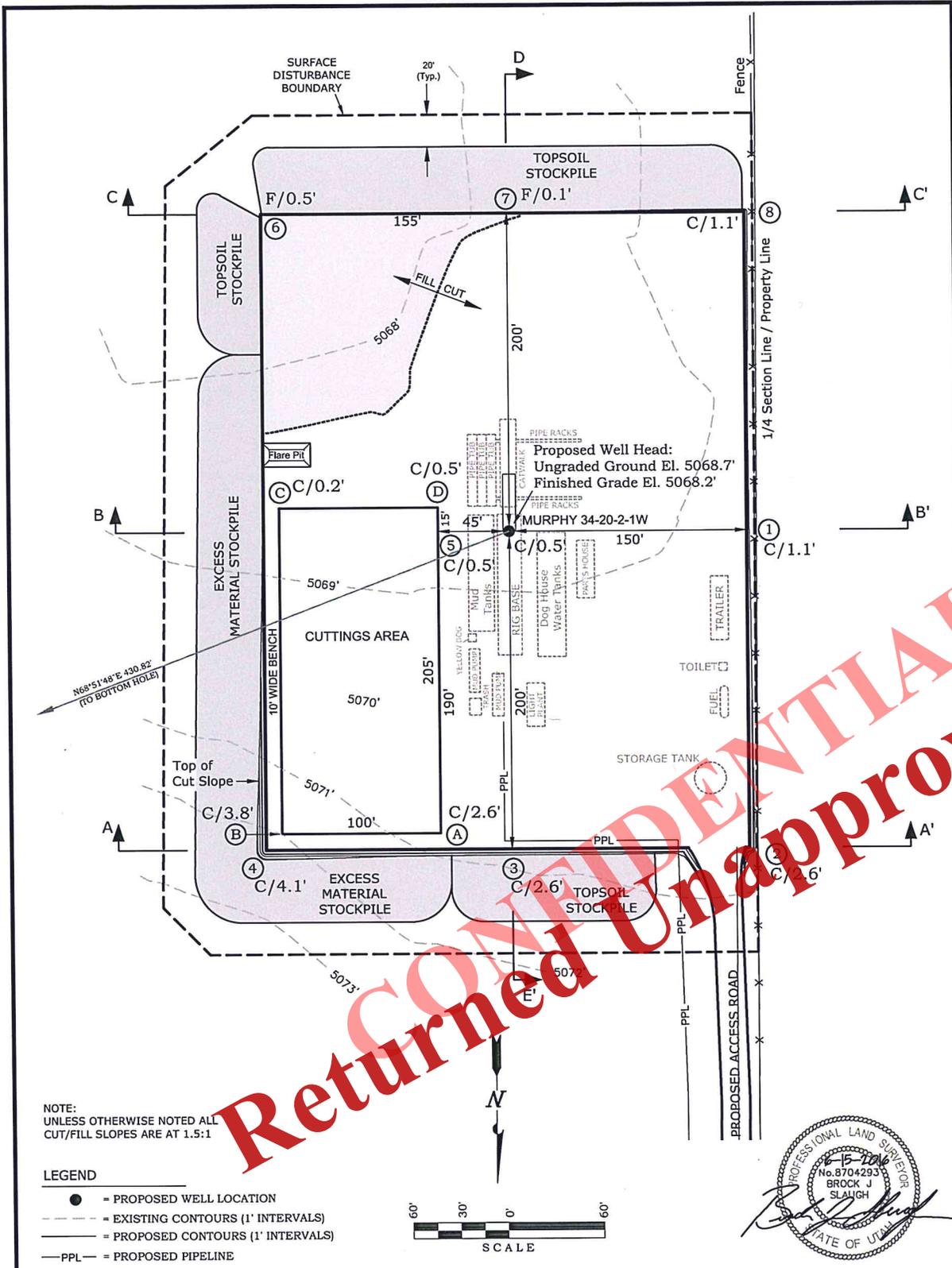


Valve  
10,000 psi

Gauge



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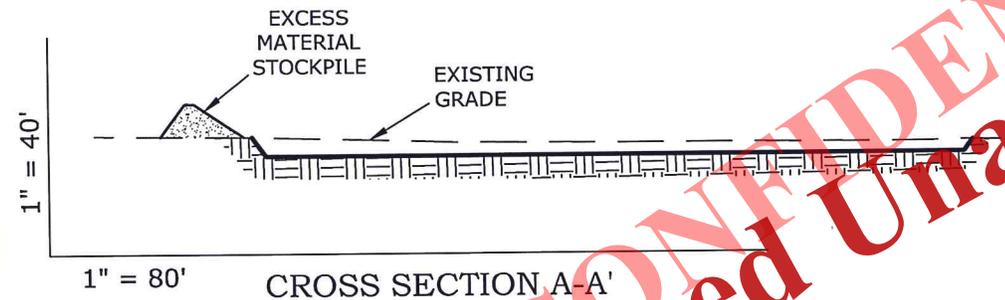
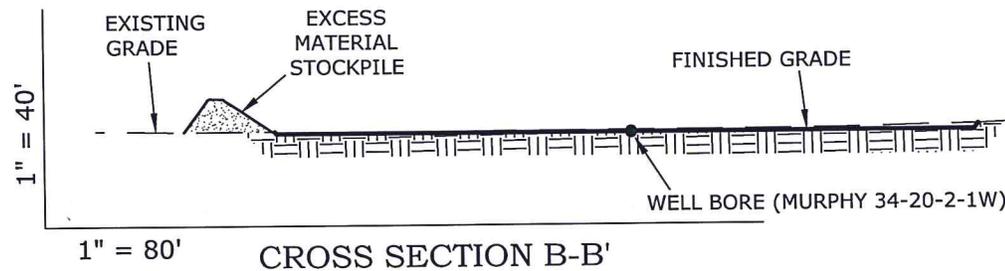
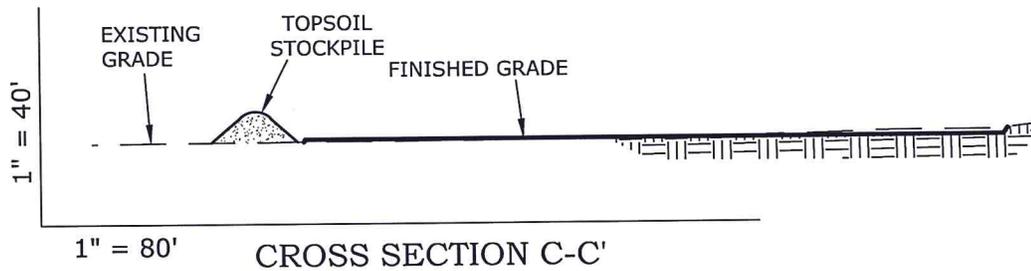
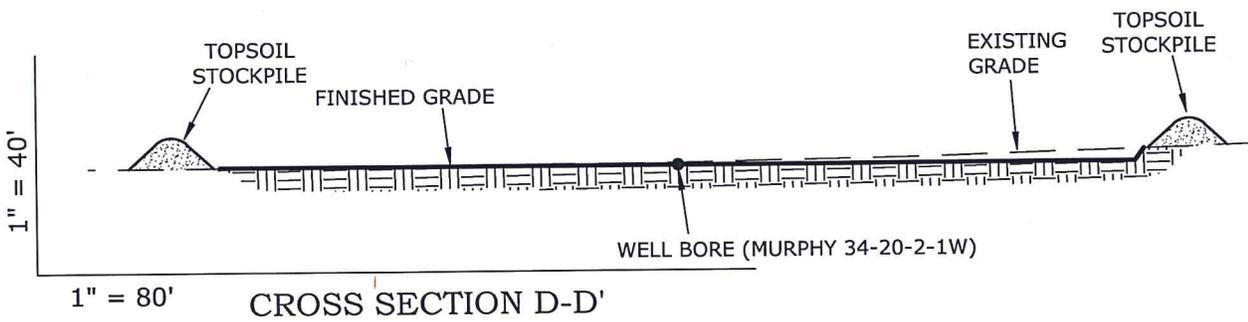


NOTE:  
UNLESS OTHERWISE NOTED ALL  
CUT/FILL SLOPES ARE AT 1.5:1

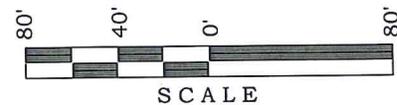
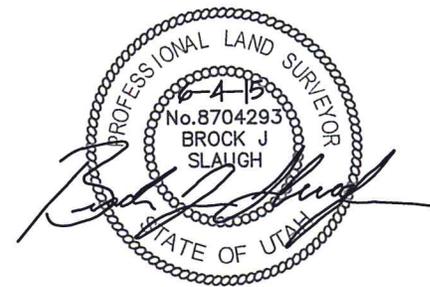
- LEGEND**
- = PROPOSED WELL LOCATION
  - - - = EXISTING CONTOURS (1' INTERVALS)
  - — — = PROPOSED CONTOURS (1' INTERVALS)
  - PPL — = PROPOSED PIPELINE



<p><b>BADLANDS ENERGY-UTAH, LLC</b></p>	<p>PAD FOOTPRINT AREA = ±2.801 ACRES                  PAD DISTURBANCE AREA (Cut/Fill Slopes, Stockpiles) = ±3.831 ACRES                  AREA WITHIN SURFACE DISTURBANCE BOUNDARY = ±4.478 ACRES</p>	<p><b>REFERENCE POINTS:</b>                  250' SOUTHERLY, EL = 5068.1'                  300' SOUTHERLY, EL = 5068.1'                  205' EASTERLY, EL = 5068.7'                  255' EASTERLY, EL = 5069.0'</p>									
<p><b>WELL PAD - LOCATION LAYOUT</b></p> <p><b>MURPHY 34-20-2-1W</b>                  465' FSL &amp; 2475' FEL                  LOCATED IN SECTION 20, T2S, R1W,                  U.S.B.&amp;M., DUCHESNE COUNTY, UTAH.</p>	<p><b>ESTIMATED EARTHWORK QUANTITIES</b>                  (No shrink or swell adjustments have been used)                  (Expressed in Cubic Yards)</p> <p>6" Topsoil Stripping = 2,320                  Remaining Location = 2,620  <b>TOTAL CUT = 4,940</b>  <b>FILL = 670</b>                  Excess Material = 1,950</p>	<p><b>TIMBERLINE</b> (435) 789-1365                  ENGINEERING &amp; LAND SURVEYING, INC.                  209 NORTH 300 WEST - VERNAL, UTAH 84078</p> <table border="1"> <tr> <td>DATE SURVEYED: 5-19-15</td> <td>SURVEYED BY: T.A.</td> <td>SHEET NO: <b>2</b></td> </tr> <tr> <td>DATE DRAWN: 6-1-15</td> <td>DRAWN BY: M.W.W.</td> <td>OF 13</td> </tr> <tr> <td>SCALE: 1" = 60'</td> <td>Date Last Revised: 6-15-16 M.W.W.</td> <td></td> </tr> </table>	DATE SURVEYED: 5-19-15	SURVEYED BY: T.A.	SHEET NO: <b>2</b>	DATE DRAWN: 6-1-15	DRAWN BY: M.W.W.	OF 13	SCALE: 1" = 60'	Date Last Revised: 6-15-16 M.W.W.	
DATE SURVEYED: 5-19-15	SURVEYED BY: T.A.	SHEET NO: <b>2</b>									
DATE DRAWN: 6-1-15	DRAWN BY: M.W.W.	OF 13									
SCALE: 1" = 60'	Date Last Revised: 6-15-16 M.W.W.										



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**BADLANDS ENERGY-UTAH, LLC**

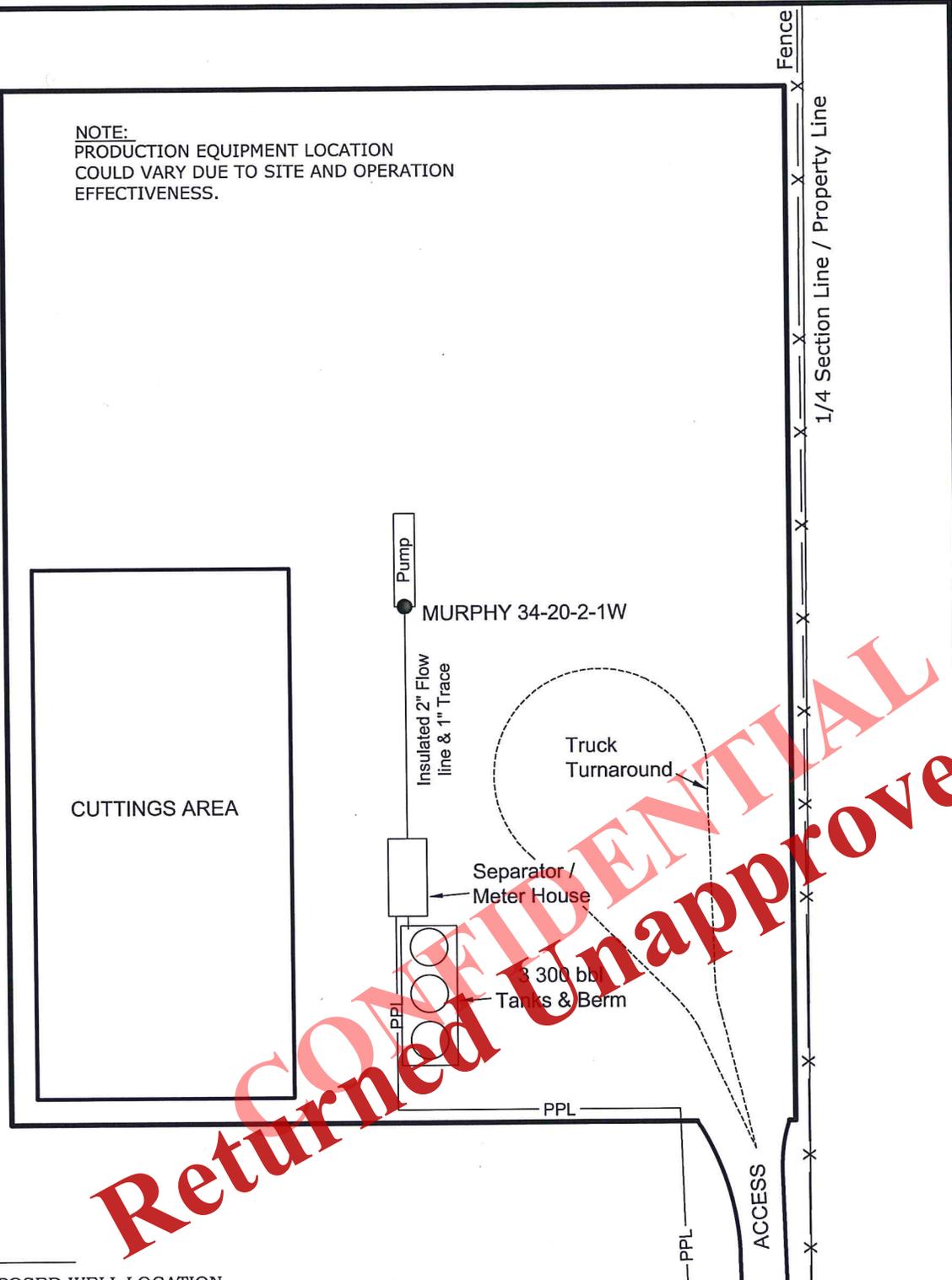
**WELL PAD - CROSS SECTION**

**MURPHY 34-20-2-1W  
465' FSL & 2475' FEL  
LOCATED IN SECTION 20, T2S, R1W,  
U.S.B.&M., DUCHESNE COUNTY, UTAH.**

**TIMBERLINE** (435) 789-1365  
ENGINEERING & LAND SURVEYING, INC.  
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 5-19-15	SURVEYED BY: T.A.	SHEET NO: <b>3</b> OF 13
DATE DRAWN: 6-1-15	DRAWN BY: M.W.W.	
SCALE: 1" = 80'	Date Last Revised:	

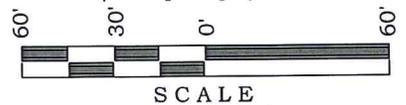
**NOTE:**  
 PRODUCTION EQUIPMENT LOCATION  
 COULD VARY DUE TO SITE AND OPERATION  
 EFFECTIVENESS.



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**LEGEND**

- = PROPOSED WELL LOCATION
- PPL— = PROPOSED PIPELINE

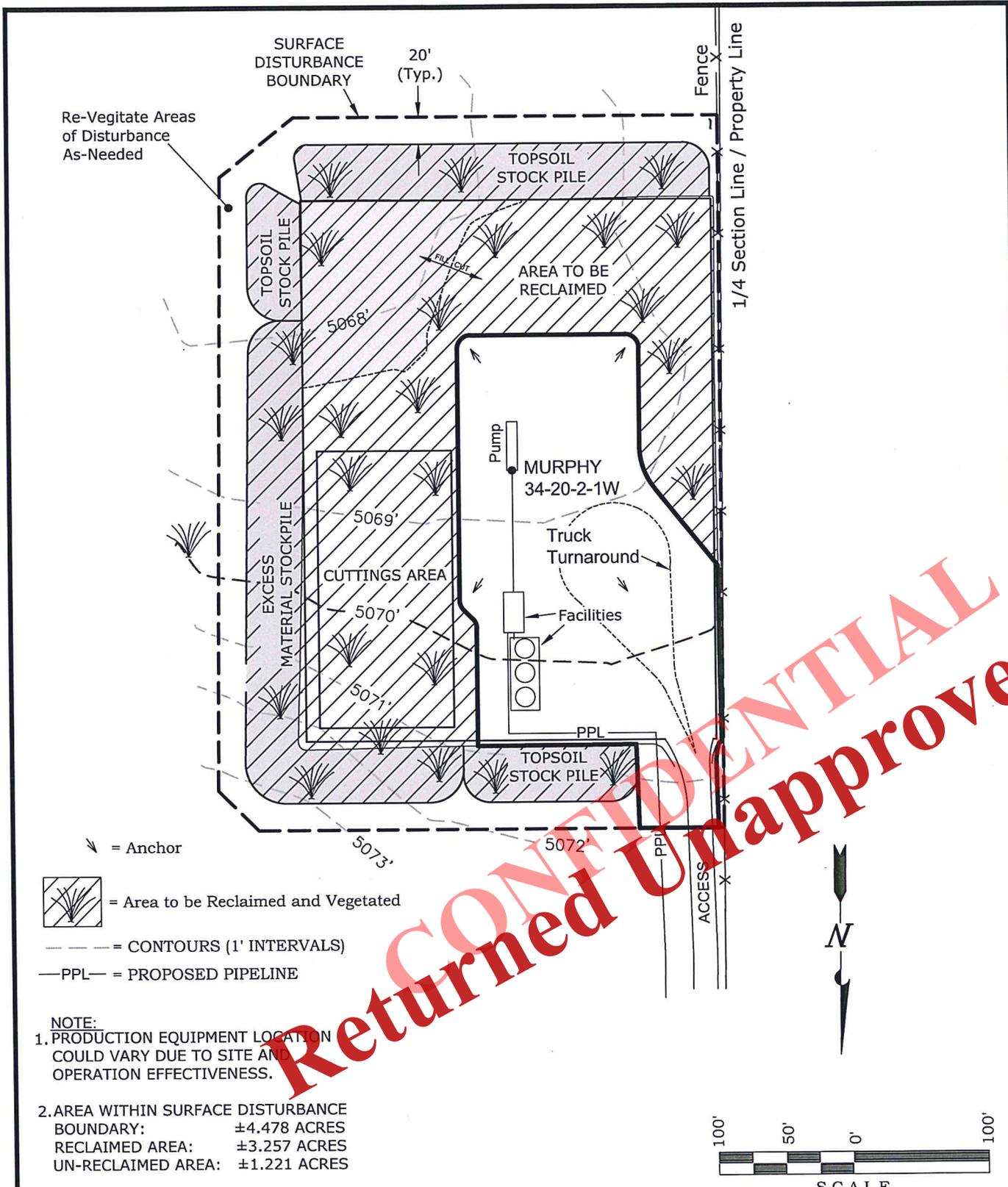


**BADLANDS ENERGY-UTAH, LLC**  
**WELL PAD - FACILITY DIAGRAM**

**MURPHY 34-20-2-1W**  
**465' FSL & 2475' FEL**  
**LOCATED IN SECTION 20, T2S, R1W,**  
**U.S.B.&M., DUCHESNE COUNTY, UTAH.**



<b>TIMBERLINE</b>		(435) 789-1365
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078		
DATE SURVEYED: 5-19-15	SURVEYED BY: T.A.	<b>4</b> OF 13
DATE DRAWN: 6-1-15	DRAWN BY: M.W.W.	
SCALE: 1" = 60'	Date Last Revised:	



- ↘ = Anchor
-  = Area to be Reclaimed and Vegetated
- - - - = CONTOURS (1' INTERVALS)
- PPL - = PROPOSED PIPELINE

**NOTE:**

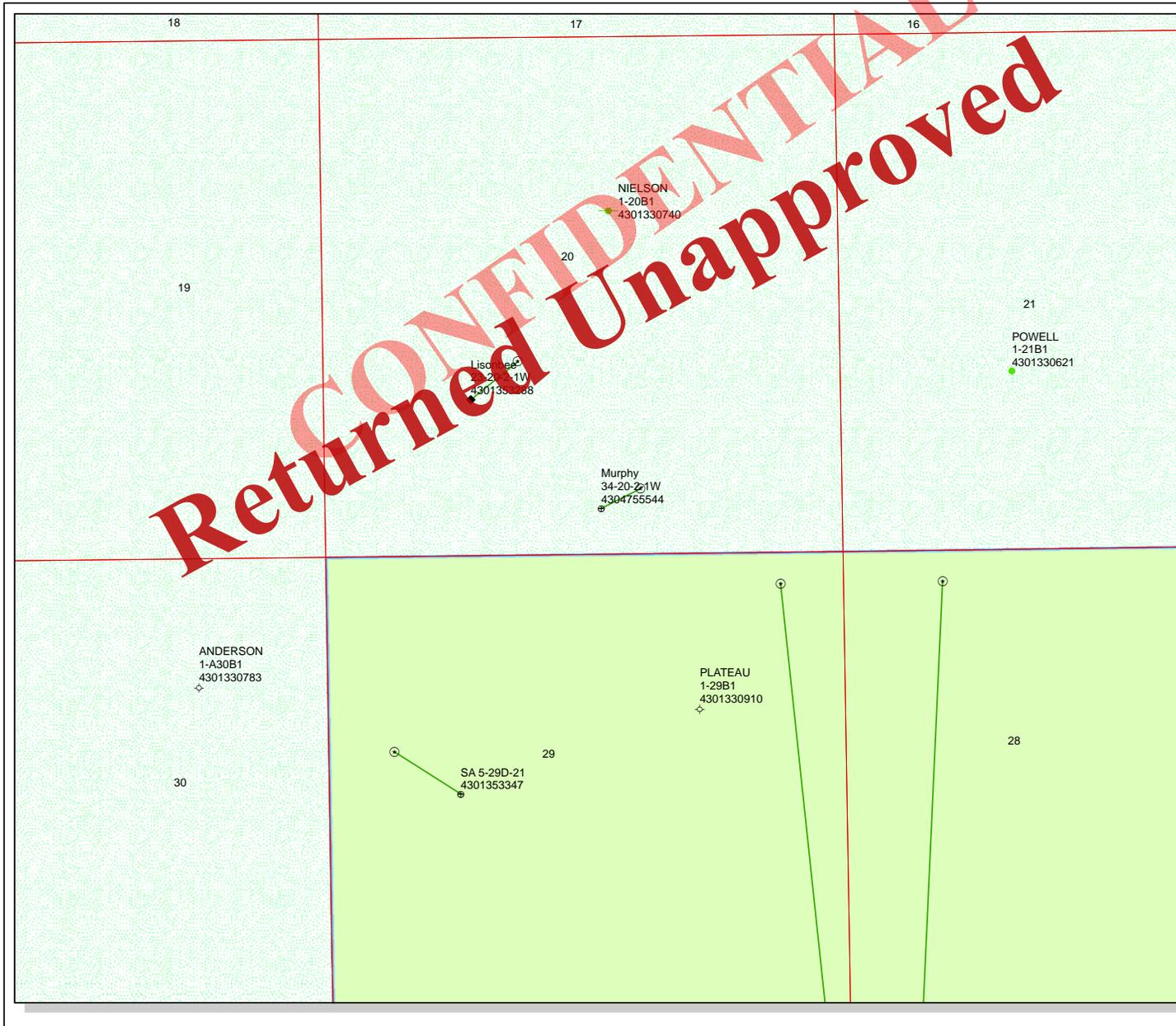
1. PRODUCTION EQUIPMENT LOCATION COULD VARY DUE TO SITE AND OPERATION EFFECTIVENESS.
2. AREA WITHIN SURFACE DISTURBANCE BOUNDARY: ±4.478 ACRES  
 RECLAIMED AREA: ±3.257 ACRES  
 UN-RECLAIMED AREA: ±1.221 ACRES

**BADLANDS ENERGY-UTAH, LLC**

**INTERIM RECLAMATION DIAGRAM**

**MURPHY 34-20-2-1W**  
**465' FSL & 2475' FEL**  
**LOCATED IN SECTION 20, T2S, R1W,**  
**U.S.B.&M., DUCHESNE COUNTY, UTAH.**

<b>TIMBERLINE</b>		(435) 789-1365
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078		
DATE SURVEYED: 5-19-15	SURVEYED BY: T.A.	<b>5</b> OF 13
DATE DRAWN: 6-1-15	DRAWN BY: M.W.W.	
SCALE: 1" = 100'	Date Last Revised:	



API Number: 4304755544

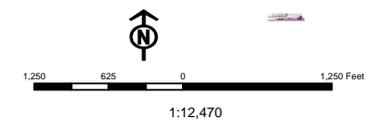
Well Name: Murphy 34-20-2-1W

Township: T02.0S Range: R01.0W Section: 20 Meridian: U

Operator: BADLANDS ENERGY-UTAH, LLC

Map Prepared: 7/21/2016  
Map Produced by Diana Mason

Wells Query		Units	
Status	Symbol	Status	Symbol
APD - Approved Permit	◆	ACTIVE	▨
DRL - Spudded (Drilling Commenced)	⊙	EXPLORATORY	▨
GIW - Gas Injection	↗	GAS STORAGE	▨
GS - Gas Storage	★	NF PP OIL	▨
LOC - New Location	⊕	NF SECONDARY	▨
OPS - Operation Suspended	⊖	PI OIL	▨
PA - Plugged Abandoned	⊗	PP GAS	▨
PGW - Producing Gas Well	⊕	PP GEOTHERML	▨
POW - Producing Oil Well	●	PP OIL	▨
SGW - Shut-in Gas Well	⊖	SECONDARY	▨
SOW - Shut-in Oil Well	●	TERMINATED	▨
TA - Temp. Abandoned	⊖		
TW - Test Well	○	Fields	
WDW - Water Disposal	↗	Status	Symbol
WW - Water Injection Well	↗	Unknown	▨
WSW - Water Supply Well	●	ABANDONED	▨
		ACTIVE	▨
		COMBINED	▨
		INACTIVE	▨
		STORAGE	▨
		TERMINATED	▨



Well Name	BADLANDS ENERGY-UTAH, LLC Murphy 34-20-2-1W 43047555440000			
String	Cond	Surf	I1	Prod
Casing Size(")	16.000	9.625	7.000	5.000
Setting Depth (TVD)	420	4500	10168	13268
Previous Shoe Setting Depth (TVD)	0	420	4500	10168
Max Mud Weight (ppg)	9.5	9.5	10.5	12.5
BOPE Proposed (psi)	0	1000	10000	10000
Casing Internal Yield (psi)	1640	5750	9950	13940
Operators Max Anticipated Pressure (psi)	8645			12.5

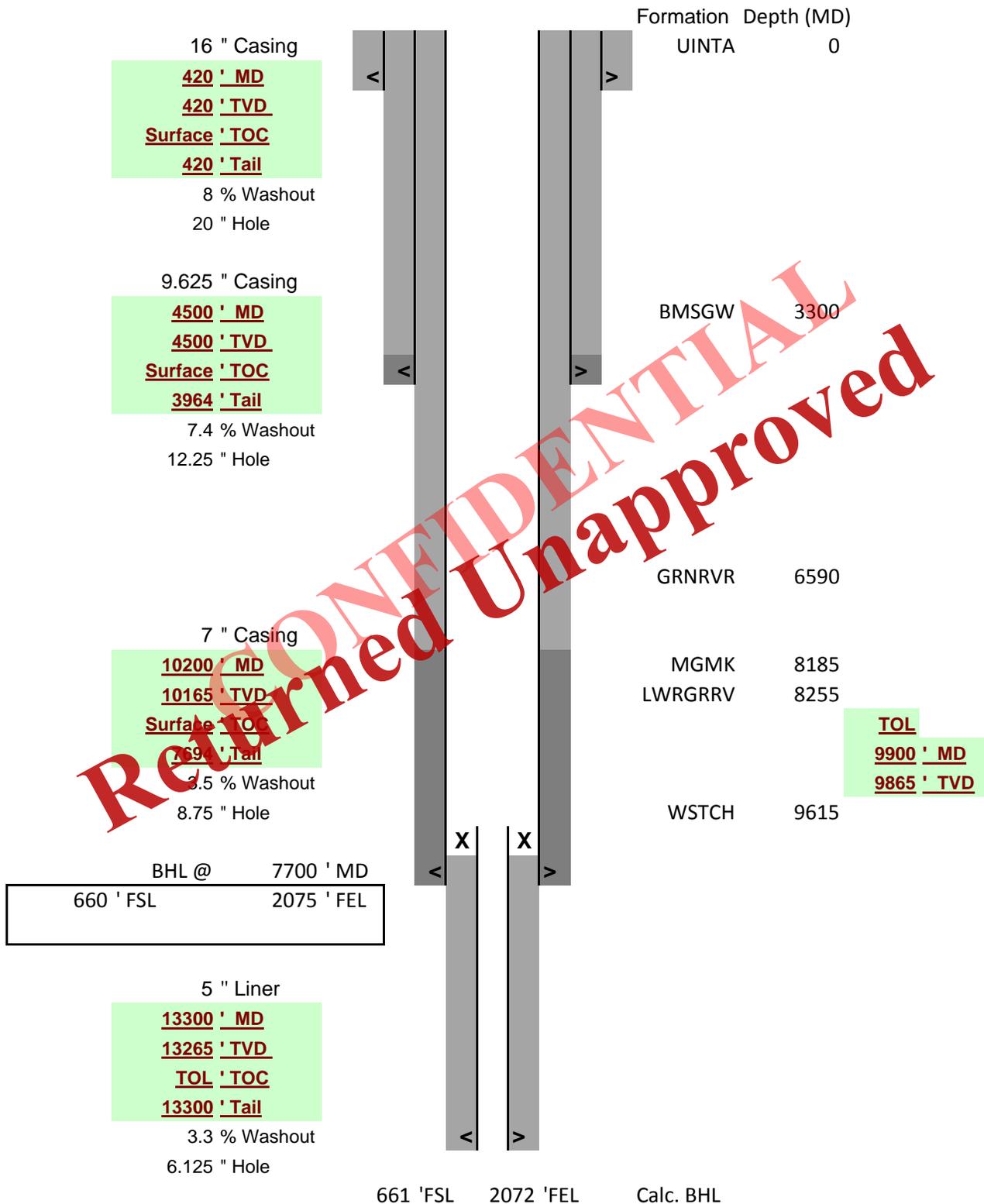
Calculations	Cond String	16.000	"
Max BHP (psi)	.052*Setting Depth*MW=	207	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	157	NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	115	NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	115	NO
Required Casing/BOPE Test Pressure=		420	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

Calculations	Surf String	9.625	"
Max BHP (psi)	.052*Setting Depth*MW=	2223	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	1683	NO rotating head
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	1233	NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	1325	NO No expected pressure
Required Casing/BOPE Test Pressure=		4025	psi
*Max Pressure Allowed @ Previous Casing Shoe=		420	psi *Assumes 1psi/ft frac gradient

Calculations	I1 String	7.000	"
Max BHP (psi)	.052*Setting Depth*MW=	5552	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4332	YES 10M rams, 5M annular
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3315	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	4305	YES OK
Required Casing/BOPE Test Pressure=		6965	psi
*Max Pressure Allowed @ Previous Casing Shoe=		4500	psi *Assumes 1psi/ft frac gradient

Calculations	Prod String	5.000	"
Max BHP (psi)	.052*Setting Depth*MW=	8624	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	7032	YES 10M rams, 5M annular
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	5705	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	7942	YES
Required Casing/BOPE Test Pressure=		9758	psi
*Max Pressure Allowed @ Previous Casing Shoe=		9950	psi *Assumes 1psi/ft frac gradient

**BADLANDS ENERGY-UTAH, LLC**  
**Murphy 34-20-2-1W**  
**43047555440000**



Ballard 2-15B1 WDW 2.8 mi NE, 7716-8294, GRRV

**BADLANDS ENERGY-UTAH, LLC  
Murphy 34-20-2-1W  
43047555440000**

		1.125			1		1.8					
16 " Casing	MASP	Collapse Strength (psi)	Collapse Load (psi)	Collapse DF	Burst Strength (psi)	Burst Load (psi)	Burst DF	Tension Strength (kips)	Tension DF	Neutral Point (ft)	Tension Air (kips)	Tension Buoyed (kips)
	157	630	207	3.04	1640	420	3.96	439	18.69	359	27.3	23.5
	MW (ppg)	Internal Grad. (psi)	Backup Mud (ppg)	Internal Mud (ppg)	Max Shoe Pressure (psi)*	CSG Wt (lbs/ft)	CSG Grade	CSG Collar	Cement Lead (sx)	Lead Yield	Cement Tail (sx)	Tail Yield
	9.5	0.12	0.0	0.0	192	68	H-40	STC	423	1.17	0	0.00
9.625 " Casing	MASP	Collapse Strength (psi)	Collapse Load (psi)	Collapse DF	Burst Strength (psi)	Burst Load (psi)	Burst DF	Tension Strength (kips)	Tension DF	Neutral Point (ft)	Tension Air (kips)	Tension Buoyed (kips)
	1231	4230	2021	1.90	5750	4298	1.34	837	5.42	3846	180.0	154.6
	MW (ppg)	Internal Grad. (psi)	Backup Mud (ppg)	Internal Mud (ppg)	Max Shoe Pressure (psi)*	CSG Wt (lbs/ft)	CSG Grade	CSG Collar	Cement Lead (sx)	Lead Yield	Cement Tail (sx)	Tail Yield
	9.5	0.22	0.0	0.0	4298	40.0	HCP-80	LTC	690	2.72	180	1.31
7 " Casing	MASP	Collapse Strength (psi)	Collapse Load (psi)	Collapse DF	Burst Strength (psi)	Burst Load (psi)	Burst DF	Tension Strength (kips)	Tension DF	Neutral Point (ft)	Tension Air (kips)	Tension Buoyed (kips)
	5695	7800	5545	1.41	9950	7932	1.25	693	3.10	8533	265.2	223.3
	MW (ppg)	Internal Grad. (psi)	Backup Mud (ppg)	Internal Mud (ppg)	Max Shoe Pressure (psi)*	CSG Wt (lbs/ft)	CSG Grade	CSG Collar	Cement Lead (sx)	Lead Yield	Cement Tail (sx)	Tail Yield
	10.5	0.22	0.0	0.0	7932	26.0	HCP-110	LTC	783.0	1.77	320.0	1.41
5 " Liner	MASP	Collapse Strength (psi)	Collapse Load (psi)	Collapse DF	Burst Strength (psi)	Burst Load (psi)	Burst DF	Tension Strength (kips)	Tension DF	Neutral Point (ft)	Tension Air (kips)	Tension Buoyed (kips)
	5695	13470	8614	1.56	13940	8614	1.62	495	9.99	12650	61.2	49.6
	MW (ppg)	Internal Grad. (psi)	Backup Mud (ppg)	Internal Mud (ppg)	Max Shoe Pressure (psi)*	CSG Wt (lbs/ft)	CSG Grade	CSG Collar	Cement Lead (sx)	Lead Yield	Cement Tail (sx)	Tail Yield
	12.5	0.22	0.0	0.0	9900	18.0	P-110	LTC	206.0	1.35	0.0	0.00

# ON-SITE PREDRILL EVALUATION

## Utah Division of Oil, Gas and Mining

**Operator** BADLANDS ENERGY-UTAH, LLC  
**Well Name** Murphy 34-20-2-1W  
**API Number** 43047555440000      **APD No** 11499      **Field/Unit** BLUEBELL  
**Location: 1/4,1/4 SWSE**      **Sec** 20      **Tw** 2.0S      **Rng** 1.0W      465      **FSL** 2475      **FEL**  
**GPS Coord (UTM)** 583338 4460283      **Surface Owner** Merlan Murphy

### Participants

Jesse Duncan, Jack Kuskie - Badlands Energy;

### Regional/Local Setting & Topography

This well is proposed in the Hancock cove area of Roosevelt on fertile pasture land. The land is flood irrigated and typically has a high water table. The cove is an area of low lying lands just west of and below the plateau that supports most of Roosevelt city. Access road will come from the north from a Lisonbee well and avoid additional disturbance to the ranching operations and residential housing. Irrigation ditches will need to be relocated and a diversion constructed. Some other pad modifications for stability will need to be employed.

### Surface Use Plan

#### **Current Surface Use**

Grazing

#### **New Road**

Miles

1.301

#### **Well Pad**

Width 300      Length 400

#### **Src Const Material**

Offsite

#### **Surface Formation**

DUCHR

#### **Ancillary Facilities** N

**Waste Management Plan Adequate?**      Y

### Environmental Parameters

**Affected Floodplains and/or Wetlands** Y

#### **Flora / Fauna**

This is productive irrigated farmland. No native species exist.

Dominant Veg- grass

Wildlife- disturbed soils are not habitat for wildlife though grasses are routinely browsed by deer, antelope, prairie dogs or rabbits

#### **Soil Type and Characteristics**

cultivated pasture land

**Erosion Issues** Y

**Sedimentation Issues** Y

**Site Stability Issues** Y

**Drainage Diverson Required?** Y

**Berm Required? Y****Erosion Sedimentation Control Required? Y****Paleo Survey Run? N    Paleo Potential Observed? N    Cultural Survey Run? N    Cultural Resources? N****Reserve Pit**

<b>Site-Specific Factors</b>	<b>Site Ranking</b>
<b>Distance to Groundwater (feet)</b>	20
<b>Distance to Surface Water (feet)</b>	20
<b>Dist. Nearest Municipal Well (ft)</b> 500 to 1320	10
<b>Distance to Other Wells (feet)</b> >1320	0
<b>Native Soil Type</b> High permeability	20
<b>Fluid Type</b> TDS>5000 and	10
<b>Drill Cuttings</b> Normal Rock	0
<b>Annual Precipitation (inches)</b> 10 to 20	
<b>Affected Populations</b>	
<b>Presence Nearby Utility Conduits</b> Not Present	0
<b>Final Score</b>	85    1 Sensitivity Level

**Characteristics / Requirements**

Operator intends to employ a closed loop system and will construct a cuttings pit instead of a reserve pit for this location. pit will still need to be lined on 3 sides and fenced to prevent the entry of livestock or wildlife until closed. Cuttings will be buried on location

**Closed Loop Mud Required? Y    Liner Required? Y    Liner Thickness 16    Pit Underlayment Required? N**

**Other Observations / Comments**

Operator agreed to:

Fencing location, gates and cattle guards.

Relocating irrigation ditches.

Constructing diversions, tank battery on rings and importing 2 feet of fill for location pad.

Drilling with a boarded and matted rig. Closed loop

Chris Jensen  
Evaluator

8/11/2016  
Date / Time

**Application for Permit to Drill  
Statement of Basis  
Utah Division of Oil, Gas and Mining**

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
11499	43047555440000	LOCKED	OW	P	No
<b>Operator</b>	BADLANDS ENERGY-UTAH, LLC		<b>Surface Owner-APD</b>	Merlan Murphy	
<b>Well Name</b>	Murphy 34-20-2-1W		<b>Unit</b>		
<b>Field</b>	BLUEBELL		<b>Type of Work</b>	DRILL	
<b>Location</b>	SWSE 20 2S 1W U 465 FSL 2475 FEL GPS Coord (UTM) 583346E 4460281N				

**Geologic Statement of Basis**

Badlands proposes to set 420 feet of conductor and 4,500 feet of surface pipe, cemented to surface. The depth to the base of the moderately saline water at this location is estimated to be at approximately 3,200 feet. A search of Division of Water Rights records shows over 140 water wells within a 10,000 foot radius of the center of Section 20. Wells in the area are listed for domestic use, irrigation, industrial, commercial and municipal. Depths of the wells ranges from 30 to 700 feet. Several wells are around 600 feet deep but one is listed as 700 feet. Listed wells probably produce from the Uinta Formation and associated alluvium. The surface formation at this site is the transition between the Duchesne River Formation and the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a major source of useable ground water. Production casing cement should be brought up to or above the base of the moderately saline ground water in order to isolate it from fresher waters uphole.

Tara Hill  
APD Evaluator

8/25/2016  
Date / Time

**Surface Statement of Basis**

Location is proposed in a suspect location within the spacing window. Access road enters the pad from the North. The landowner or its representative was in attendance for the pre-site inspection.

The soil type and topography at present DO combine to pose a significant threat to erosion, stability or sediment/ pollution transport in these regional climate conditions.

Expressed supplementary construction efforts appear to be adequate for the proposed purpose.

I did not recognize any special flora or animal species or cultural resources on site that the proposed action may harm. A riparian area can be found adjacent to the site on all sides. The location was not previously surveyed for cultural and paleontological resources ( as the operator saw fit). I have advised the operator take all measures necessary to comply with NHPA, ESA and MBTA and that actions insure no improper disturbance to resources that may have not been seen during onsite visit. If Cultural or Paleontological resources are found, Operator shall consult with SHPO and comply with requirements. Those resources shall remain undisturbed and remanded to surface owner for curation and scientific study or to remain as he wishes and further construction activities monitored.

The location should be bermed to prevent fluids from entering or leaving the confines of the pad. Fencing around the cuttings pit will be necessary to prevent wildlife and livestock from entering. A synthetic liner of 16 mils (minimum) should be utilized in the cuttings pit.

Measures (BMP's) shall be taken to protect topsoil pile from erosion and well pad from flooding and stability issues. A diversion is to be built sufficient to conduct overland flow that may escape from irrigation ditches and reintroduce flows back into channels or to sheet flow onto pasture land. Care to be taken that diversion of water does not impact or erode topsoil pile. Closed loop mud circulation is required. Location is to be fenced with gates and cattle guards at access. Pad is to be built up at least two feet. Irrigation ditches are to be relocated.

Chris Jensen  
Onsite Evaluator

8/11/2016  
Date / Time

**Conditions of Approval / Application for Permit to Drill**

<b>Category</b>	<b>Condition</b>
Pits	A closed loop mud circulation system is required for this location.
Surface	The well site shall be bermed to prevent fluids from entering or leaving the pad.
Surface	Measures (BMP's) shall be taken to protect high water table, pad stability and topsoil pile from erosion.
Surface	Irrigation flows adjacent to the proposed pad shall be diverted around the location.
Surface	The cuttings pit shall be fenced upon completion of drilling operations.

**CONFIDENTIAL**  
**Returned Unapproved**

## WORKSHEET APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 6/16/2016

**API NO. ASSIGNED:** 43047555440000

**WELL NAME:** Murphy 34-20-2-1W

**OPERATOR:** BADLANDS ENERGY-UTAH, LLC (N4165)

**PHONE NUMBER:** 303 996-1857

**CONTACT:** Jack Kuskie

**PROPOSED LOCATION:** SWSE 20 020S 010W

**Permit Tech Review:**

**SURFACE:** 0465 FSL 2475 FEL

**Engineering Review:**

**BOTTOM:** 0660 FSL 2073 FEL

**Geology Review:**

**COUNTY:** UINTAH

**LATITUDE:** 40.28887

**LONGITUDE:** -111.01945

**UTM SURF EASTINGS:** 583346.00

**NORTHINGS:** 4460281.00

**FIELD NAME:** BLUEBELL

**LEASE TYPE:** 4 - Fee

**LEASE NUMBER:** FEE

**PROPOSED PRODUCING FORMATION(S):** GREEN RIVER-WASATCH

**SURFACE OWNER:** 4 - Fee

**COALBED METHANE:** NO

**RECEIVED AND/OR REVIEWED:**

**LOCATION AND SITING:**

PLAT

R649-2-3.

Bond: STATE/FEE - SUR0027845

**Unit:**

Potash

R649-3-2. General

Oil Shale 190-5

R649-3-3. Exception

Oil Shale 190-3

Oil Shale 190-13

Drilling Unit

Water Permit: 43-3610

**Board Cause No:** Cause 139-84

RDCC Review:

**Effective Date:** 12/31/2008

Fee Surface Agreement

**Siting:** 4 WELLS PER 640 ACRE

Intent to Commingle

R649-3-11. Directional Drill

**Commingling Approved**

**Comments:** Presite Completed

**Stipulations:** 5 - Statement of Basis - bhll  
8 - Cement to Surface -- 2 strings - daynedoucet  
15 - Directional - dmason



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*

October 06, 2016

BADLANDS ENERGY-UTAH, LLC  
7979 E Tufts Ave, Suite 1150  
Denver, CO 80237

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

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the Murphy 34-20-2-1W well, API 43047555440000 that was submitted June 16, 2016 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



