

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> GDU 63-6-14					
<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> ANTELOPE CREEK					
<b>4. TYPE OF WELL</b> Gas Well <input type="checkbox"/> Coalbed Methane Well: NO <input type="checkbox"/>						<b>5. UNIT or COMMUNITIZATION AGREEMENT NAME</b> GILSONITE DRAW					
<b>6. NAME OF OPERATOR</b> VANTAGE ENERGY UINTA LLC						<b>7. OPERATOR PHONE</b> 303 386-8600					
<b>8. ADDRESS OF OPERATOR</b> 116 Inverness Drive East, Ste 107, Englewood, CO, 80112						<b>9. OPERATOR E-MAIL</b> john.moran@vantageenergy.com					
<b>10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b> UTU78235			<b>11. MINERAL OWNERSHIP</b> FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>			<b>12. SURFACE OWNERSHIP</b> FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>					
<b>13. NAME OF SURFACE OWNER (if box 12 = 'fee')</b>						<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>			<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		1479 FNL 594 FEL		SENE	6	6.0 S	3.0 W	U			
Top of Uppermost Producing Zone		660 FNL 657 FEL		NENE	6	6.0 S	3.0 W	U			
At Total Depth		660 FNL 660 FEL		NENE	6	6.0 S	3.0 W	U			
<b>21. COUNTY</b> DUCHESNE			<b>22. DISTANCE TO NEAREST LEASE LINE (Feet)</b> 1479			<b>23. NUMBER OF ACRES IN DRILLING UNIT</b> 2250					
			<b>25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)</b> 2753			<b>26. PROPOSED DEPTH</b> MD: 6107 TVD: 6002					
<b>27. ELEVATION - GROUND LEVEL</b> 6870			<b>28. BOND NUMBER</b> UTU000288			<b>29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b> Ouray Municipal Water Plant (49-1501)					
<b>Hole, Casing, and Cement Information</b>											
<b>String</b>	<b>Hole Size</b>	<b>Casing Size</b>	<b>Length</b>	<b>Weight</b>	<b>Grade &amp; Thread</b>	<b>Max Mud Wt.</b>	<b>Cement</b>	<b>Sacks</b>	<b>Yield</b>	<b>Weight</b>	
Surf	12.25	8.625	0 - 500	24.0	J-55 ST&C	0.0	Class G	225	1.17	15.8	
Prod	7.875	5.5	0 - 6107	15.5	J-55 LT&C	8.9	Premium Lite High Strength	129	3.5	11.0	
							50/50 Poz	413	1.25	14.4	
<b>ATTACHMENTS</b>											
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 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> Andrea Gross				<b>TITLE</b> Project Coordinator				<b>PHONE</b> 303 941-0506			
<b>SIGNATURE</b>				<b>DATE</b> 06/04/2013				<b>EMAIL</b> agross@upstreampm.com			
<b>API NUMBER ASSIGNED</b> 43013522280000				<b>APPROVAL</b>  Permit Manager							

Vantage Energy Uinta LLC  
**GDU 63-6-14**  
 SHL: 1,479' FNL 594' FEL (SE/4 NE/4)  
 BHL: ±660' FNL ±660' FEL (NE/4 NE/4)  
 Sec. 6 T6S R3W  
 Duchesne County, Utah  
 Surface: Federal  
 Federal Mineral Lease: UTU78235  
 Gilsonite Draw Federal Unit: UTU86249X

### NINE POINT DRILLING PROGRAM

(All drilling procedures will comply with BLM *Onshore Oil and Gas Orders 1 and 2*)

Operator respectfully requests that all information regarding this well be kept confidential.

#### 1) GEOLOGIC MARKERS

Anticipated tops of geologic markers are indicated in **Table 1**

**Table 1 Estimated Tops of Geologic Markers**

Formation	Vertical Depth	Measured Depth	Description
Green River	Surface	Surface	Sandstone/siltstone/shale
Garden Gulch	3,405'	3,500'	Sandstone/siltstone/shale
Douglas Creek	4,395'	4,500'	Sandstone/siltstone/shale
Castle Peak	5,295'	5,400'	Sandstone/siltstone/shale
Uteland Butte	5,795'	5,900'	Carbonate/shale/sandstone
Wasatch	6,002'	6,107'	Shale/sandstone
<b>Total Depth</b>	<b>6,002'</b>	<b>6,107'</b>	<b>TD ± 100' TVD into Wasatch</b>

Surface Elevation: 6,870' (Ground) 6,884' (Est. KB). Proposed Total Depth: 6,002' / 6,107' (TVD/MD)

#### 2) DEPTHS OF WATER AND MINERAL-BEARING ZONES

Potential water-bearing zones in the vicinity include the Wasatch and Green River formations (Robson and Banta, 1995. *Ground Water Atlas of the United States Segment 2*, Hydrologic Investigations Atlas 730-C, U.S. Geological Survey, Reston, VA). A review of data from the Utah Division of Water Rights indicate no permitted water wells within a one mile radius of the proposed location. Utah Division of Oil, Gas, and Mining surface casing depth requirements will protect potential aquifers in the area.

The depths to potential water and/or mineral-bearing zones are indicated in **Table 2**.

**Table 2: Principal Anticipated Water and Mineral-bearing Zones**

Formation	Vertical Depth	Measured Depth	Potential Contents
Green River	Surface	Surface	Surface – Possible Water
Garden Gulch	3,405'	3,500'	Possible Water
Douglas Creek	4,395'	4,500'	Oil / Gas
Castle Peak	5,295'	5,400'	Oil / Gas

Uteland Butte	5,795'	5,900'	Oil / Gas
Wasatch	6,002'	6,107'	Oil / Gas

### 3) MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL EQUIPMENT

The maximum anticipated surface pressure for this well is calculated to be **1,320 psi**. Therefore, rules for a 2,000 psi rated BOP and choke manifold system are applicable. However, the typical rig inventory will consist of a 3,000 psi rated BOP and choke manifold. As such, the rig's BOP and choke manifold equipment will be tested to the standards for a 2,000 psi BOP system. A diagram of the proposed 2,000 psi rated BOP stack configuration is shown in **Fig. 1**.

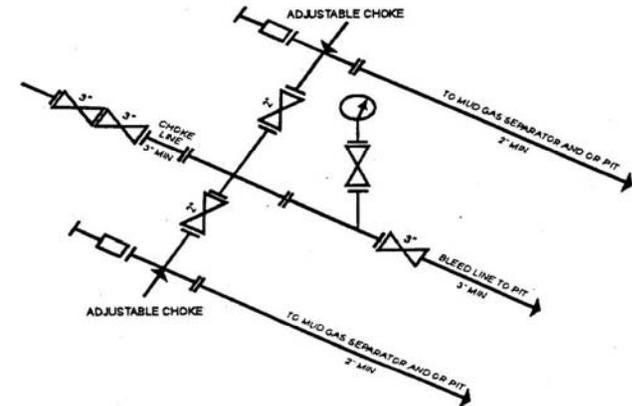
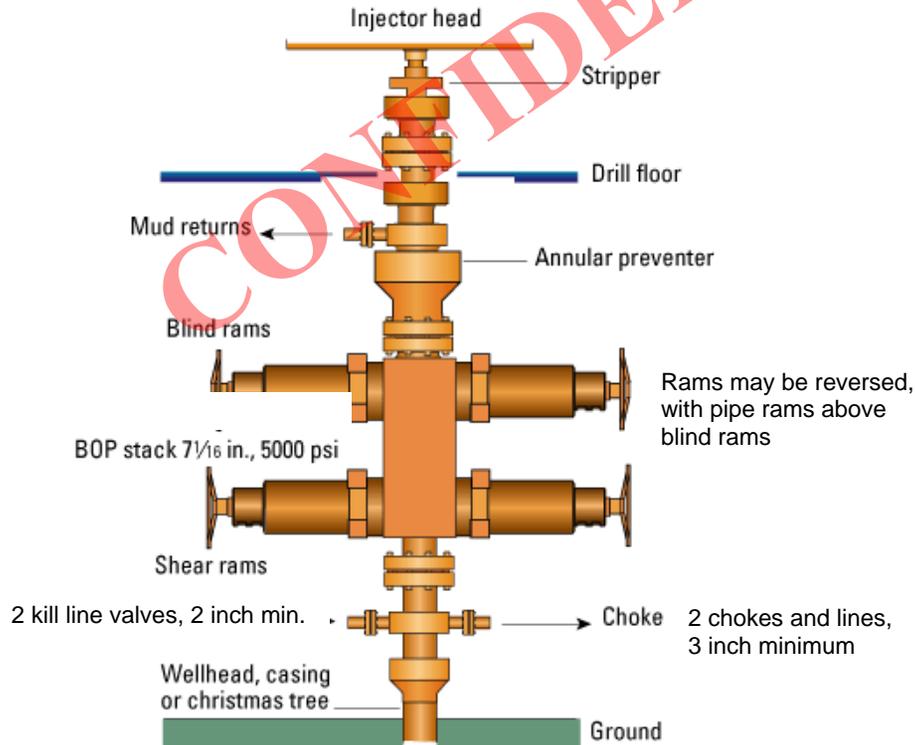
BOPs and choke manifold will be installed and pressure tested before drilling out from under surface casing (subsequent pressure tests will be performed whenever pressure seals are broken) and then will be checked daily as to mechanical operating condition. BOPs will be pressure tested at least once every 30 days. The annular preventer, pipe rams, and blind rams will be activated on each trip and Operator will conduct weekly BOP drills with the rig crew. Both manual and remote closing mechanisms will be installed on the BOP stack and will be readily available to the driller.

Ram type preventers and related pressure control equipment will be pressure tested to rated working pressure of the stack assembly if a test plug is used. If a plug is not used, the stack assembly will be tested to the rated working pressure of the stack assembly or to 70% of the minimum internal yield of the casing, whichever is less. **Please see variance request at end of program for this section.**

Annular type preventers will be pressure tested to 50% of their rated working pressure. A Sundry Notice (Form 3160~5), along with a copy of BOP test report, shall be submitted to the BLM within 5 working days following the test. All casings strings will be pressure tested to 0.22psi/ft or 1,500psi, whichever is greater, not to exceed 70% of internal yield. **Please see variance request at end of program for this section.**

**Figure 1: Pressure Control Schematic**

**Generalized Setup for 2,000 psi Working Pressure System  
 Actual BOP Stack Used May Vary in Some Details**



3M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY  
 [54 FR 39528, Sept. 27, 1989]

**Installed BOP Stack Will Meet All Requirements of BLM Onshore Oil and Gas Order 2**

Statement on Accumulator System and Location of Hydraulic Controls

The drilling rig has not yet been selected for this well. Selection will take place after approval of this application. Manual and/or hydraulic controls will be in compliance with *Onshore Oil and Gas Order No. 2* for 2,000 psi systems. Irregardless of the rig selected, the rig's accumulator system shall have sufficient capacity to close all BOP equipment and retain 200 psi above precharge pressure. The proposed pressure control equipment will meet or exceed standards specified in the Order.

**4) CASING PROGRAM**

Casing of quality equal to or better than that indicated in **Tables 3** and **4** will be used for this well. Actual casing used will be dependent on availability.

**Table 3 Proposed Casing Program**

Depth (MD)	Hole Diameter	Casing Diameter	Casing Weight and Grade
0 – ± 40'	20"	14"	Optional Conductor – Only if Required
0 – 500'	12 1/4"	8 5/8"	24# J55 ST&C, API New Pipe
0 – 6,107'	7 7/8"	5 1/2"	15.5# J55 LT&C, API New Pipe

**Table 4: Proposed Casing Specifications and Design Safety Factors**

Size	Collapse (psi)	Burst (psi)	Body Strength (1,000 lbs.)	Joint Strength (1,000 lbs.)	Thread	*Safety Factors		
						Burst Design (1.2)	Collapse Design (1.0)	Tension Design (1.4)
14"	NA – 0.219" wall structural and to seal shallow gravels to allow air drilling surface hole				Weld	NA	NA	NA
8 5/8" 24# J55	1,370	2,950	381	244	ST&C	1.96	3.22	3.9
5 1/2" 15.5# J55	4,040	4,810	248	217	LT&C	1.25	1.53	1.67

**\*Safety Factor Calculation Assumptions:****Surface Casing:**

**Burst Load:** Assumes greater of MASP (maximum anticipated surface pressure) exposure during a worse case kick scenario while drilling at total depth, with mud/gas mixture whose gradient is 0.22 psi/ft. OR, minimum required casing test pressure.

MASP

$$\begin{aligned} \text{Load} &= (\text{Formation Gradient} - 0.22 \text{ psi/ft}) * \text{Total Depth, TVD} \\ &= (0.44 \text{ psi/ft} - 0.22 \text{ psi/ft}) * 6,002 \text{ ft.} \\ &= 1,320 \text{ psi} \end{aligned}$$

**TEST PRESSURE**

Load = Greater of 1,500 psig *or*  $0.22 \text{ psi/ft} * 500 \text{ ft} = 110 \text{ psig}$

Load = Greater of 1,500 psig *or* 1,320 psig *or* 110 psig

**SF Burst = 2,950 psi / 1,500 psi = 1.96**

**Collapse Load:** Assumes worse case loading of evacuated casing during cementing process.

Cement density = 15.8 ppg

Load =  $15.8 \text{ ppg} * 0.052 * 500 \text{ ft}$   
= 410.8 psi

**SF Collapse = 1320 psi / 410 psi = 3.22**

**Tension Load:** Assumes air weight at total depth + 50,000 lbs overpull design factor.

Load =  $(24 \text{ lbs/ft} * 500 \text{ ft}) + 50,000 \text{ lbs overpull}$   
= 62,000 lbs

**SF Tension = 244,000 lbs / 62,000 lbs = 3.9**

**Production Casing**

**Burst Load:** Assumes maximum load applied during the hydraulic fracture stimulations. It is Vantage Energy's policy not to exceed 80% rating of the production casing during the stimulation treatment. The 80% rating factor will also be the casing test pressure.

Load =  $4810 \text{ psi} * 0.80$   
= 3848 psi

**SF Burst = 4810 psi / 3848 psi = 1.25**

**Collapse Load:** Assumes worse case loading applied during the production cycle, with evacuated casing, and normally pressured formation gradient applied externally.

Load =  $0.44 \text{ psi/ft} * 6002 \text{ ft}$   
= 2640 psi

**SF Collapse = 4040 psi / 2640 psi = 1.53**

**Tension Load:** Assumes buoyed weight of casing at total depth + 50,000 lbs overpull design factor.

Load =  $[15.5 \text{ lbs/ft} * 6002 \text{ ft} * ((65.5 - 9.0) / 65.5)] + 50,000 \text{ lbs}$   
= 80,006 lbs + 50,000 lbs  
= 130,006 lbs

**SF Tension = 217,000 lbs / 130,006 lbs = 1.67**

## 5) CEMENT PROGRAM

Table 5: Proposed Cement Program

Depth	Hole Diameter	Casing Diameter	Cement
0' – ± 40'	20"	14"	Optional structural conductor if required: Grout with approximately 3.5 cubic yards of redi-mix back to surface (includes 100% excess)  <b>TOC: Surface (Top-off per visual observation)</b>
0' – 500'	12 1/4"	8 5/8"	<b><u>Single Slurry System (300' – Surface) + 40' Shoe Joint</u></b>  225 sks Class G + 2% CaCl <sub>2</sub> + ¼ lb/sk celloflake.  Density: 15.8 ppg Yield: 1.17 cuft/sk Water: 5.0 gal/sk Excess = 100% in open hole  <b>TOC: Surface (Top-off per visual observation)</b>
0' - 6,107'	7 7/8"	5 1/2"	<b><u>Lead System (4,000' – 2,000')</u></b> 129 sks Premium Lite II + 10% Gel + 10 lbs/sk gilsonite + 3% KCL + 0.5% Sodium Metasilicate + 5 lbs/sk CSE-2 + ¼ lb/sk celloflake + 3 lbs/sk Kol Seal + 0.5 lbs/sk Static Free + 0.002 gps FP-6L  Density: 11.0 ppg Yield: 3.50 cuft/sk Water: 21.4 gal/sk *Excess: 30%  <b><u>Tail System (6,263' – 4,000') + 40' Shoe Joint</u></b> 413 sks 50:50 (Class G:Poz) + 2% gel + 3% KCL + 0.5% EC-1 + 0.15% R-3 + 0.3% Sodium Metasilicate + ¼ lb/sk celloflake + 0.05 lbs/sk Static Free + 0.002 gps FP-6L  Density: 14.4 ppg Yield: 1.25 cuft/sk Water: 5.48 gal/sk *Excess: 30%

\*Note: The production hole cement volume excess factor will be adjusted on location by the caliper log, and will be re-calculated using caliper volume + 10% excess factor.

**6) MUD PROGRAM**

The mud program for the proposed well is indicated in **Table 6**.

**Table 6 Proposed Mud Program (See attached Advantage mud program)**

Interval (feet)	Mud Weight (lbs/gallon)	Viscosity (secs/qt)	Fluid Loss (ccs/30 min)	Mud Type
0 – ± 40'	NA	NA	NA	NA
Set optional 14" conductor with bucket rig				
40' - 500'±	NA	NA	N/C	Air/Mist
Run/cement 8 5/8" surface casing				
500'± - 3,500'	8.3 – 8.9	28 – 48	10 - 18	FW / PHPA
3,500' - TD	8.4 – 8.9	34 – 58	8 - 10	3% KCL / PHPA
Run Logs – Run/cement 5 1/2" production casing				

Surface Hole Comments: Spud with “spudder rig” and air drill surface hole misting as may be required to assist with cuttings removal. Report any water encountered to the appropriate agencies. **Please see variance requests for this section.**

Production Hole Comments: Drill out surface casing with fresh water using pre-hydrated gel and PHPA polymer mud sweeps to assist with hole cleaning. At approximately 3,500' “mud up” and “close in” the fluid system to a 2-3% KCL base fluid. Use PHPA PAC and lignite for filtration control. Maintain fluid system through potential production zones to TD. Should seepage losses be experienced, control with LCM sweeps consisting of calcium carbonate, sawdust, cedar fiber, or mica.

Sufficient mud materials will be maintained on location to adequately maintain mud properties and control lost circulation zones that may be encountered. Monitoring equipment will be installed on site to detect changes in mud volume.

**7) LOGGING, CORING, AND TESTING PROGRAM**

The proposed logging program is indicated in **Table 7**.

**Table 7 Proposed Logging Program**

Log Suites	Depth Range	Remarks
DIL-SP-LD-CN	Surface Casing to TD	Standard "triple combo" equivalent with resistivity-spontaneous potential, litho-density, compensated neutron, gamma ray, and caliper Will pull GR to surface
Dipole Sonic	± 4,000' to TD	Optional – Operator's discretion Rock property data
Rotary Sidewall Cores	± 4,000' to TD	Optional – Operator's discretion PP/Lithology data (perm-porosity)

No coring or drill stem tests are planned. Mud logging unit will be operational from 200 feet above the Douglas Creek through total depth. Cuttings will be sampled every 20-30 feet.

Prospective zones from the Douglas Creek formation through total depth will be perforated, tested, and potentially acid-washed. It is anticipated that multi-stage hydraulic fracture stimulations of the reservoir will be required.

### 8) ANTICIPATED PRESSURES AND HAZARDS

No abnormal pressures are anticipated. Pressure gradient in the Green River and Wasatch sequence is expected to be sub-normal pressured to less than 0.44 psi/ft.

Estimated BHP Douglas Creek (4,347')	2,605 psi
Estimated BHP Wasatch (5,920')	2,641 psi
Estimated BHP Total Depth (6,002')	2,728 psi
Hydrostatic head of gas/mud column	0.22 psi/ft.
<b>Maximum design surface pressure</b>	<b>0.44 – 0.22 psi/ft x 6,002 ft = 1,320 psi</b>

No H2S zones are anticipated. Lost circulation can be encountered. A variety of sized lost circulation materials will be maintained on location in the event lost circulation is experienced. No abnormal lost circulation zones are anticipated. The proposed well is a southern extension test of producing wells in T6S-R3W. Abnormal pressures will not be experienced to the proposed depth in this area.

### 9) DIRECTIONAL PROGRAM (See attached directional plan by Payzone)

The GDU 63-6-14 will be drilled as a directional well, with a bottom hole located in the center of NE¼ NE¼ Section 6, T6S-R3W on a 40-acre spacing pattern. The vertical section distance between the surface and the bottom hole is 822'. The bottom hole will be landed within a 200' radius target tolerance. The directional plan will consist of a build-and-drop "S" profile, with a planned KOP of 500', and a build/drop rate of 1.5°/100'.

The purpose of the directional well is to establish an "ideal" 40-acre drainage pattern for future development considerations.

### 10) OTHER INFORMATION

#### Contact Information and Personnel

##### Mailing Address

Vantage Energy Uinta LLC  
116 Inverness Drive, Suite 107  
Englewood, CO 80112  
Main Number: 303-386-8600  
Fax Number: 303-386-8700

##### Primary Contact: Seth Urruty

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### **START DATE AND DURATION OF ACTIVITIES**

#### Anticipated start date

The drilling operations will commence as soon as possible following contracting of drilling rig and in compliance with restrictions imposed by lease stipulations and/or Conditions of Approval. It is therefore anticipated the access upgrade work and location work would commence on or about June 15, 2013, with a target spud date of July 1, 2013. It is anticipated the drilling phase will require 7 days.

#### Completion

The well pad will be of sufficient size to accommodate all required completion equipment and activities. It is anticipated select intervals will be perforated, stimulated and adequately tested for the presence of commercial hydrocarbons prior to moving uphole to the next prospective test interval. As such, it is anticipated the completion phase will require 45 days.

The total project duration is therefore estimated to be **52 days**, and therefore anticipated to be concluded on or about August 22, 2013.

A string of 2 7/8 inch 6.5 lb/ft. J-55 tubing would be run as the production tubing. A Sundry Notice will be submitted should there be any changes to the proposed completion program.

**VARIANCE REQUESTS**

1. Operator requests a variance to *Onshore Oil and Gas Order 2, Item B, No. 1h*, regulations requiring the surface casing be tested to the greater of 1500 psig, or 70% of the minimum internal yield.
  - a. The MASP for this well is calculated to be 1,320 psig, while the 70% yield rating is 2,065 psig.
  - b. Operator therefore requests approval to test the surface casing to the lesser value of 1,500 psig which is greater than the MASP value.
2. Operator requests a variance to *Onshore Oil and Gas Order 2, Item A*, regulations which outline test pressures for 3M pressure control systems.
  - a. The drilling contractor's standard inventory will consist of 3M pressure control systems; however, as cited above, the MASP for this well is calculated to be 1,320 psig. As such, 2M pressure control equipment is sufficient for the drilling of this well.
  - b. Operator therefore requests approval to test contractor's 3M BOPE to 2M pressure system standards. The double ram preventer will be tested to 2,000 psig, and the annular preventer will be tested to 1,500 psig. Safety valves and choke/kill valves and lines will all be tested to 2,000 psig.
3. Operator requests a variance to *Onshore Oil and Gas Order 2, Item E*, regulations for air/gas drilling operations. Operator plans to drill only the surface hole to a depth of 500', with a "spud rig", in a separate operation from the drilling rig. No hydrocarbons are present in the surface hole section and therefore, "gas" drilling is not applicable to this hole section. Therefore, for the purpose only of drilling the surface hole with an air rig, Operator requests the following four (4) variances from the order that states "...the following equipment shall be in place and operational during air/gas drilling: (1) properly lubricated and maintained rotating head; (2) blooie line discharge one hundred feet (100') from wellbore; (3) automatic igniter or continuous pilot light on the blooie line; and (4) compressor located...a minimum of 100 feet (100') from the wellbore".
  - a. Operator requests approval to use a diverter bowl rather than a rotating head as specified in the Order. The diverter bowl forces air and cuttings to the reserve pit and is only used to drill the surface hole (to a total depth of 500'). The surface hole section is non-hydrocarbon bearing, and therefore formation pressures will not require a pressure rated rotating head. Should water flows be encountered, they will be reported to the appropriate agencies.
  - b. Operator requests approval to use a blooie line with a discharge length of less than the required one hundred feet (100') from the wellbore in order to minimize the well pad size, and to direct the cuttings into the reserve pit. The wellbore is to be located approximately thirty-five feet (35') from the reserve pit which is to be seventy feet (70') wide. Therefore, a one hundred foot (100') blooie line would blow cuttings across the reserve pit. The requested length of blooie line to drill the surface hole is thirty-five feet (35'). This is the distance necessary to reach the edge of the reserve pit, and to therefore direct cuttings into the reserve pit in a safe and efficient manner.
  - c. Operator requests approval to operate without an automatic igniter or continuous pilot light on the blooie line. The surface hole section is non-hydrocarbon bearing and therefore does not require a continuous ignition source.
  - d. Operator requests approval to use a trailer mounted air compressor located less than one hundred feet (100') from the wellbore in order to minimize the location size. The compressor will be located fifty feet (50') from the wellbore in an opposite direction of the blooie line. The compressor has the following safety features: (1) shut-off valve on

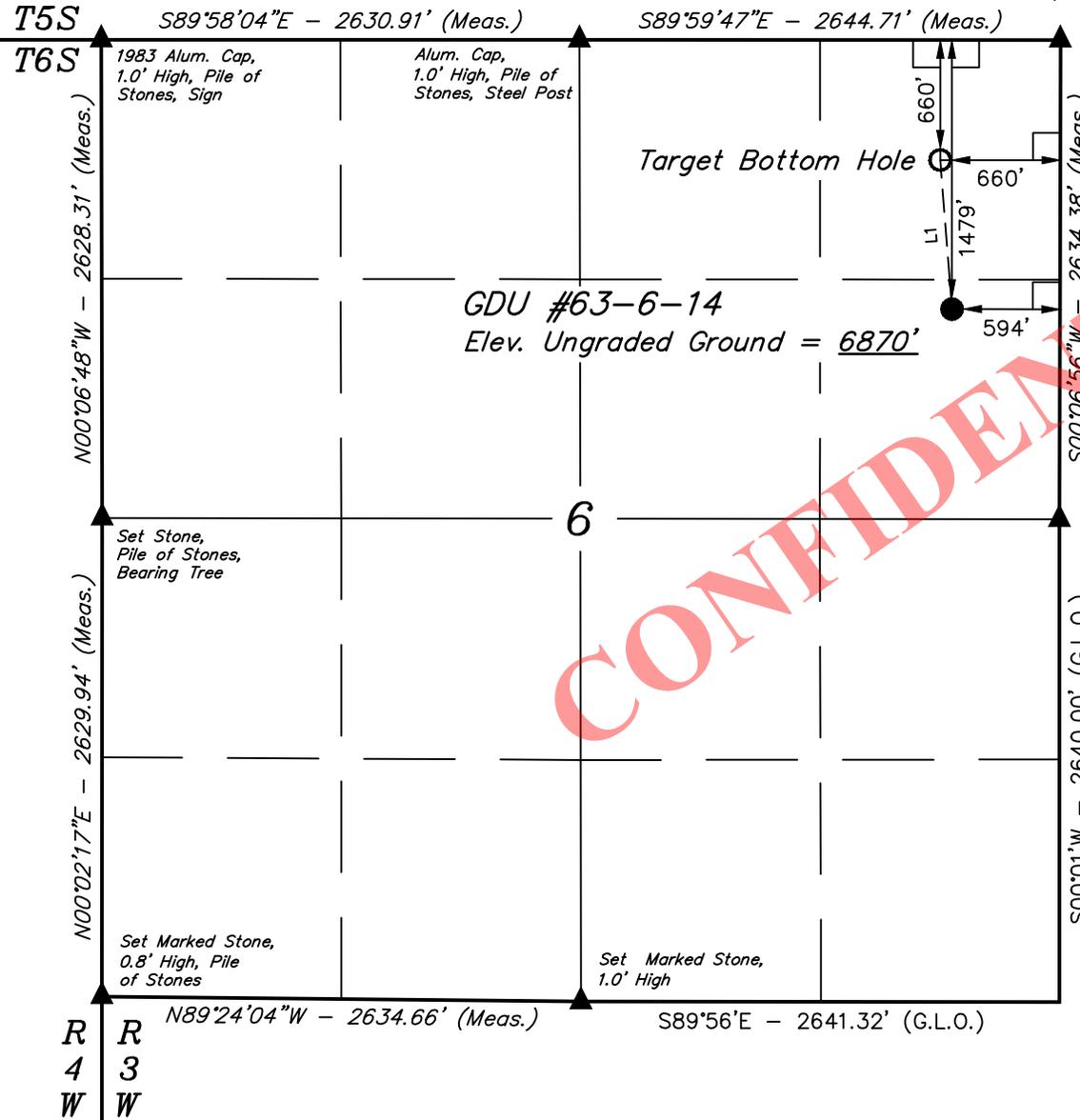
the trailer located approximately fifteen feet (15') from the air rig; (2) pressure relief valve on the compressor; and (3) spark arrestors on the motors. The compressor will only be used for the drilling of the surface hole, which is non-hydrocarbon bearing.

**CONFIDENTIAL**

T6S, R3W, U.S.B.&M.

Vantage Energy Uinta LLC

Well location, GDU #63-6-14, located as shown in the SE 1/4 NE 1/4 of Section 6, T6S, R3W, U.S.B.&M., Duchesne County, Utah.



1999 Alum. Cap,  
0.6' High, Pile of  
Stones, Steel Post

BASIS OF ELEVATION

BENCH MARK (M67) LOCATED IN THE SW 1/4 OF SECTION 9, T5S, R4W, U.S.B.&M., TAKEN FROM THE DUCHESNE SE, QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED ON CAP AS BEING 6097 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N04°29'11"W	821.65'



SCALE

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.

*[Signature]*  
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 161319  
STATE OF UTAH

REV: 11-21-12 C.A.G.

<p><b>UINTAH ENGINEERING &amp; LAND SURVEYING</b> 85 SOUTH 200 EAST - VERNAL, UTAH 84078 (435) 789-1017</p>		
SCALE 1" = 1000'	DATE SURVEYED: 08-14-12	DATE DRAWN: 08-24-12
PARTY M.A. T.E. R.L.L.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE VANTAGE ENERGY UINTA LLC	

LEGEND:

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

NAD 83 (TARGET BOTTOM HOLE)		NAD 83 (SURFACE LOCATION)	
LATITUDE = 39°59'38.72" (39.994089)	LONGITUDE = 110°15'30.83" (110.258564)	LATITUDE = 39°59'30.63" (39.991842)	LONGITUDE = 110°15'30.02" (110.258339)
NAD 27 (TARGET BOTTOM HOLE)		NAD 27 (SURFACE LOCATION)	
LATITUDE = 39°59'38.86" (39.994128)	LONGITUDE = 110°15'28.28" (110.257856)	LATITUDE = 39°59'30.76" (39.991878)	LONGITUDE = 110°15'27.47" (110.257631)

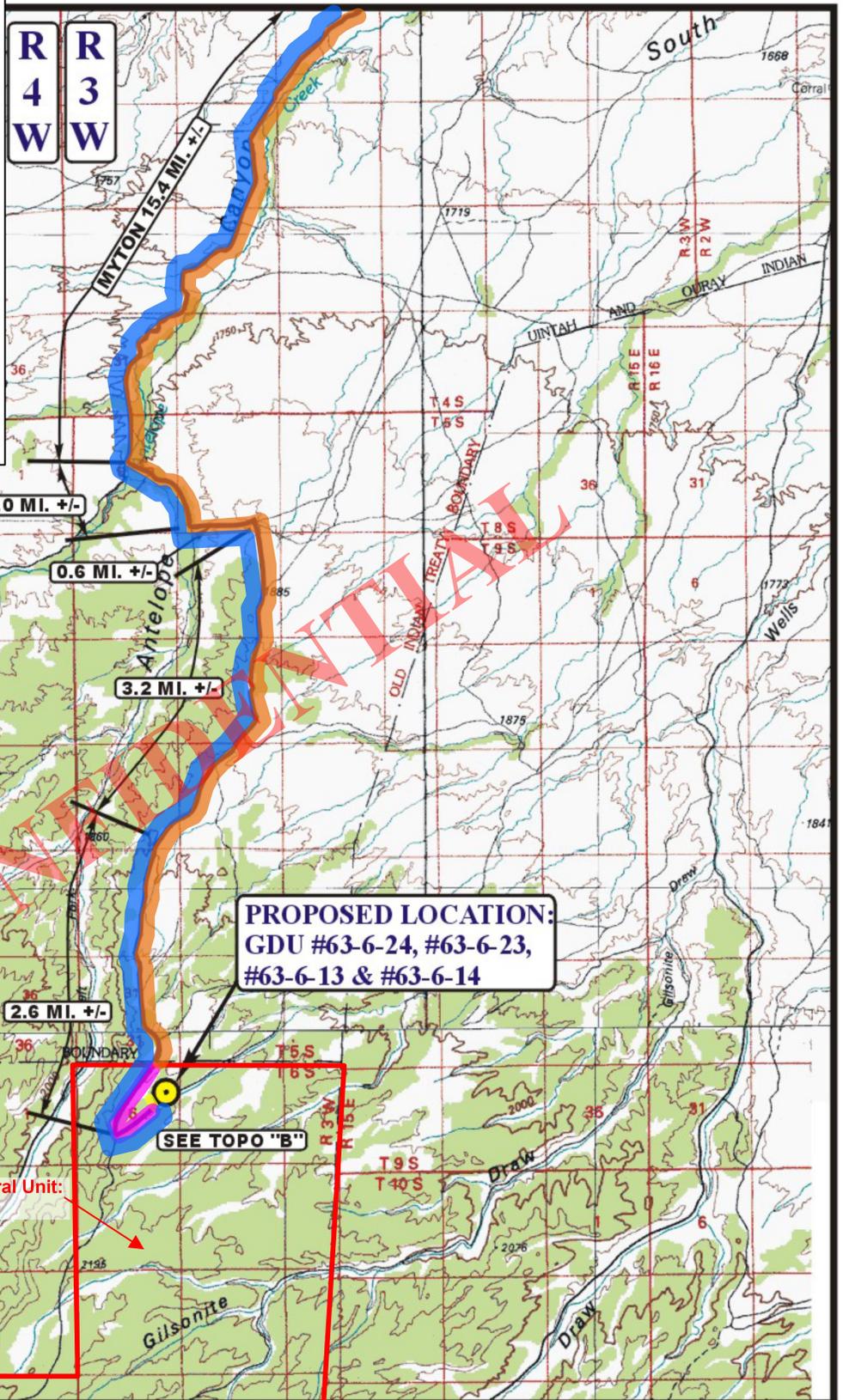
Map to Accompany  
 APPLICATION FOR PERMIT TO DRILL  
 Access Road Map

Vantage Energy Uinta LLC  
**GDU 63-6-14**  
 SHL: 1,544' FNL 637' FEL (SE/4 NE/4)  
 BHL: ±660' FNL ±660' FEL (NE/4 NE/4)  
 Sec. 6 T6S R3W  
 Duchesne County, Utah  
 Surface: Federal  
 Federal Mineral Lease: UTU78235  
 Gilsonite Draw Federal Unit: UTU86249X

LEGEND

-  New Construction (USFS) – On Lease/In Unit
-  Existing Access (USFS) – On Lease/ In Unit
-  County Road (BIA)
-  Water Haul

Revised by Upstream Petroleum Management Inc.



LEGEND:

-  PROPOSED LOCATION



Vantage Energy Uinta LLC

**GDU #63-6-24, #63-6-23, #63-6-13 & #63-6-14**  
**SECTION 6, T6S, R3W, U.S.B.&M.**  
**SE 1/4 NE 1/4**



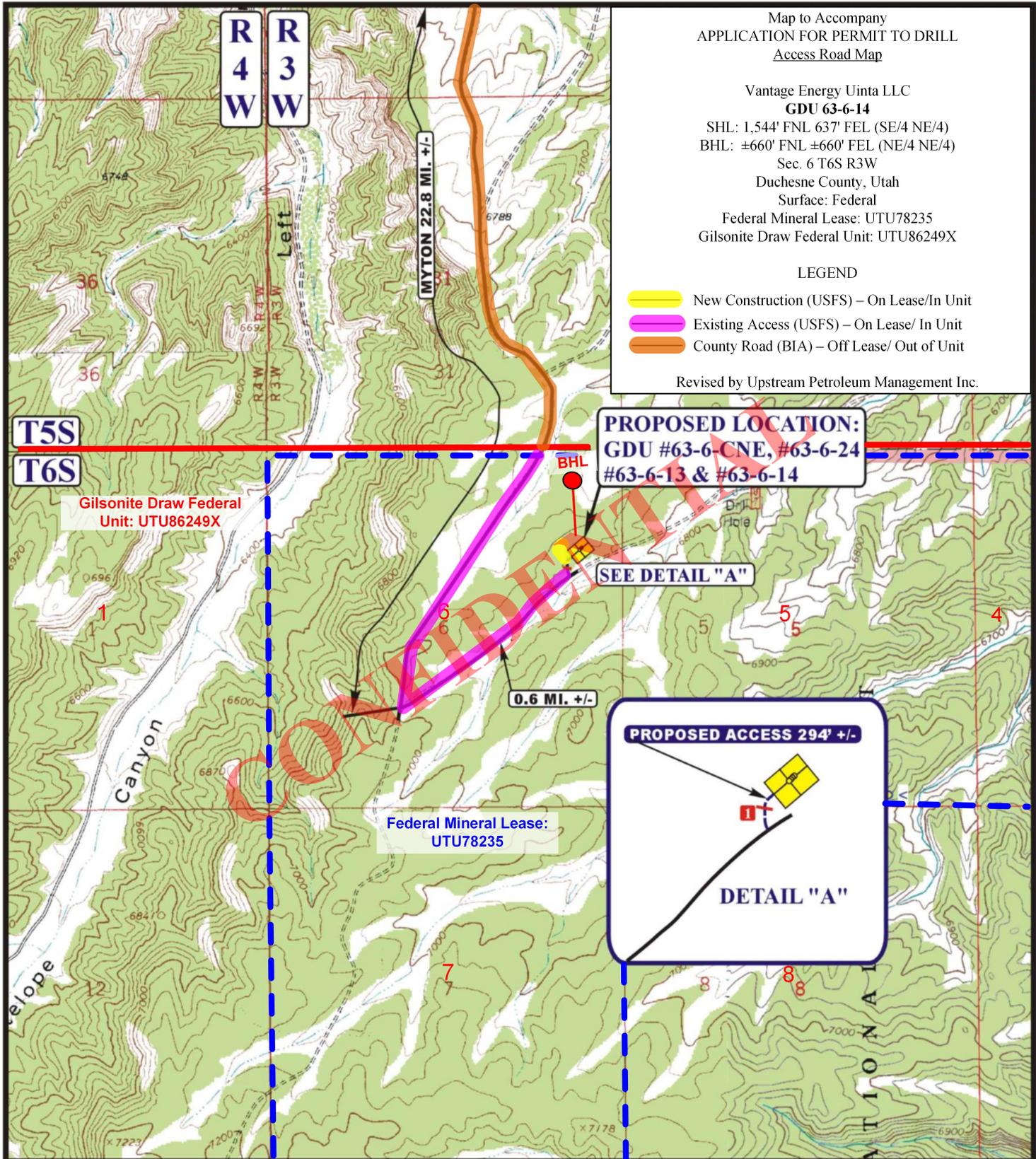
Utah Engineering & Land Surveying  
 85 South 200 East Vernal, Utah 84078  
 (435) 789-1017 \* FAX (435) 789-1813

ACCESS ROAD  
 MAP

08	21	12
MONTH	DAY	YEAR

SCALE: 1:100,000 DRAWN BY: C.I. REVISED: 00-00-00





Map to Accompany  
 APPLICATION FOR PERMIT TO DRILL  
 Access Road Map

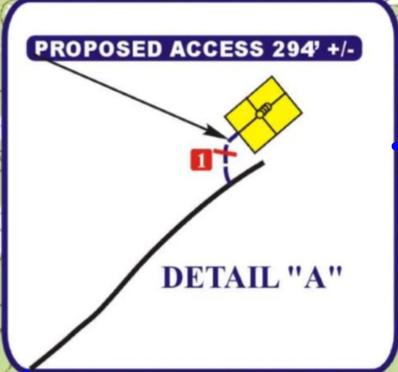
Vantage Energy Uinta LLC  
**GDU 63-6-14**  
 SHL: 1,544' FNL 637' FEL (SE/4 NE/4)  
 BHL: ±660' FNL ±660' FEL (NE/4 NE/4)  
 Sec. 6 T6S R3W  
 Duchesne County, Utah  
 Surface: Federal  
 Federal Mineral Lease: UTU78235  
 Gilsonite Draw Federal Unit: UTU86249X

- LEGEND
- New Construction (USFS) – On Lease/In Unit
  - Existing Access (USFS) – On Lease/ In Unit
  - County Road (BIA) – Off Lease/ Out of Unit

Revised by Upstream Petroleum Management Inc.

**PROPOSED LOCATION:**  
 GDU #63-6-CNE, #63-6-24  
 #63-6-13 & #63-6-14

SEE DETAIL "A"



Gilsonite Draw Federal  
 Unit: UTU86249X

Federal Mineral Lease:  
 UTU78235

MYTON 22.8 MI. +/-

0.6 MI. +/-

**LEGEND:**

- EXISTING ROAD
- PROPOSED ACCESS ROAD
- EXISTING FENCE
- 18" CMP REQUIRED



**Vantage Energy Uinta LLC**  
 GDU #63-6-CNE, #63-6-24, #63-6-13 & #63-6-14  
 SECTION 6, T6S, R3W, U.S.B.&M.  
 SE 1/4 NE 1/4

**UELS** Uintah Engineering & Land Surveying  
 85 South 200 East Vernal, Utah 84078  
 (435) 789-1017 \* FAX (435) 789-1813

**ACCESS ROAD MAP**  
 SCALE: 1" = 2000' DRAWN BY: C.L. REVISED: 11-26-12

08	21	12
MONTH	DAY	YEAR

B  
TOPO



## **Vantage Energy**

**Duchesne County, UT  
SECTION 6 T6S, R3W  
GDU 63-6-14**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**14 April, 2013**

**CONFIDENTIAL**





**Payzone Directional**  
Planning Report



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GDU 63-6-14
<b>Company:</b>	Vantage Energy	<b>TVD Reference:</b>	GDU 63-6-14 @ 6884.4ft (Original Well Elev)
<b>Project:</b>	Duchesne County, UT	<b>MD Reference:</b>	GDU 63-6-14 @ 6884.4ft (Original Well Elev)
<b>Site:</b>	SECTION 6 T6S, R3W	<b>North Reference:</b>	True
<b>Well:</b>	GDU 63-6-14	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	Duchesne County, UT, Duchesne County, UT		
<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 Northern Zone		

<b>Site</b>	SECTION 6 T6S, R3W				
<b>Site Position:</b>		<b>Northing:</b>	962,601.53 m	<b>Latitude:</b>	39° 59' 23.328 N
<b>From:</b>	Map	<b>Easting:</b>	605,549.67 m	<b>Longitude:</b>	110° 15' 51.665 W
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	in	<b>Grid Convergence:</b>	0.81 °

<b>Well</b>	GDU 63-6-14, SHL LAT/LONG 39.991842, -110.258339					
<b>Well Position</b>	<b>+N/-S</b>	739.1 ft	<b>Northing:</b>	962,834.13 m	<b>Latitude:</b>	39° 59' 30.631 N
	<b>+E/-W</b>	1,685.0 ft	<b>Easting:</b>	606,059.99 m	<b>Longitude:</b>	110° 15' 30.020 W
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>	6,884.4 ft	<b>Ground Level:</b>	6,870.0 ft

<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>
	IGRF200510	4/14/2013	(°)	(°)	(nT)
			11.13	65.68	52,069

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	355.60

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,620.6	16.81	355.60	1,604.5	162.7	-12.5	1.50	1.50	0.00	355.60	
3,331.6	16.81	355.60	3,242.5	656.0	-50.5	0.00	0.00	0.00	0.00	
4,452.1	0.00	0.00	4,347.0	818.7	-63.1	1.50	-1.50	0.00	180.00	
6,107.1	0.00	0.00	6,002.0	818.7	-63.1	0.00	0.00	0.00	0.00	63-6-14 BHL



**Payzone Directional**  
Planning Report



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GDU 63-6-14
<b>Company:</b>	Vantage Energy	<b>TVD Reference:</b>	GDU 63-6-14 @ 6884.4ft (Original Well Elev)
<b>Project:</b>	Duchesne County, UT	<b>MD Reference:</b>	GDU 63-6-14 @ 6884.4ft (Original Well Elev)
<b>Site:</b>	SECTION 6 T6S, R3W	<b>North Reference:</b>	True
<b>Well:</b>	GDU 63-6-14	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Green River</b>									
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
<b>Start Build 1.50</b>									
600.0	1.50	355.60	600.0	1.3	-0.1	1.3	1.50	1.50	0.00
700.0	3.00	355.60	699.9	5.2	-0.4	5.2	1.50	1.50	0.00
800.0	4.50	355.60	799.7	11.7	-0.9	11.8	1.50	1.50	0.00
900.0	6.00	355.60	899.3	20.9	-1.6	20.9	1.50	1.50	0.00
1,000.0	7.50	355.60	998.6	32.6	-2.5	32.7	1.50	1.50	0.00
1,100.0	9.00	355.60	1,097.5	46.9	-3.6	47.0	1.50	1.50	0.00
1,200.0	10.50	355.60	1,196.1	63.8	-4.9	64.0	1.50	1.50	0.00
1,300.0	12.00	355.60	1,294.2	83.2	-6.4	83.5	1.50	1.50	0.00
1,400.0	13.50	355.60	1,391.7	105.2	-8.1	105.5	1.50	1.50	0.00
1,500.0	15.00	355.60	1,488.6	129.8	-10.0	130.2	1.50	1.50	0.00
1,600.0	16.50	355.60	1,584.9	156.8	-12.1	157.3	1.50	1.50	0.00
1,620.6	16.81	355.60	1,604.5	162.7	-12.5	163.2	1.50	1.50	0.00
<b>Start 1711.0 hold at 1620.6 MD</b>									
1,700.0	16.81	355.60	1,680.6	185.6	-14.3	186.2	0.00	0.00	0.00
1,800.0	16.81	355.60	1,776.3	214.4	-16.5	215.1	0.00	0.00	0.00
1,900.0	16.81	355.60	1,872.1	243.3	-18.7	244.0	0.00	0.00	0.00
2,000.0	16.81	355.60	1,967.8	272.1	-21.0	272.9	0.00	0.00	0.00
2,100.0	16.81	355.60	2,063.5	300.9	-23.2	301.8	0.00	0.00	0.00
2,200.0	16.81	355.60	2,159.2	329.8	-25.4	330.7	0.00	0.00	0.00
2,300.0	16.81	355.60	2,255.0	358.6	-27.6	359.7	0.00	0.00	0.00
2,400.0	16.81	355.60	2,350.7	387.4	-29.8	388.6	0.00	0.00	0.00
2,500.0	16.81	355.60	2,446.4	416.3	-32.1	417.5	0.00	0.00	0.00
2,600.0	16.81	355.60	2,542.2	445.1	-34.3	446.4	0.00	0.00	0.00
2,700.0	16.81	355.60	2,637.9	473.9	-36.5	475.3	0.00	0.00	0.00
2,800.0	16.81	355.60	2,733.6	502.8	-38.7	504.2	0.00	0.00	0.00
2,900.0	16.81	355.60	2,829.3	531.6	-40.9	533.2	0.00	0.00	0.00
3,000.0	16.81	355.60	2,925.1	560.4	-43.2	562.1	0.00	0.00	0.00
3,100.0	16.81	355.60	3,020.8	589.3	-45.4	591.0	0.00	0.00	0.00
3,200.0	16.81	355.60	3,116.5	618.1	-47.6	619.9	0.00	0.00	0.00
3,300.0	16.81	355.60	3,212.2	646.9	-49.8	648.8	0.00	0.00	0.00
3,331.6	16.81	355.60	3,242.5	656.0	-50.5	658.0	0.00	0.00	0.00
<b>Start Drop -1.50</b>									
3,400.0	15.78	355.60	3,308.1	675.2	-52.0	677.2	1.50	-1.50	0.00
3,465.6	14.80	355.60	3,371.4	692.4	-53.3	694.5	1.50	-1.50	0.00
<b>Garden Gulch</b>									
3,500.0	14.28	355.60	3,404.7	701.0	-54.0	703.1	1.50	-1.50	0.00
3,600.0	12.78	355.60	3,501.9	724.3	-55.8	726.5	1.50	-1.50	0.00
3,700.0	11.28	355.60	3,599.7	745.1	-57.4	747.3	1.50	-1.50	0.00
3,800.0	9.78	355.60	3,698.1	763.4	-58.8	765.6	1.50	-1.50	0.00
3,900.0	8.28	355.60	3,796.8	779.0	-60.0	781.3	1.50	-1.50	0.00
4,000.0	6.78	355.60	3,896.0	792.1	-61.0	794.4	1.50	-1.50	0.00
4,100.0	5.28	355.60	3,995.4	802.6	-61.8	804.9	1.50	-1.50	0.00
4,200.0	3.78	355.60	4,095.1	810.4	-62.4	812.8	1.50	-1.50	0.00
4,300.0	2.28	355.60	4,194.9	815.7	-62.8	818.1	1.50	-1.50	0.00
4,400.0	0.78	355.60	4,294.9	818.4	-63.0	820.8	1.50	-1.50	0.00



**Payzone Directional**  
Planning Report



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GDU 63-6-14
<b>Company:</b>	Vantage Energy	<b>TVD Reference:</b>	GDU 63-6-14 @ 6884.4ft (Original Well Elev)
<b>Project:</b>	Duchesne County, UT	<b>MD Reference:</b>	GDU 63-6-14 @ 6884.4ft (Original Well Elev)
<b>Site:</b>	SECTION 6 T6S, R3W	<b>North Reference:</b>	True
<b>Well:</b>	GDU 63-6-14	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,452.1	0.00	0.00	4,347.0	818.7	-63.1	821.1	1.50	-1.50	0.00	
<b>Start 1655.0 hold at 4452.1 MD</b>										
4,452.5	0.00	0.00	4,347.4	818.7	-63.1	821.1	0.00	0.00	0.00	
<b>Douglas Creek</b>										
4,500.0	0.00	0.00	4,394.9	818.7	-63.1	821.1	0.00	0.00	0.00	
4,600.0	0.00	0.00	4,494.9	818.7	-63.1	821.1	0.00	0.00	0.00	
4,700.0	0.00	0.00	4,594.9	818.7	-63.1	821.1	0.00	0.00	0.00	
4,800.0	0.00	0.00	4,694.9	818.7	-63.1	821.1	0.00	0.00	0.00	
4,900.0	0.00	0.00	4,794.9	818.7	-63.1	821.1	0.00	0.00	0.00	
5,000.0	0.00	0.00	4,894.9	818.7	-63.1	821.1	0.00	0.00	0.00	
5,100.0	0.00	0.00	4,994.9	818.7	-63.1	821.1	0.00	0.00	0.00	
5,200.0	0.00	0.00	5,094.9	818.7	-63.1	821.1	0.00	0.00	0.00	
5,300.0	0.00	0.00	5,194.9	818.7	-63.1	821.1	0.00	0.00	0.00	
5,346.5	0.00	0.00	5,241.4	818.7	-63.1	821.1	0.00	0.00	0.00	
<b>Castle Peak</b>										
5,400.0	0.00	0.00	5,294.9	818.7	-63.1	821.1	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,394.9	818.7	-63.1	821.1	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,494.9	818.7	-63.1	821.1	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,594.9	818.7	-63.1	821.1	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,694.9	818.7	-63.1	821.1	0.00	0.00	0.00	
5,801.5	0.00	0.00	5,696.4	818.7	-63.1	821.1	0.00	0.00	0.00	
<b>Uteland Butte</b>										
5,900.0	0.00	0.00	5,794.9	818.7	-63.1	821.1	0.00	0.00	0.00	
6,000.0	0.00	0.00	5,894.9	818.7	-63.1	821.1	0.00	0.00	0.00	
6,007.5	0.00	0.00	5,902.4	818.7	-63.1	821.1	0.00	0.00	0.00	
<b>Wasatch</b>										
6,107.1	0.00	0.00	6,002.0	818.7	-63.1	821.1	0.00	0.00	0.00	
<b>TD at 6107.1</b>										

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
0.0	0.0	Green River		0.00		
3,465.6	3,371.4	Garden Gulch		0.00		
4,452.5	4,347.4	Douglas Creek		0.00		
5,346.5	5,241.4	Castle Peak		0.00		
5,801.5	5,696.4	Uteland Butte		0.00		
6,007.5	5,902.4	Wasatch		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
500.0	500.0	0.0	0.0	Start Build 1.50	
1,620.6	1,604.5	162.7	-12.5	Start 1711.0 hold at 1620.6 MD	
3,331.6	3,242.5	656.0	-50.5	Start Drop -1.50	
4,452.1	4,347.0	818.7	-63.1	Start 1655.0 hold at 4452.1 MD	
6,107.1	6,002.0	818.7	-63.1	TD at 6107.1	

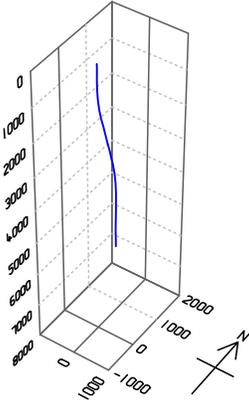


Project: Duchesne County, UT  
 Site: SECTION 6 T6S, R3W  
 Well: GDU 63-6-14  
 Wellbore: Wellbore #1  
 Design: Design #1



Azimuths to True North  
 Magnetic North: 11.13°

Magnetic Field  
 Strength: 52068.9snT  
 Dip Angle: 65.68°  
 Date: 4/14/2013  
 Model: IGRF200510



FORMATION TOP DETAILS

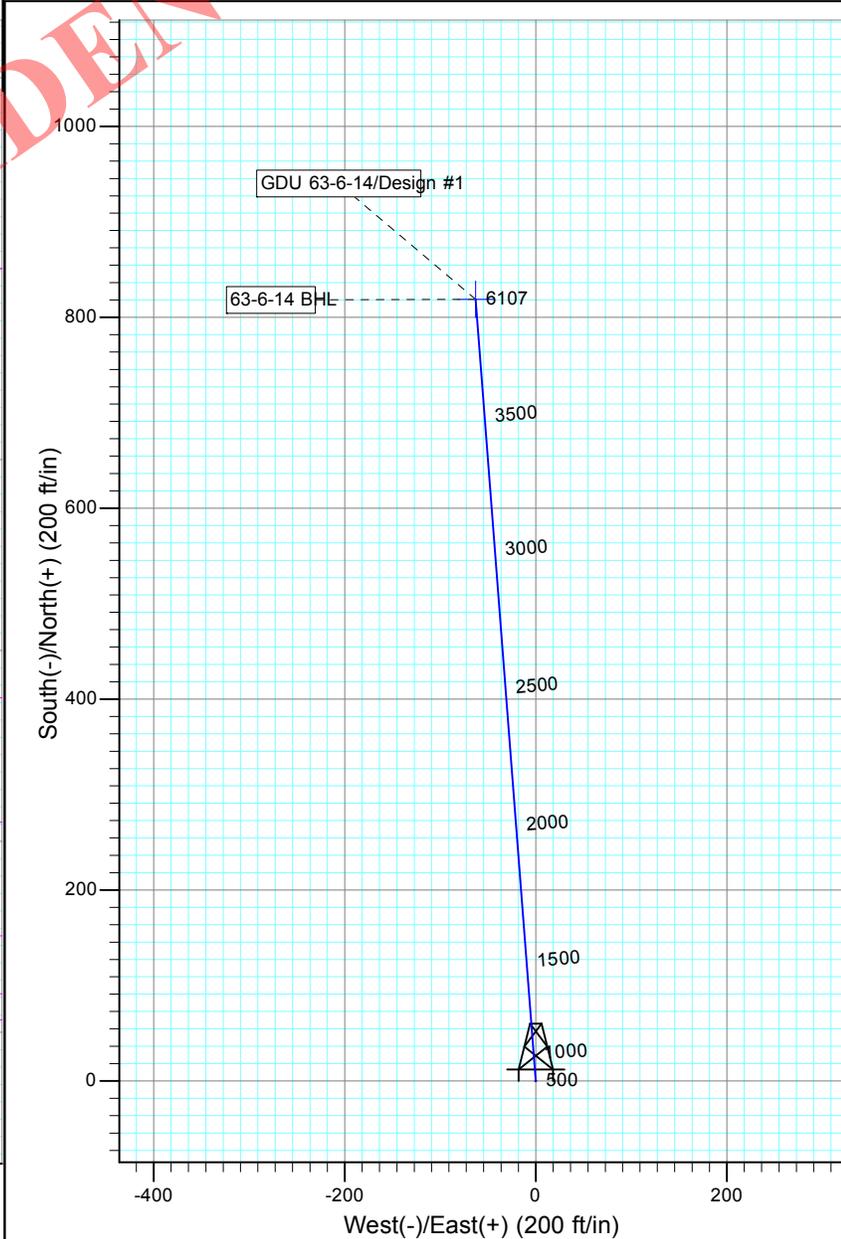
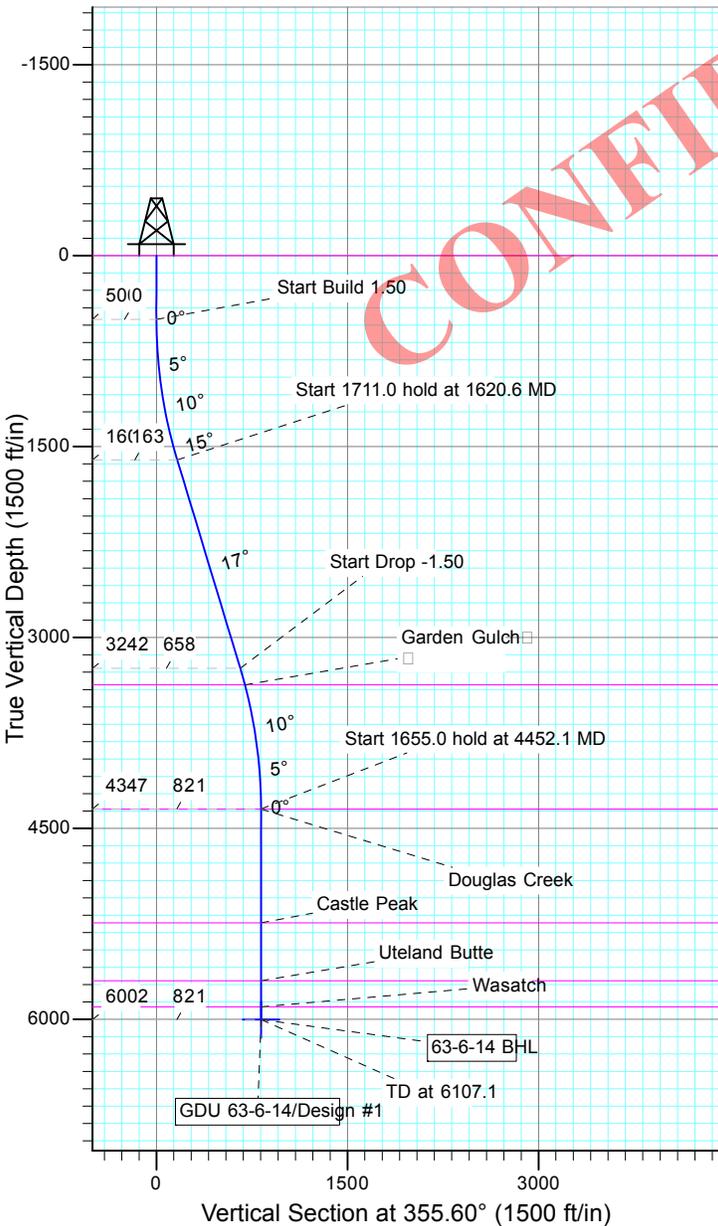
TVDP	MD	Path	Formation
0.0	0.0		Green River
3371.4	3465.6		Garden Gulch
4347.4	4452.5		Douglas Creek
5241.4	5346.5		Castle Peak
5696.4	5801.5		Uteland Butte
5902.4	6007.5		Wasatch

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
63-6-14 BHL	6002.0	818.7	-63.1	Point

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	500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.0	
3	1620.6	16.81	355.60	1604.5	162.7	-12.5	1.50	355.60	163.2	
4	3331.6	16.81	355.60	3242.5	656.0	-50.5	0.00	0.00	658.0	
5	4452.1	0.00	0.00	4347.0	818.7	-63.1	1.50	180.00	821.1	
6	6107.1	0.00	0.00	6002.0	818.7	-63.1	0.00	0.00	821.1	63-6-14 BHL



Vantage Energy Uinta LLC  
**GDU 63-6-14**  
SHL: 1,479' FNL 594' FEL (SE/4 NE/4)  
BHL: ±660' FNL ±660' FEL (NE/4 NE/4)  
Sec. 6 T6S R3W  
Duchesne County, Utah  
Surface: Federal  
Federal Mineral Lease: UTU78235  
Gilsonite Draw Federal Unit: UTU86249X

### SURFACE USE PLAN OF OPERATIONS

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) documents. This NOS process included an onsite meeting on November 1, 2012, prior to the submittal of the application, at which time the specific concerns of Vantage Energy Uinta LLC (Vantage) and the United States Forest Service (USFS) were discussed. All specific concerns of the (USFS) representatives are addressed herein, as are specific stipulations from the USFS.

\* Specific stipulations arising from the onsite meeting are shown as starred.

#### WELL LOCATION AND INTRODUCTION:

The original wellsite was surveyed and staked at 1,514' FNL 637' FEL (SE/4 NE/4) of Sec. 6 T6S R3W on August 14, 2012, by Uintah Engineering & Land Surveying (Uintah), Surveyor, on a site that is geologically and topographically acceptable. The wellsite was moved approximately 50' to the East per the request of the Forest Service at the onsite. The new wellsite was staked at 1,479' FNL 594' FEL (SE/4 NE/4) of Section 6 T6S R3W. The bottomhole is anticipated at 660' FNL 660' FEL (NE/4/NE/4) of Sec. 6 T6S R3W. The location lies within the Gilsonite Draw Federal Unit identified by serial register number UTU86249X.

An NOS was submitted to BLM in Vernal on October 17, 2012 for this location. An onsite meeting was held on November 1, 2012. Present were: David Herron, Sherry Fountain, Darlene Koerner, Chris Plunkett, and Scott Bingham – USFS; Randy Winn – Craig's Roustabout Services; McCoy Anderson and Adam Harrop – Uintah; and Kim Rodell and Andrea Gross – Upstream Petroleum Management Inc. Requirements were discussed at the USFS onsite meeting.

#### DIRECTIONS TO LOCATION

From Myton, Utah, proceed in a southwesterly direction along Highway ±8.8 miles to the Junction of this road and Antelope Canyon Road to the south. Turn left and proceed in southerly, then southwesterly direction along the Antelope Canyon Road ±6.6 miles to the junction of this road and existing road to the southeast. Turn left and proceed in a southeasterly direction ±1.0 mile to the junction of this road and an existing road to the east. Turn left and proceed in an easterly direction ±0.6 miles to the junction of this road and an existing road to the south. Turn right and proceed in a southerly, then southwesterly direction approximately ±2.6 miles to the junction of this road and an existing road to the northeast. Turn left and proceeding a northeasterly direction ±0.6 miles to the beginning of the proposed access to the north. Follow road flags in a northerly direction ±294' to the proposed location. Total distance from Myton, Utah is ±23.4 miles.

1) EXISTING ROADS (See Topos A and B)

- A) The well is an exploratory well.
- B) Existing roads within 1.00 mile consists of an existing Forest Service Road, to within 0.06 miles, which will provide access to the proposed location.
- C) Plans for improvement and/or maintenance of existing roads are to maintain in as good or better conditions than at present.

2) PLANNED ACCESS ROADS (See Topos A and B)

±294'	(0.06 miles)	Sec. T6S R3W	USFS	On lease
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±294'	<b>(0.06 miles)</b>	<b>Total New Road Construction</b>		
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- \* A) Running surface width to be approximately 14'-16', total disturbed width to be no more than 30'. Plans for improvement and/or maintenance of existing roads are to maintain in as good or better conditions than at present. Access roads associated with this location will be maintained and kept in good repair during drilling, completion and production operations. Road maintenance will including grading, maintaining drainage, watering (as needed), fixing mud holes and snow removal. Snow removal will be done in a manner approved by the USFS in order to reduce road surface loss and erosion.
- B) Borrow ditches to be backsloped 3:1 or shallower. Weather permitting, the access road will be mowed and the borrow ditch material will be pulled over the top of the mowed area.
- \* C) Maximum grades will not exceed 10%.
- \* D) One (1) culvert, sized by an engineer based on the watershed area, will be installed prior to commencement of drilling operations. Riprap will be placed at the inlet and outlet. Drainage to consist of wing ditches between the existing road and the wellsite and will be installed prior to commencing drilling operations. The borrow ditches along the proposed access road will be re-seeded if the well is completed as a producer. The reseeded of the borrow ditches will reduce the area utilized by this location.
- E) Surfacing material, if necessary, will consist of native material from borrow ditches. The topsoil will be cleared by fanning back during the construction and crowning of the road. Upon commencement of road construction, the topsoil will be replaced in the borrow ditches.
- F) No major road cuts are necessary.
- \* G) All road constructed by Vantage will be closed to public motorized use by installing a USFS approved gate with signage stating "Authorized Vehicles Only".
- H) Road construction on public lands shall meet the minimum standards listed in BLM Manual Section 9113 and shall be constructed under the direction of a qualified construction supervisor(s). The qualified construction supervisor shall be an engineer, company superintendent or other representative who is competent and knowledgeable in oilfield road and drillsite construction, and able to speak for the operator. The dirt contractor, or drilling/completion foremen whose primary expertise is not in construction, do not qualify as construction supervisors.
- \* I) A transportation plan covering Forest Service Road 337-207 is enclosed as an attachment to this filing.
- \* J) Construction vehicles and equipment will be cleaned, power-washed, and free of soil and vegetation debris prior to entry and use of access roads to prevent transporting weed seeds.
- \* K) Graveling or capping the roadbed will be performed as necessary to provide and maintain safe and well-constructed road.
- \* M) Road drainage crossings will be designed so they would not cause head-cutting, siltation or accumulation of debris in the channel. If additional review/permitting of road drainage is required, Vantage will submit necessary permits.

- \* N) Construction and maintenance will not be performed when the ground or topsoil is frozen or too wet to adequately support construction equipment. If such equipment creates ruts in excess of four (4) inches deep, the soil will be deemed too wet.
- \* O) Paleontological monitoring is required during construction of well pad. Any significant fossils identified during paleontological surveys or monitoring efforts will be collected by a qualified paleontologist, properly documents, and transferred to a Forest Service- approved paleontological repository for curation.
- \* P) Appropriate water control structure for roads will be installed to control erosion. Check dams in new drainage ditches will be installed for road grades in excess of six (6) percent.

### 3) LOCATION OF EXISTING WELLS

Oil and Gas Wells: See UDOGM Wells within a 1-Mile Radius table.  
Water Wells : None.

### LOCATION OF EXISTING PRODUCING FACILITIES OPERATED BY VANTAGE

The nearby well data was taken from the Utah Department of Oil, Gas and Mining (UDOGM) and the Utah Division of Water Rights website on March 26, 2013.

### 4) NEW PRODUCTION FACILITIES PROPOSED (Figure 1-4)

- A) USFS/BLM will be contacted prior to construction of production facilities. A Sundry Notice (SN) will be filed if requested by BLM.
- B) Dimension of Proposed Facility of the pad is 320' x 250' = 80,000 ft<sup>2</sup>, for drilling operations. Total disturbance will be ±2.47 acres.
- \* C) Construction and maintenance will not be performed when the ground or topsoil is frozen or too wet to adequately support construction equipment. If such equipment creates ruts in excess of four (4) inches deep, the soil will be deemed too wet.
- D) Production equipment will be painted light reflective colors to limit evaporation and waste of liquid hydrocarbons. All above ground permanent structures will be painted to blend with the surrounding landscape. The color specified color will be determined and provided by the USFS.
- E) Production facilities may vary according to actual reservoir discovered and will be engineered upon completion of well tests. Production facilities will be clustered and placed away from cut/fill slopes to allow the maximum recontouring of cut/fill slopes. To reduce the view of production facilities from visibility corridors and private residences, facilities will not be placed in visually exposed locations (such as ridgelines and hilltops). The tallest structure will be no greater than 20' in height.
- F) If well is a producer all production facilities will be authorized by a SN.
- G) No facilities will be constructed off location.
- \* H) A transportation plan covering Forest Service Road 337-207 is enclosed as an attachment to this filing.
- \* I) Production facilities will be located to allow for optimal reduction in well pad working size, following interim reclamation.
- \* J) Pump jacks will be equipped with high grade mufflers, to reduce noise impacts to wildlife and Forest visitors.

5) LOCATION OF WATER SUPPLY (See Exhibit 5)

- A) Water will be transported by truck from the Ouray Minicipal Water Plant at Ouray, Utah, and or Target Turcking Inc.'s water source in the SW/SW, Sec. 35 T9S R22E (State Water Right No. 49-1501)

Anticipated water use is as follows:

Mud drilling water requirements are anticipated to be approximately 10,814 bbls  
(454,188 gallon [US, liquid] = 1.3938419 acre foot [US survey]).

Road watering will be done only if dry conditions dictate, and would utilize approximately 900 bbls (37,800 gallons or 0.11 acre feet).

6) SOURCE OF CONSTRUCTION MATERIALS

- A) Construction materials will consist of native materials from borrow ditches and location areas accumulated during the construction of the location sites and access roads.
- B) Surfacing materials will be obtained from available permitted sources, if needed, and consist of pit gravel.

7) WASTE DISPOSAL

- \* A) Drill cuttings will be buried in a cuttings pit when dry.
- B) A closed loop system will be used, no reserve pit required.
- \* C) Drill cuttings will be encapsulated with impermeable material in a cuttings pits, and buried with at least four (4) feet of cover materials.
- D) Flare pit for air drilling will (if used) be located minimum 100' from wellbore.
- \* E) Produced fluid will be contained in test tanks, surrounded by a plastic-lined earthen berm or other containment structure, during completion and testing. The volume of the secondary containment structure will exceed 150% of the volume of the largest tank it surrounds.
- F) Sewage disposal facilities will be in accordance with State and Local Regulations. Sewage may not be buried on location or put in a borehole. Utah Department of Environmental Quality (UT DEQ) Regulations prevent this unless a UT DEQ Permit is obtained.
- G) Garbage and other waste - burnable waste will be contained in a portable trash cage which will be totally enclosed with small mesh wire. Cage and contents will be transported to and trash dumped at a UT DEQ approved Sanitary Landfill upon completion of operations.
- H) Trash will be picked up if scattered and contained in trash cage as soon as practical after rig is moved off.
- I) Upon release of the drilling rig, rathole and mousehole will be filled. Debris and equipment not required for production will be removed.

8) ANCILLARY FACILITIES

No ancillary facilities will be necessary.

9) WELLSITE LAYOUT (See Figure 1-4)

- A) See attached drillsite drawings.
- B) Roads and well production equipment, such as tanks, treaters, separators, vents, electrical boxes, and equipment associated with pipeline operation, will be placed on location so as to permit maximum interim reclamation of disturbed areas. If equipment is found to interfere with the proper interim reclamation of disturbed areas, the equipment may be moved so proper recontouring and revegetation can occur.
- \* D) Six inches (6") of topsoil will be removed prior to location construction from the area and/or any disturbed areas. Topsoil will be stockpiled adjacent to the wellsite within the maximum disturbed area prior to well pad construction. The stockpile will include smaller surface vegetation and organic debris.

- E) Topsoil and spoils pile will be clearly separated.
  - \* F) Erosion control measures and spill measures will be applied immediately following well pad construction and before drilling activities commence, pursuant to Vantage's General Permit to Discharge Stormwater under the Utah Pollutant Discharge Elimination System and accompanying site specific Stormwater Pollution Prevention Plan.
  - \* G) Production facilities will be located to allow for optimal reduction in well pad working size, following interim reclamation.
  - \* H) Topsoil materials will be stockpiled no more than four (4) feet thick, and the amounts will be recorded.
  - \* I) Paleontological monitoring is required during construction of well pad. Any significant fossils identified during paleontological surveys or monitoring efforts will be collected by a qualified paleontologist, properly documents, and transferred to a Forest Service- approved paleontological repository for curation.
- 10) PIPELINES AND FLOWLINES<sup>25</sup>
- \* A) Gas gathering pipelines will be located in the 35-foot right-of-way along access roads unless it is deemed to cause safety concerns or interfere with other resource mitigation measures.
- 11) SURFACE RESTORATION (General)
- A) Salvaging and spreading topsoil will not be performed when the ground or topsoil is frozen or too wet to adequately support construction equipment. If such equipment creates ruts in excess of four (4) inches deep, the soil will be deemed too wet.
  - B) In areas that will not be drill-seeded, the seed mix will be broadcast-seeded at twice the application rate shown and covered 0.25 to 0.5 inches deep with a harrow or drag bar or will be broadcast-seeded into imprints, such as fresh dozer cleat marks.
  - \* C) Spring seeding is preferred and will be conducted after September 15 and prior to ground freezing. Spring seeding will be conducted after the frost between May 1 and June 15 or in the fall between October 1 and November 1. Fall seeding will be done when conditions are cold enough that the seeds won't sprout before the following spring.
  - \* D) Vantage will verify or create surface roughness in disturbed areas prior to seeding.
  - E) Annual or noxious weeds shall be controlled on all disturbed areas as directed by the Field Office Manager. An intensive weed monitoring and control program will be implemented beginning the first growing season after interim and final reclamation. Noxious weeds that have been identified during monitoring will be promptly treated and controlled. A Pesticide Use Proposal (PUP) will be submitted to the USFS for approval prior to the use of herbicides. All reclamation equipment will be cleaned prior to use to reduce the potential for introduction of noxious weeds or other undesirable non-native species. The operator will coordinate all weed and insect control measures with state and/or local management agencies.
  - F) Reclaimed areas will be monitored annually. Actions will be taken to ensure that reclamation standards are met as quickly as reasonably practical.
  - G) Reclamation monitoring will be documented in a reclamation report and submitted to the AO. The report will document compliance with all aspects of the reclamation objectives and standards, identify whether the reclamation objectives and standards are likely to be achieved in the near future without additional actions, and identify actions that have been or will be taken to meet the objectives and standards. The report will also include acreage figures for: Initial Disturbed Acres; Successful Interim Reclaimed Acres; Successful Final Reclaimed Acres. Reports will not be submitted for sites approved by the AO in writing as having met interim or final reclamation standards. Any time 30% or more of a reclaimed area is redisturbed, monitoring will be reinitiated.

- H) The AO will be informed when reclamation has been completed, is successful, and the site is ready for final inspection.
- \* I) Topsoil materials will be stockpiled no more than four (4) feet thick, and the amounts will be recorded.

INTERIM RESTORATION (Production)

- A) Rehabilitation of unneeded, previously disturbed areas will consist of backfilling and contouring the reserve pit area, back sloping and contouring all cut/fill slopes. These areas will be re-seeded immediately.
- B) Wellpad size will be reduced to minimum size necessary to conduct safe operations. Cuts/fills will be reduced to 3:1 or shallower.
- C) Cuttings pits will be closed and backfilled as soon as the pit contents are dry enough to do so, or no later than the end of the next full summer following rig release, whichever comes first, to allow sufficient time for the pit contents to dry. Reserve pits remaining open after this period will require written authorization of the AO. Immediately upon well completion, any hydrocarbons or trash in the reserve and flare pits will be removed. Pits will be allowed to dry, be pumped dry, or solidified in-situ prior to backfilling.
- D) Following completion activities, pit liners will be removed or removed to the solids level and disposed of at an approved landfill, or treated to prevent their reemergence to the surface and interference with long-term successful revegetation. If it was necessary to line the pit with a synthetic liner, the pit will not be trenched (cut) or filled (squeezed) while containing fluids. When dry, the pit will be backfilled with a minimum of five (5) feet of soil material. In relatively flat areas, the pit area will be slightly mounded to allow for settling and to promote surface drainage away from the backfilled pit.
- E) The portions of the cleared well site not needed for operational and safety purposes will be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Sufficient level area will remain for setup of a workover rig and to park equipment. In some cases, rig anchors may need to be pulled and reset after recontouring to allow for maximum interim reclamation.
- F) Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including road cuts/fills and to within a few feet of the production facilities, unless an all-weather, surfaced, access route or small "teardrop" turnaround is needed on the well pad.
- G) Initial seedbed preparation will consist of backfilling, leveling, and ripping all compacted areas. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding. Seeding will be conducted no more than 24 hours following completion of final seedbed preparation. A certified weed-free seed mix approved by USFS to meet reclamation standards will be used. The seed mix will be used on all disturbed surfaces including pipelines and road cut/fill slopes.
- H) To help mitigate the contrast of recontoured slopes, reclamation will include measures to feather cleared lines of vegetation and to save and redistribute cleared trees, debris, and rock over recontoured cut/fill slopes.
- J) Reclamation will be considered successful if the following criteria are met:
  - 70 percent of predisturbance cover
  - 90 percent dominate species\*
  - Erosion features equal to or less than surrounding area
- \* The vegetation will consist of species included in the seed mix and/or occurring in the surrounding natural vegetation.

- \* K) An emasticating head will be used on the mulcher to mulch the native vegetation; then walk in with the cut/fill slope. Windrows will be created with the mulch on the pad and outlying areas to assist with pad stabilization, erosion prevention and noise reduction.
- \* L) Interim reclamation will be conducted on all disturbed surfaces not needed for future operations, including portions of well pads no longer needed for future drilling activities. Where possible, interim reclamation efforts should begin within 12 months following pad construction and drilling activities. In cases where multi-well pads are not yet fully drilled, interim reclamation should be initiated within 24 months following the most recent well drilled on the pad.
- \* N) A site specific interim reclamation plan will be submitted under separate cover before reclamation commences.

FINAL RESTORATION (P & A – Removal of equipment)

- A) Flowlines on location will be removed before site reclamation and all flowlines between the wellsite and production facilities will remain in place and will be filled with water.
- B) If necessary to ensure timely revegetation, the pad will be fenced to USFS standards to exclude livestock grazing for the first two growing seasons or until seeded species become firmly established, whichever comes later. Fencing will meet standards found on page 18 of the Gold Book, 4<sup>th</sup> Edition, or will be fenced with operational electric fencing.
- C) Revegetation will be accomplished by planting mixed grasses. Revegetation is recommended for road area as well as around production site.
- E) Initial seedbed preparation will consist of backfilling, leveling, and ripping all compacted areas. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding. Seeding will be conducted no more than 24 hours following completion of final seedbed preparation. A certified weed-free seed mix approved by USFS to meet reclamation standards will be used. The seed mix will be used on all disturbed surfaces including pipelines and road cut/fill slopes.
- F) Distribute topsoil, if any remains, evenly over the location, and seed according to the above seed mixture. If needed the access road and location shall be ripped or disked prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.
- \* G) All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Resalvaged topsoil will be spread evenly over the entire disturbed site to ensure successful revegetation, avoiding undue mixing with deeper materials. To help mitigate the contrast of recontoured slopes, reclamation will include measures to feather cleared lines of vegetation and to save and redistribute cleared trees, woody debris, and large rocks over recontoured cut/fill slopes.
- \* H) Final reclamation of the well pad will occur as soon as wells on that specific pad are no longer productive. Each well will be plugged, capped, and properly abandoned, and all surface equipment (included surface pipeline) associated with that pad will be removed. The well pad and associated cut and fill slopes will be recontoured to mimic adjacent natural topography, and disrupted drainage pathways will be restored. Previously salvaged soils will be spread over disturbed surfaces, which will then be seeded with vegetation. Sufficient erosion control for reclaimed sites is obtained when adequate groundcover is established, water naturally infiltrates into the soil, and gullyng, head-cutting, slumping, and deep or excessive rilling are not observed.

12) GENERAL INFORMATION

- A) Project area is situated in the undulated uplands of the western part of the Uintah Basin.
- B) Topographic and geologic features - moderate relief area, moderately drained, sandy-clay deposition, surrounded by rolling uplands with highly eroded drainages.
- C) Soil characteristics – clay/loam
- D) Flora consists of: Piñon pine, Juniper, Sagebrush, and short grasses.
- E) Fauna – observed: none.
- F) Concurrent surface use - grazing and recreation.
- G) Mineral Lessor  
Bureau of Land Management  
Vernal Field Office  
170 South 500 East  
Vernal, UT Phone: 435-781-4400
- H) Surface Owner  
Drillsite:  
United States Forest Service  
Duchesne Ranger District  
85 W. Main St.  
Duchesne, UT 84021 Phone: 435-738-2482  
Access:  
United States Forest Service  
Duchesne Ranger District  
85 W. Main St.  
Duchesne, UT 84021 Phone: 435-738-2482  
Uintah and Ouray Indian Reservation  
P.O. Box 190  
Fort Duchesne, UT 84026 Phone: 435-781-5218
- I) Proximity of water, occupied dwellings or other features: un-named intermittent drainage  $\pm 524'$  to the southeast; flowing into Gilsonite Draw.
- J) Archaeological, cultural and historical information for the new construction on federal lands will be done by USFS.
- K) If any fossils are discovered during construction, the operator shall cease construction immediately and notify the AO so as to determine the significance of the discovery.
- L) A Class III (100% pedestrian) cultural resource inventory shall be completed prior to disturbance by a qualified professional archaeologist in the following areas: Well location. A report of the inventory will be submitted and approved by the BLM with stipulations as appropriate in order to comply with EO 11593 and Section 106 of the National Historic Preservation Act of 1966. See Section "General Information – K" above.
- M) The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the AO. The AO will inform the operator as to the work needed to determine the following:
- Whether the materials appear eligible for the National Register of Historic Places;
  - The mitigation measures the operator will likely have to undertake before the site can be used (assuming in site preservation is not necessary); and,
  - A timeframe for the AO to complete an expedited review to acquire the State Historic Preservation Officer's concurrence that the findings of the AO are correct and that mitigation is appropriate.

- N) Vantage Energy Uinta LLC maintains a file, per 29 CFR 1910.1200(g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances which are used during the course of construction, drilling, completion, and production operations for this project. Hazardous materials (substances) which may be transported across these lands may include drilling mud and cementing products which are primarily inhalation hazards, fuels (flammable and/or combustible), materials that may be necessary for well completion/stimulation activities such as flammable or combustible substances and acids/gels (corrosives). The opportunity for Superfund Amendments and Reauthorization Act (SARA) listed Extremely Hazardous Substances (EHS) at the site is generally limited to proprietary treating chemicals. All hazardous substances, EHS, and commercial preparations will be handled in an appropriate manner to minimize the potential for leaks or spills to the environment.

**CONFIDENTIAL**

Vantage Energy Uinta LLC  
**GDU 63-6-14**  
SHL: 1,479' FNL 594' FEL (SE/4 NE/4)  
BHL: ±660' FNL ±660' FEL (NE/4 NE/4)  
Sec. 6 T6S R3W  
Duchesne County, Utah  
Surface: Federal  
Federal Mineral Lease: UTU78235  
Gilsonite Draw Federal Unit: UTU86249X

APPLICATION FOR PERMIT TO DRILL  
OPERATOR CERTIFICATION

LESSEE'S OR OPERATOR'S REPRESENTATIVE:

Operator

Vantage Energy Uinta LLC  
116 Inverness Drive East, Suite 107  
Englewood, Colorado 80112  
Phone: 303-386-8600  
Fax: 303-386-8705  
John Moran – Vice President -Operations

Permit Agent

Upstream Petroleum Management, Inc.  
7000 S. Yosemite St., Suite 290B  
Englewood, Colorado 80112  
Phone: 303-942-0506  
Fax: 303-820-4480

+Andrea Gross – Permit Agent  
*agross@upstreampm.com*  
+Kimberly Rodell – Permit Agent  
*krodell@upstreampm.com*

+ For any questions or comments regarding this permit.

OPERATOR CERTIFICATION:

I hereby certify that Vantage Energy Uinta LLC and its contractors and sub-contractors are responsible for the operations conducted under this application subject to the terms and conditions of the mineral lease. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Vantage Energy Uinta LLC under their nationwide bond, BLM Bond No. UTUB000288

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

June 4, 2013

Andrea Gross  
Permit Agent for Vantage Energy Uinta LLC



Ms. Diana Mason  
State of Utah  
Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, UT 84114

June 4, 2013

Re: Directional Drilling R649-3-11  
Vantage Energy Uinta, LLC  
**GDU 63-6-14**  
SHL: 1,479' FNL 594' FEL (SE/4 NE/4)  
BHL: ±660' FNL ±660' FEL (NE/4 NE/4)  
Sec. 6 T6S R3W  
Duchesne County, Utah  
Surface: Federal  
Federal Mineral Lease: UTU78235  
Gilsonite Draw Federal Unit: UTU86249X

Dear Ms. Mason:

Pursuant to the filing of Vantage Energy Uinta LLC's (Vantage) Application for Permit to Drill regarding the above referenced well on June 4, 2013, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11, pertaining to the Exception of Location and Sitting of Wells.

- GDU 63-6-14 is an exploratory well located within the Gilsonite Draw Federal Unit No. UTU86249X.
- Vantage is permitting this well as stipulated by the United States Forest Service as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Vantage will be better able to utilize any proposed roads and or pipelines in the area.
- Vantage is the unit operator of the Gilsonite Draw Federal Unit. As it pertains to all depths from the surface to the base of the Wasatch Formation, Vantage certifies it is the sole working interest owner within 460 feet of the entire directional well bore and within Section 6 (federal oil and gas lease UTU 78235). As to all depths deeper than the Base of the Wasatch Formation, the sole working interest owner is Exxon Mobil Corporation (XOM). Vantage and XOM have entered into a mutually executed Exploration Agreement that provides for the possible development of those deeper depths.

**Your Assets / Our Expertise**

- Regulatory
- Storm-water Management Plans
- Project Coordination
- Permitting
- Government Relations
- EA/EIS Assistance

Utah Division Oil, Gas & Mining

June 4, 2013

Page 2 of 2

Based on the above stated information, Vantage requests the permit be granted pursuant to the terms and conditions of Rule R649-3-11.

Sincerely,



Andrea Gross  
Permit Agent for Vantage Energy Uinta LLC

**CONFIDENTIAL**

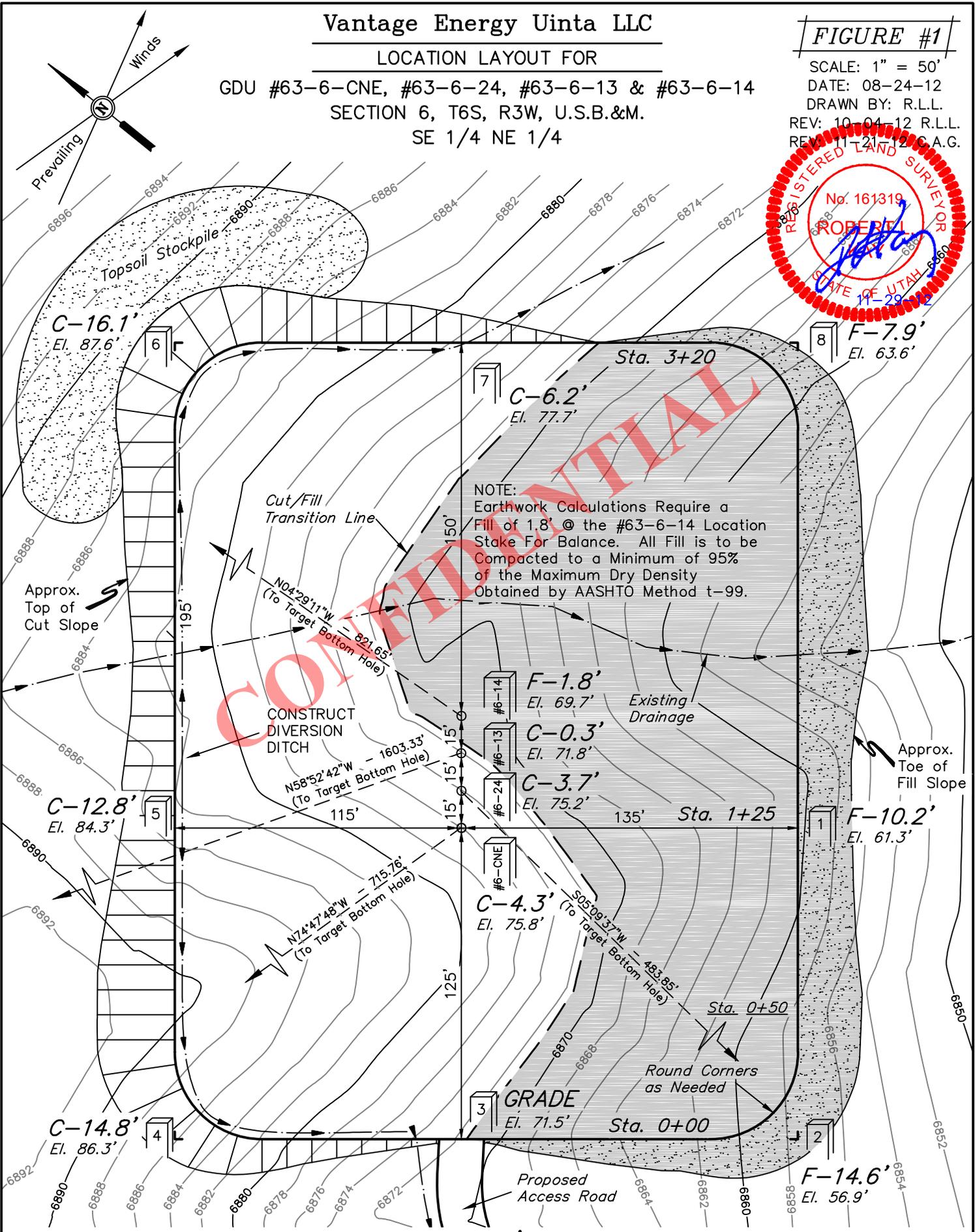
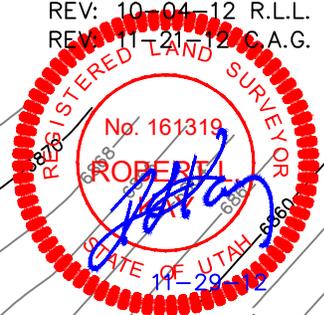
# Vantage Energy Uinta LLC

## LOCATION LAYOUT FOR

GDU #63-6-CNE, #63-6-24, #63-6-13 & #63-6-14  
SECTION 6, T6S, R3W, U.S.B.&M.  
SE 1/4 NE 1/4

**FIGURE #1**

SCALE: 1" = 50'  
DATE: 08-24-12  
DRAWN BY: R.L.L.  
REV: 10-04-12 R.L.L.  
REV: 11-21-12 C.A.G.



**NOTE:**  
Earthwork Calculations Require a Fill of 1.8' @ the #63-6-14 Location Stake For Balance. All Fill is to be Compacted to a Minimum of 95% of the Maximum Dry Density Obtained by AASHTO Method t-99.

**CONFIDENTIAL**

Elev. Ungraded Ground At #63-6-CNE Loc. Stake = 6875.8'  
FINISHED GRADE ELEV. AT #63-6-CNE LOC. STAKE = 6871.5'

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

RECEIVED: June 04, 2013

Vantage Energy Uinta LLC

TYPICAL CROSS SECTIONS FOR

GDU #63-6-CNE, #63-6-24, #63-6-13 & #63-6-14  
SECTION 6, T6S, R3W, U.S.B.&M.  
SE 1/4 NE 1/4

FIGURE #2

DATE: 09-24-12

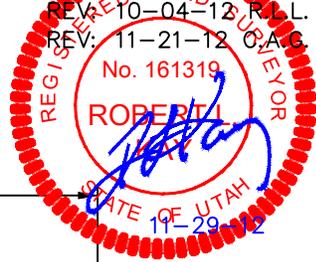
DRAWN BY: J.L.

REV: 10-04-12 R.L.L.

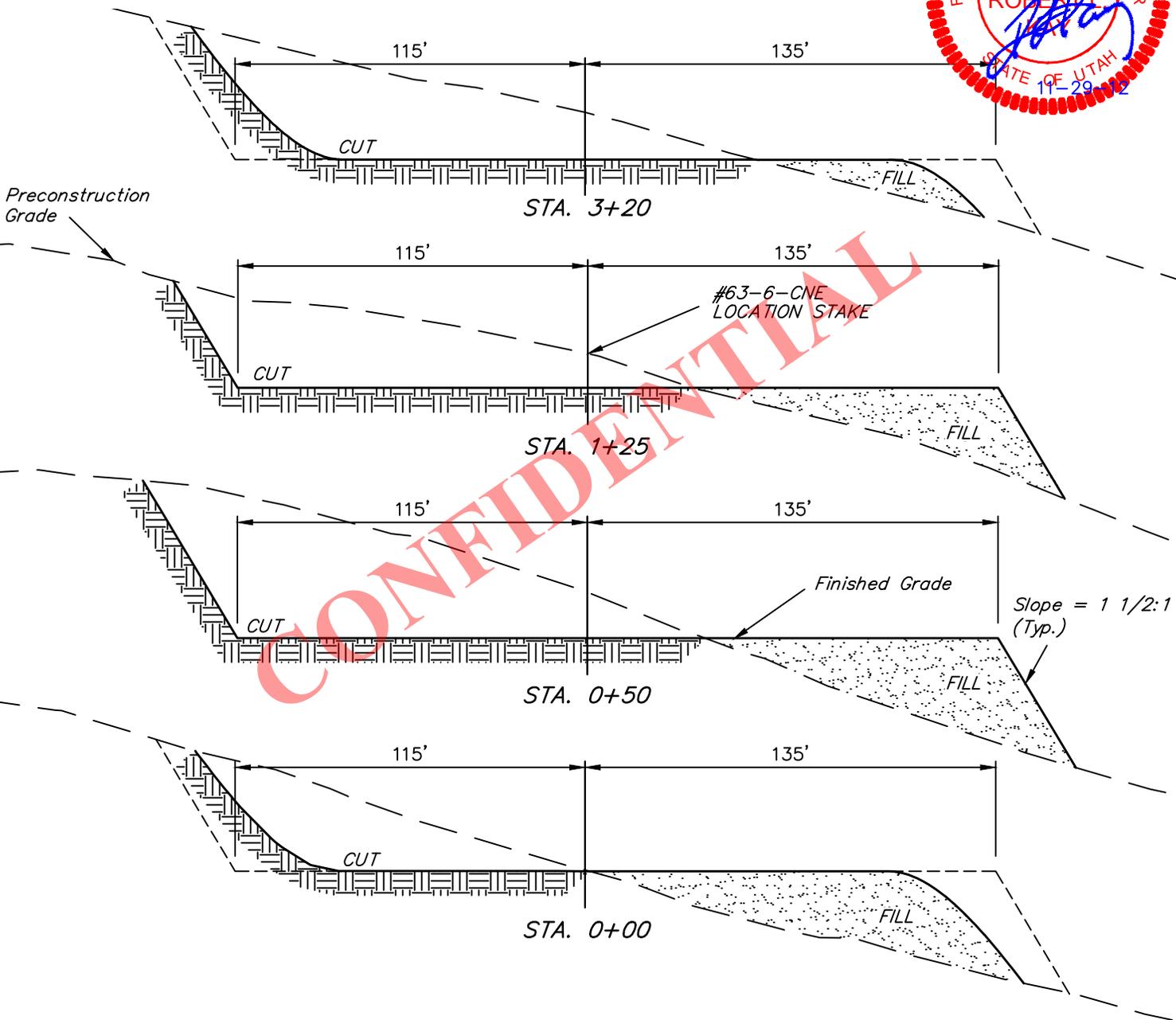
REV: 11-21-12 C.A.G.

No. 161319

ROBERT L. ...



1" = 20'  
X-Section Scale  
1" = 50'



NOTE:

Topsoil should not be Stripped Below Finished Grade on Substructure Area.

APPROXIMATE ACREAGES

WELL SITE DISTURBANCE	= ± 2.469 ACRES
ACCESS ROAD DISTURBANCE	= ± 0.203 ACRES
<b>TOTAL</b>	<b>= ± 2.672 ACRES</b>

\* NOTE: FILL QUANTITY INCLUDES 5% FOR COMPACTION

APPROXIMATE YARDAGES

(6") Topsoil Stripping	= 1,860 Cu. Yds.
Remaining Location	= 13,110 Cu. Yds.
<b>TOTAL CUT</b>	<b>= 14,970 CU. YDS.</b>
<b>FILL</b>	<b>= 13,110 CU. YDS.</b>

EXCESS MATERIAL	= 1,860 Cu. Yds.
Topsoil	= 1,860 Cu. Yds.

EXCESS UNBALANCE = 0 Cu. Yds.  
(After Interim Rehabilitation)

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

# Vantage Energy Uinta LLC

## TYPICAL RIG LAYOUT FOR

GDU #63-6-CNE, #63-6-24, #63-6-13 & #63-6-14  
SECTION 6, T6S, R3W, U.S.B.&M.  
SE 1/4 NE 1/4

**FIGURE #3**

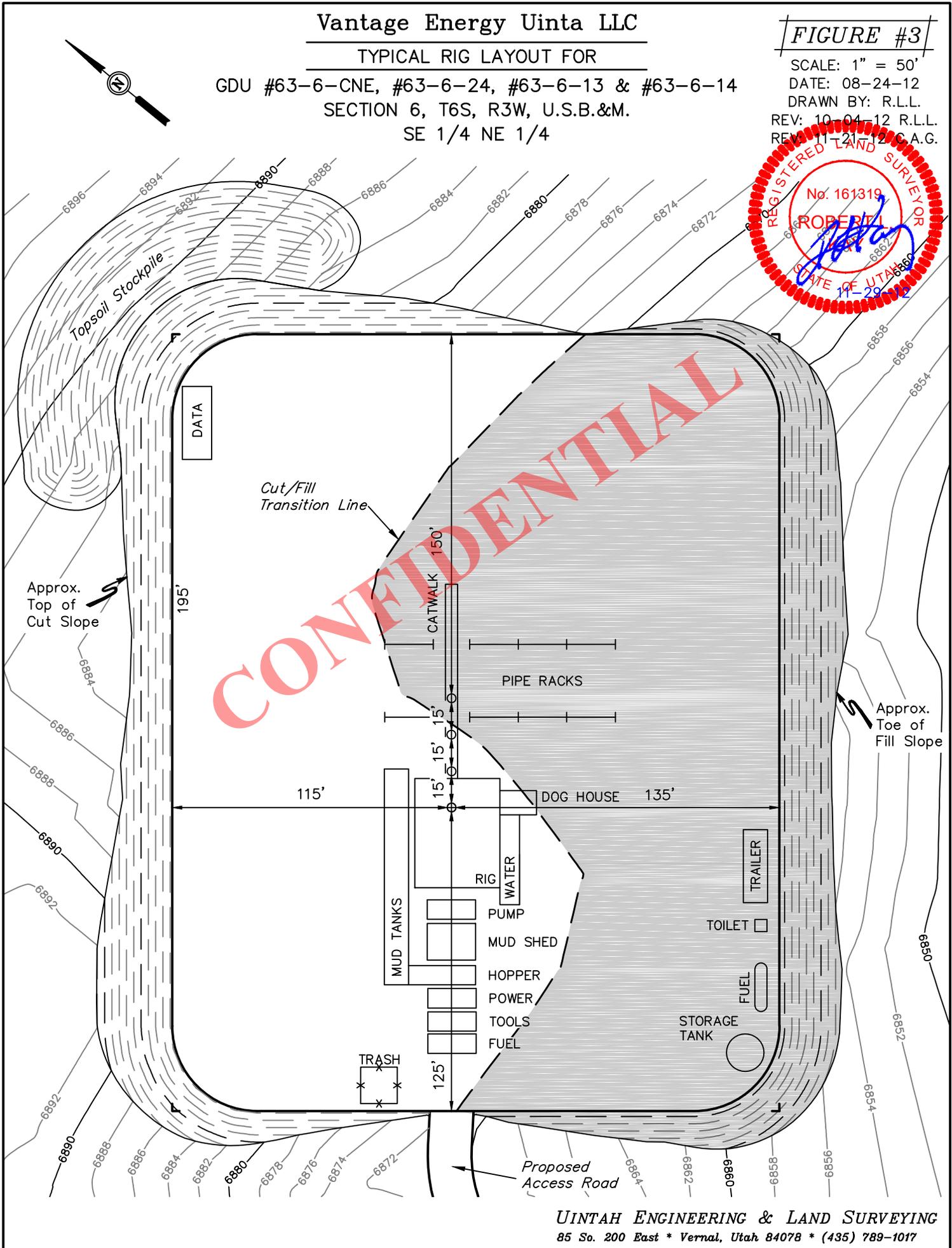
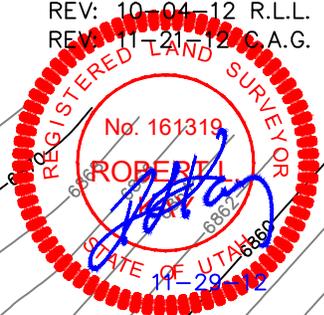
SCALE: 1" = 50'

DATE: 08-24-12

DRAWN BY: R.L.L.

REV: 10-04-12 R.L.L.

REV: 11-21-12 C.A.G.



UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

RECEIVED: June 04, 2013

# Vantage Energy Uinta LLC

## PRODUCTION FACILITY LAYOUT FOR

GDU #63-6-23, #63-6-24, #63-6-13 & #63-6-14  
SECTION 6, T6S, R3W, U.S.B.&M.  
SE 1/4 NE 1/4

FIGURE #4

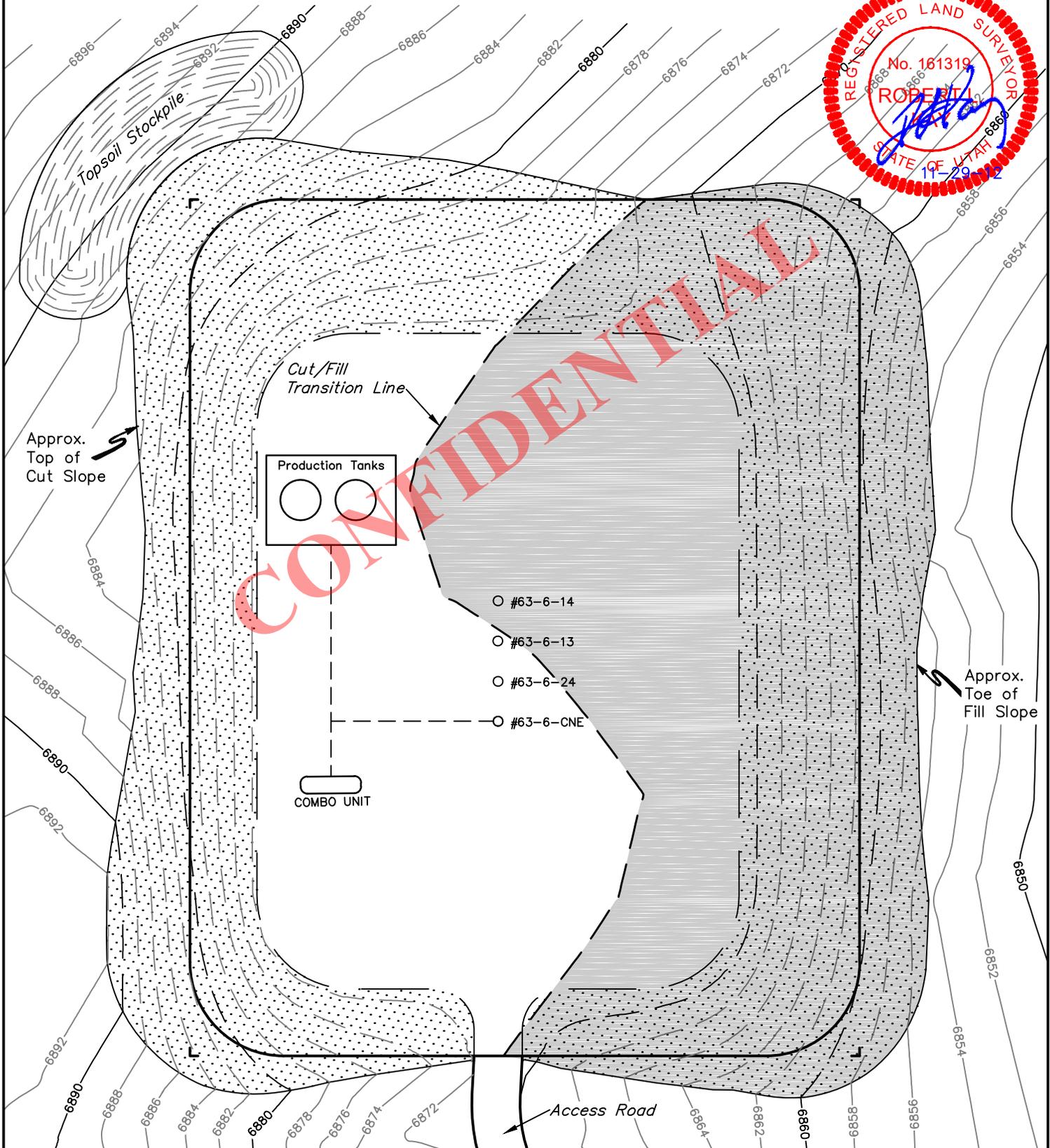
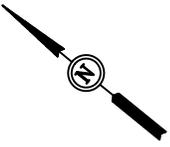
SCALE: 1" = 50'

DATE: 08-24-12

DRAWN BY: R.L.L.

REV: 10-04-12 R.L.L.

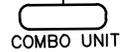
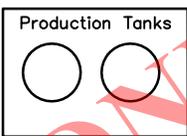
REV: 11-21-12 C.A.G.



**CONFIDENTIAL**

Approx. Top of Cut Slope

Approx. Toe of Fill Slope



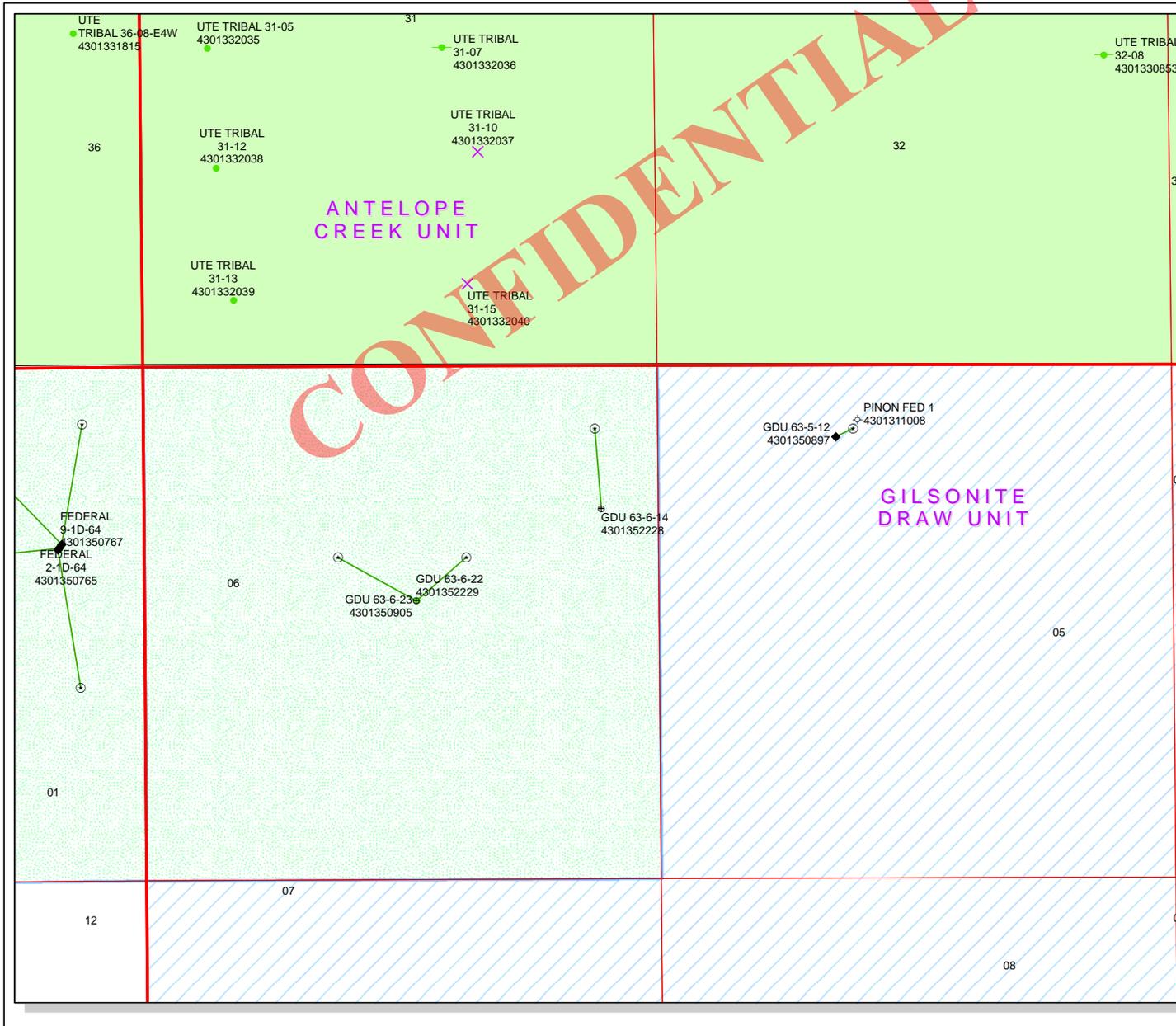
- #63-6-14
- #63-6-13
- #63-6-24
- #63-6-CNE

RECLAIMED AREA

APPROXIMATE ACREAGES  
UN-RECLAIMED = ± 1.001 ACRES

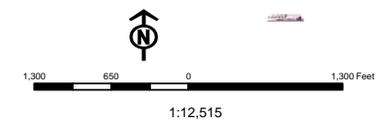
UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017

RECEIVED: June 04, 2013



**API Number: 4301352228**  
**Well Name: GDU 63-6-14**  
**Township T06.0S Range R03.0W Section 06**  
**Meridian: UBM**  
 Operator: VANTAGE ENERGY UINTA LLC  
 Map Prepared:  
 Map Produced by Diana Mason

- Units**
- STATUS**
- ACTIVE
  - EXPLORATORY
  - GAS STORAGE
  - NF PP OIL
  - NF SECONDARY
  - PI OIL
  - PP GAS
  - PP GEOTHERM
  - PP OIL
  - SECONDARY
  - TERMINATED



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
440 West 200 South, Suite 500  
Salt Lake City, UT 84101

**IN REPLY REFER TO:**

3160  
(UT-922)

June 11, 2013

Memorandum

To: Assistant Field Office Manager Minerals,  
Vernal Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2013 Plan of Development Gilsonite Draw Unit,  
Duchesne County, Utah.

Pursuant to email between Diana Mason, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2013 within the Gilsonite Draw Unit, Duchesne County, Utah.

API#	WELL NAME	LOCATION
	(Proposed PZ Green River)	
43-013-52228	GDU 63-6-14	Sec 06 T06S R03W 1479 FNL 0594 FEL BHL Sec 06 T06S R03W 0660 FNL 0660 FEL
43-013-52229	GDU 63-6-22	Sec 06 T06S R03W 2422 FNL 2492 FEL BHL Sec 06 T06S R03W 1980 FNL 1980 FWL

This office has no objection to permitting the wells at this time.

Michael L. Coulthard

Digitally signed by Michael L. Coulthard  
DN: cn=Michael L. Coulthard, o=Bureau of Land Management,  
ou=Branch of Minerals, email=Michael\_Coulthard@blm.gov, c=US  
Date: 2013.06.11 11:15:12 -0600

bcc: File - Gilsonite Draw Unit  
Division of Oil Gas and Mining  
Central Files  
Agr. Sec. Chron  
Fluid Chron

MCoulthard:mc:6-11-13

RECEIVED: June 11, 2013

## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 6/4/2013

API NO. ASSIGNED: 43013522280000

WELL NAME: GDU 63-6-14

OPERATOR: VANTAGE ENERGY UINTA LLC (N3295)

PHONE NUMBER: 303 941-0506

CONTACT: Andrea Gross

PROPOSED LOCATION: SENE 06 060S 030W

Permit Tech Review: 

SURFACE: 1479 FNL 0594 FEL

Engineering Review: 

BOTTOM: 0660 FNL 0660 FEL

Geology Review: 

COUNTY: DUCHESNE

LATITUDE: 39.99188

LONGITUDE: -110.25824

UTM SURF EASTINGS: 563324.00

NORTHINGS: 4427119.00

FIELD NAME: ANTELOPE CREEK

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU78235

PROPOSED PRODUCING FORMATION(S): GREEN RIVER

SURFACE OWNER: 1 - Federal

COALBED METHANE: NO

## RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: FEDERAL - UTU000288
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: Ouray Municipal Water Plant (49-1501)
- RDCC Review:
- Fee Surface Agreement
- Intent to Commingle

Commingling Approved

## LOCATION AND SITING:

- R649-2-3.
- Unit: GILSONITE DRAW
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: R649-3-11
- Effective Date:
- Siting:
- R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 1 - Exception Location - bhill  
4 - Federal Approval - dmason  
15 - Directional - dmason  
23 - Spacing - dmason



GARY R. HERBERT  
*Governor*

GREGORY S. BELL  
*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*

## Permit To Drill

\*\*\*\*\*

**Well Name:** GDU 63-6-14  
**API Well Number:** 43013522280000  
**Lease Number:** UTU78235  
**Surface Owner:** FEDERAL  
**Approval Date:** 6/12/2013

### Issued to:

VANTAGE ENERGY UINTA LLC, 116 Inverness Drive East, Ste 107, Englewood , CO 80112

### Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-11. The expected producing formation or pool is the GREEN RIVER Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

### Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

### Exception Location:

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

### Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to

correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

**Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at <http://oilgas.ogm.utah.gov>

**Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

**Approved By:**



For John Rogers  
Associate Director, Oil & Gas

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU78235	
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>	
<b>7. UNIT or CA AGREEMENT NAME:</b> GILSONITE DRAW	
<b>1. TYPE OF WELL</b> Gas Well	
<b>8. WELL NAME and NUMBER:</b> GDU 63-6-14	
<b>2. NAME OF OPERATOR:</b> VANTAGE ENERGY UINTA LLC	
<b>9. API NUMBER:</b> 43013522280000	
<b>3. ADDRESS OF OPERATOR:</b> 116 Inverness Drive East, Ste 107 , Englewood , CO, 80112	
<b>PHONE NUMBER:</b> 303 386-8600 Ext	
<b>9. FIELD and POOL or WILDCAT:</b> ANTELOPE CREEK	
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1479 FNL 0594 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SENE Section: 06 Township: 06.0S Range: 03.0W Meridian: U	
<b>COUNTY:</b> DUCHESNE	
<b>STATE:</b> UTAH	

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 8/1/2014	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Vantage Energy Uinta LLC requests an extension to the Application for Permit to Drill for the above referenced well for the maximum amount of time possible. Thank you.

**Approved by the  
 Utah Division of  
 Oil, Gas and Mining  
 June 12, 2014**

**Date:** \_\_\_\_\_  
**By:**

<b>NAME (PLEASE PRINT)</b> Andrea Gross	<b>PHONE NUMBER</b> 303 941-0506	<b>TITLE</b> Project Coordinator
<b>SIGNATURE</b> N/A	<b>DATE</b> 6/10/2014	



**The Utah Division of Oil, Gas, and Mining**

- State of Utah  
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

**Request for Permit Extension Validation Well Number 43013522280000**

API: 43013522280000

Well Name: GDU 63-6-14

Location: 1479 FNL 0594 FEL QTR SENE SEC 06 TWP 060S RNG 030W MER U

Company Permit Issued to: VANTAGE ENERGY UINTA LLC

Date Original Permit Issued: 6/12/2013

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated?  Yes  No
  
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?  Yes  No
  
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?  Yes  No
  
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes  No
  
- Has the approved source of water for drilling changed?  Yes  No
  
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?  Yes  No
  
- Is bonding still in place, which covers this proposed well?  Yes  No

Signature: Andrea Gross

Date: 6/10/2014

Title: Project Coordinator Representing: VANTAGE ENERGY UINTA LLC



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

August 20, 2015

Vantage Energy Uinta LLC.  
116 Inverness Drive East, Ste 107  
Englewood, CO 80112

Re: APD Rescinded – GDU 63-6-14, Sec. 6, T. 6S, R. 3W  
Duchesne County, Utah API No. 43-013-52228

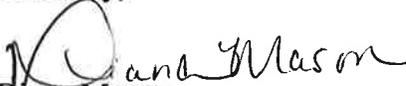
Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on June 12, 2013. On June 12, 2014 the Division granted a one-year APD extension. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective August 20, 2015.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

  
Diana Mason  
Environmental Scientist

cc: Well File  
Bureau of Land Management, Vernal