

**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> GORDON CREEK NW-5-14-8				
<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> WILDCAT				
<b>4. TYPE OF WELL</b> Gas Well Coalbed Methane Well: NO						<b>5. UNIT or COMMUNITIZATION AGREEMENT NAME</b>				
<b>6. NAME OF OPERATOR</b> GORDON CREEK, LLC						<b>7. OPERATOR PHONE</b> 403 453-1608				
<b>8. ADDRESS OF OPERATOR</b> 1179 E Main #345, Price, UT, 84501						<b>9. OPERATOR E-MAIL</b> rironside@thunderbirdenergy.com				
<b>10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b> Sec 31+32 Fee Lease			<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> Mark Jacobs						<b>14. SURFACE OWNER PHONE (if box 12 = 'fee')</b> 801-226-3407				
<b>15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')</b> 914 East 300 North, Orem, UT 84097						<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 checked="" type="checkbox"/> DIRECTIONAL <input 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 FNL 464 FWL		NWNW	5	14.0 S	8.0 E	S		
Top of Uppermost Producing Zone		465 FNL 464 FWL		NWNW	5	14.0 S	8.0 E	S		
At Total Depth		465 FNL 464 FWL		NWNW	5	14.0 S	8.0 E	S		
<b>21. COUNTY</b> CARBON			<b>22. DISTANCE TO NEAREST LEASE LINE (Feet)</b> 464			<b>23. NUMBER OF ACRES IN DRILLING UNIT</b> 40				
			<b>25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)</b> 1800			<b>26. PROPOSED DEPTH</b> MD: 4092 TVD: 4092				
<b>27. ELEVATION - GROUND LEVEL</b> 7360			<b>28. BOND NUMBER</b> RLB0010790			<b>29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b> 91-5193				
<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	11	8.625	0 - 450	24.0	J-55 ST&C	8.7	Class G	212	1.142	15.84
PROD	7.875	5.5	0 - 4092	17.0	N-80 LT&C	10.0	Class G	356	2.69	10.7
<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 type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)					<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP					
<b>NAME</b> Barry Brumwell			<b>TITLE</b> Vice President-Operations			<b>PHONE</b> 403 453-1608				
<b>SIGNATURE</b>			<b>DATE</b> 09/26/2011			<b>EMAIL</b> bbrumwell@thunderbirdenergy.com				
<b>API NUMBER ASSIGNED</b> 43007502480000			<b>APPROVAL</b>			 Permit Manager				

**DRILLING PLAN and PROGRAM**

Attached to UDOGM Form 3

**GORDON CREEK, LLC.****NW-5-14-8**

SURFACE LOCATION: 465.02' FNL &amp; 464.21' FWL

NW/4 of NW/4 of Section 5-14S-8E

Carbon County, Utah

**1. SURFACE GEOLOGIC FORMATION**

Emery Sandstone Member of the Mancos Shale

**2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS**

Mancos Blue Gate Shale top:	1,718' KB
Lower Blue Gate Bentonite Marker:	3,487' KB
Ferron SS:	3,622' KB

**3. PROJECTED GAS & H<sub>2</sub>O ZONES**

While no groundwater is expected to be encountered, groundwater *may* be encountered within the Emery Sandstone Member of the Mancos Shale. Any water encountered will be reported on a Form 7 "Report of Water Encountered During Drilling". All indications of usable water will be reported.

Casing & cementing will be done to protect potentially productive hydrocarbons, lost circulation zones, abnormal pressure zones and prospectively valuable mineral deposits.

Surface casing will be tested to 500 psi and the Production casing will be tested to 1,500 psi, with a minimum of 1 psi/ft of the last casing string setting depth.

**4. PROPOSED CASING AND CEMENTING PROGRAMS**

Refer to EXHIBIT "A" for casing design information

**A. CASING PROGRAM**

HOLE SIZE (in)	CASING SIZE (in)	WEIGHT (#/ft)	GRADE	JOINT	DEPTH SET (ft)
17	12 <sup>3</sup> / <sub>4</sub>	40.5	H-40	ST&C	0 - 40
11	8 <sup>5</sup> / <sub>8</sub>	24.00	J-55	ST&C	0 - 450
7 <sup>7</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>	17.00	N-80	LT&C	0 - 4,092

**B. CEMENTING PROGRAM**

The 8 <sup>5</sup>/<sub>8</sub>" surface casing will be set and cemented full length with approximately 212 sacks of 0-1-0 Class "G" cement + 2% CaCl<sub>2</sub> + 0.25 #/sk of cellophane flakes mixed at 15.84 ppg (yield = 1.142 ft<sup>3</sup>/sk); volume based on nominal hole size + 100% excess. The cement will be circulated back to surface. In the event that the cement is not circulated back to surface, a 1" top out job will be performed with 0-1-0 Class "G" cement + 2% CaCl<sub>2</sub> + 0.25 #/sk of cellophane flakes mixed at 15.84 ppg (yield = 1.142 ft<sup>3</sup>/sk).

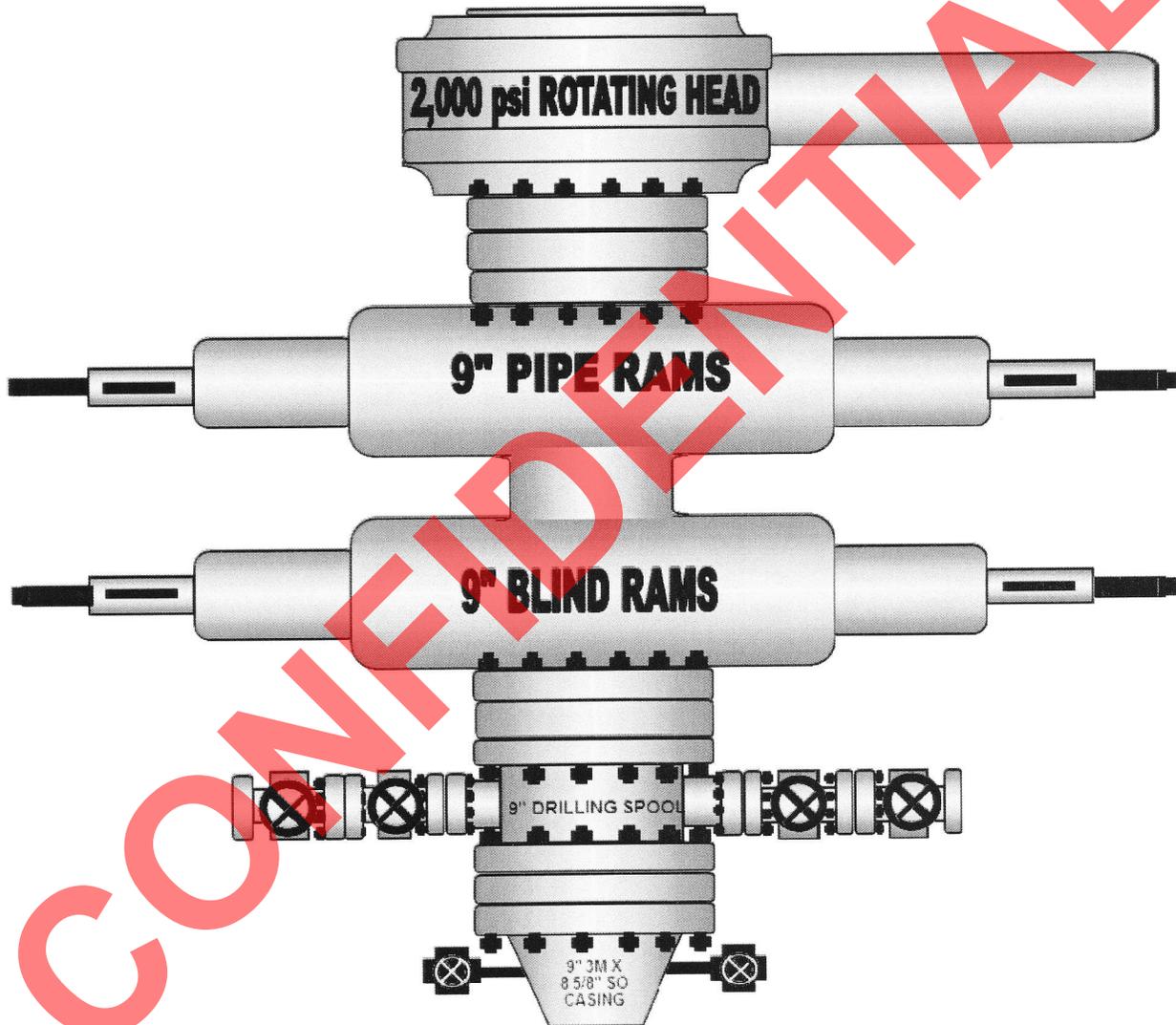
The 5 <sup>1</sup>/<sub>2</sub>" production casing will be set and cemented full length using 356 sx of 0-1-0 "G" Light Weight cement incorporating 42% "SuperBall" centrospheres to lighten the cement density + 3% NaCl, 0.3% Air-out, 1.5% SFI-300, 0.2% SCR-2. The cement will be mixed at 10.7 ppg (yield = 2.69 ft<sup>3</sup>/sk); volume based on nominal hole size + 35% excess. The cement will be circulated back to surface.

**THE FOLLOWING SHALL BE ENTERED INTO THE DRILLER'S LOG:**

- I. Blowout preventer pressure tests, including test pressures and results;
- II. Blowout preventer tests for proper functioning;
- III. Blowout prevention drills conducted;
- IV. Casing run, including size, grade, weight, and depth set;
- V. How the pipe was cemented, including amount of cement, type, whether cement was circulated back to surface, location of the cementing tools, etc.;
- VI. Waiting on cement time for each casing string;
- VII. Casing pressure tests after cementing, including test pressures and results.

5. THE OPERATOR'S MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL

Below is a schematic diagram of the blowout preventer equipment requirements for this drilling operation. A 9' X 3,000 psi double gate BOP will be used with a 2,000 psi Rotating Head utilized for air drilling operations. ALL BOPE will be pressure tested to the required operating pressures of each component. All tests will be recorded in the Driller's Report Book. The physical operation of each component of the BOP's will be checked on each trip.



**6. THE TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATING FLUIDS / MUDS**

0' – 450'	11" Surface Hole	Drill with air, will mud-up if necessary.
450' – TMD	7 <sup>7</sup> / <sub>8</sub> " Main Hole	Drill with air, 500 psi @ 1500-2300 ft <sup>3</sup> /min

Will "mud up" at Total Depth to run logs and casing. Will mud up sooner if hole conditions dictate. It is anticipated that drilling fluid densities of 8.3 – 8.7 #/gal will be utilized when "mudded up".

**7. THE TESTING, LOGGING AND CORING PROGRAMS**

Open hole logs consisting of a CNL-LDT-GR-CAL will be run from above the Blue Gate Shale to TMD. A DIL-GR-SP log will be run from TMD to surface casing.

**8. ANY ANTICIPATED ABNORMAL PRESSURES or TEMPURATURES**

No abnormal pressures or temperatures have been noted or reported in wells drilled in the area nor at the depths anticipated in this well. Bottom hole pressure expected is approximately 1250 psi maximum. No hydrogen sulfide or other hazardous gases or fluids have been found, reported or are known to exist at these depths in the area.

**9. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS**

The well will be drilled between late September and the end of November, 2011. Verbal and/or written notifications listed below shall be submitted in accordance with instructions from the Division of Oil, Gas & Mining:

- a) prior to beginning construction;
- b) prior to spudding;
- c) prior to running any casing or BOP tests;
- d) prior to plugging the well, for verbal plugging instructions.

Spills, blowouts, fires, leaks, accidents or other unusual occurrences shall IMMEDIATELY be reported to the Division of Oil, Gas & Mining.



**THUNDERBIRD ENERGY**

**GORDON CREEK NW-5-14S-8E**

NW/4 OF NW/4, 465.02' FNL + 464.21' FWL

**SURFACE LEASE #:** FEE (JACOBS)

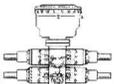
**MINERAL LEASE #:** ML 46537

**AFE:** 11DRL008

**WORKING INTEREST:** 100%

**RIG:**

**DRILL DAYS BELOW SURFACE CASING SHOE:** 5

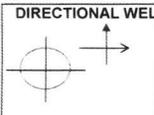


**DRILLED WITH AIR**

**Survey Grd. Ele:** 7,359.5'

**Est. KB Elev:** 7,372'

**DIRECTIONAL WELL** 12.5' KB



8.625" Casing Set @ ~450'

BOP'S 9" 3000 # CASING BOWL

11" Surface Hole

7.375" Main Hole

5.500" CASING SET AT 4,092'

**EMERGENCY PLANNING ZONE SUMMARY**

SWEET WELL: THUNDERBIRD'S CORPORATE EMERGENCY RESPONSE PLAN APPLIES

**CASING DESIGN**

	Interval (ft)	O.D. (inches)	#/ft	Grade	Thread	Burst (psi)	Collapse (psi)	Opt. Torque (ft lbs)
Surface:	0 - 450	8 5/8	24	J-55	ST&C	2,950	1,370	2,440
Main:	0 - 4,092'	5 1/2	17	N-80	LT&C	7,740	6,280	3,480

\*ENSURE THAT MARKER JOINTS ARE PLACED IN THE CASING STRING OPPOSITE ANY PAY ZONE

TARGET: FERRON SANDSTONE/COAL; CASING TO BE CUT 16" ABOVE CASING BOWL

**CEMENTING PROGRAM - Primary - Single Stage**

	Bit Size (inches)	Cement	Additives	Yield (ft <sup>3</sup> /sk)	Volume (sx)	% Excess	Cmt Top (ft)	Density (#/gal)
Surface:	11	0-1-0 "G"	2% CaCl <sub>2</sub> + Cellophane flakes	1.142	212.0	100	SFC	15.84
Main:	7 7/8	Superball 10.7	3% NaCl, 0.3% Air-out, 42% Superball, 1.5% SFA-300, 0.2% SCR-2	2.69	356.0	35	SFC	10.70

**DRILLING FLUIDS**

	Interval	Type	
Surface:	0 - 450	Water	Drill with water, mud up with gel chem if water influx occurs.
		Gel Chemical	Condition mud thoroughly prior to POOH to run/cement casing
Main:	450 - 3,500	AIR	MUD UP ONLY if water influx occurs or if TIGHT HOLE conditions become prevalent. MUD UP at ~ 3,500' to TD.
	3,500-4,092	Gel Chemical	

**11" SURFACE HOLE**

- Spud with an approved water well/surface casing rig and drill to surface TD of about 450 ft. Survey every 100'. Ensure that the surface hole deviation does not exceed 3 degrees. Set surface casing at least 50' below any water influx zone.
- NOTE: MUD UP with Gel Chemical mud system immediately if water influx becomes problematic. Refer to the Mud Program and the Cementing Program for further information. Move rig off of location once surface casing is set.

**7 7/8" MAIN HOLE: VERTICAL HOLE**

- Move on conventional drilling rig and drill out with and AIR DRILL as far as possible with air. Survey every 300'. Ensure that deviation does not exceed 3 degrees. Notify Calgary operations immediately if a 3 degree deviation is exceeded.
- TIGHT HOLE is possible on connections. REAM HOLE at first indication of tight hole and attempt to continue to air drill.
- COAL/SHALE SEAMS can occur in the wellbore which may be faulted and unconsolidated resulting in sloughing hole conditions.
- H<sub>2</sub>S WILL NOT be encountered.
- MUD UP ONLY if water influx occurs OR if tight hole conditions become prevalent.
- OVER PRESSURE: Generally, all zones in the wellbore should be underpressured (below normal water gradient) or have normal pressure gradients.
- LOST CIRCULATION should only have the potential to occur when drilling with fluids.
- ENSURE AND ADEQUATE AMOUNT OF LCM IS ON LOCATION AT ALL TIMES
- FERRON SS/COAL PENETRATION - ATTEMPT TO AIR DRILL THROUGH THE FERRON ZONE. WATER may be encountered upon penetration. Ensure good hole conditions are prevalent to penetrating the FERRON.
- MUD UP - switch to a Gel Chem drilling fluid system at ~3,500' OR if water/tight hole problems occur.
- Mud Check - prior to POOH for logging, condition the mud and check mud properties with mudman. DO NOT POOH until the wellbore is circulating free of cuttings and the mud properties are optimal for logging.
- NOTE: Ensure the well is cemented to surface on both casing strings. Contact the Operations Supervisor if any casing string cement job does not obtain returns to surface.

**TOPS** ft TVD

Emery Fm.	Sfc.
SURFACE CASING	450
BASE OF GROUNDWATER	TBD

MUD UP ONLY IF WATER INFLUX OCCURS OR TIGHT HOLE CONDITIONS OCCUR

Begin taking samples on Geologists orders

Blue Gate Shale Mbr \*\* 1,718'

Lower Bluegate Bentonite Marker 3,487'

FERRON SS/COAL \* (750 psi) AIR DRILL THROUGH ZONE IF POSSIBLE 3,892'

Tununk Shale 4,034'

TD 4,092'

**SAMPLE REQUIREMENTS/ EVALUATION**

T-BIRD	Begin taking 2 sets of samples every 10 feet at 2,920' to TD
GOVT:	As per regulations
Detection:	Gas detection/ PASON Mud Log as per Geologist's request.
Cores:	No coring
DST:	No DST's

**LOGGING PROGRAM - NUMBER OF COPIES OF EACH LOG:**

	# of copies
DIL-GR-SP T.D. to surface casing	4
CNL-LDT-GR-CAL T.D. to 2,920'	4

Run a multi-arm caliper log to ensure correct calculation for cement volumes on casing or plugs.

CONING

EXHIBIT "A"

**CASING DESIGN**  
**GORDON CREEK ST NW-5-14-8**  
**PROJECTED TD: 4,092' KB**

**SURFACE CASING (0' – 450')**

Diameter	8 <sup>5</sup> / <sub>8</sub> "
Interval	450' to Surface
Weight	24 #/ft
Grade	J-55
Coupling	ST&C

Burst Design

The recommended practice is to base the burst rating of the casing string in psi to be at least numerically equal to 0.225 psi/ft times the setting depth in feet of the next casing string. The rating chosen was also intended to match the BOPE pressure rating and exceed the highest possible surface pressure of approximately 936 psig.

Burst required =	$0.225 \times 4,092$	921 psig
Burst rating of casing string:	2,950 psi	
<b>Safety factor =</b>	<b><math>2,950 \text{ psi} / 921 \text{ psi} =</math></b>	<b>3.20</b>

Collapse Design

Collapse pressure is negligible on this surface string.

Tension Design

String weight in air	10,800 #
Tensile strength of joint	244,000 lbf
Safety factor of joint	22.6

**PRODUCTION CASING (0' – 4,092')**

Diameter	5 ½"
Interval	4,161' to surface
Weight	17 #/ft
Grade	N-80
Coupling	LT&C

**Burst Design**

An internal pressure gradient of 0.4863 psi/ft has been used as a basis for these calculations. This gradient is equivalent to the force exerted by 10 ppg drilling fluid, which is a much higher density of fluid than we anticipate being required to drill this well.

Burst rating of casing string:	7,740 psi	
Burst rating required:	4,092' X 0.4863 =	1,990 psig
<b>Safety factor =</b>	<b>7,740 psi / 1,990 psi =</b>	<b><u>3.88</u></b>

**Tension Design**

1.6 Safety factor of top joint, neglecting buoyancy and without over pull.

Tensile rating of casing joint:	348,000 lbf	
String Weight:	4,092' X 17 #/ft =	69,564 lbf
<b>Safety factor =</b>	<b>348,000 lbf / 69,564 lbf =</b>	<b><u>5.00</u></b>

**Collapse Design**

Maximum anticipated mud weight is 10.0 ppg based on a mud gradient of 0.53 psi/ft.

Collapse rating of csg string:	6,280 psi	
Collapse rating required:	4,092' X 0.53 psi/ft =	2,169 psi
<b>Safety factor =</b>	<b>6,280 psi / 2,169 psi =</b>	<b><u>2.90</u></b>

**Production Casing Design**

Interval (ft)	Weight (#/ft)	Grade	S.F. Burst	S.F. Collapse	S.F. Tension
4,092' – 0'	17	N-80	3.88	5.00	2.90

**MULTI-POINT SURFACE USE PLAN**

Attached to UDOGM Form 3

**GORDON CREEK, LLC.**

**NW-5-14-8**

SURFACE LOCATION: 465.02' FNL & 464.21' FWL

NW/4 of NW/4 of Section 5-14S-8E

Carbon County, Utah

**1. EXISTING ROADS**

- a. We do not plan to change, alter or improve upon ANY existing State or County roads.
- b. Existing roads will be maintained in the same or better condition.

**2. PLANNED ACCESS**

- a. This well will be accessed from an existing two-track trail that comes off of Benches County Road, therefore no new access FROM Benches Road is required.
- b. If the well is productive, the road will be maintained as necessary to prevent soil erosion and maintain year-round traffic. However, we may allow the access road to be gated and closed off during winter production operations and access the site with a snowmobile or other winter ATV.
- c. Maximum Width: 24' travel surface with 27' base.
- d. Maximum grade: 25%
- e. Road culverts may be required. Surface water will be diverted around the well pad as necessary.
- f. Any power lines and / or pipelines to/from the well will follow the proposed access route.

**3. LOCATION OF EXISTING WELLS**

- a. As shown on the Civil Location Survey Plat for the well.

**4. LOCATION OF EXISTING and/or PROPOSED FACILITIES**

- a. If the well is a producer, installation of required production facilities will follow the drilling and completion phase of well operations. Buried flow lines, water lines and electrical cable will follow the proposed access road and other existing access ROWs to the intersection with Thunderbird's main 12' pipeline corridor.
- b. Rehabilitation of all pad areas not used for production facilities will be made in accordance with landowner stipulations.

**5. LOCATION AND TYPE OF WATER SUPPLY**

- a. All water to be used for drilling operations will be obtained from area water wells drilled and owned by Gordon Creek, LLC.
- b. Water will be transported to location by truck over approved access roads.

**6. SOURCE OF CONSTRUCTION MATERIALS**

- a. Any necessary construction materials needed will be obtained locally from a private source and hauled to the location on existing roads.
- b. No construction or surfacing materials will be taken from Federal / Indian lands.

**7. METHODS FOR HANDLING WASTE DISPOSAL**

- a. Rather than utilizing a "mud pit" on each drilling location, we will be utilizing one large "remote sump" pit per approximately 4-6 wells drilled to hold the drilled solids and drilling fluids required during the drilling of those 4 wells. This remote sump will be centrally located on one of the drilling locations. Three sides of the reserve pit will be fenced within 24 hours after completion of construction and the fourth side within 24 hours after drilling operations cease with four strands of barbed wire, or woven wire topped with barbed wire to a height of not less than four feet. The fence will be kept in good repair while the pit is drying.
- b. As the majority of each well is expected to be air drilled, a small reserve "blooie" pit will be constructed with a minimum of one-half the total depth below the original ground surface on the lowest point within the pit. The pit will not be lined unless conditions encountered during construction warrant it or if deemed necessary by the DOGM Representative during pre-site inspection. Three sides of the reserve pit will be fenced within 24 hours after completion of construction and the fourth side within 24 hours after drilling operations cease with four strands of barbed wire, or woven wire topped with barbed wire to a height of not less than four feet. The fence will be kept in good repair while the pit is drying.
- b. Following drilling, the liquid waste will be evaporated from any pit and the pit backfilled and returned to natural grade. No liquid hydrocarbons will be discharged to the reserve pit or location.
- c. In the event that wellbore fluids are produced, any oil will be retained in tanks until sold and any water produced will be retained until its quality can be determined. The quality and quantity of the water will determine the method of disposal.
- d. Trash will be contained in a portable metal container and will be hauled from location periodically and disposed of at an approved disposal site. Chemical toilets will be placed on location and sewage will be disposed of at an appropriate disposal site.

**8. ANCILLARY FACILITIES**

- e. We anticipate no need for ancillary facilities with the exception of a trailer to be located on the drill site.

**9. WELLSITE LAYOUT**

- a. Gordon Creek, LLC. has reduced to surface lease size (area stripped and levelled) for this location to the smallest lease size possible to accommodate the required drilling rig and support equipment.
- b. Any available topsoil will be removed from the location and stockpiled. The location of the rig, mud tanks, reserve and berm pits and all other drilling support equipment will be located as per common oilfield rig layouts.
- a. A blooie pit will be located 100' from the drill hole. A line will be placed on the surface from the center hole to the blooie pit. The blooie pit will not be lined, but will be fenced on four sides to protect livestock/wildlife.
- b. Access to the well pad will be as shown on the Civil Location Survey Plat for the well.
- c. Natural runoff will be diverted around the well pad.

**10. PLANS FOR RESTORATION OF SURFACE**

- a. All surface areas not required for producing operations will be graded to as near original condition as possible and contoured to minimize possible erosion.
- b. Available topsoil will be stockpiled and will be evenly distributed over the disturbed areas and the area will be reseeded as prescribed by the landowner.
- c. Pits and any other area that would present a hazard to wildlife or livestock will be fenced off when the rig is released and removed.
- d. Rehabilitation will commence following completion of the well. Rat and mouse holes will be filled in immediately upon release of the drilling rig from the location. If the well site is to be abandoned, all disturbed areas will be re-contoured to the natural terrain found prior to location construction.

**11. SURFACE OWNERSHIP**

- a. The well site and access road are on and across lands owned by Mark and Jim Jacobs, with whom we have a signed surface use agreement in place. The operator shall contact the landowner and the Division of Oil, Gas and Mining 48 hours prior to beginning construction activities.

**12. OTHER INFORMATION**

- a. The primary surface use is wildlife habitat and/or cattle grazing. The nearest dwelling is approximately 13.5 miles east (Price, Utah).
- b. If there is snow on the ground when construction begins, it will be removed before the soil is disturbed and piled downhill from the topsoil stockpile location.
- c. The back-slope and fore-slope will be constructed no steeper than 4:1.
- d. All equipment and vehicles will be confined to the access road and well pad.

- e. A complete copy of the approved Application for Permit to Drill (APD,) including all conditions and stipulations shall be on the well-site during construction and drilling operations.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the Division of Oil, Gas & Mining.

**13. COMPANY REPRESENTATIVE**

Barry Brumwell, C.E.T.  
Vice President, Operations  
Gordon Creek LLC., a wholly owned subsidiary of  
Thunderbird Energy Corp.  
#550, 1010 – 1<sup>st</sup> Street S.W.  
Calgary, Alberta, Canada  
(403) 453-1608 (office)  
(403) 818-0696 (mobile)  
[bbrumwell@thunderbirdenergy.com](mailto:bbrumwell@thunderbirdenergy.com)

**14. CERTIFICATION**

I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct, and that the work associated with the operations proposed herein will be performed by Gordon Creek, LLC. and its subcontractors in conformity with this plan and the terms and conditions under which it is approved.

10/27/2011  
DATE

  
\_\_\_\_\_  
Barry Brumwell, C.E.T.  
Vice President, Operations  
Gordon Creek LLC. / Thunderbird Energy Inc.

# Range 8 East

Township 14 South

S89°53'16"W - 5375.50'

(West)

ELEV: 7400.0'

NW-5-14-8  
ELEV. 7359.5'

464.21'

UTM  
N 4387965  
E 494994

20°59'47"

S00°13'39"E - 5281.63'

(South - 5293.20')

5

(South - 5301.12')

S00°41'37"W - 5365.53'

(West - 5286.60')

N89°12'33"W - 5290.07'

### Legend

- Drill Hole Location
- ⊕ Brass Cap (Found)
- Stone (Found)
- △ Calculated Corner
- ( ) GLO

GPS Measured

### NOTES:

1. Dimensions are GPS measured unless noted otherwise.
2. UTM and Latitude / Longitude Coordinates are derived using a GPS Pathfinder and are shown in NAD 27 Datum.

LAT / LONG  
39°38'36.016" N  
111°03'30.013" W

### Location:

The well location was determined using a Trimble 5700 GPS survey grade unit.

### Basis of Bearing:

The Basis of Bearing is GPS Measured.

### GLO Bearing:

The Bearings indicated are per the recorded plat obtained from the U.S. Land Office.

### Basis of Elevation:

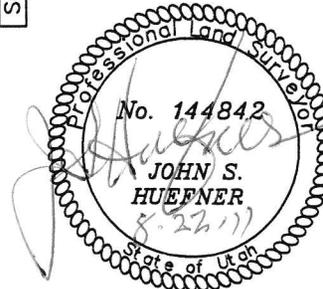
Basis of Elevation of 7400.00' being at the Northwest Section Corner of Section 5, Township 14 South, Range 8 East, Salt Lake Base and Meridian, as shown on the Jump Creek Quadrangle 7.5 minute series map.

### Description of Location:

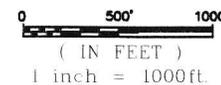
Proposed Drill Hole located in the NW/4 NW/4 of Section 5, T14S, R8E, S.L.B.&M., being South 465.02' from North Line and East 464.21' from West Line of Section 5, T14S, R8E, Salt Lake Base and Meridian.

### Surveyor's Certificate:

I, John S. Huefner, a Professional Land Surveyor, holding Certificate No. 144842 State of Utah, do hereby certify that the information on this drawing is a true and accurate survey based on data of record and was conducted under my personal direction and supervision as shown hereon.



GRAPHIC SCALE



**TALON RESOURCES, INC.**

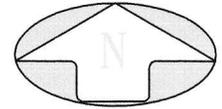
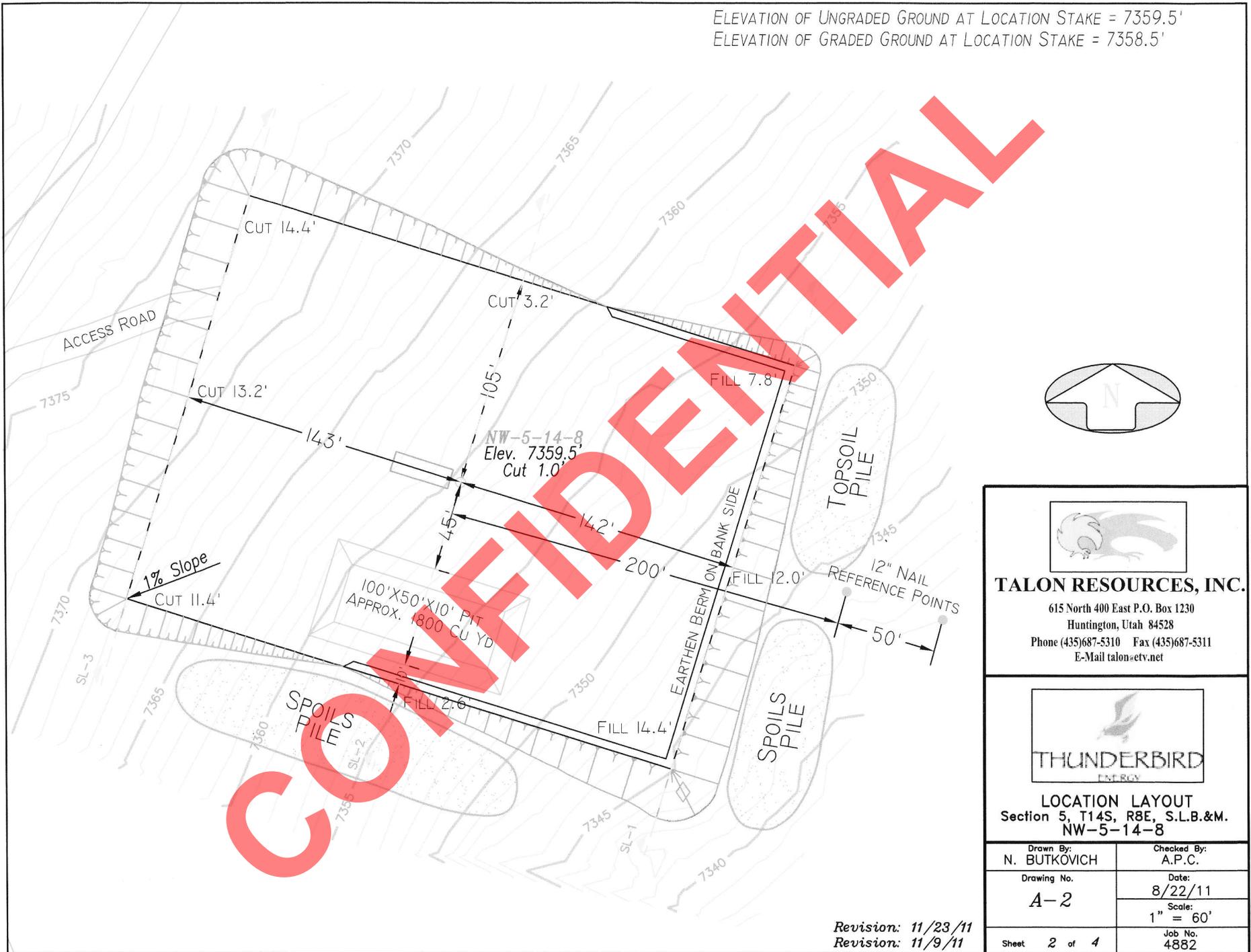
615 North 400 East P.O. Box 1230  
Huntington, Utah 84528  
Phone (435)687-5310 Fax (435)687-5311  
E-Mail talonsetv.net



NW-5-14-8  
Section 5, T14S, R8E, S.L.B.&M.  
Carbon County, Utah

Drawn By: N. BUTKOVICH	Checked By: A.P.C./J.S.H.
Drawing No. A-1	Date: 8/22/11
	Scale: 1" = 1000'
Sheet 1 of 4	Job No. 4882

ELEVATION OF UNGRADED GROUND AT LOCATION STAKE = 7359.5'  
 ELEVATION OF GRADED GROUND AT LOCATION STAKE = 7358.5'



**TALON RESOURCES, INC.**

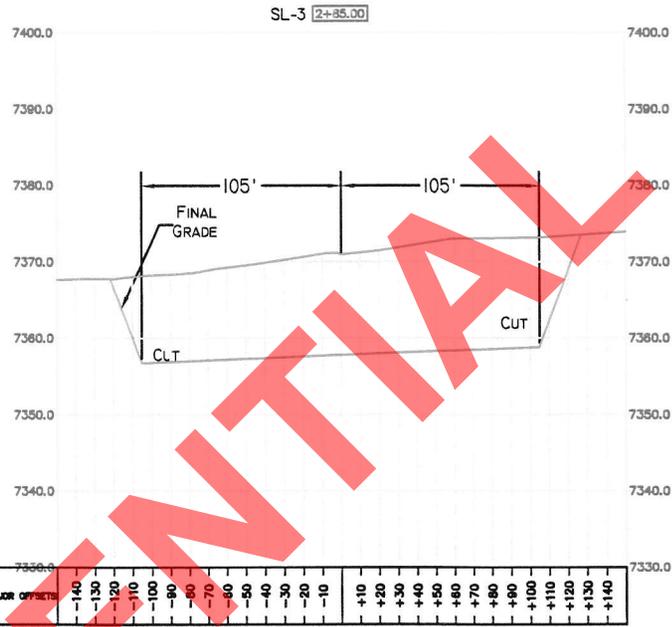
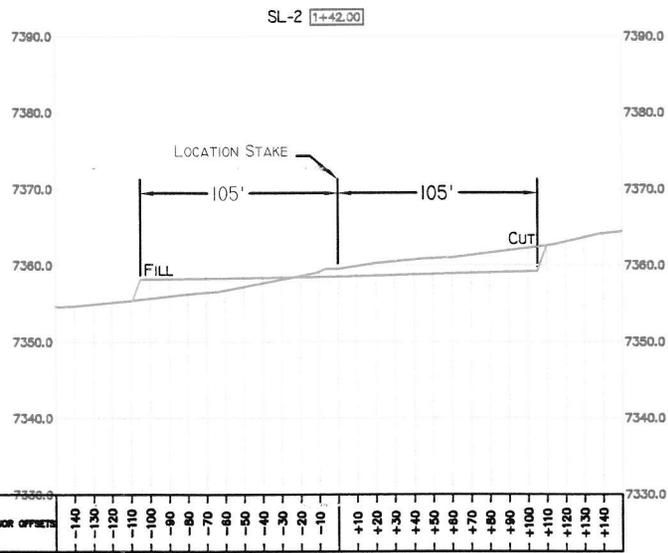
615 North 400 East P.O. Box 1230  
 Huntington, Utah 84528  
 Phone (435)687-5310 Fax (435)687-5311  
 E-Mail talon@etv.net



**LOCATION LAYOUT**  
 Section 5, T14S, R8E, S.L.B.&M.  
 NW-5-14-8

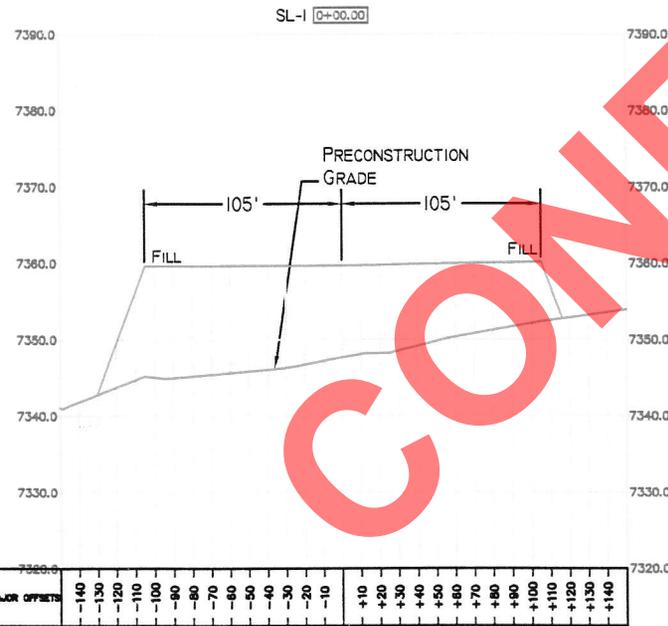
Drawn By: N. BUTKOVICH	Checked By: A.P.C.
Drawing No. A-2	Date: 8/22/11
	Scale: 1" = 60'
Sheet 2 of 4	Job No. 4882

Revision: 11/23/11  
 Revision: 11/9/11



1" = 10'  
X-Section Scale  
1" = 40'

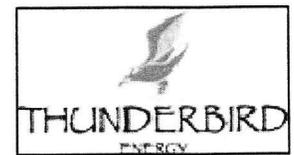
SLOPE = 1 1/2 : 1



APPROXIMATE YARDAGES  
 (6") TOPSOIL STRIPPING = 1,405 CU. YDS.  
 TOTAL CUT = 9,600 CU. YDS.  
 TOTAL FILL = 7,880 CU. YDS.



**TALON RESOURCES, INC.**  
 615 North 400 East P.O. Box 1230  
 Huntington, Utah 84528  
 Phone (435)687-5310 Fax (435)687-5311  
 E-Mail talon@etv.net



**TYPICAL CROSS SECTION**  
 Section 5, T14S, R8E, S.L.B.&M.  
 NW-5-14-8

Drawn By: N. BUTKOVICH	Checked By: A.P.C.
Drawing No. C-1	Date: 8/22/11
	Scale: 1" = 100'
Sheet 3 of 4	Job No. 4882

# Thunderbird Energy

NW-5-14-8

UTM NAD 27

N-4387965

E-494994



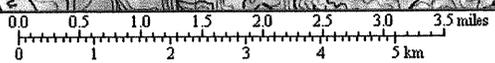
**Talon Resources, Inc.**

615 N. 400 E., P.O. BOX 1230

Huntington, Utah 84528

(435) 687-5310

TN 12 1/2° MN





October 29, 2011

Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801

Re: *Affidavit of status of the Jacob Family Surface Use Agreement*

*Township 13 South, Range 8 East, SLM*

*Section 31: N ½ N ½*

*Section 32: All*

*Township 14 South, Range 8 East, SLM*

*Section 5: N ½ N ½*

*All in Carbon County, Utah*

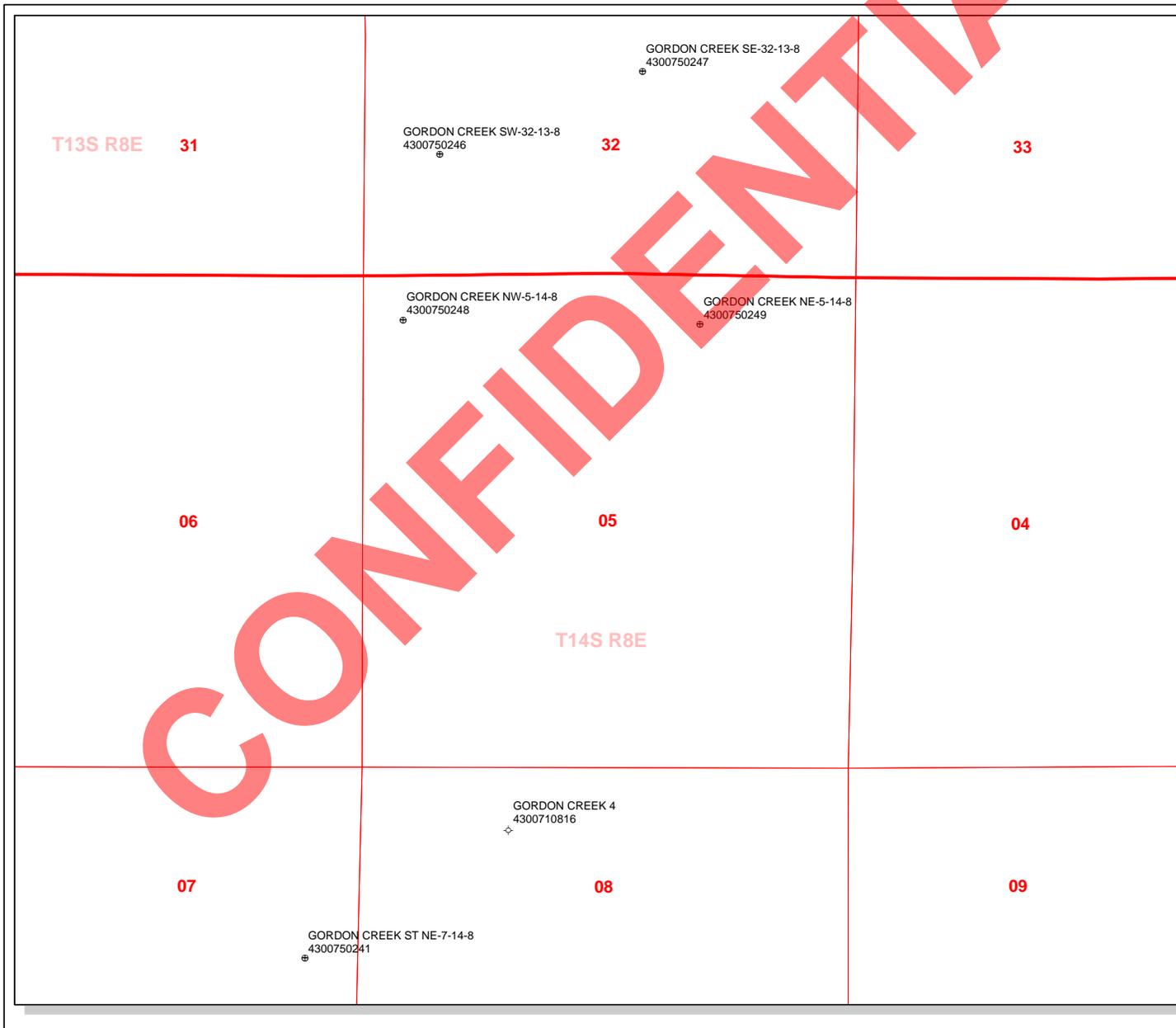
This letter may serve as notice that on the 22<sup>nd</sup> of October, 2011 we obtained a signed agreement from the Jacob Family regarding surface use fees and compensation amounts for our planned activities on their lands were agreed to. Full compensation has been paid out to the Jacobs Family, therefore we have executed the Surface Use Agreement for the above noted lands and its requirements in full.

Sincerely,

Barry Brumwell

Vice President of Operations

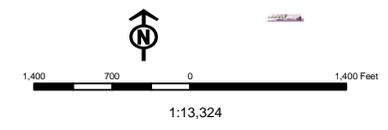
Thunderbird Energy / Gordon Creek, LLC.



**API Number: 4300750248**  
**Well Name: GORDON CREEK NW-5-14-8**  
**Township T1.4 . Range R0.8 . Section 05**  
**Meridian: SLBM**  
 Operator: GORDON CREEK, LLC

Map Prepared:  
 Map Produced by Diana Mason

- | Units         | Wells Query                        |
|---------------|------------------------------------|
| <b>STATUS</b> | <b>STATUS</b>                      |
| ACTIVE        | APD - Approved Permit              |
| EXPLORATORY   | DRL - Spudded (Drilling Commenced) |
| GAS STORAGE   | GIW - Gas Injection                |
| NF PP OIL     | GS - Gas Storage                   |
| NF SECONDARY  | LA - Location Abandoned            |
| PI OIL        | LOC - New Location                 |
| PP GAS        | OPS - Operation Suspended          |
| PP GEOTHERML  | PA - Plugged Abandoned             |
| PP OIL        | PGW - Producing Gas Well           |
| SECONDARY     | POW - Producing Oil Well           |
| TERMINATED    | RET - Returned APD                 |
| <b>Fields</b> | SGW - Shut-in Gas Well             |
| <b>STATUS</b> | SOW - Shut-in Oil Well             |
| Unknown       | TA - Temp. Abandoned               |
| ABANDONED     | TW - Test Well                     |
| ACTIVE        | WDW - Water Disposal               |
| COMBINED      | WIW - Water Injection Well         |
| INACTIVE      | WSW - Water Supply Well            |
| STORAGE       |                                    |
| TERMINATED    |                                    |



Well Name	GORDON CREEK, LLC GORDON CREEK NW-5-14-8 430075			
String	Surf	Prod		
Casing Size(")	8.625	5.500		
Setting Depth (TVD)	450	4092		
Previous Shoe Setting Depth (TVD)	0	450		
Max Mud Weight (ppg)	8.7	10.0		
BOPE Proposed (psi)	500	3000		
Casing Internal Yield (psi)	2950	7740		
Operators Max Anticipated Pressure (psi)	1250	5.9		

Calculations	Surf String	8.625	"
Max BHP (psi)	.052*Setting Depth*MW=	204	
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	150	YES <input type="checkbox"/> air drill <input type="checkbox"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	105	YES <input type="checkbox"/> OK <input type="checkbox"/>
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	105	NO <input type="checkbox"/> OK <input type="checkbox"/>
Required Casing/BOPE Test Pressure=		450	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

Calculations	Prod String	5.500	"
Max BHP (psi)	.052*Setting Depth*MW=	2128	
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	1637	YES <input type="checkbox"/> air drill <input type="checkbox"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	1228	YES <input type="checkbox"/> OK <input type="checkbox"/>
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	1327	NO <input type="checkbox"/> Reasonable <input type="checkbox"/>
Required Casing/BOPE Test Pressure=		3000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		450	psi *Assumes 1psi/ft frac gradient

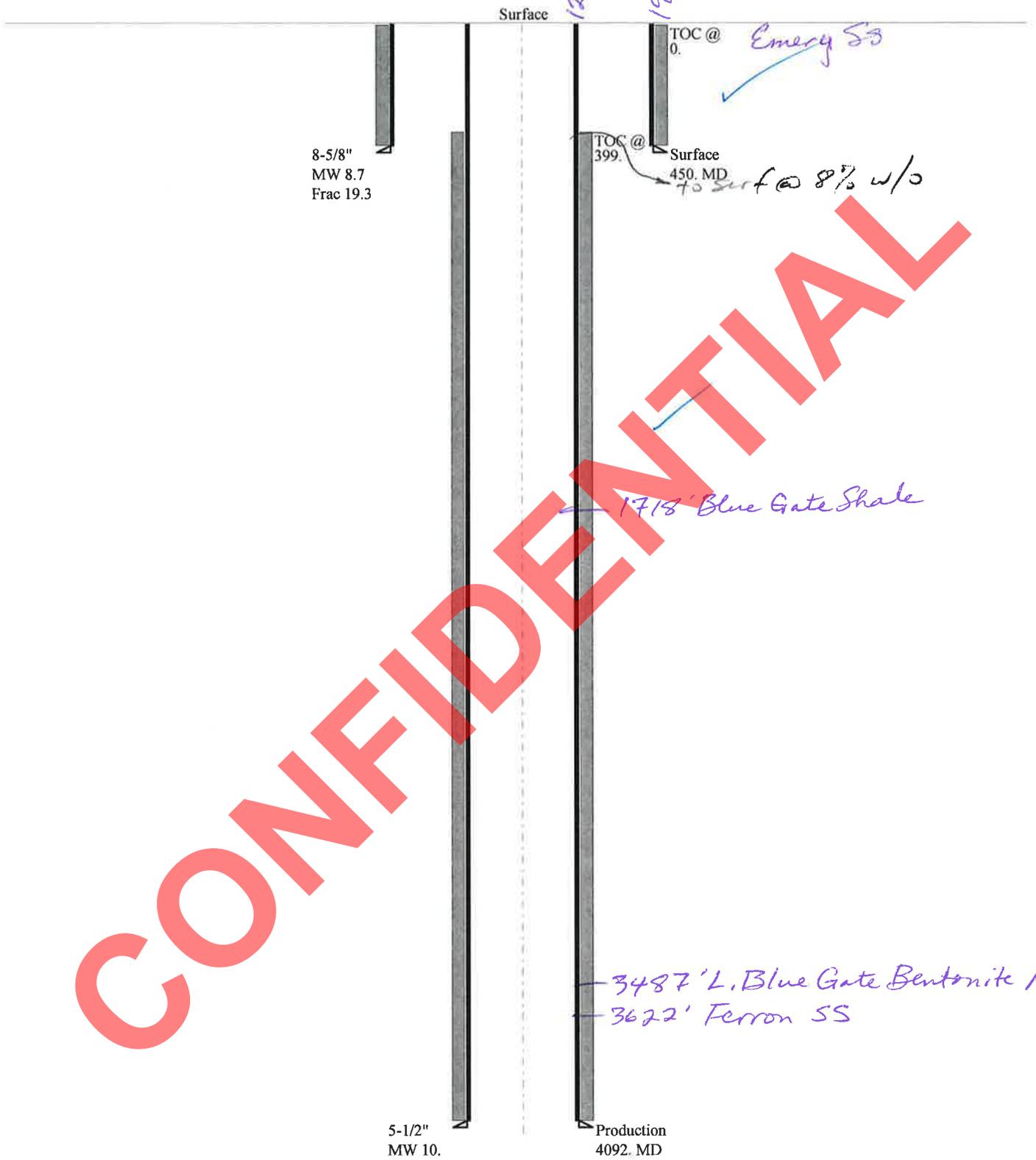
Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO <input type="checkbox"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO <input type="checkbox"/>
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO <input type="checkbox"/>
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO <input type="checkbox"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO <input type="checkbox"/>
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO <input type="checkbox"/>
Required Casing/BOPE Test Pressure=			psi

**CONFIDENTIAL**

# 43007502480000 GORDON CREEK NW-5-14-8

## Casing Schematic



Well name:	<b>43007502480000 GORDON CREEK NW-5-14-8</b>	
Operator:	<b>GORDON CREEK, LLC</b>	Project ID:
String type:	Surface	43-007-50248
Location:	<b>CARBON COUNTY</b>	

**Design parameters:**

**Collapse**

Mud weight: 8.700 ppg  
 Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
 Surface temperature: 74 °F  
 Bottom hole temperature: 80 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 100 ft

Cement top: Surface

**Burst**

Max anticipated surface pressure: 396 psi  
 Internal gradient: 0.120 psi/ft  
 Calculated BHP 450 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
 8 Round LTC: 1.70 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.50 (B)

Tension is based on air weight.  
 Neutral point: 391 ft

**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 4,092 ft  
 Next mud weight: 10.000 ppg  
 Next setting BHP: 2,126 psi  
 Fracture mud wt: 19.250 ppg  
 Fracture depth: 450 ft  
 Injection pressure: 450 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	450	8.625	24.00	J-55	ST&C	450	450	7.972	2317
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	203	1370	6.736	450	2950	6.56	10.8	244	22.59 J

Prepared by: Helen Sadik-Macdonald  
 Div of Oil, Gas & Mining

Phone: 801 538-5357  
 FAX: 801-359-3940

Date: October 5, 2011  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 450 ft, a mud weight of 8.7 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	<b>43007502480000 GORDON CREEK NW-5-14-8</b>		
Operator:	<b>GORDON CREEK, LLC</b>		
String type:	Production	Project ID:	43-007-50248
Location:	CARBON COUNTY		

**Design parameters:**

**Collapse**

Mud weight: 10.000 ppg  
 Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
 Surface temperature: 74 °F  
 Bottom hole temperature: 131 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 100 ft  
 Cement top: 399 ft

**Burst**

Max anticipated surface pressure: 1,225 psi  
 Internal gradient: 0.220 psi/ft  
 Calculated BHP 2,126 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
 8 Round LTC: 1.80 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.60 (B)

Tension is based on air weight.  
 Neutral point: 3,471 ft

**Non-directional string.**

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	4092	5.5	17.00	N-80	LT&C	4092	4092	4.767	23064
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	2126	6290	2.959	2126	7740	3.64	69.6	348	5.00 J

Prepared by: Helen Sadik-Macdonald  
 Div of Oil, Gas & Mining

Phone: 801 538-5357  
 FAX: 801-359-3940

Date: October 5, 2011  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 4092 ft, a mud weight of 10 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.



State of Utah

GARY R. HERBERT  
*Governor*

GREG BELL  
*Lieutenant  
Governor*

Office of the Governor  
PUBLIC LANDS POLICY COORDINATION

JOHN HARJA  
*Director*

October 17, 2011

Diana Mason  
Petroleum Specialist  
Department of Natural Resources, Division of Oil Gas and Mining  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

Subject: Application for Permit to Drill; Gordon Creek  
Carbon County; Section 5, Township 14.0S, Range 8.0E  
RDCC Project Number 28840

Dear Ms. Mason:

The State of Utah, through the Public Lands Policy Coordination Office (PLPCO), has reviewed this project. Utah Code (Section 63J-4-601, *et. seq.*) designates PLPCO as the entity responsible to coordinate the review of technical and policy actions that may affect the physical resources of the state, and to facilitate the exchange of information on those actions among federal, state, and local government agencies. As part of this process, PLPCO makes use of the Resource Development Coordinating Committee (RDCC). The RDCC includes representatives from the state agencies that are generally involved or impacted by public lands management.

#### Division of Air Quality

Because fugitive dust may be generated during soil disturbance, the proposed project will be subject to Air Quality rule R307-205-5 for Fugitive Dust. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Executive Secretary of the Air Quality Board, but steps need to be taken to minimize fugitive dust, such as watering and/or chemical stabilization, providing vegetative or synthetic cover or windbreaks. A copy of the rules can be found at [www.rules.utah.gov/publicat/code/r307/r307.htm](http://www.rules.utah.gov/publicat/code/r307/r307.htm).

The state encourages the use of Best Management Processes (BMP s) in protecting air quality in Utah. The state recommends the following BMP s as standard operating procedures:

**RECEIVED: October 19, 2011**

Diana Mason  
October 17, 2011  
Page -2-

- 1) Emission Standards for Stationary Internal Combustion Engines of 2 g/bhp-hr of NOx for engines less than 300 HP (Tier 3) and 1 g/bhp-hr of NOx for engines over 300 HP (Tier 3).
- 2) No or low bleed controllers for Pneumatic Pumps, Actuators and other Pneumatic devices.
- 3) Green completion or controlled VOC emissions methods with 90% efficiency for Oil or Gas Atmospheric Storage Tanks, VOC Venting controls or flaring. Glycol Dehydration and Amine Units Units, VOC Venting controls or flaring, Well Completion, Re-Completion, Venting, and Planned Blowdown Emissions.

If compressors or pump stations are constructed at the site a permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, Salt Lake City, Utah, 84116 for review according to R307-401: Permit: Notice of Intent and Approval Order, of the Utah Air Quality Rules. A copy of the rules may be found at [www.rules.utah.gov/publicat/code/r307/r307.htm](http://www.rules.utah.gov/publicat/code/r307/r307.htm).

The State of Utah appreciates the opportunity to review this proposal and we look forward to working with you on future projects. Please direct any other written questions regarding this correspondence to the Public Lands Policy Coordination Office at the address below, or call Judy Edwards at (801) 537-9023.

Sincerely,



John Harja  
Director

# ON-SITE PREDRILL EVALUATION

## Utah Division of Oil, Gas and Mining

**Operator** GORDON CREEK, LLC  
**Well Name** GORDON CREEK NW-5-14-8  
**API Number** 43007502480000      **APD No** 4700      **Field/Unit** WILDCAT  
**Location: 1/4,1/4** NWNW      **Sec 5 Tw** 14.0S      **Rng** 8.0E      465 FNL 464 FWL  
**GPS Coord (UTM)**      **Surface Owner** Mark Jacobs

### Participants

M. Jones (UDOGM), B. Brumwell, S. Lessar, L. Williams, (Thunderbird), A. Childs, M. Childs (Talon), Jim Jacobs (surface ownership).

### Regional/Local Setting & Topography

This proposed well is staked west of the Consumers area in Carbon County, Utah. The site is south and west of the Gordon Creek Compressor site approximately .5 miles, owned and operated by Gordon Creek, LLC or Thunderbird Energy. The immediate setting is relatively flat, slightly sloped to the southeast and dominated by sagebrush. To the direct west the Wasatch Plateau rises dramatically.

### Surface Use Plan

#### **Current Surface Use**

Grazing  
Wildlife Habitat

<b>New Road Miles</b>	<b>Well Pad</b>	<b>Src Const Material</b>	<b>Surface Formation</b>
0.21	<b>Width 210    Length 285</b>	Onsite	

**Ancillary Facilities** N

### Waste Management Plan Adequate?

### Environmental Parameters

**Affected Floodplains and/or Wetlands** N

#### **Flora / Fauna**

sagebrush.

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

clay loam.

**Erosion Issues** N

**Sedimentation Issues** N

**Site Stability Issues** N

**Drainage Diversion Required?** Y

Divert drainages around and away from location and access road.

**Berm Required?** Y

Berm location to prevent spills from leaving location.

Erosion Sedimentation Control Required? N

Paleo Survey Run? N Paleo Potential Observed? N Cultural Survey Run? N Cultural Resources? N

Reserve Pit

Site-Specific Factors

Site Ranking

<b>Distance to Groundwater (feet)</b>	>200	0	
<b>Distance to Surface Water (feet)</b>	>1000	0	
<b>Dist. Nearest Municipal Well (ft)</b>	>5280	0	
<b>Distance to Other Wells (feet)</b>	>1320	0	
<b>Native Soil Type</b>	Mod permeability	10	
<b>Fluid Type</b>	Fresh Water	5	
<b>Drill Cuttings</b>	Normal Rock	0	
<b>Annual Precipitation (inches)</b>	10 to 20	5	
<b>Affected Populations</b>			
<b>Presence Nearby Utility Conduits</b>	Not Present	0	
	<b>Final Score</b>	20	1 Sensitivity Level

Characteristics / Requirements

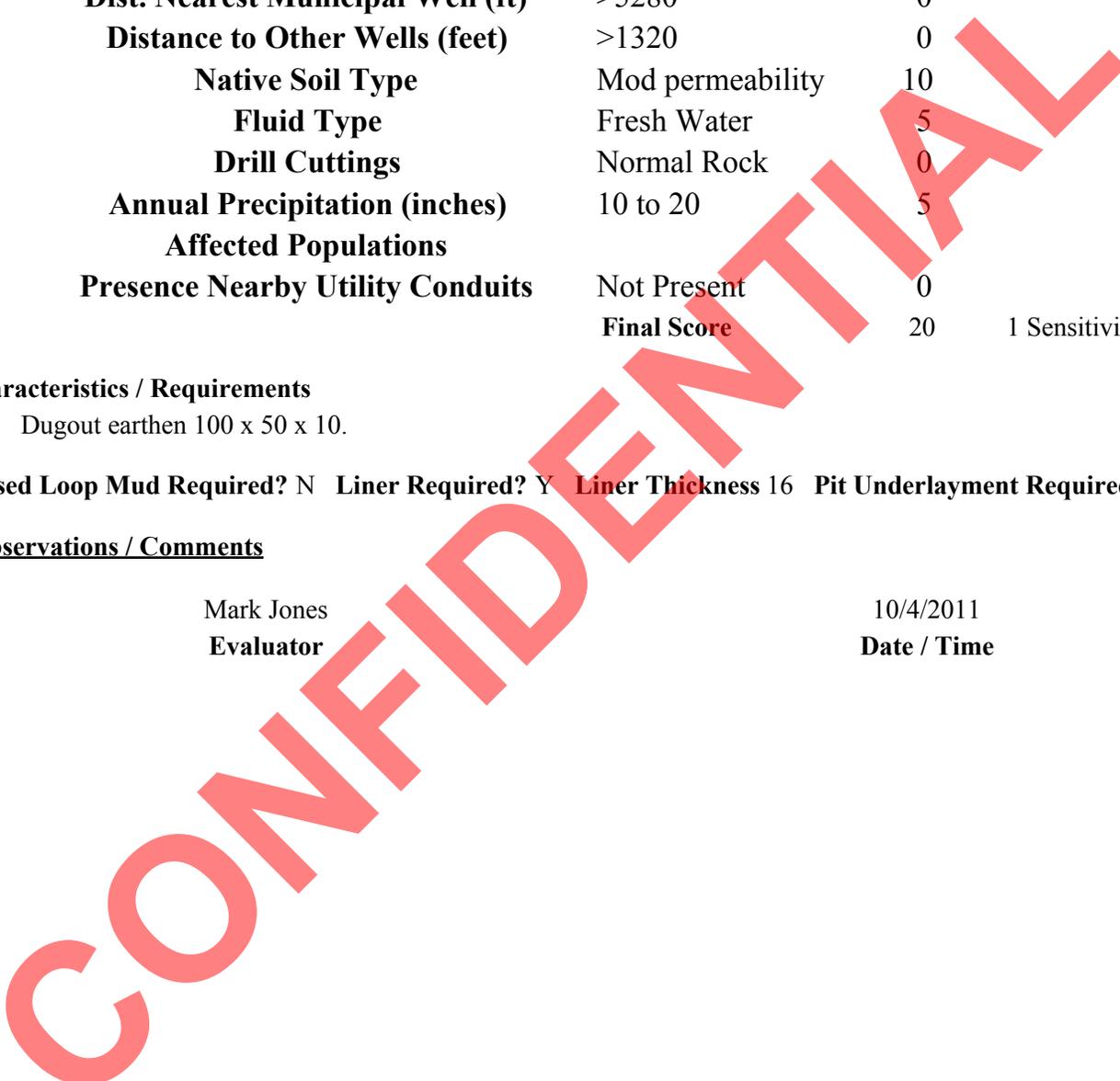
Dugout earthen 100 x 50 x 10.

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

Other Observations / Comments

Mark Jones  
Evaluator

10/4/2011  
Date / Time



# Application for Permit to Drill

## Statement of Basis

11/30/2011

Utah Division of Oil, Gas and Mining

Page 1

<b>APD No</b>	<b>API WellNo</b>	<b>Status</b>	<b>Well Type</b>	<b>Surf Owner</b>	<b>CBM</b>
4700	43007502480000	LOCKED	GW	P	No
<b>Operator</b>	GORDON CREEK, LLC		<b>Surface Owner-APD</b>	Mark Jacobs	
<b>Well Name</b>	GORDON CREEK NW-5-14-8		<b>Unit</b>		
<b>Field</b>	WILDCAT		<b>Type of Work</b>	DRILL	
<b>Location</b>	NWNW 5 14S 8E S 465 FNL 464 FWL		GPS Coord (UTM)	494929E	4388167N

### Geologic Statement of Basis

Tunderbird Energy proposes to drill the well to a total depth of 4,092' and plans to set surface casing from 0'-450'. The surface string will be drilled using air unless hole conditions require the need to "mud-up" with water and gel chem. Within a 10,000 foot radius of the center of section 5, there are 40 filed water rights, however, only one is a subsurface groundwater right. Gordon Creek, LLC, has applied to drill a water-well to produce 4 acre-feet of water for oil & gas field operations. This location is within a small north-south trending graben valley. The poorly permeable silty soil has been formed from the erosion of the Upper Blue Gate Member of the Mancos Shale. Several units of the Emery Sandstone Member of the Mancos Shale are present at the near surface or within the subsurface, these strata should be included within the interval to be protected by the surface casing string. The operator should be informed of the likelihood of these units being water saturated and to respond to protecting these zones by extending the surface casing as necessary. Proposed surface casing and cement should adequately isolate any shallow zones containing water.

Ammon McDonald  
APD Evaluator

10/13/2011  
Date / Time

### Surface Statement of Basis

This proposed well is staked west of the Consumers area in Carbon County, Utah. The site is south and west of the Gordon Creek Compressor site approximately .5 miles, owned and operated by Gordon Creek, LLC or Thunderbird Energy. The immediate setting is relatively flat, slightly sloped to the southeast and dominated by sagebrush. To the direct west the Wasatch Plateau rises dramatically. The location should be bermed to prevent spills from leaving the confines of the pad. Fencing around the reserve pit will be necessary once the well is drilled to prevent wildlife and livestock from becoming a problem. Drainages should be diverted around and away from wellpad and access road. A synthetic liner of 16 mils (minimum) should be utilized in the reserve pit. There may be some disturbance during construction activities that are outside of the permitted pad boundaries to create cut and fill slopes, to create diversion ditches as discussed during the pre-site meetings, and to store topsoil and spoils as indicated on the drawings. Any of this activity should be kept to a very minimum. All other surface operations must remain within permitted pad boundaries.

Mark Jones  
Onsite Evaluator

10/4/2011  
Date / Time

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

Category	Condition
Pits	A synthetic liner with a minimum thickness of 16 mils shall be properly installed and maintained in the reserve pit.
Surface	The well site shall be bermed to prevent fluids from leaving the pad.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.
Surface	The reserve pit shall be fenced upon completion of drilling operations.
Surface	Surface operations must remain within permitted pad boundaries.

## WORKSHEET APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 9/26/2011

**API NO. ASSIGNED:** 43007502480000

**WELL NAME:** GORDON CREEK NW-5-14-8

**OPERATOR:** GORDON CREEK, LLC (N3245)

**PHONE NUMBER:** 403 453-1608

**CONTACT:** Barry Brumwell

**PROPOSED LOCATION:** NWNW 05 140S 080E

**Permit Tech Review:**

**SURFACE:** 0465 FNL 0464 FWL

**Engineering Review:**

**BOTTOM:** 0465 FNL 0464 FWL

**Geology Review:**

**COUNTY:** CARBON

**LATITUDE:** 39.64327

**LONGITUDE:** -111.05910

**UTM SURF EASTINGS:** 494929.00

**NORTHINGS:** 4388167.00

**FIELD NAME:** WILDCAT

**LEASE TYPE:** 4 - Fee

**LEASE NUMBER:** Sec 31+32 Fee Lease

**PROPOSED PRODUCING FORMATION(S):** FERRON SANDSTONE

**SURFACE OWNER:** 4 - Fee

**COALBED METHANE:** NO

**RECEIVED AND/OR REVIEWED:**

- PLAT
  - Bond: STATE - RLB0010790
  - Potash
  - Oil Shale 190-5
  - Oil Shale 190-3
  - Oil Shale 190-13
  - Water Permit: 91-5193
  - RDCC Review: 2011-11-23 00:00:00.0
  - Fee Surface Agreement
  - Intent to Commingle
- Commingling Approved**

**LOCATION AND SITING:**

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

**Comments:** Presite Completed

**Stipulations:** 5 - Statement of Basis - bhill  
 21 - RDCC - dmason  
 23 - Spacing - dmason  
 27 - Other - bhill



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:** GORDON CREEK NW-5-14-8

**API Well Number:** 43007502480000

**Lease Number:** Sec 31+32 Fee Lease

**Surface Owner:** FEE (PRIVATE)

**Approval Date:** 11/30/2011

**Issued to:**

GORDON CREEK, LLC, 1179 E Main #345, Price, UT 84501

**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 R649-3-2. The expected producing formation or pool is the FERRON SANDSTONE 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

**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:**

The Application for Permit to Drill has been forwarded to the Resource Development Coordinating Committee for review of this action. The operator will be required to comply with any applicable recommendations resulting from this review. (See attached)

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.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be extended to a sufficient depth in order to contain water flows as seen in the Gordon Creek ST SE-7-14-8 well.

**Additional Approvals:**

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan – contact Dustin Doucet
- Significant plug back of the well – contact Dustin Doucet
- Plug and abandonment of the well – contact Dustin Doucet

**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  
OR  
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <http://oilgas.ogm.utah.gov>
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program – contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well – contact Dan Jarvis

**Contact Information:**

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office  
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office  
801-231-8956 - after office hours

**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>SUNDRY NOTICES AND REPORTS ON WELLS</b>		5 LEASE DESIGNATION AND SERIAL NUMBER ML-46537
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.		6 IF INDIAN, ALLOTTEE OR TRIBE NAME
		7 UNIT or CA AGREEMENT NAME
1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		8 WELL NAME and NUMBER GORDON CREEK NW-5-14-8
2. NAME OF OPERATOR: GORDON CREEK, LLC.		9. API NUMBER: 4300750248
3. ADDRESS OF OPERATOR: 1179 E. MAIN #345      CITY PRICE      STATE UT      ZIP 84501		10 FIELD AND POOL, OR WILDCAT WILDCAT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 465' FNL, 464 FWL		COUNTY CARBON
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNW 5 14 8 S		STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will start:  _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of work completion: 1/12/2012	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER <u>SPUD NOTICE</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

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

17" HOLE SPUDDED AT 12:30 HRS 1/12/2012 AND DRILLED TO 44'. 12 3/4' PIPE WAS SET AT 44' AND CEMENTED FULL LENGTH.

NAME (PLEASE PRINT) <u>BARRY BRUMWELL, C.E.T.</u>	TITLE <u>VICE PRESIDENT of OPERATIONS</u>
SIGNATURE	DATE <u>1/19/2012</u>

(This space for State use only)

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

FORM 6

ENTITY ACTION FORM

Operator: GORDON CREEK, LLC.  
Address: 1179 EAST MAIN, #345  
city PRICE  
state UT zip 84501

Operator Account Number: N 3245  
Phone Number: (435) 820-1489

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4300750248	GORDON CREEK NW-5-14-8		NWNW	5	14 <sub>S</sub>	8 <sub>E</sub>	CARBON
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	18385	1/12/2012		1/31/12		
<b>Comments:</b> 17" HOLE SPUDDED AT 12:30 HRS 1/12/2012 AND DRILLED TO 44'. 12 3/4" PIPE SET AT 44' AND CEMENTED FULL LENGTH. FRSD <span style="float: right;"><b>CONFIDENTIAL</b></span>							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4300750246	GORDON CREEK SW-32-13-8		NWSW	32	13 <sub>S</sub>	8 <sub>E</sub>	CARBON
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	18386	1/12/2012		1/31/12		
<b>Comments:</b> 17" HOLE SPUDDED AT 13:45 HRS 1/12/2012 AND DRILLED TO 41'. 12 3/4" PIPE SET AT 41' AND CEMENTED FULL LENGTH. FRSD <span style="float: right;"><b>CONFIDENTIAL</b></span>							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4300750249	GORDON CREEK NE-5-14-8		NWNE	5	14 <sub>S</sub>	8 <sub>E</sub>	CARBON
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	18387	1/12/2012		1/31/12		
<b>Comments:</b> 17" HOLE SPUDDED AT 16:00 HRS 1/12/2012 AND DRILLED TO 36'. 12 3/4" PIPE SET AT 36' AND CEMENTED FULL LENGTH. FRSD <span style="float: right;"><b>CONFIDENTIAL</b></span>							

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

BARRY BRUMWELL, C.E.T.

Name (Please Print)

Signature

VP of OPERATIONS

Title

1/19/2012

Date

**RECEIVED**

JAN 19 2012

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>	5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
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.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
1. TYPE OF WELL Gas Well	7. UNIT or CA AGREEMENT NAME:
2. NAME OF OPERATOR: GORDON CREEK, LLC	8. WELL NAME and NUMBER: GORDON CREEK NW-5-14-8
3. ADDRESS OF OPERATOR: 1179 E Main #345 , Price, UT, 84501	9. API NUMBER: 43007502480000
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0465 FNL 0464 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 05 Township: 14.0S Range: 08.0E Meridian: S	9. FIELD and POOL or WILDCAT: WILDCAT
	COUNTY: CARBON
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 7/5/2012	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT 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"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT 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 type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="RUN CASED HOLE LOGS"/>

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

ONCE THE AREA FOREST FIRES HAVE SUBSIDED AND WE ARE ALLOWED ONTO LOCATION, THE INTENT OF THIS SUNDRY NOTICE IS TO MOVE AN ELECTRIC WIRELINE UNIT ONTO THE WELL AND RUN A CASED HOLE GE-CBL-CCL LOG FROM TOTAL DEPTH TO SURFACE CASING, AND ALSO PRESSURE TEST THE 5 1/2" PRODUCTION CASING TO 3,000 psi. WE WOULD THEN SUSPEND OPERATIONS UNTIL PERFORATING AND STIMULATION OPERATIONS ARE PLANNED & PREPARED, WHICH WOULD BE DONE UNDER THE COVER OF A SEPARATE SUNDRY NOTICE.

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

Date: July 12, 2012

By: *Derek Duff*

NAME (PLEASE PRINT) Barry Brumwell	PHONE NUMBER 403 453-1608	TITLE Vice President-Operations
SIGNATURE N/A	DATE 6/29/2012	

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
<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.	5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: GORDON CREEK NW-5-14-8
2. NAME OF OPERATOR: GORDON CREEK, LLC	9. API NUMBER: 43007502480000
3. ADDRESS OF OPERATOR: 1179 E Main #345 , Price, UT, 84501	PHONE NUMBER: 403 453-1608 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0465 FNL 0464 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 05 Township: 14.0S Range: 08.0E Meridian: S	9. FIELD and POOL or WILDCAT: WILDCAT
	COUNTY: CARBON
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT 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"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 2/16/2012	<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 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.  
 Executive Summary and Drilling Reports attached.

**Accepted by the  
 Utah Division of  
 Oil, Gas and Mining  
 FOR RECORD ONLY  
 August 22, 2012**

<b>NAME (PLEASE PRINT)</b> Barry Brumwell	<b>PHONE NUMBER</b> 403 453-1608	<b>TITLE</b> Vice President-Operations
<b>SIGNATURE</b> N/A	<b>DATE</b> 8/22/2012	

**EXECUTIVE SUMMARY REPORT**

**WELL:** GORDON CREEK NW-5-14-8 **API #:** 4300750248  
**COUNTY:** CARBON COUNTY, UTAH **SPUD:** 12:30 HRS, 01/12/2012  
**OBJECTIVE:** To drill & complete a Ferron Gas well **R.R.:** 06:00 HRS, 02/16/2012  
**RIG CONTRACTOR:** CapStar Drilling

**BIT INFORMATION:**

TYPE	SIZE (inches)	DEPTH IN (ft)	DEPTH OUT (ft)	ROT. HOURS	TOTAL HOURS
UNKNOWN	17	0	44	UNKNOWN	UNKNOWN
PDC	11	44	820	7.5	7.5
HAMMER BIT	7 7/8	820	1803	22	29.5
PDC	7 7/8	1803	4350	77.5	85

**CONDUCTOR CASING:**

**HOLE SIZE:** 17 **CONDUCTOR SET FROM:** 0' to 44'

The 12 3/4" conductor pipe was run to 44' and cemented full length.

**SURFACE CASING:**

**HOLE SIZE:** 11" **SURFACE CASING FROM:** 0' to 819

Ran a total of 18 joints of 8 5/8", 24 #/ft, J-55, ST&C casing landed at 814.75' KB. Cemented with 440 sks of Class G cement mixed at 15.7 ppg with 3% CaCl<sub>2</sub> + 0.25 #/sk Superflake + 3 #/sk Super GR. No returns at surface. Top filled through 1" tubing with 3 - separate 50 sks top fills of 15.8 ppg Class G cement + 2% CaCl<sub>2</sub>.

**HOLE SIZE:** 7 7/8" **PRODUCTION CASING FROM:** 0' to 4330.27'

Ran a total of 102 joints of 5 1/2", 17.0 #/ft, N-80, LT&C casing landed at 4330.27' KB. Cemented with 365 sks of Class G cement + 0.2% Air-Out + 40% Superballs + 1% Super FL-300 + 2% CaCl<sub>2</sub> + 0.25 #/sk SuperFlake + 3% Super GR. Bumped plug, floats held, 40 bbl of cement returns at surface.

PLEASE REFER TO THE ATTACHED DRILLING REPORTS FOR SPECIFIC DAILY WELL INFORMATION





















<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
<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.	5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
1. TYPE OF WELL Gas Well	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: GORDON CREEK, LLC	7. UNIT or CA AGREEMENT NAME:
3. ADDRESS OF OPERATOR: 1179 E Main #345 , Price, UT, 84501	8. WELL NAME and NUMBER: GORDON CREEK NW-5-14-8
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0465 FNL 0464 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 05 Township: 14.0S Range: 08.0E Meridian: S	9. API NUMBER: 43007502480000
5. PHONE NUMBER: 403 453-1608 Ext	9. FIELD and POOL or WILDCAT: WILDCAT
	COUNTY: CARBON
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 9/4/2012	<input checked="" type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT 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"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input checked="" 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 checked="" 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 type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="Perforate Ferron Formation"/>

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

We plan to perf the Lower Ferron 4275'-4281', 4262'-4268', 4252'-4256', 4236'-4242', 4192'-4196' & 4182'-4186', then acidize/frac the Lower Ferron perms with a 46.3 T treatment. Then set WR plug at +/- 4175'. Then perf the Middle Ferron 4145'-4148', 4125'-4129', 4104'-4109', 4098'-4100', 4091'-4094' & 4086'-4088', then acidize/frac the Mid Ferron perms with a 29.3 T treatment. Then set WR plug at +/- 4075'. Then perf the Upper Ferron 4056'-4060', 4046'-4050', 4034'-4036', 4026'-4028', 4016'-4018', 4007'-4009', 3957'-3961' & 3936'-3940', then acidize/frac the Upper Ferron perms with a 37.1 T fracture treatment. Then flow back all zones on clean up before moving on W/O rig to RIH & pull all WR plugs, then run tbg pump & rods. Then install pumpjack and place well on production as a Ferron Gas Well.

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

**Date:** August 27, 2012

**By:** *Derek Duff*

<b>NAME (PLEASE PRINT)</b> Barry Brumwell	<b>PHONE NUMBER</b> 403 453-1608	<b>TITLE</b> Vice President-Operations
<b>SIGNATURE</b> N/A	<b>DATE</b> 8/21/2012	

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
<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.	5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: GORDON CREEK NW-5-14-8
2. NAME OF OPERATOR: GORDON CREEK, LLC	9. API NUMBER: 43007502480000
3. ADDRESS OF OPERATOR: 1179 E Main #345 , Price, UT, 84501	PHONE NUMBER: 403 453-1608 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0465 FNL 0464 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 05 Township: 14.0S Range: 08.0E Meridian: S	9. FIELD and POOL or WILDCAT: WILDCAT
	COUNTY: CARBON
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 6/30/2012	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT 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 type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="No Activity"/>

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

There was NO activity on this well from Drilling Rig Release Date (06:00 02/16/2012) until June 30, 2012. The well was cased with 5 1/2" production casing to 4,330.27' KB and is sitting as a cased Potential Ferron Gas Well.

**Accepted by the  
 Utah Division of  
 Oil, Gas and Mining  
 FOR RECORD ONLY  
 August 28, 2012**

NAME (PLEASE PRINT) Barry Brumwell	PHONE NUMBER 403 453-1608	TITLE Vice President-Operations
SIGNATURE N/A	DATE 8/27/2012	

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

**CONFIDENTIAL**

FORM 8

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  OTHER \_\_\_\_\_

b. TYPE OF WORK: NEW WELL  HORIZ. LATS.  DEEP-EN  RE-ENTRY  DIFF. RESVR.  OTHER \_\_\_\_\_

2. NAME OF OPERATOR: **GORDON CREEK, LLC.**

3. ADDRESS OF OPERATOR: **1179 E. MAIN, #345** CITY **PRICE** STATE **UT** ZIP **84501** PHONE NUMBER: **(403) 453-1608**

4. LOCATION OF WELL (FOOTAGES)  
AT SURFACE: **465.02' FNL & 464.21' FWL**  
AT TOP PRODUCING INTERVAL REPORTED BELOW: **573.17' FNL & 361.24' FWL**  
AT TOTAL DEPTH: **580.53' FNL & 360.17' FWL** *BHL by HSM*

6. IF INDIAN, ALLOTTEE OR TRIBE NAME \_\_\_\_\_

7. UNIT OR CA AGREEMENT NAME \_\_\_\_\_

8. WELL NAME and NUMBER: **GORDON CREEK NW-5-14-8**

9. API NUMBER: **4300750248**

10. FIELD AND POOL, OR WILDCAT: **WILDCAT**

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: **NWNW 5 14S 8 E X**

12. COUNTY: **CARBON** 13. STATE: **UTAH**

14. DATE SPUDDED: **1/12/2012** 15. DATE T.D. REACHED: **2/15/2012** 16. DATE COMPLETED: **10/16/2012** ABANDONED  READY TO PRODUCE

17. ELEVATIONS (OF, RKB, RT, GL): **RKB = 7370.5'**

18. TOTAL DEPTH: MD **4,350** TVD **4,350.45** 19. PLUG BACK T.D.: MD **4,298** TVD **4,298.3** 20. IF MULTIPLE COMPLETIONS, HOW MANY? \* \_\_\_\_\_ 21. DEPTH BRIDGE MD \_\_\_\_\_ PLUG SET: TVD \_\_\_\_\_

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)  
**CD/CN/GR, DUAL INDUCTION GUARD LOG/CD/CN/GR, DUAL INDUCTION GUARD LOG/GR, CBL/CCL/GR**

23. WAS WELL CORED? NO  YES  (Submit analysis)  
WAS DST RUN? NO  YES  (Submit report)  
DIRECTIONAL SURVEY? NO  YES  (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
17"	12.75		0	44				0 CIR	
11"	8.625 J55	24	0	819		G 590		0 CIR	
7.875"	5.500 N80	17	0	4,330		G 365		0 CIR	

**RECEIVED**  
**NOV 13 2012**

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2.375"	4,296							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) FERRON	3,932	4,350	3,932	4,350	3,936 4,281	0.56	336	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(B)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
3936-4060 (MULTI INTS)	SLICKWATER BORATE FRAC w/ 33,968 # OF 20/40 WHITE & 49,920 # OF 16/30 WHITE
4086-4148 (MULTI INTS)	SLICKWATER BORATE FRAC w/ 23,325 # OF 20/40 WHITE & 45,506 # OF 16/30 WHITE
4188-4281 (MULTI INTS)	SLICKWATER BORATE FRAC w/ 32,487 # OF 20/40 WHITE & 68,194 # OF 16/30 WHITE

29. ENCLOSED ATTACHMENTS:  ELECTRICAL/MECHANICAL LOGS  GEOLOGIC REPORT  DST REPORT  DIRECTIONAL SURVEY  
 SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION  CORE ANALYSIS  OTHER: **COMP RPTS/PERFS**

30. WELL STATUS: **SHUT IN**

**31. INITIAL PRODUCTION**

**INTERVAL A (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

**INTERVAL B (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

**INTERVAL C (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

**INTERVAL D (As shown in item #26)**

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

**32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)**

**33. SUMMARY OF POROUS ZONES (Include Aquifers):**

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

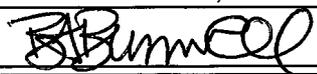
**34. FORMATION (Log) MARKERS:**

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
FERRON	3,932	4,350	SANDSTONES AND COALS	Lower Bluegate Bentonite Mkr Upper Ferron Marine SS Ferron SS Ferron Basal Marine	3,851 3,932 4,003 4,307

**35. ADDITIONAL REMARKS (Include plugging procedure)**

PLEASE SEE ATTACHMENT FOR COMPLETE PERF. INTERVALS, UNABLE TO FIT ALL INTERVALS ON THIS FORM.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) BARRY BRUMWELL, C.E.T. TITLE VICE PRESIDENT of OPERATIONS  
 SIGNATURE  DATE 11/6/2012

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

\* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

\*\* ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining Phone: 801-538-5340  
 1594 West North Temple, Suite 1210  
 Box 145801 Fax: 801-359-3940  
 Salt Lake City, Utah 84114-5801

**To Whom It May Concern;**

**The well GORDON CREEK NW-5-14-8 was perforated and stimulated with the following intervals:**

<b>STAGE #3</b>	3936 - 3939	FRACTURE STIMULATED WITH A SLICKWATER BORATE FRAC with 33,968 # OF 20/40 WHITE SAND and 49,920 # OF 16/30 WHITE SAND.
	3958 - 3961	
	4008 - 4009	
	4016 - 4017	
	4026 - 4028	
	4034 - 4036	
	4046 - 4050	
	4056 - 4060	

<b>STAGE #2</b>	4086 - 4088	FRACTURE STIMULATED WITH A SLICKWATER BORATE FRAC with 23,325 # OF 20/40 WHITE SAND and 45,506 # OF 16/30 WHITE SAND.
	4091 - 4094	
	4098 - 4100	
	4104 - 4109	
	4125 - 4129	
	4145 - 4148	

<b>Stage #1</b>	4188 - 4191	FRACTURE STIMULATED WITH A SLICKWATER BORATE FRAC with 32,487 # OF 20/40 WHITE SAND and 68,194 # OF 16/30 WHITE SAND.
	4239 - 4242	
	4252 - 4254	
	4262 - 4268	
	4278 - 4281	

**IT WAS NOT POSSIBLE TO FIT ALL OF THIS INFORMATION ON FORM 8.**



Job Number: SVGJ-120753  
 Company: Gordon Creek, LLC  
 Lease/Well: Gordon Creek State NW-5-14-8  
 Location: Carbon County, UT  
 Rig Name: MS Wireline  
 RKB: 0'  
 G.L. or M.S.L.: GL

State/Country: Utah/USA  
 Declination: 11.50°  
 Grid: East To True North  
 File name: F:\SURVEY\2012SU~1\GORDON~1\LORENZ\GORDON~1\NW5148.SVY  
 Date/Time: 26-Jul-12 / 15:08  
 Curve Name: Surface - 4300' M.D. (Rate Gyro)

**WINSERVE SURVEY CALCULATIONS**  
 Minimum Curvature Method  
 Vertical Section Plane .00  
 Vertical Section Referenced to Wellhead  
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from  
 Surface MD to 4,300 MD is, to the best of  
 our knowledge a true and accurate account of the  
 well bore.  
Scott Elias 7/26/12  
 MS Energy Services Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	1.10	245.76	99.99	-.39	-.88	-.39	.96	245.76	1.10
200.00	2.07	238.68	199.95	-1.73	-3.29	-1.73	3.72	242.33	.99
300.00	2.69	239.70	299.87	-3.85	-6.86	-3.85	7.87	240.71	.62
400.00	3.54	245.46	399.72	-6.32	-11.70	-6.32	13.29	241.63	.90
500.00	4.62	240.83	499.46	-9.56	-18.02	-9.56	20.40	242.05	1.13
600.00	5.32	241.43	599.09	-13.74	-25.61	-13.74	29.06	241.78	.70
700.00	6.21	236.40	698.58	-18.95	-34.19	-18.95	39.09	241.00	1.02
800.00	6.25	233.21	797.99	-25.20	-43.05	-25.20	49.89	239.65	.35
900.00	5.85	234.32	897.43	-31.44	-51.55	-31.44	60.38	238.62	.42

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
1000.00	4.97	230.19	996.99	-37.18	-59.02	-37.18	69.75	237.79	.96
1100.00	4.47	227.12	1096.65	-42.61	-65.20	-42.61	77.89	236.84	.56
1200.00	3.96	224.19	1196.38	-47.74	-70.46	-47.74	85.11	235.88	.55
1300.00	3.38	223.79	1296.17	-52.34	-74.91	-52.34	91.38	235.06	.58
1400.00	3.02	223.05	1396.02	-56.39	-78.75	-56.39	96.86	234.39	.36
1500.00	2.73	220.38	1495.89	-60.13	-82.09	-60.13	101.76	233.78	.32
1600.00	2.34	216.26	1595.79	-63.59	-84.84	-63.59	106.03	233.15	.43
1700.00	1.81	212.36	1695.73	-66.57	-86.89	-66.57	109.46	232.54	.55
1800.00	1.42	210.52	1795.69	-68.97	-88.37	-68.97	112.10	232.03	.39
1900.00	1.53	199.68	1895.65	-71.30	-89.45	-71.30	114.38	231.44	.30
2000.00	1.48	200.42	1995.62	-73.77	-90.35	-73.77	116.63	230.77	.05
2100.00	1.54	207.48	2095.59	-76.17	-91.42	-76.17	118.99	230.20	.20
2200.00	1.48	213.30	2195.55	-78.44	-92.75	-78.44	121.47	229.78	.16
2300.00	1.29	198.30	2295.52	-80.59	-93.81	-80.59	123.67	229.34	.41
2400.00	1.13	187.63	2395.50	-82.63	-94.29	-82.63	125.38	228.77	.28
2500.00	.92	192.76	2495.48	-84.39	-94.60	-84.39	126.77	228.26	.23
2600.00	.82	189.81	2595.47	-85.88	-94.90	-85.88	127.99	227.86	.11
2700.00	1.05	194.71	2695.46	-87.47	-95.25	-87.47	129.32	227.44	.24
2800.00	.80	189.77	2795.45	-89.05	-95.61	-89.05	130.65	227.03	.26
2900.00	.86	207.28	2895.43	-90.40	-96.07	-90.40	131.91	226.74	.26
3000.00	.90	200.26	2995.42	-91.81	-96.68	-91.81	133.33	226.48	.11
3100.00	.74	207.52	3095.41	-93.12	-97.25	-93.12	134.64	226.25	.19
3200.00	.96	224.06	3195.40	-94.29	-98.13	-94.29	136.09	226.14	.33
3300.00	1.07	232.14	3295.39	-95.47	-99.45	-95.47	137.86	226.17	.18
3400.00	1.28	211.04	3395.37	-97.00	-100.77	-97.00	139.86	226.09	.48
3500.00	1.34	206.86	3495.34	-99.00	-101.87	-99.00	142.05	225.82	.11
3600.00	1.36	194.27	3595.31	-101.19	-102.69	-101.19	144.17	225.42	.30
3700.00	1.26	185.08	3695.29	-103.43	-103.08	-103.43	146.03	224.90	.23
3800.00	1.41	174.26	3795.26	-105.75	-103.06	-105.75	147.66	224.26	.29

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
3900.00	1.34	181.69	3895.23	-108.15	-102.97	-108.15	149.33	223.60	.19
4000.00	1.24	201.26	3995.21	-110.32	-103.39	-110.32	151.20	223.14	.45
4100.00	.80	192.67	4095.19	-112.01	-103.94	-112.01	152.81	222.86	.46
4200.00	1.10	185.80	4195.18	-113.65	-104.19	-113.65	154.18	222.51	.32
<b>Last Survey Depth Recorded</b>									
4300.00	1.08	164.91	4295.16	-115.51	-104.04	-115.51	155.46	222.01	.40







# Gordon Creek, LLC.

## Well Completion/Workover Report

**Well Name:** Gordon Creek NW-5-14-8      **Today's Date:** September 29, 2012  
**Objective:** PERF/FRAC 3 STAGES FERRON, RUN TBG, BHP/RODS      **Day #:** 1 (Page #1)  
**AFE #:** 11CMP008      **Daily Cost:**      **Prev. Cost:**      **Cummulative Cost:** \$0

**Zones of Interest:**  
 Name: \_\_\_\_\_ Perf Int.'s \_\_\_\_\_  
 Name: \_\_\_\_\_ Perf Int.'s \_\_\_\_\_  
 Name: \_\_\_\_\_ Perf Int.'s \_\_\_\_\_

Casing:	Size	Weight	Grade	Landed @	Rod String:	No. of	Size	Type
Surface:	8 5/8"	24#	J-55	814.75'				
Production:	5 1/2"	17#	N-80	4330.27'				
Inter/Liner:	0	0	0	0				

Tubing:	Size	Weight	Landed @	PSN Depth	Pump Description:
#1					
#2					

**Depths:** TD: 4350'      PBDT: 4288'

**Elevations:** KB: 7371'      GL: 7360'      KB-GL: 11'      **API #:** 43-007-50248

**AM Pressures:**      **Tubing:**      **Casing:**      **SCV:**

**24 Hour Summary:** Frac 3 stages, perforate 3 zones, set two 5 1/2" Benoit Flow Thru WR Plug

**Operation at 0800 Hours:**

Time	Detailed Description of Previous Days Operations	Daily Cost Summary	
		Item	Amount
5:30	Travel to location		
6:00	MIRU RMWS & RIH with Select Fire perf guns on 1 run and perforate lower Ferron 4278'-4281', 4262'-4268', 4252'-4254', 4239'-4242', & 4188'-4191' with 25 gram charges(0.56" EH) loaded @ 6 shots/ft on 60° phasing. POOH, RD RMWS		
7:20	Finish rigging up Nabors frac crew		
8:10	PJSM with all personnel on location		
8:20	Sand haulers did not deliver 20/40 sand, parked for the night and did not notify anyone. Waited 2.5 hours for them to get to location		
10:50	MIRU Nabors, prime up and pressure test to 7,119 psi, holding steady		
11:11	Open well with 160 psi, 1 bbl to load, BD 1,817 psi at 7.9 bpm SD in pad due to loss of suction pressure at the blender Dropped rate to 88 bpm at 4.5 ppg to get a higher concentration Flushed even with bottom perf, reached 5.4 ppg		
11:33	ISIP - 1,434 psi, FG - 0.773 psi/ft, 5 min - 1,174 psi, 10 min - 1,044 psi 15 min - 939 psi, BLTR - 1,098 bbls		
11:50	MIRU RMWS & RIH with Select Fire perf guns on 1 run and perforate middle Ferron 4145'-4148', 4125'-4129', voltage showed open, POOH There was a short in the cap, RMWS had to get another from their shop. Waited 2 hours for a replacement cap. MIRU RMWS & RIH with Select Fire perf guns on 1 run and perforate middle Ferron 4125'-4129', 4104'-4109', 4098'-4100', 4091'-4094', 4086'-4088', with 25 gram charges(0.56" EH) loaded @ 6 shots/ft on 60° phasing. RIH with 5 1/2" Benoit Flow Thru WR Plug and set plug at 4,177' COE. POOH, RD RMWS		
		<b>Daily Cost:</b>	\$0
		<b>Personnel On Location:</b>	
		Rig:	28
		Services:	6
		G.C.L.L.C.:	1
		<b>Total:</b>	35

Fluid Record:	Oil	Water	AM Weather & Roads:	Contact Information:
Hauled in			Weather: _____	Supervisor: Brad Pottebaum
Total Fluid :			Temp: _____	Cell #: 303-218-8278
Fluid Pumped In:			Lease: _____	Alt #: 0
Left to Recover			Roads: _____	Report to: Barry Brumwell - Calgary Head Ofc.
Fluid Hauled Out			<b>Rig Co:</b> _____	Email to: bbrumwell@thunderbirdenergy.com
Load Left to Recover:			Rig #: _____	







THUNDERBIRD ENERGY

# Gordon Creek, LLC.

## Well Completion/Workover Report

Well Name: **Gordon Creek NW-5-14-8** Today's Date: **October 15, 2012**  
 Objective: **PERF/FRAC 3 STAGES FERRON, RUN TBG, BHP/RODS** Day #: **3**  
 AFE #: **11CMP008** Daily Cost: **\$30,887** Prev. Cost: **\$178,905** Cumulative Cost: **\$209,792**

Zones of Interest: Name: \_\_\_\_\_ Perf Int.'s \_\_\_\_\_  
 Name: \_\_\_\_\_ Perf Int.'s \_\_\_\_\_  
 Name: \_\_\_\_\_ Perf Int.'s \_\_\_\_\_

Casing:	Size	Weight	Grade	Landed @	Rod String:	No. of	Size	Type
Surface:	8 5/8"	24#	J-55	814.75'				
Production:	5 1/2"	17#	N-80	4330.27'				
Inter/Liner:	0	0	0	0				
Tubing:	Size	Weight	Landed @	PSN Depth	Pump Description:			
#1	2.375	4.7	4296	4286.5				
#2								

Depths: TD: 4350' PBDT: 4288'

Elevations: KB: 7371' GL: 7360' KB-GL: 11' API #: 43-007-50248

AM Pressures: Tubing: 0 Casing: 20 SCV: 0

24 Hour Summary: **clean out to PBDT @ 4303', run production string & swab**

Operation at 0800 Hours: **TIH with sand bailer**

Time	Detailed Description of Previous Days Operations	Daily Cost Summary	
		Item	Amount
7:00	Travel to location		
7:30	service rig, check CP @ 20#, prep to run in hole with bailer to clean out Rat hole	Rig	\$4,288
8:00	TIH	Benoit Services	\$5,599
9:00	bailed out 34 ft. sand, tagged sand @ 4269'	SWS	\$1,000
9:30	tight going thru perfs, waited and made 2nd run thru perfs, cleaned up	Tubing	\$20,000
10:30	POOH		
11:00	laid out bailer assembly, dumped sand cavity		
12:00	RIH with NC, 4' tubing sub, 4' perf sub, PSN,		
12:30	Lunch		
13:30	RIH tagged TD at 4303', Talley depth, landed tubing @ 4296', PSN @ 4286.5'		
14:30	Rig down floor, and nipples down BOP		
15:00	set up to swab		
15:30	swabbing, 1st run fluid level 1500#, 3 runs sand in cups and tight down tubing past fluid level, called for approval to continue		
17:30	fluid level dropped to 1800', sand traces still in returns, 10 runs total pulling from 2300'		
18:30	fluid level 1800', made 16 total runs, CP @ 50#, 25 bbls. Recovered sand sticky going in hole frac sand recovered 20/40 mesh sand gell, coal fines, and foam.		
19:00	SWIFN & SD		
		Daily Cost:	\$30,887
Personnel On Location:			
		Rig:	4
		Services:	1
		G.C.L.L.C.:	1
		Total:	6

Fluid Record:	Oil	Water	AM Weather & Roads:	Contact Information:
Hauled in			Weather: clear	Supervisor: Brad Pottebaum
Total Fluid :			Temp: 60	Cell #: 303-218-8278
Fluid Pumped In:			Lease: ok	Alt #: 0
Left to Recover			Roads: ok	Report to: Barry Brumwell - Calgary Head Ofc.
Fluid Hauled Out			Rig Co: Pro well ser	Email to: bbrumwell@thunderbirdenergy.com
Load Left to Recover:			Rig #: #5	





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

May 27, 2014

Via FedEx

43 007 50248  
Gordon Creek NW 5-14-8  
5 14S 8E

Barry Brumwell  
Vice President of Operations  
Thunderbird Energy / Gordon Creek, LLC  
#800, 555 – 4<sup>th</sup> Avenue S.W.  
Calgary, Alberta, Canada T2P 3E7

Subject: Oil and Gas General Conservation Rule R649-3-36 - Shut-in and Temporarily Abandoned Wells

Dear Mr. Brumwell:

The Division of Oil, Gas and Mining (the "Division") issued Gordon Creek LLC c/o Thunderbird Energy (Gordon Creek) a Shut-in and Temporary Abandonment Notice of Violation (NOV), dated November 12, 2012, for the following seven (7) wells:

Burnside 29-14-8	API 43-007-30725	SI/TA approval - May 1, 2014
Gordon Creek ST 1-30-14-8	API 43-007-31235	SI/TA approval - Feb 1, 2014
Gordon Creek ST 4-18-14-8	API 43-007-30881	SI/TA approval - May 1, 2014
Gordon Creek ST 2-20-14-8	API 43-007-30883	Subsequent Sundry 2/15/2013 For Record Only
Gordon Creek ST 3-20-14-8	API 43-007-31233	SI/TA approval - May 1, 2014
Gordon Creek ST 2-29-14-8	API 43-007-31234	SI/TA approval - Feb 1, 2014
Gordon Creek ST 19-14-8(B)	API 43-007-30807	SI/TA approval - May 1, 2014

In response to the NOV, the Division and Gordon Creek held a December 2012 conference call. Gordon Creek stated they had capital for equipping the field with well-site separators, electrification, pumping equipment and pipelines. Gordon Creek also stated they had capital for drilling additional wells in the field and committed to meeting shut-in well requirements for the above subject wells. Gordon Creek submitted a letter dated December 18, 2012, stating that it conducted casing integrity tests on all of the subject wells between July and September of 2010. Similar tests were also conducted on five (5) of the subject wells in 2011. The integrity tests were submitted to the Division. In addition, Gordon Creek submitted a letter dated December 19, 2012, specifically outlining its 2013 field development plans to electrify parts of the field, recomplete the Gordon Creek ST 4-18-14-18, Gordon Creek ST 3-20-14-8 and Gordon Creek ST 2-29-14-8 wells and drill 20 new additional wells. The Division later granted shut-in and temporary abandonment approvals for six (6) of the seven (7) wells listed above based on submitted sundries meeting shut-in extension requirements and the field plans described in the December 2012 letters with the understanding Gordon Creek would keep the Division updated on field development and any changes to the plans.

If any of the above proposed work was accomplished last year Gordon Creek did not keep the Division informed. We reviewed the Gordon Creek ST 4-18-14-18, Gordon Creek ST 3-20-14-8 and Gordon Creek ST 2-29-14-8 well files and did not find any notices of intent for recompletion or subsequent recompletion sundries for the wells. If work was done on the wells please submit sundries



immediately for the well files. Also, the above extended shut-in approvals required periodic pressure and fluid monitoring to ensure ongoing integrity of the wells. The periodic monitoring should have also been submitted to the Division on individual well sundries for Division review and well files. Shut-in extensions for two of the above wells expired February 1, 2014 and the other four expired May 1, 2014.

As of the date of this letter Gordon Creek currently have seventeen (17) shut-in wells, the above listed seven wells and the following ten (10) new wells:

Gordon Creek ST 1A-18-14-18	API 43-007-30892	Last Prod – June 2013
Gordon Creek NE-31-13-8	API 43-007-50243	Last Prod – May 2013
Gordon Creek NE-32-13-8	API 43-007-50245	Last Prod – March 2013
Gordon Creek SW-32-13-8	API 43-007-50246	Last Prod – June 2013
→ Gordon Creek NW-5-14-8	API 43-007-50248	Last Prod – July 2013
Gordon Creek ST SW-7-14-8	API 43-007-50242	Last Prod – May 2013
Gordon Creek ST SE-B-7-14-18	API 43-007-50255	Last Prod – April 2013
Gordon Creek NW-32-13-18	API 43-007-50244	Last Prod – Jan 2014
Gordon Creek NW-31-13-8	API 43-007-50250	OPS – Spud Feb 2012
Gordon Creek SE-32-13-8	API 43-007-50247	OPS – Spud Jan 2012

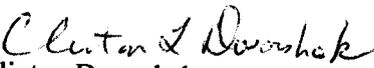
The operator is responsible to file, yearly, for extended shut-in or temporary abandonment for wells shut-in or temporarily abandoned for a period of twelve (12) consecutive months. Gordon Creek must file a Sundry Notice providing the following information for each of the above seventeen listed wells; reasons for shut-in or temporarily abandonment of the well, length of time the well is expected to be shut-in or temporarily abandoned and an explanation and supporting data showing the well has integrity (R649-3-36.1). After review the Division will either approve the continued shut-in or temporarily abandoned status or require remedial action (R649-3-36.2). After five (5) years of non-activity or non-productivity, the well shall be plugged in accordance with R649-3-24, unless approval for extended shut-in time is given by the Division upon a showing of good cause by the operator (R649-3-36.3). Please note, six (6) of the seventeen wells listed above have been shut-in over five (5) years.

Gordon Creek has until **June 30, 2014**, to submit sundries, for the subject wells, in accordance with **Oil and Gas Conservation General Rule 649-3-36 Shut-in and Temporarily Abandoned Wells**.

Should Gordon Creek not meet shut-in and temporarily abandoned well requirements, the Division is prepared to file a Notice of Agency Action (NAA) for Commencement of Informal Adjudicative Proceedings (R649-10-3) for this matter in accordance with Oil and Gas Conservation General Rule R649-10 Administrative Procedures.

If you have any questions or need further assistance, please feel free to contact me at [clintondworshak@utah.gov](mailto:clintondworshak@utah.gov) or 801-538-5280 or Dustin Doucet, Petroleum Engineer, at [dustindoucet@utah.gov](mailto:dustindoucet@utah.gov) or 801-538-5281.

Sincerely,

  
Clinton Dworshak  
Oil and Gas Compliance Manager

CLD/js  
cc: John Rogers, Oil & Gas Associate Director  
Dustin Doucet, Petroleum Engineer  
Well Files  
Compliance File

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<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.	5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: GORDON CREEK NW-5-14-8
2. NAME OF OPERATOR: GORDON CREEK, LLC	9. API NUMBER: 43007502480000
3. ADDRESS OF OPERATOR: 1179 E Main #345 , Price, UT, 84501	PHONE NUMBER: 403 453-1608 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0465 FNL 0464 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNW Section: 05 Township: 14.0S Range: 08.0E Meridian: S	9. FIELD and POOL or WILDCAT: GORDON CREEK
	COUNTY: CARBON
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 4/30/2015	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT 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 checked="" 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 type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="Change Surface Pumping Eq"/>

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

The plan is to remove the existing 228 pumpjack from the wellsite for use at 19-14-8(A), then move on and rig up a workover rig with pump and tank. The well will be killed with produced water, then the rods and tubing will be pulled from the well and neatly racked on site for storage. We will then run a new 3.75" tubing pump on new 2.875" tubing and set the pump at +/- 4000'. We will then run new 3/4" Grade D rods and latch into the BHP. We will then move the workover rig off of the well and move on and install a used 75 HP RotoFlex pumpjack. We will start the well at 3 SPM.

**Approved by the**  
**March 31, 2015**  
**Oil, Gas and Mining**

Date: \_\_\_\_\_  
 By: Barry Brumwell

NAME (PLEASE PRINT) Barry Brumwell	PHONE NUMBER 403 453-1608	TITLE Vice President-Operations
SIGNATURE N/A	DATE 3/23/2015	

**BEATTY & WOZNIAK, P.C.**

ATTORNEYS AT LAW  
7440 CREEK ROAD, SUITE 250  
SANDY, UTAH 84093  
TELEPHONE (801) 566-8446  
FACSIMILE (801) 566-8447  
www.bweenergylaw.com

CASPER  
CHEYENNE  
DENVER  
SALT LAKE CITY  
SANTA FE

BRIAN A. TAYLOR

(801) 676-2307  
BTAYLOR@BWEENERGYLAW.COM

December 24, 2014

Clinton Dworshak  
Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 300  
Salt Lake City, UT 84116

Dear Clint:

The purpose of this letter is to place in writing the agreement between Gordon Creek Energy, Inc. ("Gordon Creek") and the Utah Division of Oil, Gas and Mining (the "Division"), in order to satisfy the requirements of the August 4, 2014 Division Bonding Order (the "Order") issued by the Division.

At a meeting between Gordon Creek and the Division at the offices of the Division on Wednesday October 29, 2014, the Division and Gordon Creek discussed the various issues associated with Gordon Creek's operations in Utah and the impact the Order has on those operations. As a result of those discussions, it is understood by the Division that Gordon Creek is in the process of obtaining both short term and long term financing to enhance its operations in the State of Utah and that securing this financing is essential for Gordon Creek to acquire the necessary bonding for its wells in the State of Utah. It is anticipated that Gordon Creek will obtain some of this financing in early December 2014. Based on the receipt of those funds, Gordon Creek and the Division agreed to the following terms and conditions to withhold enforcement of the Order:

1. The funds obtained in December of 2014 will be used to re-work Gordon Creeks existing shut-in wells and improve the existing infrastructure of Gordon Creeks operations in the State of Utah. It is anticipated that all re-working activities will be completed by the end of December 2014 for the following wells:

**API No.**

43-007-30881  
43-007-30892  
43-007-50242

**Well Name**

Gordon Creek 4-18-14-8  
Gordon Creek 1A-18-14-8  
Gordon Creek SW 7-14-8

**BEATTY & WOZNIAK, P.C.**

Clinton Dworshak  
Utah Division of Oil, Gas and Mining  
December 24, 2014  
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43-007-50243	Gordon Creek NE 31-13-8
43-007-50244	Gordon Creek NW 32-13-8
43-007-50245	Gordon Creek NE 32-13-8
43-007-50246	Gordon Creek SW 32-13-8
43-007-50248	Gordon Creek NW 5-14-8
43-007-50249	Gordon Creek NE 5-14-8
43-007-50255	Gordon Creek SE B 7-14-8

- Given the winter closure requirements of the Utah Division of Wildlife Resources, from December 1, 2014 until April 15, 2015, and the amount of surface disturbance required to rework the wells, all re-working activities will be completed by June 30, 2015 for the following wells:

<u>API No.</u>	<u>Well Name</u>
43-007-30725	Burnside 29-14-8
43-007-30807	Gordon Creek ST 19-14-8(B)
43-007-30883	Gordon Creek ST 2-20-14-8
43-007-31233	Gordon Creek ST 3-20-14-8
43-007-31234	Gordon Creek ST 2-29-14-8

- Gordon Creek will provide Sundry Notices to the Division on the progress of these well and infrastructure activities as required by the Well Workover and Recompletions rule, Utah Admin. Code R649-3-23.
- The Division will not require Gordon Creek to provide bonding for all of its well locations at once, but will allow it to acquire the necessary depth bonding as described in R649-3-1(5.3) to cover the equivalent of four wells at a time at the rate of \$30,000.00 per well.
- The existing \$120,000.00 blanket bond and the future bonding or surety, provided by Gordon Creek, as outlined in Paragraph 7 below, will cover all of the wells listed on Schedule A of the Order as two separate blanket bonds. In the event it becomes necessary to use proceeds from the blanket bonds, the Division will apply the proceeds to any one or more of the wells listed on Schedule A at its discretion. As such, if the plugging of a well, or group of a wells, cost less than the estimated \$30,000.00 as outlined in R649-3-1(5.3), the Division can use the remaining amount to plug and/or reclaim any of the other wells and well sites on Schedule A.

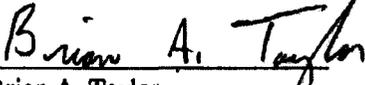
**BEATTY & WOZNAK, P.C.**

Clinton Dworshak  
Utah Division of Oil, Gas and Mining  
December 24, 2014  
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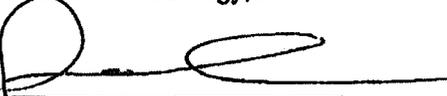
6. The first payment of \$120,000.00 covering the equivalent of four wells will be due and payable by February 27, 2015.
7. Gordon Creek will make additional \$120,000.00 payments every three months until all of the existing shut-in wells listed on Schedule A of the Order are fully covered. These additional payments will be due on or before May 29, 2015, August 31, 2015, and November 30, 2015, with a final payment covering any outstanding amounts by February 27, 2016.
8. In the event Gordon Creek obtains additional long term financing prior to February 27, 2016, it will pay any remaining amount owed to have depth bonding on all of its wells in the State of Utah within 30 days of the closing date of the additional financing.
9. The Division will conduct a surface inspection of the wells listed as "Location Abandoned" on Schedule A of the Order to determine if any reclamation work is needed. In the event no reclamation work is needed, the \$1,500.00 bond requirements listed for those lands will be removed from the total amount owed by Gordon Creek.
10. When Gordon Creek has satisfied the requirements for a blanket bond under R649-3-1 (6), the Division will release all additional bonding required by the Order upon the request of Gordon Creek.

If I have accurately stated our agreement and understanding, please sign below and return to me at your earliest opportunity.

Respectfully,

  
\_\_\_\_\_  
Brian A. Taylor  
Attorney for Gordon Creek Energy

Gordon Creek Energy, Inc.

  
\_\_\_\_\_  
Rupert Evans  
President

**BEATTY & WOZNIAK, P.C.**

Clinton Dworshak  
Utah Division of Oil, Gas and Mining  
December 24, 2014  
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The above correctly sets forth our agreement and understanding

Utah Division of Oil, Gas and Mining

Date: 12/30/14

Clinton L. Dworshak  
By: Clinton Dworshak  
Compliance Manager

BAT: dc  
5056.0002  
334073

cc: John Rogers, Associate Director  
Dustin Doucet, Petroleum Engineer  
Douglas J. Crapo, Assistant Attorney General  
John Robinson Jr., Assistant Attorney General