



**WOLVERINE GAS AND OIL COMPANY
OF UTAH, LLC**

Energy Exploration in Partnership with the Environment

January 18, 2008

Mr. Gil Hunt
Utah Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Re: **Applications for Permits to Drill - Wolverine Gas and Oil Company of Utah, LLC
Wolverine Federal 19-2, Wolverine Federal 20-4, Wolverine Federal 20-2,
Wolverine State 20-3, and Wolverine State 17-10
Covenant Field, D Pad, NE/4 NW/4, Section 20, T23S, R1W, SLB&M
Sevier County, Utah**

Dear Mr. Hunt:

Wolverine Gas and Oil Company of Utah, LLC (Wolverine) hereby submits two copies of an *Application for Permit to Drill* (APD) for each of the five referenced wells. These five wells will be directionally drilled from the same pad, referred to as D Pad in the Covenant Field. Included with these APDs is the following supplemental information:

- R649-3-2 Exception Plat for the Wolverine Federal 19-2;
- R649-3-11 Directional Drilling Application Plat for each well;
- BLM Surface Use Plan of Operations;
- Survey Plat for each well;
- Drilling Plan, BOPE Diagram, and Directional Plan for each well;
- Location Layout and Pad Cross-Sections for each well;
- Vicinity Map showing Land Administration for each well.

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DIV. OF OIL, GAS & MINING

Kings Meadow Ranches, LLC (User Number 63-2529) will be the source for water during drilling and completion operations on this proposed well. The surface at the planned drill site is administered by the Bureau of Land Management.

The proposed Wolverine Federal 19-2 well is located within 460' of a drilling unit boundary, so a request for exception to spacing (R649-3-2) is hereby requested for the well based on geology and restrictive topography. Wolverine is the only owner and operator within 460' of the proposed well location.

This letter and the accompanying plats are also intended to serve as an application for directionally drilling the five proposed D Pad wells per R649-3-11. Wolverine is the owner of all oil and gas within 460 feet from all points along the intended wellbore for each of the five wells. Information relating to R649-3-11 is as follows:

Operator: Wolverine Gas and Oil Company of Utah, LLC

Address: One Riverfront Plaza
55 Campau, N.W.
Grand Rapids, MI 49503-2616

Wells: Wolverine Federal 19-2, Wolverine Federal 20-4, Wolverine Federal 20-2,
Wolverine State 20-3, and Wolverine State 17-10

Field: Covenant

Reservoir: Navajo

County: Sevier

Reason: Inaccessible terrain and to minimize surface impact.

Please accept this letter as Wolverine's written request for confidential treatment of all information contained in and pertaining to this application and proposed wells.

Thank you for consideration of this application. Please feel free to contact myself or Ed Higuera of this office if you have any questions or need additional information.

Sincerely,



Ellis M. Peterson
Senior Production Engineer
Wolverine Gas and Oil

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

FORM 3

AMENDED REPORT
(highlight changes)

APPLICATION FOR PERMIT TO DRILL		5. MINERAL LEASE NO: ST UT ML-46605	6. SURFACE: Federal
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>		7. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA	
B. TYPE OF WELL: OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> OTHER _____ SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. UNIT or CA AGREEMENT NAME: Wolverine Federal Unit	
2. NAME OF OPERATOR: Wolverine Gas and Oil Company of Utah, LLC		9. WELL NAME and NUMBER: Wolverine State 20-3	
3. ADDRESS OF OPERATOR: 55 Campau NW CITY Grand Rapids STATE MI ZIP 49503-2616		PHONE NUMBER: (616) 458-1150	10. FIELD AND POOL, OR WILDCAT: Covenant Field Navajo
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 224' FNL, 2145' FWL, NE/4 NW/4, Section 20 AT PROPOSED PRODUCING ZONE: 2003' FNL, 1859' FWL, SE/4 NW/4, Section 20		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 20 23S 01W S	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 4 miles SE of Sigurd, Utah		12. COUNTY: Sevier	13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 581	16. NUMBER OF ACRES IN LEASE: 1880	17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40 acres	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) 2800	19. PROPOSED DEPTH: 7,050	20. BOND DESCRIPTION: Blanket Surety B001849	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 5866' GL, 5892' KB	22. APPROXIMATE DATE WORK WILL START: 5/15/2008	23. ESTIMATED DURATION: 40 days	

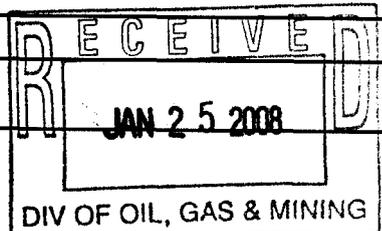
24. **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT		
30"	24" Conduct	80	Ready Mix		
12.25"	9.625" J-55 36.0	2,025	CBM Lite	225 sks	4.12 10.5
			Premium Plus	275 sks	1.19 15.6
8.75"	7" HCL-80 23.0, 26.0	7,050	Elastiseal, N2 foamed	420 sks	10.0
			Elastiseal, non-foam	135 sks	14.35 1.45

25. **ATTACHMENTS**

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

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER	<input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER



NAME (PLEASE PRINT) Edward A. Higuera TITLE Manager - Development

SIGNATURE *Edward A. Higuera* DATE 1/18/2008

(This space for State use only)

API NUMBER ASSIGNED: 43-041-30655

Approved by the Utah Division of Oil, Gas and Mining

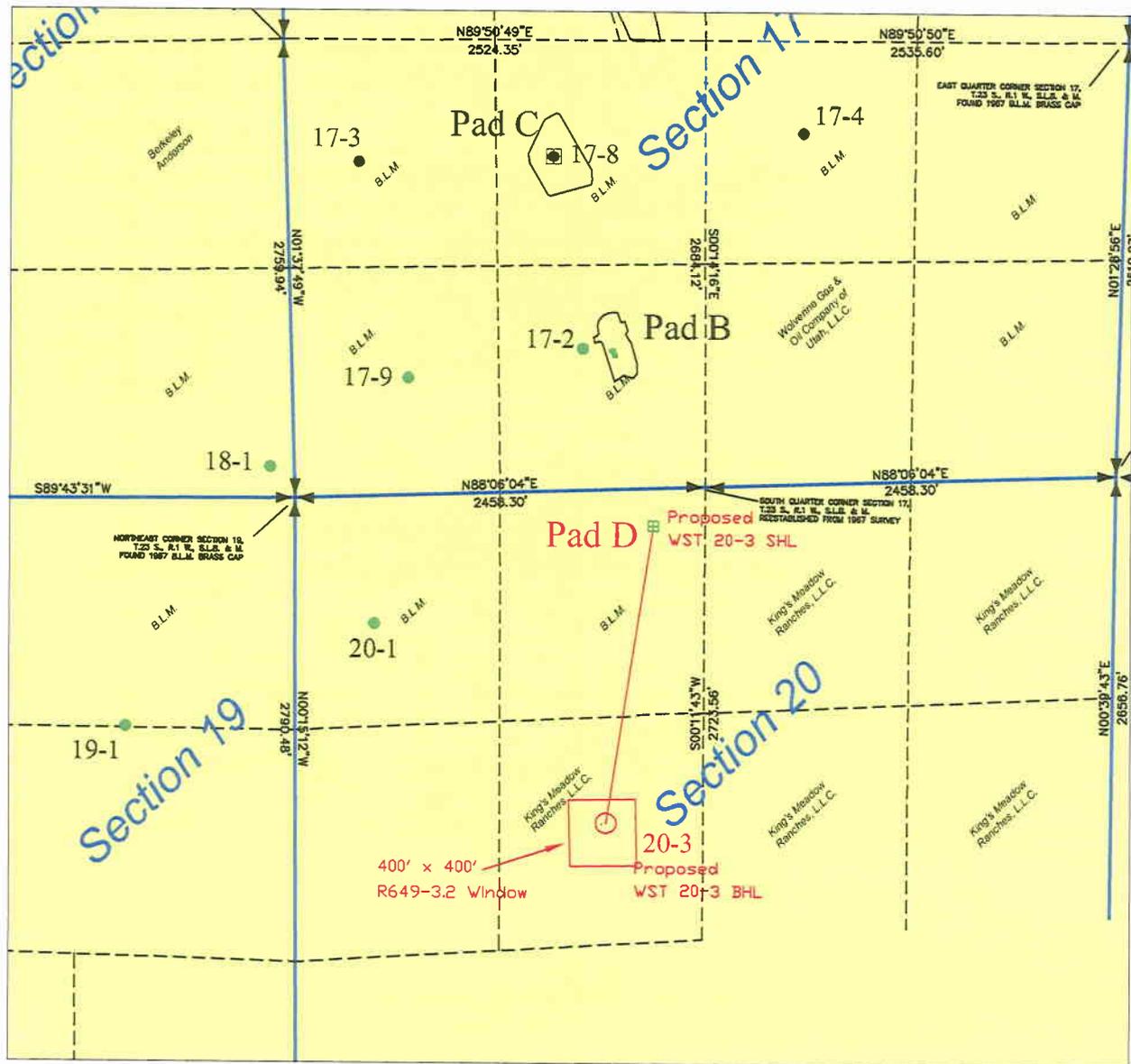
APPROVAL: _____

(11/2001) **Federal Approval of this Action is Necessary**

Date: 02-13-08

By: *[Signature]*

CONFIDENTIAL



Wolverine State 20-3 Well Location

SHL: 224' FNL, 2145' FWL, NE1/4 NW1/4 Sec. 20 T23S R1W

BHL: 2003' FNL, 1859' FWL, SE1/4 NW1/4 Sec. 20 T23S R1W

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 Wolverine Lease



Wolverine Gas and Oil Corporation

Energy Exploration in Partnership with the Environment

One Riverfront Plaza
55 Campus N.W.
Grand Rapids, MI 49503-2616
(616) 458-1150

Directional Drilling Application Plat (R649-3-11)

T23S, R1W

Sevier County, UT

SCALE: 1:12,000

FNAME: covenant_field.dwg

DATE: 01/08/2008

SHEET

REV

WOLVERINE GAS AND OIL COMPANY OF UTAH, LLC

DRILLING PLAN

Wolverine State 20-3 NE/4 NW/4 Section 20, Township 23 South, Range 1 West, S.L.B & M. Sevier County, Utah

Plan Summary:

It is planned to drill this confidential development well as a directional bore hole due to surface topography constraints and in accordance with the enclosed directional drilling plan. The well will be drilled to a measured depth of 7050' (6700' TVD) to test the upper thrust of the Twin Creek and Navajo formations. Well path deviation caused by subsurface geologic irregularities is expected to be the primary drilling concern in this area. No abnormal pressure is anticipated.

The planned location is as follows:

Surface Location:	224' FNL, 2145' FWL, Section 20, T23S, R1W, S.L.B. & M.
Bottom Hole Location @ Navajo 1 target	2003' FNL, 1859' FWL, Section 20, T23S, R1W, S.L.B. & M.
Bottom Hole Location @ total depth	2003 FNL, 1859' FWL, Section 20, T23S, R1W, S.L.B. & M.

Conductor casing will be set at approximately 80 feet and cemented to surface. A 12-1/4" hole will be drilled vertically to approximately 1000' and then deviated at 2 degrees per 100' build rate to 23 degrees hole angle at 2025' (2000' TVD) at which time 9-5/8" surface casing will be set and cemented to surface. An 8-3/4" hole will be drilled at approximately 23 degrees from vertical to approximately 5500' MD, then allowed to drop to vertical to penetrate the Twin Creek and Navajo formations to a well total depth of 7050' (6700' TVD). The well will be logged and 7" production casing will be set and cemented to 1500' (9-5/8" csg shoe @ 2025').

Drilling activities at this well are expected to commence in June 2008.

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Well Name: Wolverine State 20-3

Surface Location: 224' FNL, 2145' FWL
 NE/4 NW/4 Section 20, T23S, R1W, S.L.B. & M.
 Sevier County, Utah

TD Bottom-Hole Location: 2003' FNL, 1859' FWL; Sec 20, T23S, R1W, S.L.B. & M

Elevations (est): 5866' GL, 5892' KB

I. Geology:

Tops of important geologic markers and anticipated water, oil, gas, and mineral content are as follows:

Formation	TVD Interval (KB)	MD Interval (KB)	Contents	Pressure Gradient
Arapien	26' – 6026'	26' – 6369'		
Twin Creek 1	6026' – 6356'	6369' – 6699'	Oil & water	0.46 psi/ft
Navajo 1	6356' – 6700'	6699' – 7050'	Oil & water	0.46 psi/ft
Total Depth	6700'	7050'		

II. Well Control:

The contracted drilling rig has a 10M BOP system but conditions only require a 5M BOP system. BOPE will be in place and tested as a 5M system prior to drilling out the surface casing shoe. See attached schematic of BOPE.

A. The BOPE will, as a minimum, include the following:

Wellhead Equipment (5M Min.):

BOPE Item	Flange Size and Rating
Annular Preventer	13-5/8" 5M
Double Rams (5" Pipe - top, Blind - bottom)	13-5/8" 10M
Drilling Spool w/ 2 side outlets (4" Choke Line, 4" Kill Line)	13-5/8" 10M x 13-5/8" 10M
Single Ram (Pipe)	13-5/8" 10M
DSA	13-5/8" 10M x 11" – 5M
Casing Head (9-5/8" SOW w/ two 2-1/16" SSO's)	11" 5M

Auxiliary Equipment (5M Min.):

BOPE Item
Choke Line with 2 valves (3" minimum)
Kill Line with 2 valves and one check valve (2" Minimum)
2 Chokes with one remotely controlled at a location readily accessible to the driller
Upper and lower kelly cock valves with handles
Safety Valves to fit all drill string connections in use
Inside BOP or float sub
Pressure gauge on choke manifold
Fill-up line above the uppermost preventer
Wear bushing in casing head

- B. **Choke manifold** will be functionally equipped and sized at a minimum as shown on the attached diagram. All choke lines will be straight lines unless turns have tee blocks or are targeted with running tees, and all choke lines will be anchored. All valves (except chokes) in the kill line choke manifold and choke line will be full opening and allow straight through flow.
- C. **System accumulator** will have sufficient capacity to open the hydraulically-controlled gate valve and close all rams plus the annular preventer (3 ram system will have added 50 percent safety factor to compensate for any fluid loss in the control system or preventers) and retain a minimum pressure of 200 psi above pre-charge on the closing manifold without use of the closing unit pumps. The fluid reservoir capacity shall be double the usable fluid volume of the accumulator system capacity and the fluid level of the reservoir shall be maintained at the manufacturer's recommendations. The accumulator will have two (2) independent power sources available to close the preventers. Nitrogen bottles may be one of those sources, and if so, will have charge maintained per manufacturer's specifications.
- D. **Accumulator pre-charge pressure test** will be conducted prior to connecting the closing unit to the BOP stack and at least once every 6 months. The accumulator pressure will be corrected if the measured precharge pressure is found to be above or below the maximum or minimum specified limits. Only nitrogen gas will be used to precharge.
- E. **Power for the closing unit pumps** will be available to the unit at all times so that the pumps will automatically start when the closing valve manifold pressure has decreased to the pre-set level.
- F. **Accumulator pump capacity** will be such that, with the accumulator system isolated from service, the pumps will be capable of opening the hydraulically-operated gate valve (if so equipped), plus closing the annular preventer on the smallest size drill pipe to be used within 2 minutes, and retaining a minimum of 200 psi above the specified accumulator pre-charge pressure.
- G. **Locking devices**, either manual (i.e., hand wheels) or automatic, will be installed on the ram type preventers. A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve shall be maintained in the open position and shall be closed only when the power source for the accumulator system is inoperative.
- H. **Remote controls** will be readily accessible to the driller and will be capable of both opening and closing all preventers. Master controls shall be at the accumulator and shall be capable of opening and closing all preventers and the choke line valve.
- I. **Well control equipment testing** will be performed using clear water when the equipment is initially installed, whenever any seal subject to test pressure is broken, following related repairs, and as a minimum, every 30-day interval. The tests will apply to all related well control equipment.

Ram type preventers and associated equipment will be isolated and tested to 5000 psi. The annular preventer will be tested to 2500 psi. Pressure shall be maintained for at least 10 minutes or until requirements of test are met, whichever is longer, for all tests. A casing head valve will be open below the test plug during testing of the BOP stack. Valves will be tested from the working pressure side with all down-stream valves open. Kill line valves will be tested with the check valve held open or the ball removed.

Pipe and blind rams will be activated each trip, but not more than once a day. The annular preventers will be functionally operated at least weekly. A pit level drill will be conducted weekly for each crew. All BOPE drills and tests will be recorded in the IADC driller's log.

III. Casing and Cementing:

A. Casing Program (all new casing):

<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Connection</u>	<u>Coupling Diameter</u>	<u>Setting Depth</u>
30"	24"		Conductor			80' GL
12.25"	9.625"	36.0	J55	STC	10.625"	2025' kb
8.750"	7.000"	26.0	HCL-80	LTC	7.656"	TD-4000'kb
	7.000"	23.0	HCL-80	LTC	7.656"	4000'- surf

	<u>Surface</u>	<u>Intermediate</u>	<u>Production</u>
Casing O. D. (in)	9.625	None	7.0
Casing Grade	J-55		HCL-80
Weight of Pipe (lbs/ft)	36.0		23 & 26
Connection	STC		LTC
Top Setting Depth - MD (ft)	0		0
Top Setting Depth - TVD (ft)	0		0
Bottom Setting Depth - MD (ft)	2025		7050
Bottom Setting Depth - TVD (ft)	2000		6700
Maximum Mud Weight - Inside (ppg)	9.2		8.4
Maximum Mud Weight - Outside (ppg)	9.2		10.5
Design Cement Top - MD (ft)	0		1500
Design Cement Top - TVD (ft)	0		1500
Max. Hydrostatic Inside w/ Dry Outside (psi)	957		2927
Casing Burst Rating (psi)	3520		7240
Burst Safety Factor (1.10 Minimum)	3.68		2.47
Max. Hydrostatic Outside w/ Dry Inside (psi)	957		3658
Collapse Rating	2020		6830
Collapse Safety Factor (1.125 Minimum)	2.11		1.87
Casing Weight in Air (kips)	72.9		171.3
Body Yield (kips)	564.0		532.0
Joint Strength (kips)	453.0		435.0
Tension Safety Factor (1.80 Minimum)	6.21		2.54

Casing with same or greater burst, collapse, and tension rating may be substituted for any of the planned casing sizes depending on availability and actual conditions.

B. Cementing Program

Casing Size	Cement Slurry	Quantity (sks)	Density (ppg)	Yield (ft³/sk)
9.625"	Lead: CBM Lite	225	10.5	4.12
	Tail: Premium Plus	275	15.6	1.19
7.000"	Lead: Elastiseal™ N2 foamed	420	10.0	NA
	Tail: Elastiseal™ non-foamed	135	14.35	1.45

Surface: 9-5/8" surface casing will be cemented from setting depth (2025' MD) to surface and topped out with premium cement if necessary. Hardware will include a guide shoe, float collar, top plug, and a minimum of one centralizer per joint on the bottom three (3) casing joints. Water or other preflush fluid pumped ahead of the slurry will separate cement from the drilling fluids.

Intermediate: none

Production: 7" production casing will be cemented in one stage from setting depth (7050') to 1500' (at least 500' into the 9-5/8" casing) using a foamed cement lead and non-foamed tail across the producing interval. A minimum of 20 percent silica will be added to the cement slurry if bottom-hole temperature exceeds 230 °F. Slurry volume will be based on calipered hole size plus 20% excess. Hardware will include a guide shoe, float collar, top plug, and centralizers as needed across any pay zones. Water and preflush fluid pumped ahead of the slurry will separate cement from the drilling fluids.

- Other:
- The BLM will be notified at least twenty-four hours prior to running and cementing the surface and production casing strings.
 - Actual cement slurries for all casing will be based on final service company recommendations.
 - The size, weight, grade, type of thread, number of joints, and footage of all casing run will be recorded in the driller's log. The amount and type of all cement pumped will be recorded in the driller's log.
 - Adequate time will be allowed before drilling out for the cement at the casing shoe to achieve a minimum 500-psi compressive strength.
 - All casing strings will be tested to 1500 psi before drilling out and if pressure declines by more than 10 percent in 30 minutes, corrective action will be taken.
 - Before drilling more than 20 feet of new hole below each casing string, a pressure integrity test of the casing shoe will be performed to a minimum of the mud weight equivalent anticipated to control the pore pressure to the next casing depth or at total depth of the well.

IV. Mud Program:

<u>Depth</u>	<u>Mud Weight (ppg)</u>	<u>Mud Type</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0 – 2025'	8.4 – 9.2	Fresh Water	26 – 50	N/C to 12 cc
2025' – 7050'	9.2 – 10.5	Salt Mud	36 – 50	N/C to 8 cc

- A. After mudding up, slow pump rates will be taken daily and recorded in the driller's log.
- B. Visual mud monitoring equipment will be in place to detect volume changes indicating loss or gain of circulating fluid volume.
- C. Abnormal pressures are not anticipated. In the event such pressures are to be anticipated, electronic/mechanical mud monitoring equipment will be in place and include as a minimum; pit volume totalizer (PVT); stroke counter; and flow sensor.
- D. A mud test will be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.
- E. The 10M BOPE system is not required for conditions on this well and use of the trip tank is not anticipated.
- F. Gas detecting equipment will be installed in the mud return system, and hydrocarbon gas shall be monitored for pore pressure changes. The presence of Hydrogen Sulfide gas is not expected.
- G. The need to vent combustible or noncombustible gas is not expected. If needed, a flare system designed to gather and burn all gas will be available. The flare line discharge will be located more than 100 feet from the well head and it will be positioned downwind of the prevailing wind direction. The flare line will have straight lines unless turns are targeted with running tees and it will be anchored. The flare system will have an effective method for ignition.
- H. Abnormal pressure is not expected. If abnormal pressure is to be anticipated, a mud-gas separator (gas buster) will be installed and operable beginning at a point at least 500 feet above any anticipated hydrocarbon zone of interest.

V. Evaluation:

- A. Mud Log: A mud logging unit will be in operation from a depth of approximately 2025 feet to TD. Samples will be caught, cleaned, bagged, and marked as required.
- B. Drill Stem Tests: There are no DST planned.
- C. Coring: There are no cores planned.
- D. Wireline Logs: Wireline logs will be run as hole conditions allow from total depth to surface casing to assist in determining lithology and potential for hydrocarbon recovery. The logging tools will at a minimum survey resistivity, gamma radiation, and sonic velocity.

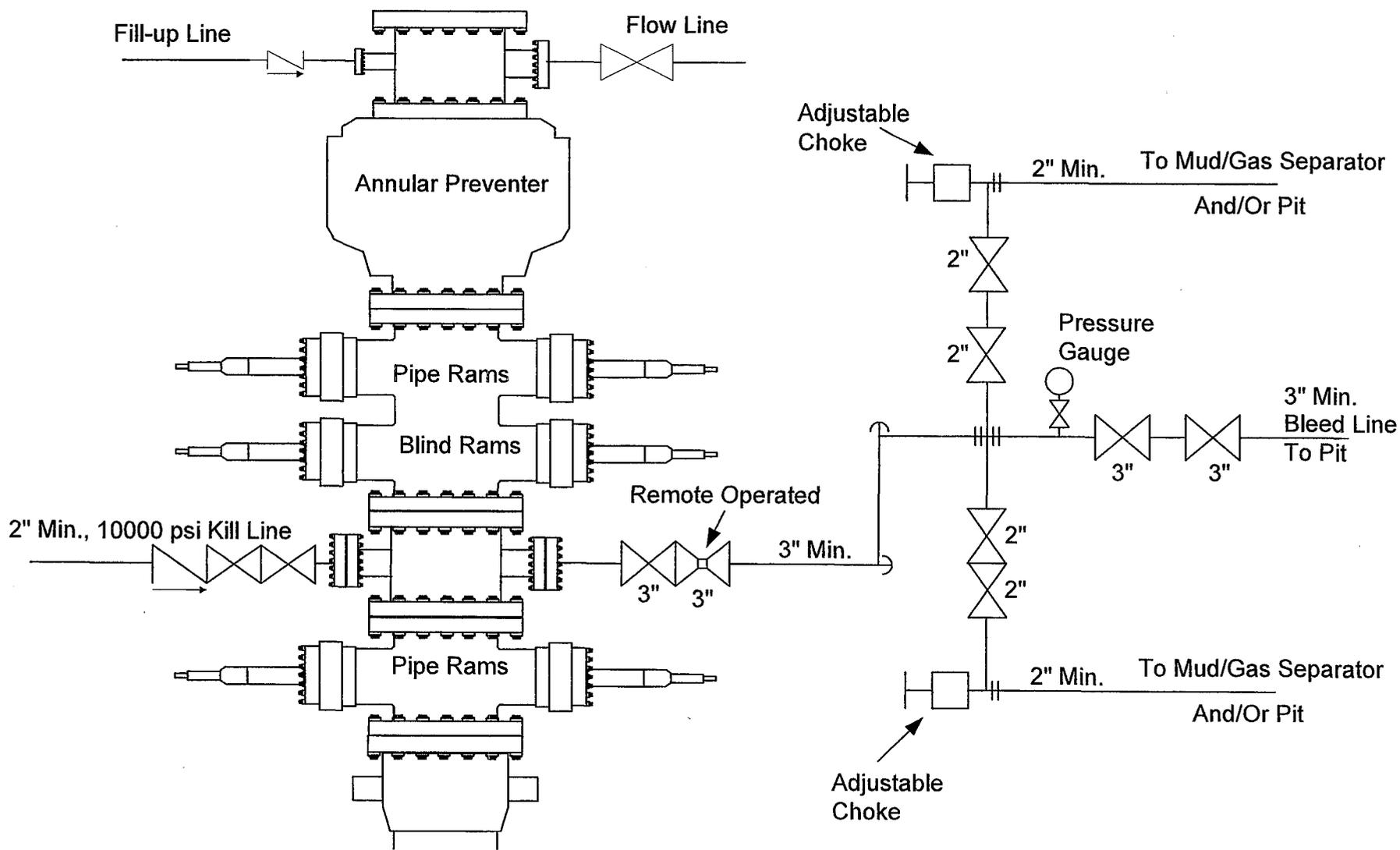
VI. Expected Bottom-Hole Pressure and Abnormal Conditions:

- A. Hydrogen Sulfide: Hydrogen Sulfide (H₂S) gas is not expected in the geologic formations to be penetrated by this well.
- B. Pressure: No abnormally pressured zones are expected in this well. The pressure gradient for all potentially productive formations is expected to be approximately 0.46 psi/ft.
- C. Temperature: Bottom-hole temperature at TD is expected to be approximately 190 °F.

end

**Wolverine Gas and Oil Company of Utah, LLC
Covenant Field D1 Pad Well
BOPE Schematic**

(Not to Scale)



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SURFACE USE PLAN OF OPERATIONS

EXHIBIT A to Application for Permit to Drill

Name of Operator: Wolverine Gas and Oil Company of Utah, LLC
Address: One Riverfront Plaza, 55 Campau NW
Grand Rapids, Michigan, 49503-2616

Well Location(s): -Below five wells directionally drilled from one drill pad (D Pad)

Wolverine State 17-10

193' FNL & 2136' FWL, Section 20, T23S, R1W, SLB&M
BHL in SW/4 SE/4 Section 17-T23S-R1W
Sevier County, Utah

Wolverine Federal 19-2

255' FNL & 2155' FWL, Section 20, T23S, R1W, SLB&M
BHL in NE/4 SE/4 Section 19-T23S-R1W
Sevier County, Utah

Wolverine Federal 20-2

239' FNL & 2150' FWL, Section 20, T23S, R1W, SLB&M
BHL in SW/4 NW/4 Section 20, T23S, R1W
Sevier County, Utah

Wolverine State 20-3

224' FNL & 2145' FWL, Section 20, T23S, R1W, SLB&M
BHL in SE/4 NW/4 Section 20, T23S, R1W
Sevier County, Utah

Wolverine Federal 20-4

208' FNL & 2141' FWL, Section 20, T23S, R1W, SLB&M
BHL in NE/4 NW/4 Section 20, T23S, R1W
Sevier County, Utah

Access Road Location: Across BLM land in NE/4 NW4 Section 20, T23S, R1W,
SLB&M from new driveway off SR 24.

State surface use is not required for construction and drilling of the referenced wells. BLM is the surface owner at the drill pad site. Federal surface use is being requested with the associated Application for Permit to Drill (APD) through the BLM – Richfield Field Office.

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

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Existing Roads:

The vicinity maps attached to the APDs show the proposed well pad location and its proximity to the town of Sigurd, Utah. From Sigurd, travel south on SR 24 approximately 5 miles to the proposed well pad access driveway located on west side of highway.

Access Roads to be Constructed and Reconstructed:

A new driveway will be constructed, approximately 200 feet in length, as shown on the attached drawings. Width of ramp at highway is 100 feet, narrowing to a maintained road width of 30 feet.

Location of Existing Wells:

All wells located within a one-mile radius of the proposed wells are listed below:

Well	Type	Surface Location *	Bottom Hole Location *
KMR 17-1	Producer-oil	SE4NW4 Section 17	SE4NW4 Section 17
WF 17-2	Producer-oil	SE4SW4 Section 17	SE4SW4 Section 17
WF 17-3	Producer-oil	SE4NW4 Section 17	SW4NW4 Section 17
WF 17-4	Producer-oil	SE4NW4 Section 17	NW4SE4 Section 17
WF 17-5	Producer-oil	SE4NW4 Section 17	SE4NE4 Section 17
WF 17-6	Producer-oil	SE4NW4 Section 17	NW4NE4 Section 17
KMR 17-7	Producer-oil	SE4NW4 Section 17	NW4SW4 Section 17
WF 17-8	Being Completing-oil	NE4SW4 Section 17	NE4SW4 Section 17
WF 17-9	Producer-oil	NE4SW4 Section 17	SW4SW4 Section 17
WF 18-1	Producer-oil	SE4SW4 Section 17	SE4SE4 Section 18
WF 19-1	Producer-oil	SE4SW4 Section 17	NE4NE4 Section 19
WF 20-1	Producer-oil	SE4SW4 Section 17	NW4NW4 Section 20
WF 8-1	Dry Hole-plugged	SE4NW4 Section 17	SE4SE4 Section 8
SWD-1	Disposal-active	SW4SW4 Section 8	SW4SW4 Section 8
Water well	Culinary water supply	SW4NE4 Section 20	SW4NE4 Section 20

*All wells are located in T23S-R1W

Location of Planned Wells:

Planned wells that have approval to be drilled and will be located within a one-mile radius of the proposed wells are listed below:

Well	Type	Surface Location *	Bottom Hole Location *
WF 17-11	Producer-oil	SE4NW4 Section 17	SE4NE4 Section 17
WF 17-12	Producer-oil	SE4NW4 Section 17	SW4NE4 Section 17
WF 17-13	Producer-oil	SE4NW4 Section 17	SW4NE4 Section 17

Location of Existing and/or Proposed Facilities if Well is Productive:

(a) *On well pad* – No production facilities are planned for the proposed well pad. A temporary testing facility may be constructed on this location and if so it will be surrounded by a dike of sufficient capacity to contain the storage capacity of the largest tank. All loading lines and valves will be placed inside the berm surrounding the tank battery location.

(b) *Off well pad* – Produced oil and fluids from the proposed wells will be transported by underground pipelines northerly across BLM land, across the existing B Pad, and continuing northerly to the valve set recently installed on the existing C Pad. This action will be proposed in the future by Sundry Notice.

Location and Type of Water Supply (Rivers, Creeks, Lakes, Ponds and Wells):

The Operator intends to lease water rights from Kings Meadow Ranches, LLC (Water Right #63-2529), which was the supply for drilling the other Covenant Field wells. Source of water is Kings

Meadow Reservoir. Water will be piped to the reserve pit from the nearest irrigation riser, as directed by Kings Meadow Ranches. Should additional water sources be pursued they will be properly permitted through the State of Utah – Division of Water Rights. The BLM will be notified of any changes in water supply.

Construction Materials:

Natural earth materials used for fill on the well pad will be taken from cuts made in the perimeter of the pad. Imported granular borrow from an approved source will be applied to the surface of the well pad.

Methods for Handling Waste Disposal:

The reserve pit will be used for the disposal of waste mud and drill cuttings. All borehole fluids and salts will be contained in the reserve pit. It has been located in cut material and will be lined with 12 mil minimum thickness plastic nylon reinforced liner material. The liner will overlay a felt liner pad only if sharp rock edges result from excavation. The pit liner will overlap the top of the pit walls and be covered with dirt and/or rocks to hold it in place. No trash, scrap pipe, etc. that could puncture the liner will be disposed of in the pit. Pit walls will be sloped no greater than 2:1. A minimum 2-foot freeboard will be maintained in the pit at all times during the drilling and completion operations. After evaporation of fluids, back-fill of sub-soil and compaction to prevent settling will occur within 90 days of cessation of pit use. If necessary, any remaining fluids will be pumped out of the pit and transported off site to an approved disposal facility.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of the well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of the well.

Wastewater will not be discharged on the surface at this site and the drilling of the wells will not require a wastewater management plan.

Produced fluids from the wells other than water will be stored in a test tank until such time as hookup to production facilities can be made. Any spills of oil, gas, salt water or other fluids will be cleaned up and removed.

All rubbish and debris will be kept in containers on the well site, and will be hauled to an approved disposal site upon completion of drilling operations and as needed during such operations. There will be no chemical disposal of any type.

Self-contained, portable toilets will be used for human waste, and the waste will be disposed at an approved human waste disposal facility. Sanitation will comply with local and state regulations.

Ancillary Facilities:

No ancillary facilities are anticipated.

Well Site Layout:

The Location Layout Drawings attached to the APD show the proposed wells' surface locations in relation to the pad layout, which includes location of the reserve pit and access road onto the pad, turnaround areas, parking areas, office facilities, soil material stockpiles, and the orientation of the rig with respect to the pad and other facilities. Pad Section Sheets in said attachment show cuts and fills

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required for construction, and their relationship to topography. As detailed above under Methods for Handling Waste Disposal, the reserve pit will be lined and appropriate measures as described above will be taken to prevent leakage. The pit will be fenced on three sides during drilling operations and then the fourth side will be immediately fenced when the rig is moved off location.

The pad design is consistent with BLM specifications.

A pre-construction meeting with responsible company representative and contractors will be conducted at the project site prior to commencement of surface-disturbing activities. The pad will be construction-staked prior to this meeting.

All surface disturbing activities will be supervised by a qualified, responsible company representative who is aware of the terms and conditions of the APD and specifications in the approved plans.

All cut and fill slopes will be such that stability can be maintained for the life of the activity.

Diversion ditches will be constructed as shown around the well pad to prevent surface waters from entering the well site area. The site surface will be graded to drain away from the pit to avoid pit spillage during large storm events.

The stockpiled topsoil (first 6 inches or maximum available) will be stored on the west side of the northwest pad corner. All topsoil will be stockpiled for reclamation in such a way as to prevent soil loss and contamination.

Plans for Reclamation of the Surface:

Interim Reclamation: After production is established from successful wells as expected, the Operator will perform interim reclamation of the site. Interim reclamation will consist of reclamation of the reserve pit and reclamation of that portion of the well pad not needed for ongoing operations. After evaporation of fluids, the pit will be back-filled with sub-soil and/or rock and compacted to prevent settling. The pit area will be surfaced with granular borrow to render it a usable part of the well pad. All portions of the pad no longer necessary for well workover, testing or treating will be contoured to match the surrounding terrain to the best extent practicable, and seeded as prescribed by the BLM.

Final Reclamation: At such time that all production ceases from the proposed wells and the wells have been plugged and abandoned, the Operator will perform final reclamation of the site. Final reclamation will consist of replacing spoil into the cut areas in a manner that will return the impacted area to its original contour and condition, to the greatest extent practicable, and blending same with undisturbed land to establish a natural-looking contour. All disturbed land will be seeded per BLM requirements.

During the life of the project and until the site is released from liability for reclamation, the project will be inspected at least annually for noxious weeds. If invasive noxious weeds are found, the weeds will be treated to eliminate further reproduction, and treatment shall continue until the weeds have been eradicated. If noxious weeds are found, the BLM will be notified of their occurrence.

Surface Ownership:

The surface of the well pad and access road is owned by BLM.

Other Information:

Western Land Services has conducted a Class III archeological survey and will submit the report under separate cover to the appropriate agencies.

Western Land Services is preparing an EA for the proposed D Pad that will be submitted under separate cover.

No stream alteration or drainage crossings are involved that require additional State or Federal approval.

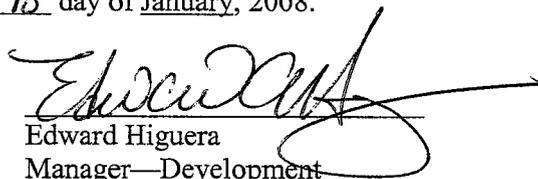
All permanent structures constructed or installed will be painted to match the Covenant Facilities, which is painted non-reflective Carlsbad Cavern Tan, unless otherwise directed by the AO. All facilities will be painted within six months of installation. Facilities that are required to comply with Occupational Safety and Health Act (OSHA) shall be excluded.

Operator Certification

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

Executed this 18 day of January, 2008.

Signature:



Edward Higuera

Position Title: Manager—Development

Address: Wolverine Gas and Oil Company of Utah, LLC
One Riverfront Plaza, 55 Campau, NW
Grand Rapids, Michigan, 49503-2616

Telephone: 616-458-1150

Field representative (if not above signatory):

Address: Paul Spiering
1140 N Centennial Park Drive
Richfield, Utah 84701

Telephone: 435-896-1943

Agents not directly employed by the operator must submit a letter from the operator authorizing that agent to act or file this application on their behalf.

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WOLVERINE GAS & OIL COMPANY

Location: UTAH Slot: Wolverine State 20-3 224'FNL & 2145'FWL
 Field: SEVIER COUNTY Well: Wolverine State 20-3
 Facility: SEC.20-T23S-R1W Wellbore: Wolverine State 20-3 PWB

Plot reference wellpath is Wolverine State 20-3 PWB	
True vertical depths are referenced to Rig on Wolverine State 20-3 224'FNL & 2145'FWL (RT)	Grid System: NAD83 / Lambert Utah State Planes, Central Zone (4302), US feet
Measured depths are referenced to Rig on Wolverine State 20-3 224'FNL & 2145'FWL (RT)	North Reference: True north
Rig on Wolverine State 20-3 224'FNL & 2145'FWL (RT) to Mean Sea Level: 5891 feet	Scale: True distance
Mean Sea Level to Mud line (Facility - SEC.20-T23S-R1W): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: Suzanne Thompson on 1/7/2008

Location Information

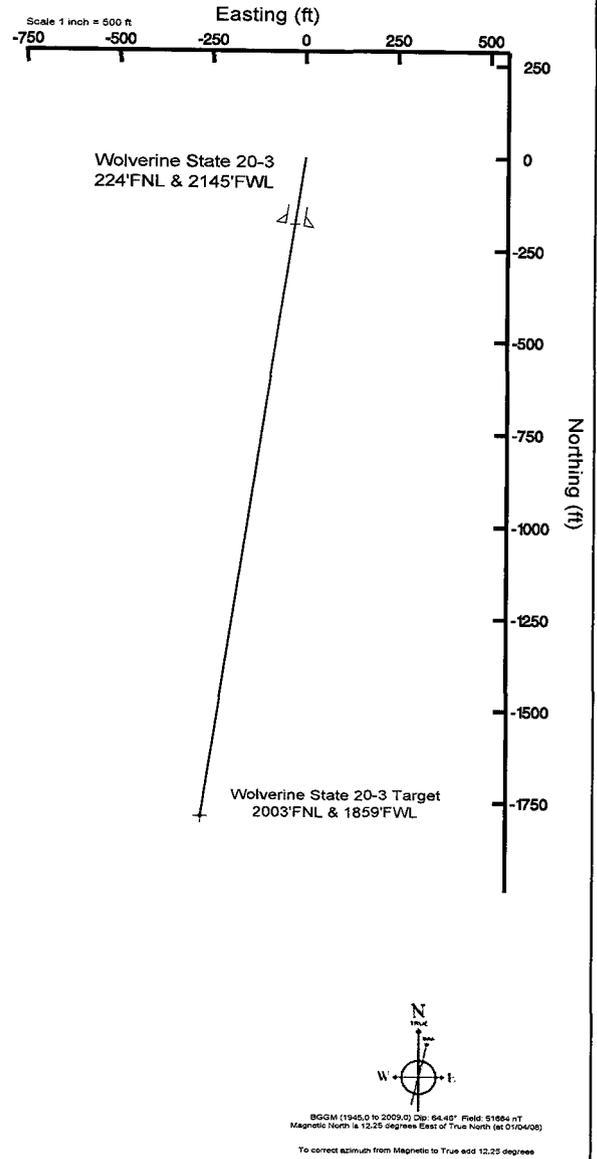
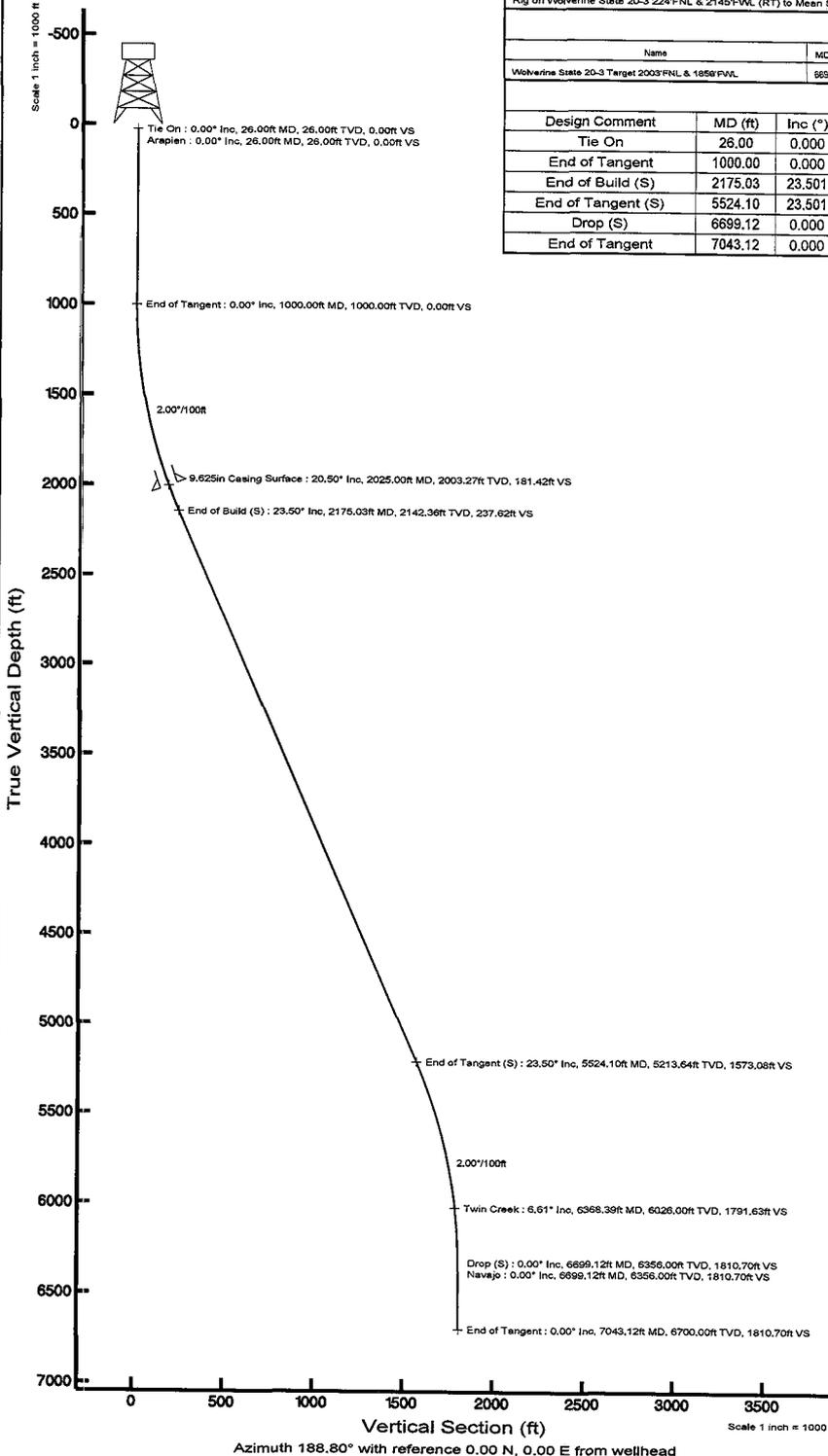
Facility Name		Grid East (USF)	Grid North (USF)	Latitude	Longitude
SEC.20-T23S-R1W		1516740.440	6730025.867	38° 47' 40.989"N	111° 56' 01.992"W
Slot		Local N (ft)	Local E (ft)	Grid East (USF)	Grid North (USF)
Wolverine State 20-3 224'FNL & 2145'FWL		-30.46	9.79	1516750.078	6729995.356
Rig on Wolverine State 20-3 224'FNL & 2145'FWL (RT) to Mud line (Facility - SEC.20-T23S-R1W)				5891ft	
Mean Sea Level to Mud line (Facility - SEC.20-T23S-R1W)				0ft	
Rig on Wolverine State 20-3 224'FNL & 2145'FWL (RT) to Mean Sea Level				5891ft	

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (USF)	Grid North (USF)	Latitude	Longitude
Wolverine State 20-3 Target 2003'FNL & 1859'FWL	6699.12	6356.00	-1788.39	-277.01	1516464.37	6728207.23	38° 47' 23.001"N	111° 56' 05.368"W

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (*/100ft)	VS (ft)
Tie On	26.00	0.000	188.800	26.00	0.00	0.00	0.00	0.00
End of Tangent	1000.00	0.000	188.800	1000.00	0.00	0.00	0.00	0.00
End of Build (S)	2175.03	23.501	188.800	2142.36	-234.82	-36.35	2.00	237.62
End of Tangent (S)	5524.10	23.501	188.800	5213.64	-1554.57	-240.66	0.00	1573.08
Drop (S)	6699.12	0.000	188.800	6356.00	-1789.39	-277.01	2.00	1810.70
End of Tangent	7043.12	0.000	188.800	6700.00	-1789.39	-277.01	0.00	1810.70



Planned Wellpath Report

Wolverine State 20-3 PWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	WOLVERINE GAS & OIL COMPANY	Slot	Wolverine State 20-3 224'FNL & 2145'FWL
Area	UTAH	Well	Wolverine State 20-3
Field	SEVIER COUNTY	Wellbore	Wolverine State 20-3 PWB
Facility	SEC.20-T23S-R1W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Utah State Planes, Central Zone (4302), US feet	Software System	WellArchitect™ 1.2
North Reference	True	User	Suzanne Thompson
Scale	1.00006	Report Generated	01/07/08 at 16:18:45
Wellbore last revised	01/04/08	Database/Source file	WA_Denver/Wolverine_St

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North [feet]	East [feet]	Easting [US feet]	Northing [US feet]	Latitude [°]	Longitude [°]
Slot Location	-30.46	9.79	1516750.08	6729995.36	38 47 40.688N	111 56 01.868W
Facility Reference Pt			1516740.44	6730025.87	38 47 40.989N	111 56 01.992W
Field Reference Pt			1516134.37	6732217.32	38 48 02.619N	111 56 09.781W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on Wolverine State 20-3 224'FNL & 2145'FWL (RT) to Facility Vertical Datum	5891.00
Horizontal Reference Pt	Slot	Rig on Wolverine State 20-3 224'FNL & 2145'FWL (RT) to Mean Sea Level	5891.00
Vertical Reference Pt	Rig on Wolverine State 20-3 224'FNL & 2145'FWL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00 fee
MD Reference Pt	Rig on Wolverine State 20-3 224'FNL & 2145'FWL (RT)	Section Origin	N 0.00, E
Field Vertical Reference	Mean Sea Level	Section Azimuth	188.80°

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Planned Wellpath Report

Wolverine State 20-3 PWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	WOLVERINE GAS & OIL COMPANY	Slot	Wolverine State 20-3 224'FNL & 2145'FWL
Area	UTAH	Well	Wolverine State 20-3
Field	SEVIER COUNTY	Wellbore	Wolverine State 20-3 PWB
Facility	SEC.20-T23S-R1W		

WELLPATH DATA (77 stations) † = interpolated/extrapolated station							
MD [feet]	Inclination [°]	Azimuth [°]	TVD [feet]	Vert Sect [feet]	North [feet]	East [feet]	DLS [°/100ft]
0.00†	0.000	188.800	0.00	0.00	0.00	0.00	0.00
26.00	0.000	188.800	26.00	0.00	0.00	0.00	0.00
126.00†	0.000	0.000	126.00	0.00	0.00	0.00	0.00
226.00†	0.000	0.000	226.00	0.00	0.00	0.00	0.00
326.00†	0.000	0.000	326.00	0.00	0.00	0.00	0.00
426.00†	0.000	0.000	426.00	0.00	0.00	0.00	0.00
526.00†	0.000	0.000	526.00	0.00	0.00	0.00	0.00
626.00†	0.000	0.000	626.00	0.00	0.00	0.00	0.00
726.00†	0.000	0.000	726.00	0.00	0.00	0.00	0.00
826.00†	0.000	0.000	826.00	0.00	0.00	0.00	0.00
926.00†	0.000	0.000	926.00	0.00	0.00	0.00	0.00
1000.00	0.000	188.800	1000.00	0.00	0.00	0.00	0.00
1026.00†	0.520	188.800	1026.00	0.12	-0.12	-0.02	2.00
1126.00†	2.520	188.800	1125.96	2.77	-2.74	-0.42	2.00
1226.00†	4.520	188.800	1225.77	8.91	-8.80	-1.36	2.00
1326.00†	6.520	188.800	1325.30	18.53	-18.31	-2.83	2.00
1426.00†	8.520	188.800	1424.43	31.62	-31.24	-4.84	2.00
1526.00†	10.520	188.800	1523.05	48.15	-47.59	-7.37	2.00
1626.00†	12.520	188.800	1621.03	68.12	-67.32	-10.42	2.00
1726.00†	14.520	188.800	1718.25	91.50	-90.42	-14.00	2.00
1826.00†	16.520	188.800	1814.60	118.26	-116.86	-18.09	2.00
1926.00†	18.520	188.800	1909.96	148.36	-146.61	-22.70	2.00
2026.00†	20.520	188.800	2004.21	181.77	-179.63	-27.81	2.00
2126.00†	22.520	188.800	2097.23	218.45	-215.88	-33.42	2.00
2175.03	23.501	188.800	2142.36	237.62	-234.82	-36.35	2.00
2226.00†	23.501	188.800	2189.10	257.94	-254.91	-39.46	0.00
2326.00†	23.501	188.800	2280.81	297.82	-294.31	-45.56	0.00
2426.00†	23.501	188.800	2372.51	337.69	-333.72	-51.66	0.00
2526.00†	23.501	188.800	2464.22	377.57	-373.12	-57.76	0.00
2626.00†	23.501	188.800	2555.92	417.45	-412.53	-63.86	0.00
2726.00†	23.501	188.800	2647.63	457.32	-451.94	-69.96	0.00
2826.00†	23.501	188.800	2739.34	497.20	-491.34	-76.06	0.00
2926.00†	23.501	188.800	2831.04	537.07	-530.75	-82.16	0.00
3026.00†	23.501	188.800	2922.75	576.95	-570.16	-88.26	0.00
3126.00†	23.501	188.800	3014.45	616.82	-609.56	-94.37	0.00
3226.00†	23.501	188.800	3106.16	656.70	-648.97	-100.47	0.00
3326.00†	23.501	188.800	3197.86	696.58	-688.38	-106.57	0.00
3426.00†	23.501	188.800	3289.57	736.45	-727.78	-112.67	0.00
3526.00†	23.501	188.800	3381.28	776.33	-767.19	-118.77	0.00
3626.00†	23.501	188.800	3472.98	816.20	-806.59	-124.87	0.00

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Planned Wellpath Report

Wolverine State 20-3 PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Wolverine State 20-3 224'FNL & 2145'FWL
Area	UTAH	Well	Wolverine State 20-3
Field	SEVIER COUNTY	Wellbore	Wolverine State 20-3 PWB
Facility	SEC.20-T23S-R1W		

WELLPATH DATA (77 stations) † = interpolated/extrapolated station

MD [feet]	Inclination [°]	Azimuth [°]	TVD [feet]	Vert Sect [feet]	North [feet]	East [feet]	DLS [°/100ft]
3726.00†	23.501	188.800	3564.69	856.08	-846.00	-130.97	0.00
3826.00†	23.501	188.800	3656.39	895.95	-885.41	-137.07	0.00
3926.00†	23.501	188.800	3748.10	935.83	-924.81	-143.17	0.00
4026.00†	23.501	188.800	3839.80	975.71	-964.22	-149.27	0.00
4126.00†	23.501	188.800	3931.51	1015.58	-1003.63	-155.37	0.00
4226.00†	23.501	188.800	4023.21	1055.46	-1043.03	-161.47	0.00
4326.00†	23.501	188.800	4114.92	1095.33	-1082.44	-167.57	0.00
4426.00†	23.501	188.800	4206.63	1135.21	-1121.85	-173.67	0.00
4526.00†	23.501	188.800	4298.33	1175.08	-1161.25	-179.77	0.00
4626.00†	23.501	188.800	4390.04	1214.96	-1200.66	-185.87	0.00
4726.00†	23.501	188.800	4481.74	1254.84	-1240.06	-191.97	0.00
4826.00†	23.501	188.800	4573.45	1294.71	-1279.47	-198.07	0.00
4926.00†	23.501	188.800	4665.15	1334.59	-1318.88	-204.17	0.00
5026.00†	23.501	188.800	4756.86	1374.46	-1358.28	-210.27	0.00
5126.00†	23.501	188.800	4848.57	1414.34	-1397.69	-216.37	0.00
5226.00†	23.501	188.800	4940.27	1454.22	-1437.10	-222.47	0.00
5326.00†	23.501	188.800	5031.98	1494.09	-1476.50	-228.57	0.00
5426.00†	23.501	188.800	5123.68	1533.97	-1515.91	-234.68	0.00
5524.10	23.501	188.800	5213.64	1573.08	-1554.57	-240.66	0.00
5526.00†	23.462	188.800	5215.39	1573.84	-1555.32	-240.78	2.00
5626.00†	21.462	188.800	5307.80	1612.05	-1593.07	-246.62	2.00
5726.00†	19.462	188.800	5401.48	1647.01	-1627.62	-251.97	2.00
5826.00†	17.462	188.800	5496.33	1678.67	-1658.91	-256.81	2.00
5926.00†	15.462	188.800	5592.23	1707.01	-1686.92	-261.15	2.00
6026.00†	13.462	188.800	5689.05	1731.98	-1711.59	-264.97	2.00
6126.00†	11.462	188.800	5786.69	1753.56	-1732.92	-268.27	2.00
6226.00†	9.462	188.800	5885.02	1771.72	-1750.86	-271.05	2.00
6326.00†	7.462	188.800	5983.93	1786.44	-1765.41	-273.30	2.00
6426.00†	5.462	188.800	6083.29	1797.69	-1776.53	-275.02	2.00
6526.00†	3.462	188.800	6182.98	1805.47	-1784.22	-276.21	2.00
6626.00†	1.462	188.800	6282.88	1809.77	-1788.46	-276.87	2.00
6699.12	0.000	188.800	6356.00 ¹	1810.70	-1789.39	-277.01	2.00
6726.00†	0.000	0.000	6382.88	1810.70	-1789.39	-277.01	0.00
6826.00†	0.000	0.000	6482.88	1810.70	-1789.39	-277.01	0.00
6926.00†	0.000	0.000	6582.88	1810.70	-1789.39	-277.01	0.00
7026.00†	0.000	0.000	6682.88	1810.70	-1789.39	-277.01	0.00
7043.12	0.000	188.800	6700.00	1810.70	-1789.39	-277.01	0.00

HOLE & CASING SECTIONS Ref Wellbore: Wolverine State 20-3 PWB Ref Wellpath: Wolverine State 20-3 PWP

String/Diameter	Start MD [feet]	End MD [feet]	Interval [feet]	Start TVD [feet]	End TVD [feet]	Start N/S [feet]	Start E/W [feet]	End N/S [feet]	End E/W [feet]
9.625in Casing Surface	26.00	2025.00	1999.00	26.00	2003.27	0.00	0.00	-179.29	-27.75

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Planned Wellpath Report

Wolverine State 20-3 PWP

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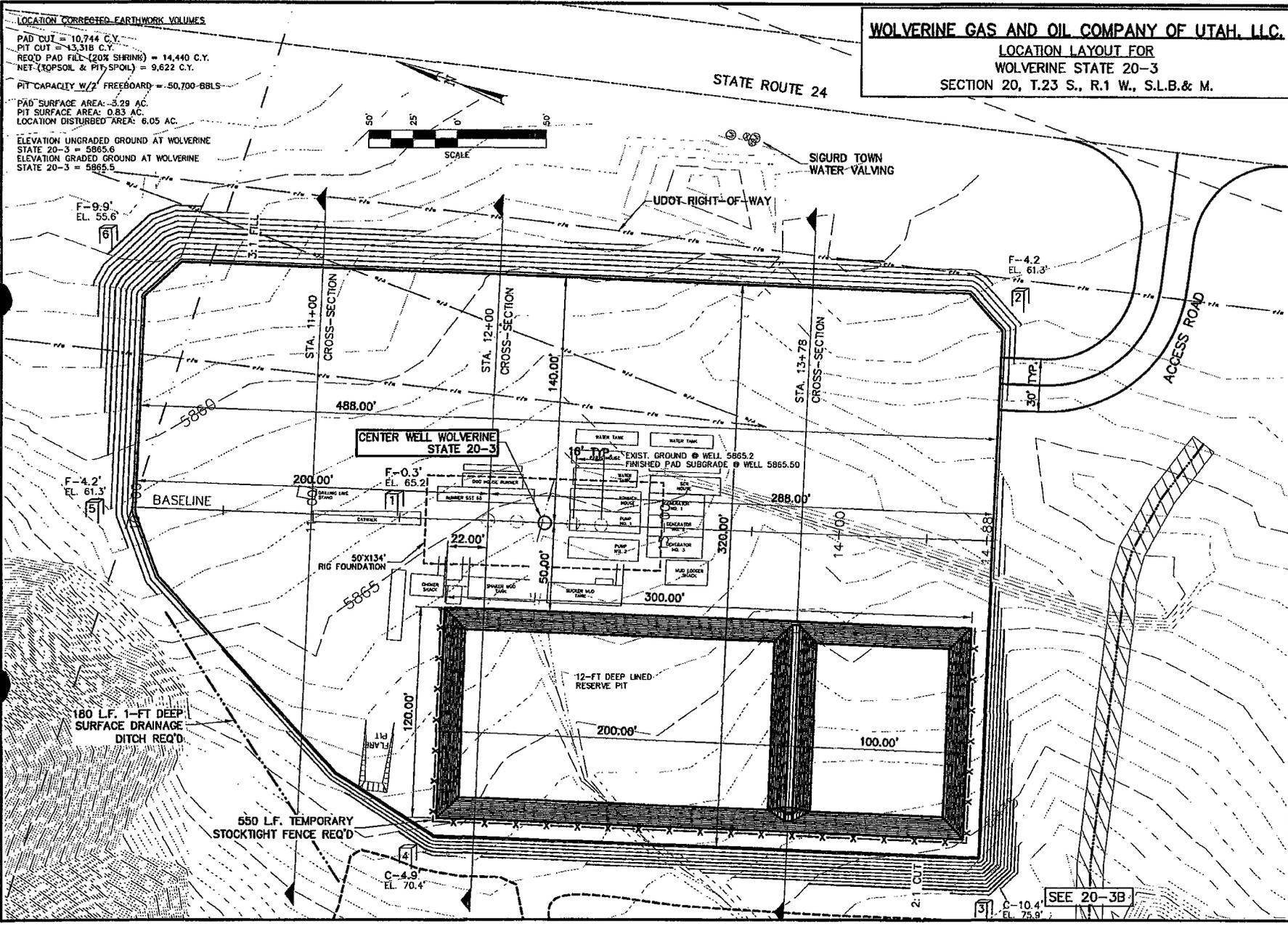
REFERENCE WELLPATH IDENTIFICATION			
Operator	WOLVERINE GAS & OIL COMPANY	Slot	Wolverine State 20-3 224'FNL & 2145'FWL
Area	UTAH	Well	Wolverine State 20-3
Field	SEVIER COUNTY	Wellbore	Wolverine State 20-3 PWB
Facility	SEC.20-T23S-R1W		

TARGETS									
Name	MD [feet]	TVD [feet]	North [feet]	East [feet]	Grid East [us survey feet]	Grid North [us survey feet]	Latitude [°]	Longitude [°]	Shape
1) Wolverine State 20-3 Target 2003'FNL & 1859'FWL	6699.12	6356.00	-1789.39	-277.01	1516464.37	6728207.23	38 47 23.001N	111 56 05.366W	point

SURVEY PROGRAM Ref Wellbore: Wolverine State 20-3 PWB Ref Wellpath: Wolverine State 20-3 PWP				
Start MD [feet]	End MD [feet]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	7043.12	MTC (Collar, pre-2000) (Standard)		Wolverine State 20-3 PWB

WELLPATH COMMENTS				
MD [feet]	Inclination [degrees]	Azimuth [degrees]	TVD [feet]	Comment
26.00	0.000	188.800	26.00	Arapien
6368.39	6.615	188.800	6026.00	Twin Creek
6699.12	0.000	188.800	6356.00	Navajo

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Wolverine Gas & Oil Co. of Utah LLC STATE 20-3 SITE PLAN PROJECT NUMBER: 0703-201		SEVIER COUNTY SHEET NO. 20-3A	
DATE: 04-27 CHECKED: D.R. 04-27 DRAWN: L.G. 04-27 PROJECT: SEVIER ENGINEER	DATE: 04-27 CHECKED: D.R. 04-27 DRAWN: L.G. 04-27 PROJECT: SEVIER ENGINEER	DATE: 04-27 CHECKED: D.R. 04-27 DRAWN: L.G. 04-27 PROJECT: SEVIER ENGINEER	DATE: 04-27 CHECKED: D.R. 04-27 DRAWN: L.G. 04-27 PROJECT: SEVIER ENGINEER
Jones & Deville Engineering 1000 West 1000 South Salt Lake City, UT 84119 www.jonesanddeville.com		ORIGINAL SUBMISSION FOR AUTHORIZATION REVISIONS:	
SCALE: 1"=50' DWG. NAME: WPP DWG. CREATED: 04/17/2008 DWG. UPDATED: 04/17/2008 PER. TEL.: 801-488-8800		REVISIONS:	

SEE 20-3B

LOCATION CORRECTED EARTHWORK VOLUMES

PAD CUT = 10,744 C.Y.
 PIT CUT = 13,318 C.Y.
 REQ'D PAD FILL (20% SHRINK) = 14,440 C.Y.
 NET (TOPSOIL & PIT SPOIL) = 9,622 C.Y.

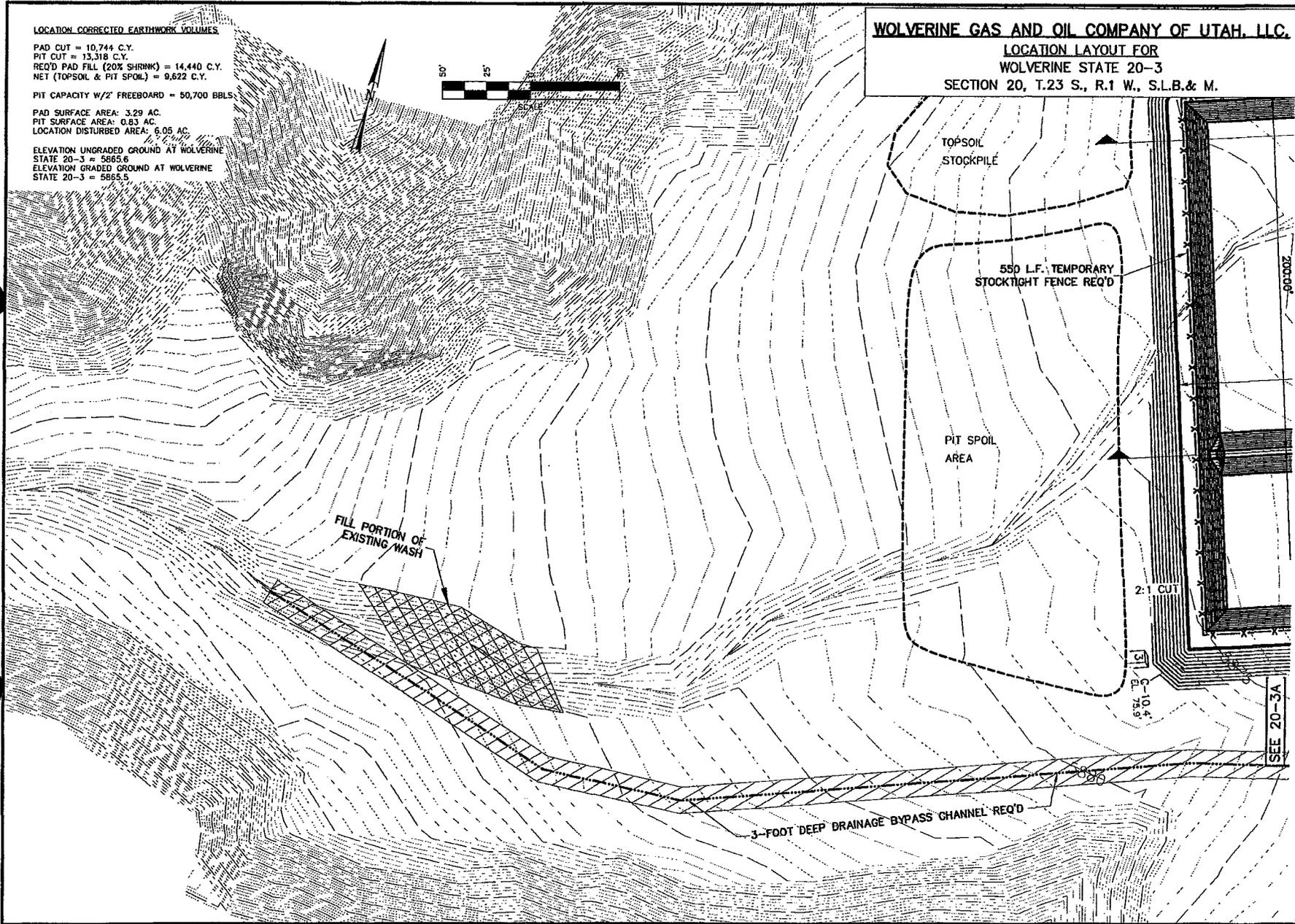
PIT CAPACITY W/2' FREEBOARD = 50,700 BBLs

PAD SURFACE AREA: 3.29 AC.
 PIT SURFACE AREA: 0.83 AC.
 LOCATION DISTURBED AREA: 6.05 AC.

ELEVATION UNGRADED GROUND AT WOLVERINE
 STATE 20-3 = 5865.6
 ELEVATION GRADED GROUND AT WOLVERINE
 STATE 20-3 = 5865.5

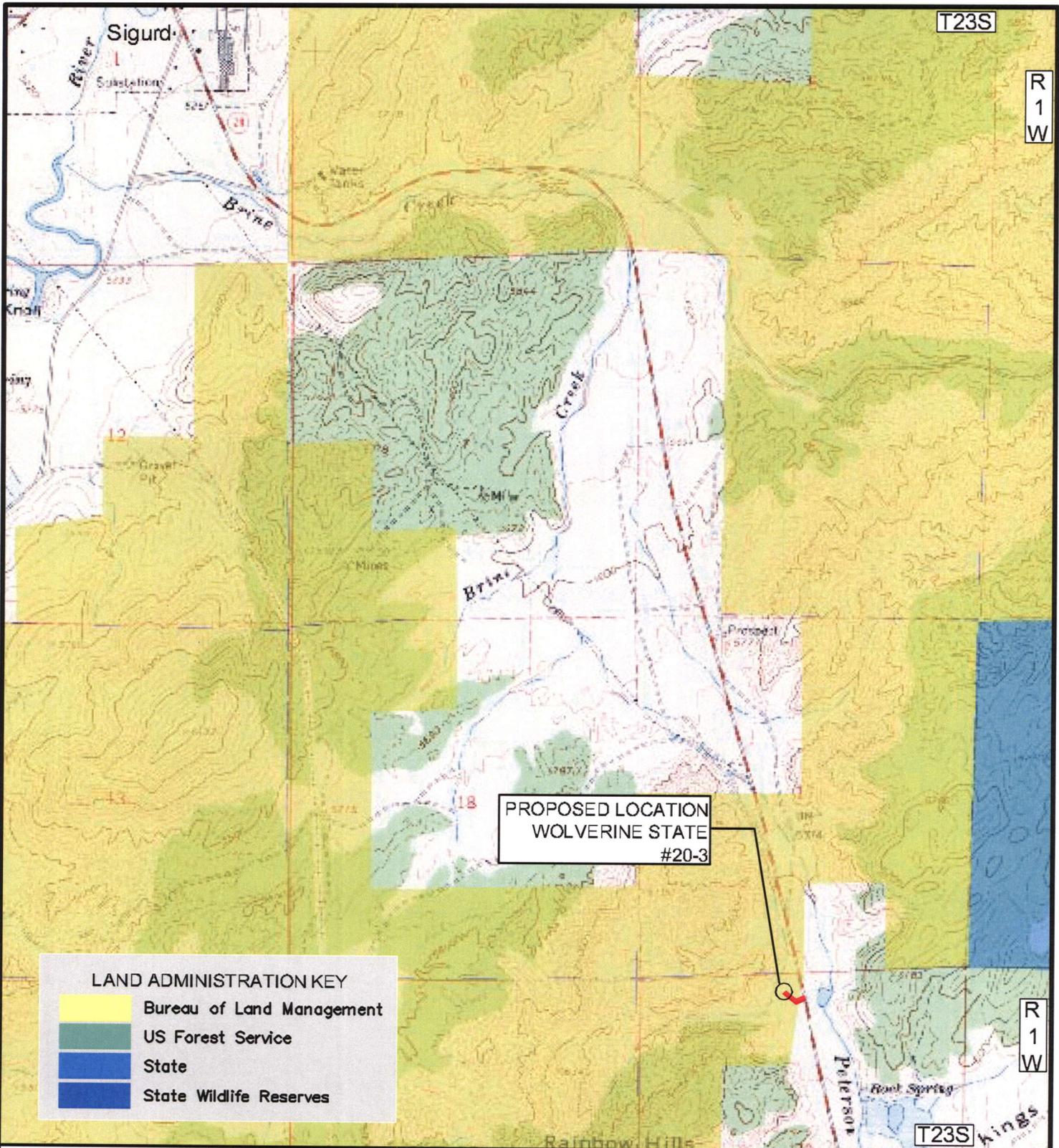


WOLVERINE GAS AND OIL COMPANY OF UTAH, LLC.
LOCATION LAYOUT FOR
WOLVERINE STATE 20-3
SECTION 20, T.23 S., R.1 W., S.L.B.& M.



Jones & DeMille Engineering 525 South 100 West, Rialto, Utah 84057 Phone: (435) 733-1111 Fax: (435) 733-1112 www.jonesanddemille.com		REVIEW DATE: 04-07	CHECK DATE: 04-07	DESIGN DATE: 04-07	DRAWN DATE: 04-07	PROJECT NUMBER 0709-201
APPROVAL DATE:	DATE:	DATE:	DATE:	DATE:	DATE:	PROJECT NUMBER 0709-201
ORIGINAL SUBMISSION FOR AUTHORIZATION						DATE:
REVISIONS						DATE:
DWG NAME: APPS						DATE:
DWG CREATED: 04/07/08						DATE:
DWG DATE: 04/07						DATE:
SCALE: 1"=50'						DATE:
DRAWN BY:						DATE:
CHECKED BY:						DATE:
REVIEWED BY:						DATE:
APPROVED BY:						DATE:
PROJECT NUMBER: 0709-201						DATE:
SHEET NO. 20-3B						DATE:

CONFIDENTIAL



LAND ADMINISTRATION KEY

- Bureau of Land Management
- US Forest Service
- State
- State Wildlife Reserves

LEGEND

- PROPOSED LOCATION
- NEW ROADWAY
- EXISTING PRIVATE ROAD
- EXISTING COUNTY ROAD NEEDING UPGRADE

Wolverine State #20-3
 Section 20, T.23 S., R.1 W., S.L.B. & M.
 2145' F.W.L. 224' F.N.L.



Jones & DeMille Engineering
 1535 South 100 West - Richfield, Utah 84701
 Phone (435) 896-8266 Fax (435) 896-8268
 www.jonesanddemille.com



SCALE: 1:2000

Wolverine State 20-3		FIGURE
Vicinity Map		
Wolverine Gas & Oil Company of Utah, LLC		
DRAWN: B.L. 01-08	PEN: _1sIndrd-hp2600.cfb	PROJECT: 0703-201
CHECK: D.R. 01-08	FILE: VICINITY	LAST UPDATE: 1/17/2008
		20-3

CONFIDENTIAL

**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 01/25/2008

API NO. ASSIGNED: 43-041-30055

WELL NAME: WOLVERINE ST 20-3
 OPERATOR: WOLVERINE GAS & OIL CO (N1655)
 CONTACT: EDWARD HIGUERA

PHONE NUMBER: 616-458-1150

PROPOSED LOCATION:

NENW 20 230S 010W
 SURFACE: 0224 FNL 2145 FWL
 BOTTOM: 2003 FNL 1859 FWL
 COUNTY: SEVIER
 LATITUDE: 38.79465 LONGITUDE: -111.9330
 UTM SURF EASTINGS: 418974 NORTHINGS: 4294195
 FIELD NAME: COVENANT (492)

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering	DND	2/8/08
Geology		
Surface		

LEASE TYPE: 3 - State
 LEASE NUMBER: ML-46605
 SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: NAVA
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

- Plat
- Bond: Fed[] Ind[] Sta[] Fee[]
(No. B001849)
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit
(No. 63-2529)
- RDCC Review (Y/N)
(Date: _____)
- Fee Surf Agreement (Y/N)
- Intent to Commingle (Y/N)

LOCATION AND SITING:

- ___ R649-2-3.
- Unit: WOLVERINE
- ___ R649-3-2. General
- Siting: 460 From Qtr/Qtr & 920' Between Wells
- ___ R649-3-3. Exception
- ___ Drilling Unit
- Board Cause No: _____
- Eff Date: _____
- Siting: _____
- R649-3-11. Directional Drill

COMMENTS: _____

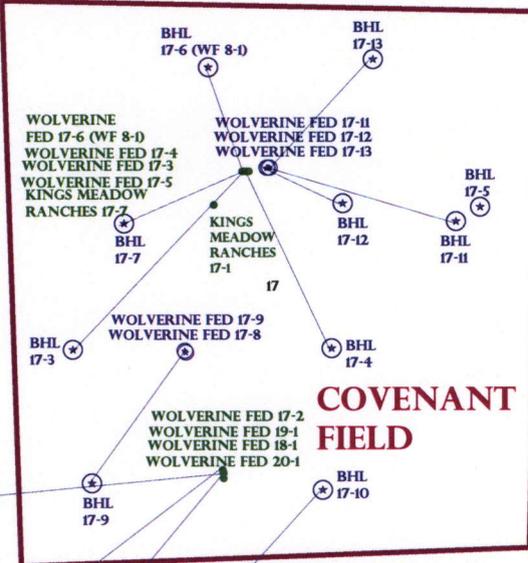
STIPULATIONS: _____
 1- Federal Approval
 2- Specific Shp
 3- STATEMENT OF BASIS

SWD-1

T23S R1W

18

16



COVENANT FIELD

WOLVERINE UNIT

19

20

21

OPERATOR: WOLVERINE G&O CO (N1655)

SEC: 20 T.23S R. 1W

FIELD: COVENANT (492)

COUNTY: SEVIER

SPACING: R649-3-11 / DIRECTIONAL DRILLING

- Field Status**
- ABANDONED
 - ACTIVE
 - COMBINED
 - INACTIVE
 - PROPOSED
 - STORAGE
 - TERMINATED

- Unit Status**
- EXPLORATORY
 - GAS STORAGE
 - NF PP OIL
 - NF SECONDARY
 - PENDING
 - PI OIL
 - PP GAS
 - PP GEOTHERML
 - PP OIL
 - SECONDARY
 - TERMINATED

- Wells Status**
- ⊗ GAS INJECTION
 - ⊗ GAS STORAGE
 - ⊗ LOCATION ABANDONED
 - ⊗ NEW LOCATION
 - ⊗ PLUGGED & ABANDONED
 - ⊗ PRODUCING GAS
 - ⊗ PRODUCING OIL
 - ⊗ SHUT-IN GAS
 - ⊗ SHUT-IN OIL
 - ⊗ TEMP. ABANDONED
 - ⊗ TEST WELL
 - ⊗ WATER INJECTION
 - ⊗ WATER SUPPLY
 - ⊗ WATER DISPOSAL
 - ⊗ DRILLING



OIL, GAS & MINING



PREPARED BY: DIANA MASON
DATE: 30-JANUARY-2008

Application for Permit to Drill

Statement of Basis

2/13/2008

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Ownr	CBM
676	43-041-30055-00-00		OW	F	No
Operator	WOLVERINE GAS & OIL CO UT		Surface Owner-APD		
Well Name	WOLVERINE ST 20-3		Unit		
Field	COVENANT		WOLVERINE		
Location	NENW 20 23S 1W S 224 FNL 2145 FWL		Type of Work		
	GPS Coord (UTM) 418974E 4294195N				

Geologic Statement of Basis

This location is placed in the High Plateaus section of the Colorado Plateau physiographic province in western central Utah. Some people have characterized this area as being in the Basin and Range - Colorado Plateau transition zone. It is other wise characterized as being astride the Sevier Overthrust Belt. The location is on federal surface acreage a few miles east of the Sevier River, in the Peterson Creek drainage, a tributary of Brine Creek, which subsequently flows into the Sevier River. The surface owner rancher heavily allocates water for agriculture derived from water rights on some local springs, which arise from the volcanic rocks just to the east. The well is a proposed directional well and will likely spud into alluvium covering the evaporite-rich Jurassic-age Arapien Shale, terminating in Section 17 in the SW/ 4 SE/4 in the upper overthrust plate in the Navajo Sandstone. The proposal calls for a saturated salt mud system from below the surface casing into the Navajo Sandstone. The quality of any surface water that manages to escape upstream allocation is diminished as it flows past the location and into Brine Creek, owing to the evaporite minerals in the Arapien Shale. Any water contained in the Arapien Shale is also likely to be of poor quality. A Division of Water Rights publication notes that aquifers in close proximity to the Arapien Shale are also likely to contain ground water with high TDS levels. Inasmuch as there do not appear to be any intervening aquifers documented in this area, which lie between the Arapien Shale and the underlying Twin Creek Limestone and Navajo Sandstone, it is unlikely that any high quality ground water will be encountered. At this location it is unlikely that any high quality ground water resource will be encountered in the Twin Creek/Navajo, at that depth, in any strata drilled below the Navajo or at all. The proposed casing, cementing and drilling fluid program should be sufficient to control and isolate the poor quality ground waters expected to be encountered in a well at this location. Numerous surface and underground water rights (one filed by the Operator) are found within a mile.

Chris Kierst
APD Evaluator

2/12/2008
Date / Time

Surface Statement of Basis

Surface rights at the proposed location are owned by the Federal Government. The operator is responsible for obtaining all required surface permits and/or rights-of-way.

Brad Hill
Onsite Evaluator

2/11/2008
Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
	None

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator WOLVERINE GAS & OIL CO UT
Well Name WOLVERINE ST 20-3
API Number 43-041-30055-0 **APD No** 676 **Field/Unit** COVENANT
Location: 1/4,1/4 NENW **Sec** 20 **Tw** 23S **Rng** 1W 224 FNL 2145 FWL
GPS Coord (UTM) **Surface Owner**

Participants

Regional/Local Setting & Topography

Surface Use Plan

Current Surface Use

New Road

Miles	Well Pad Width	Length	Src Const Material	Surface Formation
--------------	---------------------------	---------------	---------------------------	--------------------------

Ancillary Facilities

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetland

Flora / Fauna

Soil Type and Characteristics

Erosion Issues

Sedimentation Issues

Site Stability Issues

Drainage Diversion Required

Berm Required?

Erosion Sedimentation Control Required?

Paleo Survey Run?

Paleo Potential Observed?

Cultural Survey Run?

Cultural Resources?

Reserve Pit

Site-Specific Factors

- Distance to Groundwater (feet)**
- Distance to Surface Water (feet)**
- Dist. Nearest Municipal Well (ft)**
- Distance to Other Wells (feet)**
- Native Soil Type**
- Fluid Type**
- Drill Cuttings**
- Annual Precipitation (inches)**
- Affected Populations**
- Presence Nearby Utility Conduits**

Site Ranking

Final Score

Sensitivity Level

Characteristics / Requirements

Closed Loop Mud Required?

Liner Required?

Liner Thickness

Pit Underlayment Required?

Other Observations / Comments

Brad Hill
Evaluator

2/11/2008
Date / Time



Online Services

Agency List

Business

Search

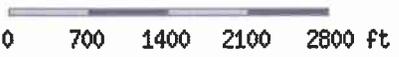
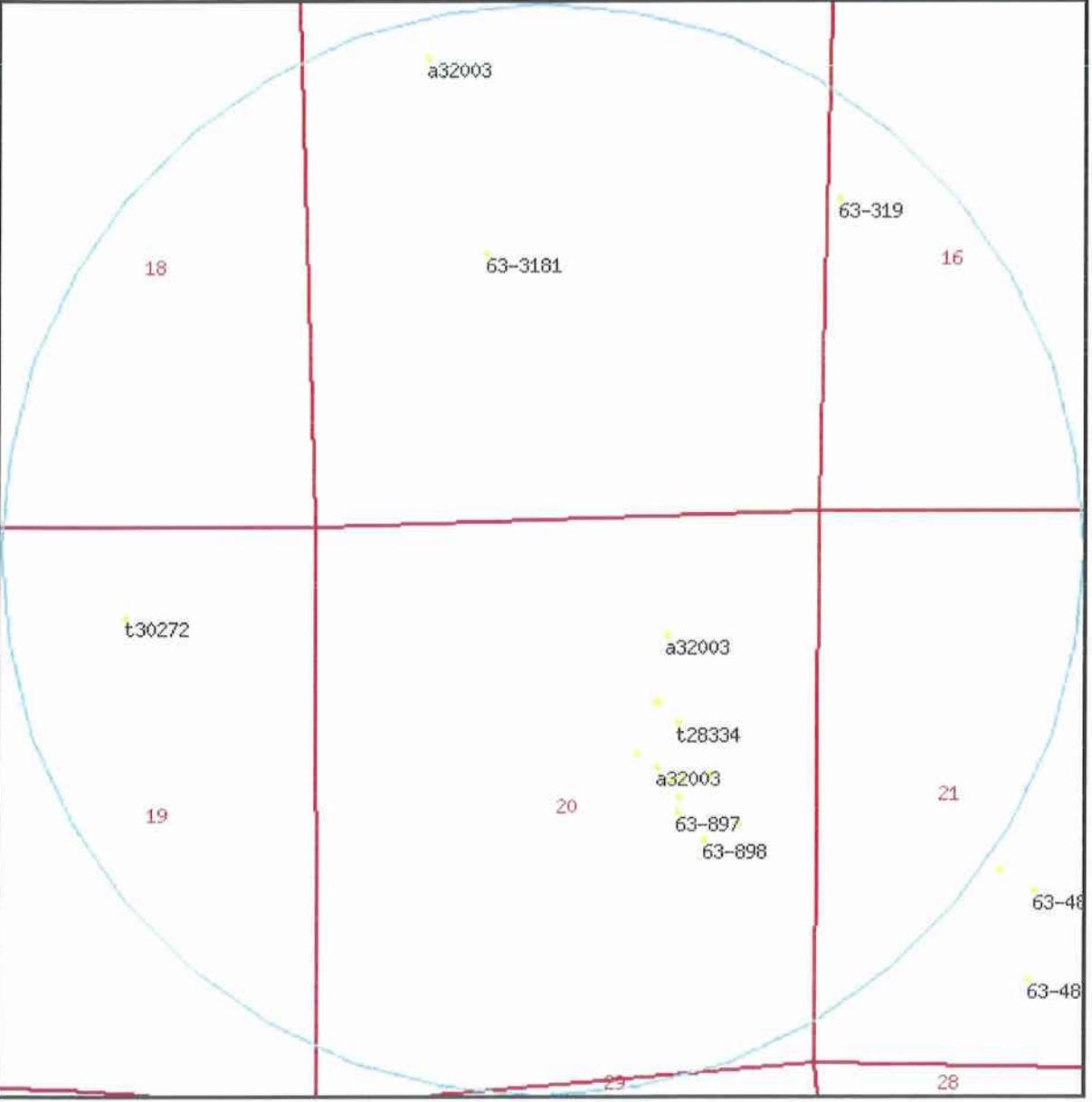


Utah Division of Water Rights

WRPLAT Program Output Listing

Version: 2007.04.13.01 Rundate: 02/12/2008 03:35 PM

Radius search of 5280 feet from a point S224 E2145 from the NW corner, section 20, Township 23S, Range 1W, SL b&m Criteria:wrtypes=W,C,E
podtypes=S,U,Sp status=U,A,P usetypes=all



Water Rights

WR Number	Diversion Type/Location	Well Log	Status	Priority	Uses	CFS	ACFT	Owner Name
<u>63-2504</u>	Surface N3420 W1567 SE 20 23S 1W SL		P	18700000	M	0.640	0.000	TOWN OF SIGURD SIGURD UT 84657
<u>63-2504</u>	Underground N2737 W1048 SE 20 23S 1W SL		P	18700000	M	0.640	0.000	TOWN OF SIGURD SIGURD UT 84657
<u>63-2504</u>	Surface N2262 W765 SE 20 23S 1W SL		P	18700000	M	0.640	0.000	TOWN OF SIGURD SIGURD UT 84657
<u>63-3180</u>	Surface S2900 E1800 NW 17 23S 1W SL		P	1870	I	3.160	0.000	KINGS MEADOW RANCHES LLC C/O KENNETH DASTRUP
<u>63-3181</u>	Surface S2900 E1800 NW 17 23S 1W SL		P	1870	DS	0.010	0.000	KINGS MEADOW RANCHES LLC C/O KENNETH DASTRUP
<u>63-319</u>	Underground N330 E100 W4 16 23S 1W SL		P	19560121	S	0.015	0.000	A. BRYANT AND J. LLEWELLYN YOUNG RICHFIELD UT 84701
<u>63-48</u>	Surface S3528 E1760 NW 21 23S 1W SL		P	19350612	M	0.097	0.000	TOWN OF SIGURD SIGURD UT 84657
<u>63-48</u>	Surface S4588 E2027 NW 21 23S 1W SL		P	19350612	M	0.097	0.000	TOWN OF SIGURD SIGURD UT 84657
<u>63-48</u>	Surface S3716 E2081 NW 21 23S 1W SL		P	19350612	M	0.097	0.000	TOWN OF SIGURD SIGURD UT 84657
<u>63-58</u>	Surface N3420 W1567 SE 20 23S 1W SL		P	19390522	M	0.254	0.000	TOWN OF SIGURD SIGURD UT 84657
<u>63-58</u>	Underground		P	19390522	M	0.254	0.000	TOWN OF SIGURD

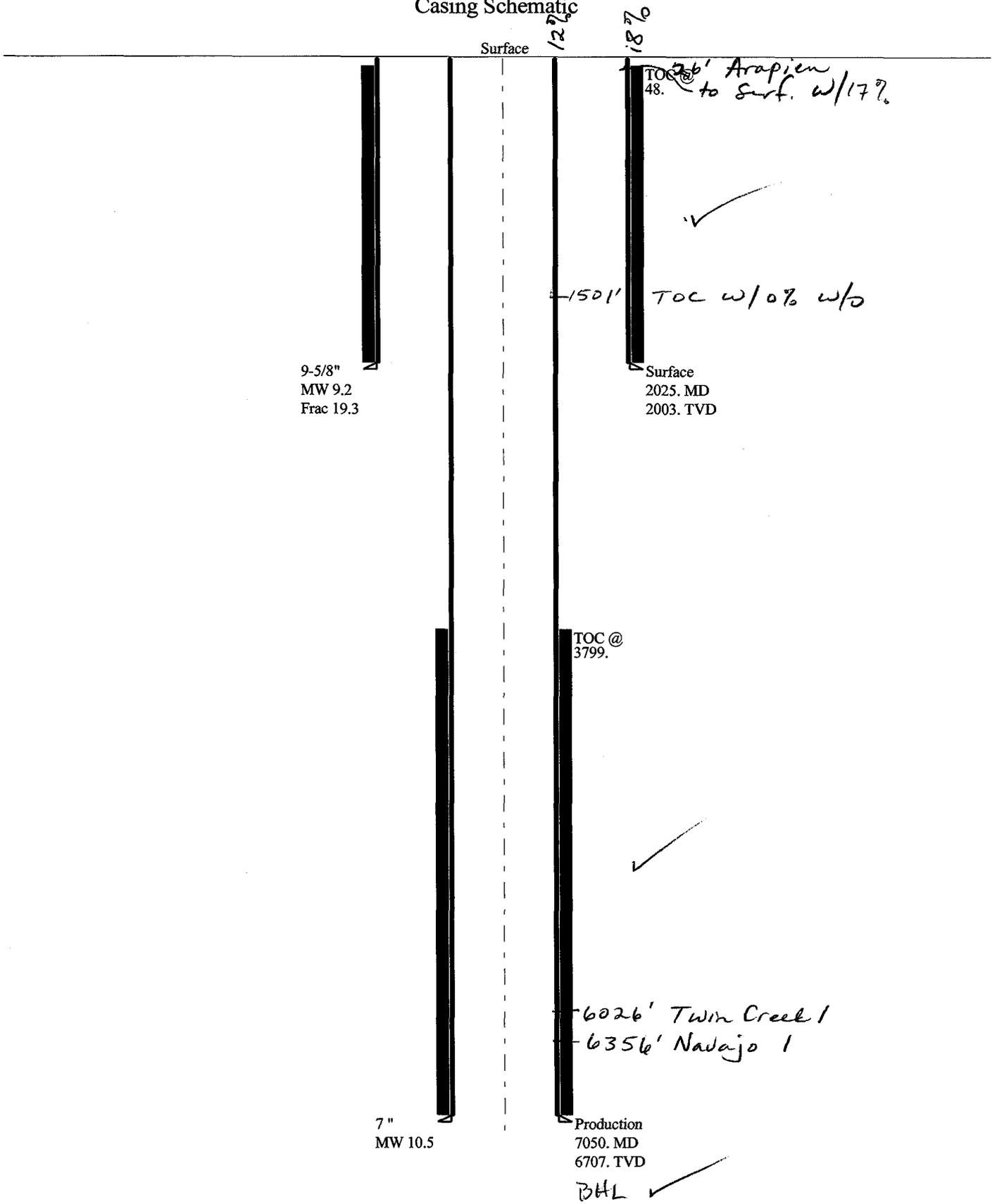
	N2737 W1048 SE 20 23S 1W SL					SIGURD UT 84657
<u>63-58</u>	Surface	P	19390522 M	0.254 0.000		TOWN OF SIGURD
	N2262 W765 SE 20 23S 1W SL					SIGURD UT 84657
<u>63-59</u>	Surface	P	19390522 M	0.254 0.000		TOWN OF SIGURD
	N3420 W1567 SE 20 23S 1W SL					SIGURD UT 84657
<u>63-59</u>	Underground	P	19390522 M	0.254 0.000		TOWN OF SIGURD
	N2737 W1048 SE 20 23S 1W SL					SIGURD UT 84657
<u>63-59</u>	Surface	P	19390522 M	0.254 0.000		TOWN OF SIGURD
	N2262 W765 SE 20 23S 1W SL					SIGURD UT 84657
<u>63-895</u>	Underground	P	1909 I	0.080 0.000		KINGS MEADOW RANCHES L.L.C.
	N6 W1438 E4 20 23S 1W SL					C/O KENNETH DASTRUP
<u>63-896</u>	Underground	P	1909 I	0.080 0.000		KINGS MEADOW RANCHES L.L.C.
	S156 W1358 E4 20 23S 1W SL					C/O KENNETH DASTRUP
<u>63-897</u>	Underground	P	1909 I	0.080 0.000		KINGS MEADOW RANCHES L.L.C.
	S290 W1372 E4 20 23S 1W SL					C/O KENNETH DASTRUP
<u>63-898</u>	Underground	P	1909 I	0.080 0.000		KINGS MEADOW RANCHES L.L.C.
	S561 W1114 E4 20 23S 1W SL					C/O KENNETH DASTRUP
<u>63-899</u>	Underground	P	1909 I	0.080 0.000		KINGS MEADOW RANCHES L.L.C.
	N15 W1320 E4 20 23S 1W SL					C/O KENNETH DASTRUP
<u>a30112</u>	Underground	<u>well info</u>	A	20050420 IO	0.002 1.000	WOLVERINE GAS AND OIL CORPORATION

	S2411 W1783 NE 20 23S 1W SL				ONE RIVER FRONT PLAZA
<u>a32003</u>	Surface	A	20060929 DIOS 4.770 494.465		KENNETH A. AND JANETTE C. DASTRUP
	N4324 W3834 SE 17 23S 1W SL				KING MEADOW CANYON
<u>a32003</u>	Surface	A	20060929 DIOS 4.770 494.465		KENNETH A. AND JANETTE C. DASTRUP
	N2804 W1559 SE 20 23S 1W SL				KING MEADOW CANYON
<u>a32003</u>	Surface	A	20060929 DIOS 4.770 494.465		KENNETH A. AND JANETTE C. DASTRUP
	N3431 W1532 SE 20 23S 1W SL				KING MEADOW CANYON
<u>a32003</u>	Surface	A	20060929 DIOS 4.770 494.465		KENNETH A. AND JANETTE C. DASTRUP
	N4085 W1467 SE 20 23S 1W SL				KING MEADOW CANYON
<u>t28334</u>	Surface	U	20031009 O 0.000 14.000		SEVIER VALLEY CANAL COMPANY
	S2100 W1400 NE 20 23S 1W SL				P.O. BOX 245
<u>t30272</u>	Underground	A	20050526 O 0.000 14.000		MACK T. AND EARLENE S. DASTRUP
	S869 W1901 SW 17 23S 1W SL				BOX 570125

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2008-02 Wolverine ST 20-9

Casing Schematic



9-5/8"
MW 9.2
Frac 19.3

7"
MW 10.5

Production
7050. MD
6707. TVD

Surface

12.7%

18.7%

TOC @ 48. to surf. w/17%

1501 TOC w/0% w/o

Surface
2025. MD
2003. TVD

TOC @
3799.

6026' Twin Creek 1
6356' Navajo 1

BHL

BOPE REVIEW

Well Name	Wolverine G&O ST 20-3 API 43-041-30055
------------------	---

INPUT				
Well Name	Wolverine G&O ST 20-3 API 43-041-30055			
	String 1	String 2	String 3	String 4
Casing Size (")	9 5/8	7		
Setting Depth (TVD)	2025	7050		
Previous Shoe Setting Depth (TVD)	0	2025		
Max Mud Weight (ppg)	10.5	9.2		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3520	7240		
Operators Max Anticipated Pressure (psi)	3400	9.3 ppg		

Calculations	String 1	9 5/8 "	
Max BHP [psi]	$.052 * \text{Setting Depth} * \text{MW} =$	1106	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) [psi]	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	863	NO
MASP (Gas/Mud) [psi]	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	660	NO <i>→ o.k. Reasonable Set depth - no expected pressure from S</i>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	660	NO
Required Casing/BOPE Test Pressure			2025 psi
*Max Pressure Allowed @ Previous Casing Shoe =			0 psi
<i>*Assumes 1psi/ft frac gradient</i>			

Calculations	String 2	7 "	
Max BHP [psi]	$.052 * \text{Setting Depth} * \text{MW} =$	3373	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) [psi]	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	2527	YES
MASP (Gas/Mud) [psi]	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	1822	YES
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	2267	NO <i>o.k.</i>
Required Casing/BOPE Test Pressure			5000 psi
*Max Pressure Allowed @ Previous Casing Shoe =			2025 psi
<i>*Assumes 1psi/ft frac gradient</i>			

Well name:

2008-02 Wolverine ST 20-3

Operator: **Wolverine Gas and Oil Company of Utah, LLC**

String type: Surface

Project ID:

43-041-30055

Location: Sevier County

Design parameters:

Collapse

Mud weight: 9.200 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 1,768 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,008 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

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

Tension is based on buoyed weight.
Neutral point: 1,739 ft

Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 103 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 290 ft

Cement top: 48 ft

Directional well information:

Kick-off point 1000 ft
Departure at shoe: 181 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 20.5 °

Re subsequent strings:

Next setting depth: 6,707 ft
Next mud weight: 10.500 ppg
Next setting BHP: 3,658 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,009 ft
Injection pressure: 2,009 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)	Internal Capacity (ft³)
1	2025	9.625	36.00	J-55	ST&C	2003	2025	8.796	879
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	957	1974	2.062	2008	3520	1.75	62	394	6.32 J

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

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

Date: February 1, 2008
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2003 ft, a mud weight of 9.2 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.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name:	2008-02 Wolverine ST 20-3	
Operator:	Wolverine Gas and Oil Company of Utah, LLC	
String type:	Production	Project ID: 43-041-30055
Location:	Sevier County	

Design parameters:

Collapse
Mud weight: 10.500 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 2,183 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 3,658 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

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

Tension is based on buoyed weight.
Neutral point: 6,054 ft

Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 169 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,500 ft

Cement top: 3,799 ft

Directional well information:

Kick-off point 1000 ft
Departure at shoe: 1811 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
2	4000	7	23.00	HCL-80	LT&C	3816	4000	6.25	884.1
1	3050	7	26.00	HCL-80	LT&C	6707	7050	6.151	655.2

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
2	2081	5500	2.642	3022	6340	2.10	137	485	3.54 J
1	3658	7800	2.132	3658	7240	1.98	49	570	11.54 J

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

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

Date: February 1, 2008
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 6707 ft, a mud weight of 10.5 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.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a



JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
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

February 13, 2008

Wolverine Gas and Oil Company of Utah, LLC
55 Campau NW
Grand Rapids, MI 49503-2616

Re: Wolverine State 20-3 Well, 224' FNL, 2145' FWL, NE NW, Sec. 20, T. 23 South,
R. 1 West, Bottom Location 2003' FNL, 1859' FWL, SE NW, Sec. 20, T. 23 South,
R. 1 West, Sevier County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

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. The API identification number assigned to this well is 43-041-30055.

Sincerely,

Gil Hunt
Associate Director

pab
Enclosures

cc: Sevier County Assessor
Bureau of Land Management Utah State Office
SITLA



Operator: Wolverine Gas and Oil Company of Utah, LLC
Well Name & Number Wolverine State 20-3
API Number: 43-041-30055
Lease: ML-46605

Location: NE NW **Sec.** 20 **T.** 23 South **R.** 1 West
Bottom Location: SE NW **Sec.** 20 **T.** 23 South **R.** 1 West

Conditions of Approval

1. 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.

2. Notification Requirements

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

- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- 24 hours prior to testing blowout prevention equipment – contact Dan Jarvis
- 24 hours prior to spudding the well – contact Carol Daniels
- Within 24 hours of any emergency changes made to the approved drilling program – contact Dustin Doucet
- Prior to commencing operations to plug and abandon the well – contact Dan Jarvis

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

- Plugging and abandonment or significant plug back of this well – contact Dustin Doucet
- Any changes to the approved drilling plan – contact Dustin Doucet

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

- Dan Jarvis at: (801) 538-5338 office (801) 942-0871 home
- Carol Daniels at: (801) 538-5284 office
- Dustin Doucet at: (801) 538-5281 office (801) 733-0983 home

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.
5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)
6. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.
7. 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.
8. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: Wolverine Gas & Oil Co UT

Well Name: Wolverine ST 20-3

API No: 43-041-30055 Lease Type: State/Federal

Section 20 Township 23S Range 01W County Sevier

Drilling Contractor Pete Martin Rig # Rathole

SPUDDED:

Date 6-26-08

Time 8:00 AM

How Dry

Drilling will Commence: _____

Reported by Steve Hash

Telephone # 918-629-9801

Date 7-01-08 Signed RM

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

FORM 6

ENTITY ACTION FORM

Operator: Wolverine Gas and Oil Company of Utah, LLC Operator Account Number: N 1655
Address: 55 Campau NW, One Riverfront Plaza
city Grand Rapids
state MI zip 49503-2616 Phone Number: (616) 458-1150

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304130055	Wolverine State 20-3		NENW	20	23S	1W	Sevier
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	99999	13995	6/26/2008		7/15/08		
Comments: <u>NAVA</u> BHL SE NW Sec 20 T23S R1W Sevier Co							CONFIDENTIAL

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
Comments: 							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
Comments: 							

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)

Steven R Hash - Consulting Engineer

Name (Please Print)

Steven R. Hash

Signature

EXACT (918) 599-9400

7/14/2008

Title

Date

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JUL 14 2008

(5/2000)

DIV. OF OIL, GAS & MINING

EXACT Engineering, Inc.

20 East Fifth St., Suite 310, Tulsa, OK 74103

www.exactengineering.com

(918) 599-9400 • (918) 599-9401 (fax)

Steven R. Hash, P.E.
Registered Professional Engineer
stevehash@exactengineering.com

December 31, 2008

CONFIDENTIAL

Mr. Al McKee
Bureau of Land Management
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155

Mr. Dustin Doucet
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Drilling Update final - **Wolverine State 20-3 (Covenant Field)**
Sec 20 T23S R01W, Sevier Co, UT API# 43-041-30055

Gentlemen,

On behalf of Wolverine Gas and Oil Company of Utah, LLC, please note the following drilling activity for the subject well from Jun 26 to Dec 12, 2008. The report dates shown are for the 24-hr day (midnight to midnight).

June 26, 2008

Set & cemented 120' of 20in conductor csg – UDOGM spud date 6/26/2008. Wait on rig

Nov 20, 2008

Resume drlg, drld 12-1/4" hole from 146' to 404'; MW 9.2ppg, VIS 34, FL nc; Svy @ 340' – incl .88, Az 79.35

Nov 21, 2008

Drilled from 404' to 1641'; MW 9.2ppg, VIS 36, FL nc; Svy @ 1641' – incl 11.54, Az 197.47

Nov 22, 2008

Drilled from 1641' to 1988' TD, Run 53 jts 9-5/8" 36ppf K55 csg, set at 1988' TD.

Nov 23, 2008

Cmtd with 220 sx Varicem (11ppg,3.48cfps,22gps) tailed with 250 sx Premium G (15.8ppg,1.17cfps,5gps). Displace with 152 bbl brine water, full circ to surface, floats held, cmt at surface. WOC. Weld on csg head

Nov 24, 2008

Test BOPE

Nov 25, 2008

Rig repair

Nov 26, 2008

Rig repair

Nov 27, 2008

Rig repair

Nov 28, 2008

Drill float & 8-3/4" hole to 1998'. Test csg seat to 10.7 ppg. Drill to 2116', MWD tool failure, TOH

Nov 29, 2008

TIH, drill 2116' to 2503'; MW 10.4, VIS 36, FL 6.0; Svy 2444' incl 24.73 Az 196.1

Petroleum Consulting, Property Management & Field Services
complete well design, construction & management, drilling, completion, production, pipelines, appraisals,
due diligence, acquisitions, procedures, field supervision

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JAN 05 2009

DIV. OF OIL, GAS & MINING

Nov 30, 2008

Drill from 2503' to 3133', bit trip at 2566', MW 10.5, VIS 38, FL 12.0; Svy 3099' Incl 24.4, Az 191.54

Dec 1, 2008

Drill from 3133' to 3940', MW 10.4, VIS 38, FL 12.0; Svy 3849' Incl 24.38 Az 191.93

Dec 2, 2008

Drill from 3940' to 4834', MW 10.5, VIS 40, FL 14.0; Svy 4785' Incl 24.61 Az 192.78

Dec 3, 2008

Drill from 4834' to 5379', trip for bit

Dec 4, 2008

Trip in, drill from 5379' to 5581', trip out for downhole tool failure

Dec 5, 2008

TIH, drill from 5581' to 6238'; MW 10.6, VIS 45, FL 6.0 Svy 6189 incl 9.91 Az 201.29

Dec 6, 2008

Drill from 6238' to 6637', Bit trip at 6637', MW 10.6, VIS 45, FL 6.0; Svy 6627 Incl 0.26 Az 100.44

Dec 7, 2008

Trip in, drill from 6637' to 6858', MW 10.6, VIS 44, FL 5.0; Svy 6814' Incl .35 Az 100.44

Dec 8, 2008

Drill from 6858' to 7173' TD, MW 10.5, VIS 50, FL 4.0; Svy 7173' Incl .18 Az 100.44

Dec 9, 2008

Trip out, laydown tools, run electric logs

Dec 10, 2008

Log, TIH, condition for csg, TOH

Dec 11, 2008

TOH, run 185 jts 7in 26ppf N80 & HCL80 new casing to 7173' with stage tool at 6506', circ and cond mud, cement stage 1 with 200 sx 50:50 POZ (14.4ppg, 1.27cfps, 5.48gps), displace with 25 BW & 246 bbls mud, OK Open stage tool, circ 5 hrs

Dec 12, 2008

Cement stage 2 with 145 sx Varicem (11ppg, 3.53cfps, 22.4gps) tailed with 710 sx Class G Premium (15.8ppg, 1.25cfps, 5.31gps), good circ, JC 1pm, WOC, set slips, cut off csg, RR 24:00 12/12/2008

We respectfully request that the enclosed information remain confidential.

Sincerely,



Steven R. Hash, P.E.
Petroleum Engineering Consultant

Copies: via email to:

Wolverine Gas & Oil Co of Utah, LLC:
EXACT Engineering, Inc.

Edward Higuera, Helene Bardolph
well file

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

SUNDRY NOTICES AND REPORTS ON WELLS

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.

1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: ST UT ML-46605
2. NAME OF OPERATOR: Wolverine Gas and Oil Company of Utah, LLC		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
3. ADDRESS OF OPERATOR: 55 Campau NW CITY Grand Rapids STATE MI ZIP 49503-2616		7. UNIT or CA AGREEMENT NAME: Wolverine Federal Unit
4. LOCATION OF WELL FOOTAGES AT SURFACE: 224' FNL, 2145' FWL COUNTY: Sevier QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 20 23S 1W S STATE: UTAH		8. WELL NAME and NUMBER: Wolverine State 20-3
		9. API NUMBER: 4304130055
		10. FIELD AND POOL, OR WILDCAT: Covenant Field, Navajo

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: _____	<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>Status Report</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

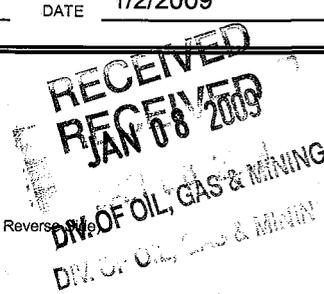
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

CONTINUED CONFIDENTIAL STATUS REQUESTED

The Wolverine State 20-3 is one of five wells being drilled from a single drilling pad. After drilling to a total depth of 7173' on 12/8/08 and running logs, 7" casing was run and cemented in place at TD. The drilling rig was skidded to the Wolverine Federal 20-4 on 12/12/08 and operations on Wolverine State 20-3 remain suspended until all drilling activities on the drilling pad are completed.

NAME (PLEASE PRINT) <u>Ellis M. Peterson</u>	TITLE <u>Sr. Production Engineer</u>
SIGNATURE <u><i>Ellis M. Peterson</i></u>	DATE <u>1/2/2009</u>

(This space for State use only)



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

5. LEASE DESIGNATION AND SERIAL NUMBER:
ST UT ML-46605

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
N/A

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.

7. UNIT or CA AGREEMENT NAME:
Wolverine Federal Unit

1. TYPE OF WELL
OIL WELL GAS WELL OTHER _____

8. WELL NAME and NUMBER:
Wolverine State 20-3

2. NAME OF OPERATOR:
Wolverine Gas and Oil Company of Utah, LLC

9. API NUMBER:
4304130055

3. ADDRESS OF OPERATOR:
55 Campau NW CITY Grand Rapids STATE MI ZIP 49503-2616 PHONE NUMBER: (616) 458-1150

10. FIELD AND POOL, OR WILDCAT:
Covenant Field, Navajo

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 224' FNL, 2145' FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 20 23S 1W S

COUNTY: Sevier
STATE: UTAH

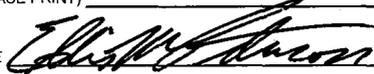
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TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input 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 checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<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>Status Report</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.

CONTINUED CONFIDENTIAL STATUS REQUESTED

The Wolverine State 20-3 is one of five wells being drilled from a single drilling pad. After drilling to a total depth of 7173' on 12/8/08 and running logs, 7" casing was run and cemented in place at TD. The drilling rig was skidded to the Wolverine Federal 20-4 on 12/12/08 and operations on Wolverine State 20-3 remain suspended until a completion rig can be moved in and the Wolverine Federal 20-2 has been completed.

NAME (PLEASE PRINT) Ellis M. Peterson TITLE Sr. Production Engineer
SIGNATURE  DATE 1/28/2009

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DIV. OF OIL, GAS & MINING

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

FORM 9

CONFIDENTIAL

LEASE DESIGNATION AND SERIAL NUMBER: STUT ML-46605

INDIAN, ALLOTTEE OR TRIBE NAME: N/A

SUNDRY NOTICES AND REPORTS ON WELLS

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.

1. TYPE OF WELL OIL WELL GAS WELL OTHER _____

7. UNIT or CA AGREEMENT NAME:
Wolverine Federal Unit

2. NAME OF OPERATOR:
Wolverine Gas and Oil Company of Utah, LLC

8. WELL NAME and NUMBER:
Wolverine State 20-3

3. ADDRESS OF OPERATOR: 55 Campau NW CITY Grand Rapids STATE MI ZIP 49503-2616 PHONE NUMBER: (616) 458-1150

9. API NUMBER:
4304130055

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 224' FNL, 2145' FWL COUNTY: Sevier

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 20 23S 1W 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 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 checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<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>Status Report</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.

CONTINUED CONFIDENTIAL STATUS REQUESTED

The Wolverine State 20-3 is one of five wells being drilled from a single drilling pad. After drilling to a total depth of 7173' on 12/8/08 and running logs, 7" casing was run and cemented in place at TD. The drilling rig was skidded to the Wolverine Federal 20-4 on 12/12/08 and operations on Wolverine State 20-3 remain suspended until a completion rig can be moved in and the Wolverine Federal 20-2 has been completed.

NAME (PLEASE PRINT) Ellis M. Peterson TITLE Sr. Production Engineer
SIGNATURE *Ellis M. Peterson* DATE 2/27/2009

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MAR 05 2009
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CONFIDENTIAL

SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: ST UT ML-46605
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: N/A
1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		7. UNIT or CA AGREEMENT NAME: Wolverine Federal Unit
2. NAME OF OPERATOR: Wolverine Gas and Oil Company of Utah, LLC		8. WELL NAME and NUMBER: Wolverine State 20-3
3. ADDRESS OF OPERATOR: 55 Campau NW CITY Grand Rapids STATE MI ZIP 49503-2616		9. API NUMBER: 4304130055
PHONE NUMBER: (616) 458-1150		10. FIELD AND POOL, OR WILDCAT: Covenant Field, Navajo
4. LOCATION OF WELL FOOTAGES AT SURFACE: 224' FNL, 2145' FWL		COUNTY: Sevier
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 20 23S 1W 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 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
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	<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>Status Report</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.

CONTINUED CONFIDENTIAL STATUS REQUESTED

The Wolverine State 20-3 is one of five wells being drilled from a single drilling pad. Drilling operations were completed on 12/12/08. A coiled tubing unit was used to drill out the stage tool and a CBL was run during March, 2009. Completion operations on this well will resume after other wells on the drilling pad have been completed.

NAME (PLEASE PRINT) <u>Ellis M. Peterson</u>	TITLE <u>Sr. Production Engineer</u>
SIGNATURE	DATE <u>3/27/2009</u>

(This space for State use only)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

CONFIDENTIAL

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator **Wolverine Gas and Oil Company of Utah, LLC**

3a. Address **55 Campau NW, Grand Rapids, Michigan 49503-2616**
 3b. Phone No. (include area code) **616-458-1150**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
174' FNL, 2122' FWL (NE/4 NW/4), Section 20, T23S, R1W, SLB&M

5. Lease Serial No.
UTU-73528 (UT ML-46605)

6. If Indian, Allottee or Tribe Name
NA

7. If Unit or CA/Agreement, Name and/or No.
Wolverine Federal Unit

8. Well Name and No.
Wolverine State 20-3

9. API Well No.
43-041-30055

10. Field and Pool, or Exploratory Area
Covenant Field Navajo

11. County or Parish, State
Sevier County, Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other Correct Well
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Location
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

This well was resurveyed subsequent to drilling and the surface location was found to vary from that originally permitted.

The permitted and actual as-drilled surface locations for the Wolverine State 20-3 are as follows:

Permitted Surface Location: 224' FNL, 2145' FWL, NE/4 NW/4, Section 20, T23S, R1W, SLB&M

Actual Surface Location: 174' FNL, 2122' FWL, NE/4 NW/4, Section 20, T23S, R1W, SLB&M

A new survey plat for the well is included herewith.

418967X 38.794791
 4294214 -111.933083

COPY SENT TO OPERATOR

Date: 5.13.2009

Initials: KS

RECEIVED

MAY 05 2009

DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct
 Name (Printed/Typed)

Ellis Peterson

Title **Sr. Production Engineer**

Signature

Ellis Peterson

Date

04/29/2009

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Bradley G. Hill

BRADLEY G. HILL
 Title **ENVIRONMENTAL MANAGER**

Date

05-11-09

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

COPY



**WOLVERINE GAS AND OIL COMPANY
OF UTAH, LLC**

Energy Exploration in Partnership with the Environment

April 29, 2009

Mr. Stan Andersen
Fluid Minerals Group
Bureau of Land Management
Richfield Field Office
150 East 900 North
Richfield, Utah 84701

Re: Sundry Notices - Wolverine Gas and Oil Company of Utah, LLC
Wolverine Federal 19-2
Wolverine Federal 20-2
Wolverine Federal 20-4
Wolverine State 17-10
Wolverine State 20-3

Dear Mr. Andersen:

Wolverine Gas and Oil Company of Utah, LLC respectfully submits the enclosed Sundry Notices (Form 3160-5) for the subject wells.

Please accept this letter as Wolverine's written request for continued confidential treatment of all information relating to these wells.

Sincerely,

Ellis M. Peterson
Senior Production Engineer
Wolverine Gas and Oil

RECEIVED

MAY 05 2009

DIV. OF OIL, GAS & MINING

Cc w/ attachments: Gil Hunt, UDOGM

COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CONFIDENTIAL
FOR APPROVED
GM N 100-037
Expires March 31, 2007
Lease Serial No.
UTU-75528 (UT-ML-46605)

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name NA
2. Name of Operator Wolverine Gas and Oil Company of Utah, LLC		7. If Unit or CA/Agreement, Name and/or No. Wolverine Federal Unit
3a. Address 55 Campau NW, Grand Rapids, Michigan 49503-2616	3b. Phone No. (include area code) 616-458-1150	8. Well Name and No. Wolverine State 20-3
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 174' FNL, 2122' FWL (NE/4 NW/4), Section 20, T23S, R1W, SLB&M		9. API Well No. 43-041-30055
		10. Field and Pool, or Exploratory Area Covenant Field Navajo
		11. County or Parish, State Sevier County, Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input checked="" type="checkbox"/> Production (Start/Resume)
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal
			<input type="checkbox"/> Water Shut-Off
			<input type="checkbox"/> Well Integrity
			<input type="checkbox"/> Other _____

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Oil production in saleable quantities was initiated during completion operations of the Navajo Formation in this well on May 5, 2009. This well has a surface located on BLM acreage and productive interval located under State mineral lease.

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Ellis Peterson		Title Sr. Production Engineer
Signature Ellis Peterson	Date 05/07/2009	

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by _____ Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Title _____ Office _____	Date _____
--	-----------------------------	------------

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

COPY
CONFIDENTIAL

Form 3160-5
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
JUN 01 2009
DIV. OF OIL, GAS & MINING

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator
Wolverine Gas and Oil Company of Utah, LLC

3a. Address
55 Campau NW, Grand Rapids, Michigan 49503-2616

3b. Phone No. (include area code)
616-458-1150

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
174' FNL, 2122' FWL (NE/4 NW/4), Section 20, T23S, R1W, SLB&M

5. Lease Serial No.
UTU-73528 (UT ML-46605)

6. If Indian, Allottee or Tribe Name
NA

7. If Unit or CA/Agreement, Name and/or No.
Wolverine Federal Unit

8. Well Name and No.
Wolverine State 20-3

9. API Well No.
43-041-30055

10. Field and Pool, or Exploratory Area
Covenant Field Navajo

11. County or Parish, State
Sevier County, Utah

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input checked="" type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Oil production in saleable quantities was initiated during completion operations of the Navajo Formation in this well on May 5, 2009. This well has a surface located on BLM acreage and productive interval located under State mineral lease.

RECEIVED

MAY 15 2009

Richfield BLM Field Office

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Ellis Peterson

Title **Sr. Production Engineer**

Signature **Ellis Peterson**

Digitally signed by Ellis Peterson
DN: cn=Ellis Peterson, o=Bureau of Land Management, ou=BLM, email=Ellis.Peterson@blm.gov

Date **05/07/2009**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by _____
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title _____ Date _____
Office **Accepted For Record Purposes**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

09PH00678

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CONFIDENTIAL

FORM APPROVED
OMB NO. 1004-0137
Expires: March 31, 2007

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well Oil Well Gas Well Dry Other
 b. Type of Completion: New Well Work Over Deepen Plug Back Diff. Resvr.,
 Other _____

2. Name of Operator **Wolverine Gas and Oil Co. of Utah, LLC**

3. Address **55 Campau NW, Grand Rapids, MI 49503** 3a. Phone No. (include area code)
616-458-1150

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
 At surface **174' FNL, 2122' FWL, Sec. 20, T23S, R1W**
 At top prod. interval reported below **1978' FNL, 1828' FWL, Sec. 20, T23S, R1W**
 At total depth **1978' FSL, 1828' FWL, Sec. 20, T23S, R1W** *per NEM review*

5. Lease Serial No.
UTU-73528 (UT ML-46605)

6. If Indian, Allottee or Tribe Name
N.A.

7. Unit or CA Agreement Name and No.
Wolverine Federal Unit

8. Lease Name and Well No.
Wolverine State 20-3

9. AFI Well No.
4304130055

10. Field and Pool, or Exploratory
Covenant Field, Navajo

11. Sec., T., R., M., on Block and Survey or Area **20, T23S, R1W, NENW, SLB&M**

12. County or Parish **Sevier** 13. State **UT**

14. Date Spudded **11/20/2008** 15. Date T.D. Reached **12/08/2008** 16. Date Completed **05/10/2009**
 D & A Ready to Prod.

17. Elevations (DF, RKB, RT, GL)*
5892' KB, 5866' GL

18. Total Depth: MD **7173'** 19. Plug Back T.D.: MD **7091'** 20. Depth Bridge Plug Set: MD
 TVD **6816'** TVD **6734'** TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
DLL/MSFL/GR, SDL/DSN/GR, XRMI, FWS, CBL

22. Was well cored? No Yes (Submit analysis)
 Was DST run? No Yes (Submit report)
 Directional Survey? No Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
30.0"	20"	0.25 wall	Surface	126 GL		Prem	31	Surface	
12.25"	9.625 J	36.0	Surface	1988		220 VariCem	136	Surf. (CIRC)	
"	"	"				250 Prem G	52		
8.75"	7" N80	26.0	Surface	7173	6507	200 50:50 poz	45		
"	"	"				145 VariCem	91	780 (CBL)	
"	"	"				710 Prem G	158		

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2 7/8	6390							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Navajo	6714	6806	6714-6722, 6737-6750	0.40"	126	Open - Producing
B)			6770-6784, 6800-6806	0.40"	120	Open - Producing
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material

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JUN 01 2009

DIV. OF OIL, GAS & MINING

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
05/10/2009	05/14/2009	24	→	299	Tr	204			ESP
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→	299	Tr	204		Producing Oil Well	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

*(See instructions and spaces for additional data on page 2)

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28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

Vented

30. 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.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
Navajo 1	6589		Oil and Water	Arapien Twin Creek 1 Navajo 1	Surface 6394 6589

32. Additional remarks (include plugging procedure):

33. Indicate which items have been attached by placing a check in the appropriate boxes:

- Electrical/Mechanical Logs (1 full set req'd.)
 Geologic Report
 DST Report
 Directional Survey
 Sundry Notice for plugging and cement verification
 Core Analysis
 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Ellis Peterson

Title Sr. Production Engineer

Signature Ellis Peterson

Digitally signed by Ellis Peterson
DN: cn=Ellis Peterson, o=Western Oil and Gas Corp., email=epeterson@wocog.com,
c=US

Date 05/22/2009

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



WOLVERINE GAS & OIL COMPANY

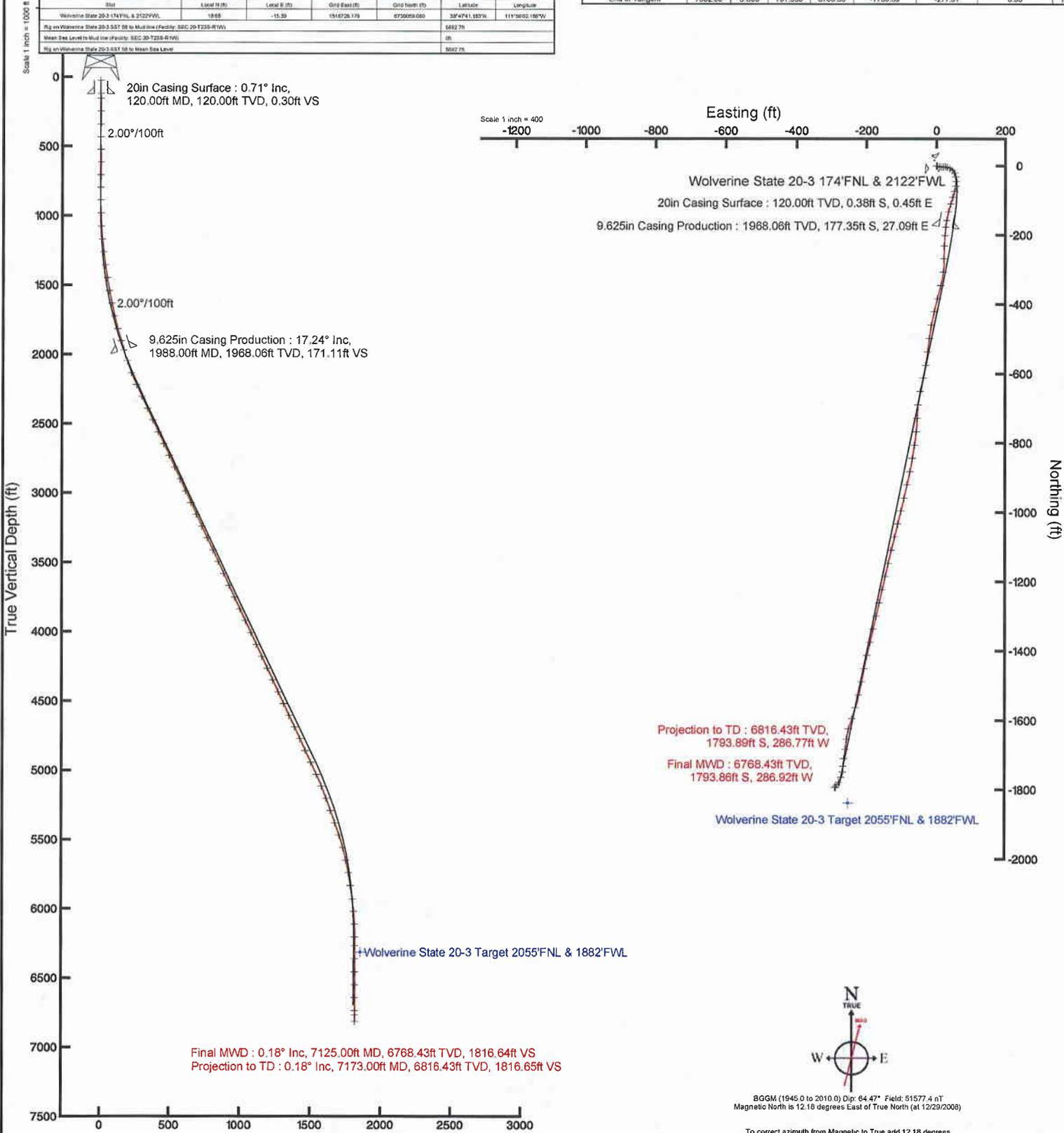
Location: UTAH Slot: Wolverine State 20-3 174'FNL & 2122'FWL
 Field: SEVIER COUNTY Well: Wolverine State 20-3
 Facility: SEC.20-T23S-R1W Wellbore: Wolverine State 20-3 PWB



Full reference well log is Wolverine State 20-3 A-2	Grid System: NAD83/Lambert Azimuthal Equal Area (NAD83) feet
True vertical depths are referenced to Dip on Wolverine State 20-3 557' SA	North Reference: True north
Measured depths are referenced to Dip on Wolverine State 20-3 557' SA	Scale: True distance
Dip on Wolverine State 20-3 557' SA to Mean Sea Level: 0827.7 feet	Depth are in feet
Mean Sea Level to Mudline (Facility: SEC.20-T23S-R1W) 0 feet	Checked by: Jnsupal on 4/28/2009
Coordinates are in feet referenced to Grid	

Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	26.00	0.000	100.000	26.00	0.00	0.00	0.00	0.00
End of Tangent	300.00	0.000	100.000	300.00	0.00	0.00	0.00	0.00
End of Build	500.00	4.000	100.000	499.84	-1.21	6.87	2.00	0.15
End of Tangent	1000.00	4.000	100.000	999.62	-7.27	41.22	0.00	0.88
3D Arc (S)	2270.22	25.000	191.550	2227.99	-262.46	30.94	2.00	274.40
End of Tangent (S)	5274.50	25.000	191.550	4950.79	-1526.41	-223.27	0.00	1542.60
Drop (S)	6524.50	0.000	191.550	6161.51	-1789.39	-277.01	2.00	1610.70
End of Tangent	7062.86	0.000	191.550	6700.00	-1769.39	-277.01	0.00	1610.70

Facility Name	Grid East (ft)	Grid North (ft)	Latitude	Longitude
SEC 20-T23S-R1W	1916740.473	8730039.327	33°47'40.880"N	111°50'01.942"W
Well	1868	-15.39	1916728.179	8730059.060
Wolverine State 20-3 174'FNL & 2122'FWL			33°47'41.187"N	111°50'02.180"W
Dip on Wolverine State 20-3 557' SA to Mudline (Facility: SEC.20-T23S-R1W)			6827.7ft	
Mean Sea Level to Mud line (Facility: SEC.20-T23S-R1W)			0ft	
Dip on Wolverine State 20-3 557' SA to Mean Sea Level			6827.7ft	



Actual Wellpath Report

Wolverine State 20-3 _awp

Page 1 of 5



INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Wolverine State 20-3 174'FNL & 2122'FWL
Area	UTAH	Well	Wolverine State 20-3
Field	SEVIER COUNTY	Wellbore	Wolverine State 20-3
Facility	SEC.20-T23S-R1W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Utah State Planes, Central Zone (4302), feet	Software System	WellArchitect® 2.0
North Reference	True	User	Busnat
Scale	1.00006	Report Generated	4/29/2009 at 4:25:54 PM
Convergence at slot	0.28° West	Database/Source file	WellArchitect_Denver/Wolverine_State_20-3_...

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[ft]	Northing[ft]	Latitude	Longitude
Slot Location	-30.49	10.33	1516728.18	6730059.08	38°47'41.183"N	111°56'02.186"W
Facility Reference Pt			1516717.99	6730089.62	38°47'41.484"N	111°56'02.316"W
Field Reference Pt			1516137.40	6732230.79	38°48'02.619"N	111°56'09.781"W

WELLPATH DATUM

Calculation method	Minimum curvature	SST 58 (RT) to Facility Vertical Datum	5892.70ft
Horizontal Reference Pt	Slot	SST 58 (RT) to Mean Sea Level	5892.70ft
Vertical Reference Pt	SST 58 (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	SST 58 (RT)	Section Origin	N 0.00, E 0.00
Field Vertical Reference	Mean Sea Level	Section Azimuth	188.80°



Actual Wellpath Report

Wolverine State 20-3 _awp

Page 2 of 5



INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Wolverine State 20-3 174'FNL & 2122'FWL
Area	UTAH	Well	Wolverine State 20-3
Field	SEVIER COUNTY	Wellbore	Wolverine State 20-3
Facility	SEC.20-T23S-R1W		

WELLPATH DATA (79 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]
0.00†	0.000	129.970	0.00	0.00	0.00	0.00	C
26.00	0.000	129.970	26.00	0.00	0.00	0.00	C
154.00	0.970	129.970	153.99	0.56	-0.70	0.83	C
247.00	0.970	287.420	246.99	0.85	-0.97	0.68	2
340.00	0.880	79.350	339.98	0.49	-0.60	0.63	1
432.00	2.370	105.010	431.95	0.46	-0.96	3.17	1
524.00	4.570	113.800	523.77	1.62	-2.93	8.36	2
615.00	3.690	88.490	614.54	2.03	-4.32	14.60	2
707.00	3.430	75.480	706.37	0.41	-3.55	20.23	C
798.00	3.340	87.790	797.21	-1.17	-2.77	25.51	C
889.00	5.100	110.990	887.96	-0.82	-4.11	31.94	2
983.00	5.710	119.780	981.55	1.73	-7.93	39.90	1
1078.00	5.630	130.320	1076.09	5.86	-13.29	47.55	1
1172.00	6.330	152.820	1169.59	12.47	-20.89	53.43	2
1266.00	8.090	172.160	1262.85	23.00	-32.05	56.70	3
1360.00	8.170	177.430	1355.91	35.89	-45.28	57.91	C
1453.00	9.140	190.790	1447.86	49.75	-59.14	56.82	2
1547.00	9.490	195.360	1540.62	64.91	-73.94	53.37	C
1641.00	11.540	197.470	1633.04	81.90	-90.39	48.49	2
1734.00	13.800	198.530	1723.77	102.04	-109.78	42.17	2
1828.00	15.210	194.660	1814.77	125.35	-132.34	35.49	1
1921.00	17.230	189.740	1904.07	151.26	-157.72	30.07	2
2070.00	17.290	184.840	2046.37	195.42	-201.54	24.47	C
2163.00	20.780	181.990	2134.27	225.60	-231.80	22.73	3
2257.00	25.000	180.340	2220.85	261.82	-268.35	22.03	4
2350.00	24.790	185.470	2305.22	300.73	-307.41	20.06	2
2444.00	24.730	196.100	2390.62	339.92	-345.94	12.72	4
2537.00	24.790	193.250	2475.07	378.66	-383.61	2.86	1
2631.00	24.520	193.100	2560.50	417.76	-421.79	-6.08	C
2725.00	24.700	190.090	2645.97	456.84	-460.13	-13.94	1



Actual Wellpath Report

Wolverine State 20-3 _awp

Page 3 of 5



INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Wolverine State 20-3 174'FNL & 2122'FWL
Area	UTAH	Well	Wolverine State 20-3
Field	SEVIER COUNTY	Wellbore	Wolverine State 20-3
Facility	SEC.20-T23S-R1W		

WELLPATH DATA (79 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]
2818.00	24.600	186.670	2730.50	495.61	-498.48	-19.59	1
2912.00	24.300	188.060	2816.07	534.51	-537.07	-24.58	C
3006.00	24.700	189.740	2901.61	573.48	-575.58	-30.61	C
3099.00	24.440	191.540	2986.19	612.13	-613.58	-37.75	C
3193.00	24.630	192.970	3071.70	651.09	-651.72	-46.04	C
3286.00	24.800	186.250	3156.20	689.91	-690.00	-52.51	3
3380.00	24.480	181.250	3241.65	728.92	-729.07	-55.08	2
3474.00	24.450	185.270	3327.21	767.64	-767.92	-57.29	1
3568.00	24.590	188.630	3412.74	806.62	-806.62	-62.01	1
3661.00	24.650	189.900	3497.29	845.36	-844.86	-68.25	C
3755.00	24.620	192.010	3582.73	884.51	-883.32	-75.70	C
3849.00	24.380	191.930	3668.27	923.43	-921.46	-83.78	C
3943.00	24.440	193.150	3753.87	962.19	-959.38	-92.22	C
4036.00	24.290	193.440	3838.58	1000.44	-996.71	-101.04	C
4129.00	24.350	194.310	3923.33	1038.59	-1033.90	-110.22	C
4223.00	24.900	194.650	4008.78	1077.56	-1071.82	-120.02	C
4317.00	24.330	193.270	4094.24	1116.55	-1109.81	-129.47	C
4411.00	24.870	192.200	4179.71	1155.59	-1147.98	-138.09	C
4504.00	24.430	192.900	4264.23	1194.29	-1185.84	-146.52	C
4598.00	24.380	193.210	4349.83	1233.03	-1223.67	-155.29	C
4691.00	24.540	191.760	4434.49	1271.45	-1261.27	-163.61	C
4785.00	24.610	192.780	4519.97	1310.47	-1299.47	-171.92	C
4879.00	24.580	193.340	4605.45	1349.49	-1337.58	-180.76	C
4972.00	24.670	193.050	4689.99	1388.12	-1375.31	-189.61	C
5066.00	24.210	192.790	4775.56	1426.91	-1413.21	-198.30	C
5159.00	24.700	190.790	4860.22	1465.36	-1450.90	-206.16	1
5253.00	24.610	191.500	4945.65	1504.54	-1489.37	-213.74	C
5347.00	24.260	192.550	5031.23	1543.36	-1527.40	-221.84	C
5440.00	22.560	195.650	5116.58	1580.14	-1563.23	-230.80	2
5534.00	19.510	199.790	5204.31	1613.46	-1595.37	-240.99	3



Actual Wellpath Report

Wolverine State 20-3 _awp

Page 4 of 5



REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Wolverine State 20-3 174'FNL & 2122'FWL
Area	UTAH	Well	Wolverine State 20-3
Field	SEVIER COUNTY	Wellbore	Wolverine State 20-3
Facility	SEC.20-T23S-R1W		

WELLPATH DATA (79 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]
5628.00	18.880	195.830	5293.09	1643.96	-1624.78	-250.45	1
5721.00	19.390	185.530	5380.97	1674.32	-1654.63	-256.04	3
5815.00	17.920	188.380	5470.03	1704.36	-1684.47	-259.65	1
5908.00	15.620	188.330	5559.07	1731.19	-1711.01	-263.55	2
6002.00	11.330	182.790	5650.47	1753.04	-1732.77	-265.84	4
6095.00	9.860	188.750	5741.88	1770.09	-1749.76	-267.49	1
6189.00	9.910	201.290	5834.50	1786.04	-1765.26	-271.66	2
6287.00	7.490	212.200	5931.37	1800.14	-1778.52	-278.12	2
6376.00	6.570	217.740	6019.70	1809.92	-1787.46	-284.33	1
6470.00	1.410	220.730	6113.44	1815.61	-1792.59	-288.38	5
6563.00	0.180	100.440	6206.43	1816.58	-1793.48	-288.98	1
6627.00	0.260	100.440	6270.43	1816.59	-1793.53	-288.74	C
6720.00	0.090	100.440	6363.43	1816.60	-1793.58	-288.46	C
6814.00	0.350	100.440	6457.43	1816.61	-1793.65	-288.11	C
6908.00	0.180	100.440	6551.43	1816.62	-1793.72	-287.68	C
7001.00	0.180	100.440	6644.43	1816.63	-1793.78	-287.39	C
7095.00	0.260	100.440	6738.43	1816.64	-1793.84	-287.04	C
7125.00	0.180	100.440	6768.43	1816.64	-1793.86	-286.92	C
7173.00†	0.180	100.440	6816.43	1816.65	-1793.89	-286.77	C

HOLE & CASING SECTIONS Ref Wellbore: Wolverine State 20-3 Ref Wellpath: Wolverine State 20-3 _awp

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
20in Casing Surface	0.00	120.00	120.00	0.00	120.00	0.00	0.00	-0.38	C
9.625in Casing Production	26.00	1988.00	1962.00	26.00	1968.06	0.00	0.00	-177.35	27



Actual Wellpath Report

Wolverine State 20-3 _awp

Page 5 of 5



INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Wolverine State 20-3 174'FNL & 2122'FWL
Area	UTAH	Well	Wolverine State 20-3
Field	SEVIER COUNTY	Wellbore	Wolverine State 20-3
Facility	SEC.20-T23S-R1W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [ft]	Grid North [ft]	Latitude	Longitude	Sh
Wolverine State 20-3 Target 2055'FNL & 1882'FWL		6316.00	-1839.53	-251.83	1516467.41	6728220.68	38°47'23.001"N	111°56'05.366"W	po

WELLPATH COMPOSITION Ref Wellbore: Wolverine State 20-3 Ref Wellpath: Wolverine State 20-3 _awp

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	1921.00	MTC (Collar, post-2000) (Standard)	Surface MWD 154-1921	Wolverine State 20-3
1921.00	7125.00	MTC (Collar, post-2000) (Standard)	Production MWD 2070-7125	Wolverine State 20-3
7125.00	7173.00	Blind Drilling (std)	Projection to bit	Wolverine State 20-3

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-46605
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: WOLVERINE
1. TYPE OF WELL Oil Well		8. WELL NAME and NUMBER: WOLVERINE ST 20-3
2. NAME OF OPERATOR: WOLVERINE GAS & OIL COMPANY OF UTAH, LLC		9. API NUMBER: 43041300550000
3. ADDRESS OF OPERATOR: One Riverfront Plaza 55 Campau NW, Grand Rapids, MI, 49503	PHONE NUMBER: 616 458-1150 Ext	9. FIELD and POOL or WILDCAT: COVENANT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0174 FNL 2122 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 20 Township: 23.0S Range: 01.0W Meridian: S		COUNTY: SEVIER
		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: 9/6/2011 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input checked="" type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input checked="" type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	
	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
<p>Wolverine is planning to workover the Wolverine State 20-3 expected to commence in September. Currently production is 100 BOPD and 450 BWPD from the upper Navajo. Existing intervals will be acid stimulated based on production log results, and behind pipe upper Navajo pay will be perforated and acid stimulated accordingly. The well will be put back on production using an ESP.</p>		
		<p>Approved by the Utah Division of Oil, Gas and Mining</p> <p>Date: 08/24/2011</p> <p>By: <u>Derek Duff</u></p>
NAME (PLEASE PRINT) Helene Bardolph	PHONE NUMBER 616 458-1150	TITLE Engineering Administrative Assistant
SIGNATURE N/A		DATE 8/17/2011

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
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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:
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	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 checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 10/12/2011 <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input checked="" type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input checked="" type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	
<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Wolverine Gas & Oil Co. of Utah LLC completed a workover on the Wolverine State 20-3 on October 12, 2011. Existing perforations at 6714'-6722' & 6737'-6750' were acidized with 2500 gallons of 7-1/2% FE HCL acid and 100 ball sealers. Perforations were added up hole in the upper Navajo at 6636'-6644', 6658'-6669' & 6682'-6694' and treated with 3500 gallons of 7-1/2% FE HCL acid and 50 gallons of Benzoic Acid Flake. The well was swabbed back subsequent to each acid treatment and put back on production with an ESP and y-tool.		
NAME (PLEASE PRINT) Matthew Rivers	PHONE NUMBER 616 458-1150	TITLE Production Engineer
SIGNATURE N/A	DATE 11/8/2011	

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



Covenant Field
Wolverine State 20-3
API# 43-041-30055

SHL NE/NW Sec 20, T23S, R1W
BHL SE/NW Sec 20, T23S, R1W
Sevier County, Utah

- 9/20/2011 MIRUSU, frac tanks, rig pump and pump lines.
- 9/21/2011 Filled frac tanks with water and plumbed in hard lines.
- 9/27/2011 ND wellhead, NU BOP's. RU spooling equipment and pulled out of the hole with the downhole pump. PU & TIH with bit and casing scraper to PBTD at 7091', pulled out of hole with 4 joints and SWIFN. Plan to finish pulling out of hole with casing scraper then RIH with plug and packer to swab for rate prior to pumping acid.
- 9/28/2011 Opened well, 30 psi tubing, 0 psi Casing. POOH with bit and scraper, PU & TIH with 7" HD packer and retrievable bridge plug to 6700'. SWIFN due to problems with the main drum on the rig. Plan to make rig repairs on the 29th and the 30th. Will resume operations on Saturday 10/1/11
- 9/29/2011 Rig repairs
- 9/30/2011 Rig repairs
- 10/1/2011 Rig repairs
- 10/2/2011 Rig repairs
- 10/3/2011 Rig repairs
- 10/4/2011 Finished rig repairs, set RBP @ 6760', released off plug then set packer at 6658'. RU swab equipment mad three swab runs to test equipment. SWIFN
Plan to swab
- 10/5/2011 RU swab equipment, made 20 swab runs recovering 140 bbls of fluid with a 80 to 90% water cut with a rate of 479 bfpd and an average fluid level of 3630' from surface. SWIFN
See 10-5 Swab report for details
Plan to pump acid on perf intervals 6714'-6722' & 6737'-6750' then swab for rate and clean up.
- 10/6/2011 Opened well, 0 psi, RU Halliburton acid equipment, pressure tested lines to 5000 psi and pumped acid stim. on perf intervals 6714'-6722' & 6737'-6750" as follows:
- | <u>Bbls</u> | <u>Max psi</u> | <u>Max rate</u> | <u>Fluid</u> | <u>Description</u> |
|---------------|----------------|-----------------|---------------|--|
| 3.00 | 50 | 1.5 | 4% KCL water | Established circulation |
| 35.70 | 50 | 1.5 | 7 1/2% HCL FE | Spotted acid with 100 7/8" .90 S.G. buoyant balls. |
| ~ | ~ | ~ | ~ | Closed packer |
| 23.80 | 1681 | 1 | 7 1/2% HCL FE | Pumped acid |
| 60.00 | 1634 | 1 | 4% KCL water | Displaced acid |
| ~ | 1525 | ~ | ~ | ISIP |
| ~ | 218 | ~ | ~ | 5 Min |
| ~ | 42 | ~ | ~ | 10 Min |
| ~ | 29 | ~ | ~ | 15 Min |
| Total | Max psi | Max rate | | |
| <u>122.50</u> | <u>1681</u> | <u>1.5</u> | | |
- See 10-6-11 Acid pressure chart for details.
- RD and released acid equipment, RU swab equipment, made two swab runs, opened bypass on packer and circulated buoyant balls to surface. Closed bypass on packer, RU swab equipment, made 20 swab runs recovering 186 bbls with a 90% water cut and an average fluid level of 2586' SWIFN

Plan to continue swabbing for rate and clean up.

10/7/2011

RU swab equipment, made 11 swab runs recovering 105 bbls of fluid with a 80 to 90% water cut with a rate of 630 bbls of fluid per day and an average fluid level of 2896' from surface. RD swab equipment, released packer and plug, reset plug at 6709' RU swab equipment and swabbed fluid level down to 2500', pulled out of hole with tubing and packer. RU wireline unit and perforated 6636'-6644', 6658'-6669' & 6682'-6694' with the following:

Titan Part # EXP 3325-321T

25 gram charges

.41 entry hole

45.16" penetration

4" EXP gun loaded 3 spf on 120 deg phasing.

RD and released wireline unit. RIH with one stand, SWIFN.

See 10-7 Swab report for details

Plan TIH with tbg and pkr to swab perf intervals 6636'-6644', 6658'-6669' & 6682'-6694' for rate and clean up.

10/8/2011

Opened well, 5 psi. TIH with tubing and packer, set packer at 6596' and pressure tested to 2000 psi. RU swab equipment, made 16 runs recovering 159 bbls of fluid with an 80 % water cut with a rate of 700 bpd and an average fluid level of 2613' from surface.

See 10-8 Swab report for details

Plan to pump acid on perf intervals 6636'-6644', 6658'-6669' & 6682'-6694' then swab for rate and clean up.

10/9/2011

Opened well, 0 psi, RU Halliburton acid equipment, pressure tested lines to 4000 psi and pumped acid stim. on perf intervals 6636'-6644', 6658'-6669' & 6682'-6694' as follows:

<u>Bbls</u>	<u>Max psi</u>	<u>Max rate</u>	<u>Fluid</u>	<u>Description</u>
3.00	50	1.5	4% KCL water	Established circulation
11.90	115	1.5	7 1/2% HCL FE	Pumped acid
11.90	180	1.5	7 1/2% HCL FE	Pumped acid with 25 gallons Matriseal
11.90	165	1.5	7 1/2% HCL FE	Pumped acid
~	~	~	~	Closed bypass on packer
11.90	1300	1	7 1/2% HCL FE	Pumped acid
11.90	1188	1	7 1/2% HCL FE	Pumped acid with 25 gallons Matriseal
23.80	945	0.7	7 1/2% HCL FE	Pumped acid
60.00	973	0.9	4% KCL water	Displaced acid
~	580	~	~	ISIP
~	0	~	~	5 Min
~	~	~	~	10 Min
~	~	~	~	15 Min
Total	Max psi	Max rate		
<u>146.30</u>	<u>1300</u>	<u>1.50</u>		

See 10-10-11 Acid pressure chart for details.

RD and released acid equipment, RU swab equipment, made 17 runs recovering 180 bbls of fluid with a 70% water cut with a rate of 800 bfpd and an average fluid level of 2200'.

Plan to continue swabbing for rate and clean up.

10/10/2011

Standby

10/11/2011

Opened well, 0 psi. RU swab equipment, made 9 runs recovering 95 bbls of fluid with a 80% water cut with

a rate of 733 bfpd with an average fluid level of 1969'. RD swab equipment, released packer and plug, reset plug at 6850', reset packer at 6600'. RU swab equipment to swab all perf intervals together, made 13 runs recovering 129 bbls of fluid with a 70% water cut with a rate of 800 bfpd and an average fluid level of 2200'. RD swab equipment, released packer and plug then pulled out of hole with tubing laying down the packer and plug. RIH with one stand, SWIFN.

Plan to install ESP

10/12/2011

Opened well, 0 psi. Pulled out with one stand, RU cable spoolers and RIH with 6" collapsible centralizer, Centinel, motor, seal section, pump, 2 3/8" x 8' sub, Y-tool, 2 3/8" x 2 7/8" x-over, 2 7/8" x 6' sub, one joint, cup type SN and 184 jts tubing to surface. ND BOP's & NU wellhead. Started well into production, RDMOSU.

10/13/2011

Well produced 41 bbls of oil, 281 bbls of water in 7.5 hrs. BHP 1602 psi, Hz 51

10/14/2011

Well produced 138 bbls of oil, 900 bbls of water in 24 hrs. BHP 1441 psi, Hz 54

10/15/2011

Well produced 236 bbls of oil, 968 bbls of water in 24 hrs. BHP 1432 psi, Hz 54

10/16/2011

Well produced 219 bbls of oil, 1109 bbls of water in 24 hrs. BHP 1425 psi, Hz 54

Supervisor:

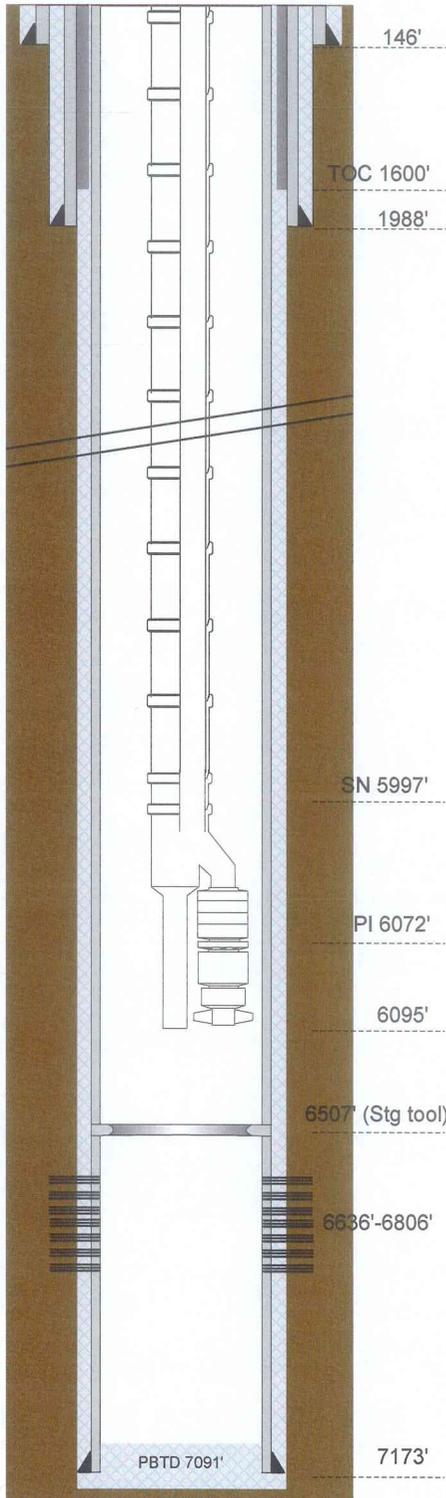
Tony E. Cook

Rig Operator:



Wolverine State 20-3
API # 43-041-30055
Covenant Field
Section 20, T23S, R1W
Sevier County, Utah

Ground Elevation: 5,866'
 KB Elevation: 5,892'



TD = 7173' MD (6816' TVD)

(Not to Scale)

Deviated Well

Surface: 174' FNL 2122' FWL, NE NW, 20-23S-1W
 Top of Pay (6868' MD): 1978' FNL, 1828' FWL, SE NW, 20-23S-1W
 Total Depth (7173' MD): 1978' FNL, 1828' FWL, SE NW, 20-23S-1W

Conductor Casing (06/26/08)

Size: 20", 0.25" wall
 Depth Landed: 146' KB
 Cement Data: Cemented to surface with 150 sacks

Surface Casing (11/23/08)

Size/Wt/Grade: 9-5/8", 36#, K-55, STC, 8rd
 Depth Landed: 1988' KB
 Cement Data: 220 sks VeriCem (11.0 ppg, 3.48 cf/sk), 250 sks Premium G (15.8 ppg, 1.17 cf/sk)

Production Casing (12/12/08)

Size/Wt/Grade: 7", 26.0#, N-80/HCL-80, LTC, 8rd
 Properties: 7240 psi burst, 6.151" drift, 6.276" ID, 0.0382 Bbl/ft capacity
 Depth Landed: 7173' KB
 Stage Collar: 6507' KB
 Cement Data: Stage 1 - 200 sks 50/50 Prem Poz (14.4 ppg, 1.27 cf/sk)
 Stage 2 Lead - 145 sks Varicem (11.0 ppg, 3.53 cf/sk)
 Tail - 710 sks Premium "G" (15.8 ppg, 1.25 cf/sk)

Navajo Perforations

6636'-6644' MD (6279'-6287' TVD), 08', 24 holes (10/7/11)
 6658'-6668' MD (6301'-6311' TVD), 10', 30 holes (10/7/11)
 6682'-6694' MD (6325'-6337' TVD), 12', 36 holes (10/7/11)
 6714'-6722' MD (6357'-6365' TVD), 08', 48 holes (05/7/09)
 6737'-6750' MD (6380'-6393' TVD), 13', 78 holes (05/7/09)
 6770'-6784' MD (6413'-6427' TVD), 14', 84 holes (05/5/09)
 6800'-6806' MD (6443'-6449' TVD), 06', 36 holes (05/5/09)

Mid-Perf = 6721' MD (6364' TVD), 71' M (71.0' TV), 336 holes

Tubing (10/12/11) (see Page 2 for details)

End of BHA 6095' WLM (5738' TVD)
 Centinel 6089' WLM (5732' TVD)
 Pump intake 6072' WLM (5715' TVD)
 Seating Nipple 5997' WLM (5642' TVD)

PBTD

(09/27/11) 7091' WLM (6734' TVD)
 (03/23/09) 7091' WLM (6734' TVD)
 (12/12/08) Float collar at 7096'



**Wolverine State 20-3
API # 43-041-30055
Covenant Field
Section 20, T23S, R1W
Sevier County, Utah**

Tubing Detail (10/12/11)

	26.00	KB
	-3.00	Landed above GL
184	5980.28	Tubing - 2-7/8", 6.5#, L-80, EUE, 8rd
1	1.10	Seating nipple - 2-7/8", EUE, 8rd, 2.25" ID cup type
1	32.71	Tubing - 2-7/8", 6.5#, L-80, EUE, 8rd
1	6.15	Sub - 2-7/8", 6.5#, L-80, EUE, 8rd
1	0.50	X-over, 2-7/8" x 2-3/8", EUE, 8rd
1	2.55	Y-Tool
1	8.13	2 3/8", L80, EUE, 8rd
1	23.97	Pump (400P18SSD, 134 Stage)
1	6.11	Seal
1	10.68	Motor
1	4.10	Downhole pressure sensor, Centinel III
1	1.27	Centralizer, 2-3/8" x 6", Collapsible
	-6.0	Wireline correction
<hr/>		
	6094.55'	EOT (6095' MD, 5738' TVD)

Note: No check or drain valve in this well.
Tubing capacity = 0.00579 Bbl/ft, Burst = 10570 psi, Joint Yield = 144960 lbs

Directional Data:

<u>MD</u>	<u>TVD</u>	<u>Incl.</u>	<u>MD</u>	<u>TVD</u>	<u>Incl.</u>
500	500	4.0	4000	3806	24.3
750	749	3.4	4500	4261	24.4
1000	998	5.7	5000	4715	24.5
1250	1247	7.8	5500	5173	20.6
1500	1494	9.3	6000	5649	11.4
2000	1980	17.3	6500	6143	1.0
2500	2441	24.8	7000	6643	0.2
3000	2896	24.7	7173	6816	0.2
3500	3351	24.5			

Stimulation:

05/09/09: 6714' - 6722' & 6737' - 6750' Pumped 2800 gallons of CF w/ GasPerm and 120 buoyant, 120 bio balls
10/06/11: 6714' - 6722' & 6737' - 6750' Acidized w/ 2500 gallons 7-½% FE HCL and 100 buoyant balls suspected communication to lower perforated interval below RBP.
10/09/11: 6636' - 6644', 6658' - 6668' & 6682' - 6694' Acidized w/ 3500 gallons 7-½% FE HCL and 50 gallons of Halliburton Matriseal (Benzoic Acid Flake) concentrated at 50 GPT

Wellhead Information:

- Tubing head flange is 7-1/16", 5M with a 2-7/8" EUE 8rd top connection.

Notes:

Surface Location: Latitude = 38° 47' 41.1831", Longitude = -111° 56' 02.1859" NAD 83
 (05/07/09): Available Logs: DLL/MSFL, SDL/DSN, FWS, XRMI, CBL

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS 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: ML-46605
1. TYPE OF WELL Oil Well	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: WOLVERINE GAS & OIL COMPANY OF UTAH, LLC	7. UNIT or CA AGREEMENT NAME: WOLVERINE
3. ADDRESS OF OPERATOR: One Riverfront Plaza 55 Campau NW, Grand Rapids, MI, 49503	8. WELL NAME and NUMBER: WOLVERINE ST 20-3
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0174 FNL 2122 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 20 Township: 23.0S Range: 01.0W Meridian: S	9. API NUMBER: 43041300550000
PHONE NUMBER: 616 458-1150 Ext	9. FIELD and POOL or WILDCAT: COVENANT
COUNTY: SEVIER	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: 4/1/2014	<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="workover"/>

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

Wolverine Gas and Oil Co. of Utah, LLC intends to workover the Wolverine State 20-3. This well currently produces from a series of Navajo perf intervals between 6636 and 6806'. If swab testing confirms that lower perforations (6800'-06' and possibly 6770'-84') are sources of high water and low oil cut production, the offending perms may be plugged back (tentatively setting a cement retainer at either ±6792' or ±6760', and cementing). In any event, no stimulation work is planned for existing Navajo perforations before proceeding to recompletion of an uphole Navajo pay interval, from 6599' – 6619'. The new perforations will be acid stimulated before running an ESP and returning the well to production. A summary of the actual activities performed will be filed after the work has been completed.

Approved by the Utah Division of Oil, Gas and Mining

Date: March 03, 2014

By: *D. K. Duff*

NAME (PLEASE PRINT) Helene Bardolph	PHONE NUMBER 616 458-1150	TITLE Engineering Administrative Assistant
SIGNATURE N/A	DATE 2/26/2014	



**WOLVERINE GAS AND OIL COMPANY
OF UTAH, LLC**

Energy Exploration in Partnership with the Environment

May 28, 2014

RECEIVED
JUN 05 2014
DIV. OF OIL, GAS & MINING

Mr. Stan Anderson
Fluid Minerals Group, BLM
Richfield Field Office
150 East 900 North
Richfield, UT 84701

Mr. Brad Hill
Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84116

20 23S 1W

**Re: Subsequent Report Sundries for Wolverine State 17-10 (API No. 43-041-30054)
and 20-3 (API No. 43-041-30055), Covenant Field, Sevier County, Utah**

Gentlemen:

Please find enclosed the required Sundry Notices for recently completed well work at the above-captioned wells, with appropriate additional copies. Both of the subject wells are operated by Wolverine Gas & Oil Company of Utah, LLC and were recently worked over, in an attempt to increase oil production. Feel free to contact me if you have questions or concerns about either the work performed or the information in these post-work filings. I can be reached at my office at 616-929-1932 on weekdays, from 7:30 am to 4:30 PM (EST).

Sincerely,

Ron Meredith,
Sr. Production Engineer
Wolverine Gas & Oil Corporation

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

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER:

ML-46605

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:
Wolverine

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.

1. TYPE OF WELL
OIL WELL GAS WELL OTHER _____

8. WELL NAME and NUMBER:
Wolverine State 20-3

2. NAME OF OPERATOR:
Wolverine Gas & Oil Company of Utah, LLC

9. API NUMBER:
4304130055

3. ADDRESS OF OPERATOR:
One Riverfront Plaza 55 Carr CITY **Grand Rapids** STATE **MI** ZIP **49503**

PHONE NUMBER:
(616) 458-1150

10. FIELD AND POOL, OR WILDCAT:
Covnant

4. LOCATION OF WELL
FOOTAGES AT SURFACE: **174' FNL 2122' FWL**

COUNTY: **Sevier**

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: **NENW 20 23S 1W 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 checked="" type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input checked="" type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<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 checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: 5/1/2014	<input type="checkbox"/> CHANGE WELL NAME	<input checked="" 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 type="checkbox"/> OTHER: _____
	<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.

Wolverine completed a workover on the Wolverine State 20-3 on May 1, 2014. After swab tests confirmed perforations below 6760' made 100% water, a CICR was set at 6758' and perforations from 6770'-6806' were squeezed. A total of 50 sx (10.5 bbls) of cement was pumped, w/ 5.6 cu.ft. of cement left above the retainer for a new PBTD of 6732'.

Additional Navajo pay was then perforated (with 4", 6 SPF, 25 gm charges) from 6599'-6619', after which all existing perforations (6599'-6722') were acidized with 2000 gals of 7-1/2% acid and at pressures ranging from 800 to 1200 psi (WHP). Subsequent flowing/swabbing recovered the entire load volume. The well was returned to production at an initial rate of 134 BO and 165 BW per day, though rapidly declining.

(See the attached WBD and Daily Reports for additional details.)

RECEIVED

JUN 05 2014

DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) Ron Meredith

TITLE Sr. Production Engineer

SIGNATURE *Ron Meredith*

DATE 5/28/2014

(This space for State use only)



Covenant Field
Federal 20-3
API# 43-041-30055

SHL: NE/NW Sec 20, T23S, R1W
BHL: SE/NW Sec 20, T23S, R1W
Sevier County, Utah

- 4/21/2014 MIRUSU, ND wellhead, NU BOP's. Filtered KCL water and added Baker Petrolite chemicals.
- 4/22/2014 Opened well. Hooked a vac truck to the casing and rigged up Baker Hughes spooling equipment. Pulled out of the hole with ESP equipment laying down the entire tubing string. Picked up 6-7/8" rock bit, 7" 26# casing scraper, and 227 joints of 2-7/8" L-80 inspected tubing. Tagged up at 7091' tubing measurement, picked up 10', hooked up pump lines and reverse circulated with 260 bbls of completion fluid. Rigged down pump lines, laid down 10 joints and SWIFN.
- 4/23/2014 Opened well. Pulled out of the hole with the bit and casing scraper. Picked up 7" 26# HD packer, tripped in the hole to 6760'. RU wireline unit and Set packer at 6760' WLM. RD and released wireline unit. RU swab equipment and made 21 swab runs. (100% water cut from Perf intervals 6770'-6806') RD swab equipment, released packer and tripped out of the hole with tubing and packer.
- 4/24/2014 Opened well. Rigged up wireline unit, RIH and set CICR at 6758', RD and released wireline unit. Tripped in hole with cement stinger and 216 joints of 2-7/8" tubing. Rigged up Halliburton acid equipment, stung into cement retainer and established circulation behind pipe 2 bpm/50 psi. Stung out of retainer and pumped cement squeeze on perf intervals 6770'-6784' and 6800'-6806' as follows.
1. Pumped 5 bbls of fresh water.
 2. Pumped 50 sks (10.5 Bbls) 15.8 Lb/Gal 1.17 F/Sx Cement
 3. Pumped 23.5 bbls Fresh water
 4. Stung into retainer
 5. Pumped 9.1 bbls fresh water
 6. Closed annulus
 7. Pumped 1.2 bbls and pressured up to 1000 psi, shut down.
 8. Waited for the pressure to bleed off to bleed off to 800 psi.
 9. Pumped 0.2 bbls and pressured up to 1000 psi, shut down. Pressure held
 10. Stung out of retainer, bled off pressure and laid down 1 joint
 11. Reverse circulated with 75 bbls, EOT at 6730' (This will place a plug over perfs at 6737-6750')
- Note: Estimated cement volume in well is 7.2 bbls
- RD and released cementing equipment. Pulled out of the hole with 150 jts. SWIFN
- 4/25/2014 Opened well. Finished pulling out of the hole with tubing and cement stinger, TIH with 6-7/8" bit, 7" 26# casing scraper, 4 joints of 2-7/8" tubing, HD packer and 211 joints of tubing. Tagged cement top at 6732' WLM. Stood back 2 stands and set the packer at 6470'. RU swab equipment. Swabbed 28 bbls in 6 runs, 100% water (Perf intervals open - 6636 - 6722'). No fluid entry. RD swab equipment, released packer and tripped out of the hole with tubing, packer, bit and scraper. TIH and set RBP at 6628', released off plug and shut down with EOT at 6620'
- Note: New PBD 6732'
- 4/26/2014 Opened well. RU Halliburton acid equipment and spotted 2000 gallons of 7.5% acid from 6620'-5373'. RD pump lines and pulled out of the hole with tubing. Rigged up wireline unit and perforated from 6599'-6619' (4" gun, 6 SPF, 60' phasing, 25 gram charges), correlating to Halliburton log 12/9/08 SDL-DSN-GR. Rigged up Halliburton's pump line and displaced acid into the formation at approximately 0.5 bbl intervals ranging from 800 - 1200 psi. RD and released Halliburton acid equipment.
- 4/27/2014 Opened well. Picked up and tripped in the hole with a retrieving head, 2-joints of 2-7/8" tubing, HD packer, 1-Joint 2-7/8" tubing, cup type SN and 207 jts of 2-7/8" tubing. Set packer at 6503'. RU swab equipment and made 31 swab runs, recovering 224 bbls (all load volume). Perf intervals open - 6599' - 6619'. RD swab equipment and SWIFN
- 4/28/2014 Opened well. Released packer and latched onto retrievable bridge plug. RU swab equipment

and swabbed 50 bbls of fluid to eliminate the any hot acid from contacting the cement from the squeeze on 4/24. RD swab equipment, released RBP and re-set the packer at 6626'. RU swab equipment and swabbed the fluid level down in the tubing to 1500' then made 4 swab runs over 1 hour to confirm that there was no entry from perf sets 6636' - 6722'. RD swab equipment and tripped out of the hole with tubing, packer and retrievable bridge plug.

4/29/2014

Rig crew on standby

4/30/2014

Rig crew on standby

5/1/2014

Opened well, 0 psi. Rigged up cable spooler, picked up and run in the hole with 6" collapsible centralizer, Centinel, motor, seal, pump, 8' x 2-3/8" L-80 sub, Y-Tool, 2-7/8" x 2-3/8" L-80 XO, 6' x 2-7/8" L-80 sub, 1-joint 2-7/8 L-80 tubing, cup type SN and 191 joints of L-80 tubing to surface. Nipped down BOP's, nipped up wellhead and turned well into production.

08 hr. production. 000 Oil, 028 Water, 2187 BHP

24 hr. production. 068 Oil, 233 Water, 1456 BHP

24 hr. production. 134 Oil, 165 Water, 1490 BHP

Final Report

Supervisor: Tony E. Cook

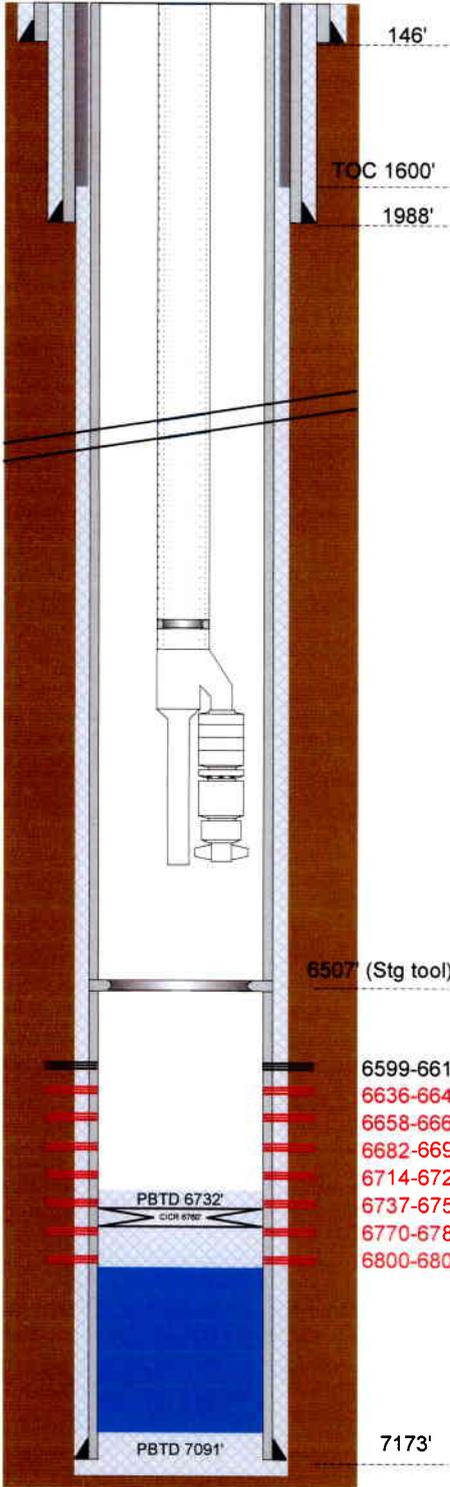
Rig Operator: Austin Palmer



**Wolverine State 20-3
API # 43-041-30055
Covenant Field
Section 20, T23S, R1W
Sevier County, Utah**

Ground Elevation: 5,866'
KB Elevation: 5,892'

(Not to Scale)



Deviated Well

Surface: 174' FNL 2122' FWL, NE NW, 20-23S-1W
Top of Pay (6868' MD): 1978' FNL, 1828' FWL, SE NW, 20-23S-1W
Total Depth (7173' MD): 1978' FNL, 1828' FWL, SE NW, 20-23S-1W

Conductor Casing (06/26/08)

Size: 20", 0.25" wall
Depth Landed: 146' KB
Cement Data: Cemented to surface with 150 sacks

Surface Casing (11/23/08)

Size/Wt/Grade: 9-5/8", 36#, K-55, STC, 8rd
Depth Landed: 1988' KB
Cement Data: 220 sks VeriCem (11.0 ppg, 3.48 cf/sk), 250 sks Premium G (15.8 ppg, 1.17 cf/sk)

Production Casing (12/12/08)

Size/Wt/Grade: 7", 26.0#, N-80/HCL-80, LTC, 8rd
Properties: 7240 psi burst, 6.151" drift, 6.276" ID, 0.0382 Bbl/ft capacity
Depth Landed: 7173' KB
Stage Collar: 6507' KB
Cement Data: Stage 1 - 200 sks 50/50 Prem Poz (14.4 ppg, 1.27 cf/sk)
Stage 2 Lead - 145 sks Varicem (11.0 ppg, 3.53 cf/sk)
Tail - 710 sks Premium "G" (15.8 ppg, 1.25 cf/sk)

Navajo Perforations

6599'- 6619' MD (6242'- 6262' TVD), 20', 120 holes (4/26/14)
6636'- 6644' MD (6279'- 6287' TVD), 08', 024 holes (10/7/11) Cemented 4/24/14
6658'- 6668' MD (6301'- 6311' TVD), 10', 030 holes (10/7/11) Cemented 4/24/14
6682'- 6694' MD (6325'- 6337' TVD), 12', 036 holes (10/7/11) Cemented 4/24/14
6714'- 6722' MD (6357'- 6365' TVD), 08', 048 holes (05/7/09) Cemented 4/24/14
6737'- 6750' MD (6380'- 6393' TVD), 13', 078 holes (05/7/09) Cemented 4/24/14
6770'- 6784' MD (6413'- 6427' TVD), 14', 084 holes (05/5/09) Squeezed 4/24/14
6800'- 6806' MD (6443'- 6449' TVD), 06', 036 holes (05/5/09) Squeezed 4/24/14

Mid-Perf = 6661' MD (6304' TVD), 58' M (58.0' TV), 258 holes

Tubing (05/01/2014) (see Page 2 for details)

End of BHA 6059' MD (5706' TVD)
Centinel 6054' MD (5701' TVD)
Pump intake 6037' MD (5685' TVD)
Seating Nipple 5947' MD (5596' TVD)

PBTD

(04/25/14) 6732' MD (6375' TVD)
(09/27/11) 7091' MD (6734' TVD)
(03/23/09) 7091' MD (6734' TVD)
(12/12/08) Float collar at 7096'

TD = 7173' MD (6816' TVD)



**Wolverine State 20-3
API # 43-041-30055
Covenant Field
Section 20, T23S, R1W
Sevier County, Utah**

Tubing Detail (05/01/2014)

	26.00	KB
	-3.00	Landed above GL
191	5940.26	Tubing - 2-7/8", 6.5#, L-80, EUE, 8rd
1	1.10	Seating nipple - 2-7/8", EUE, 8rd, 2.25" ID cup type
1	32.71	Tubing - 2-7/8", 6.5#, L-80, EUE, 8rd
1	6.15	Sub - 2-7/8", 6.5#, L-80, EUE, 8rd
1	0.50	X-over, 2-7/8" x 2-3/8", EUE, 8rd
1	2.55	Y-Tool
1	8.13	2 3/8", L80, EUE, 8rd
1	0.50	Pump discharge
1	19.00	Pump
1	19.20	Pump
1	6.10	Seal
1	10.80	Motor
1	4.10	Centinel
1	1.27	Centralizer, 2-3/8" x 6", Collapsible
	-16.0	Wireline correction
<hr/>		
	6059.37'	EOT (6059' MD, 5706' TVD)

Note: No check or drain valve in this well.
Tubing capacity = 0.00579 Bbl/ft, Burst = 10570 psi, Joint Yield = 144960 lbs

Directional Data:

<u>MD</u>	<u>TVD</u>	<u>Incl.</u>	<u>MD</u>	<u>TVD</u>	<u>Incl.</u>
500	500	4.0	4000	3806	24.3
750	749	3.4	4500	4261	24.4
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1250	1247	7.8	5500	5173	20.6
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2500	2441	24.8	7000	6643	0.2
3000	2896	24.7	7173	6816	0.2
3500	3351	24.5			

Wellhead Information:

Tubing head flange is 7-1/16", 5M with a 2-7/8" EUE 8rd top connection.

Notes:

Surface Location: Latitude = 38° 47' 41.1831", Longitude = -111° 56' 02.1859" NAD 83
(05/07/09): Available Logs: DLL/MSFL, SDL/DSN, FWS, XRMI, CBL