

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

FORM 3

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL		1. WELL NAME and NUMBER GMBU Q-23-9-16
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>		3. FIELD OR WILDCAT MONUMENT BUTTE
4. TYPE OF WELL Oil Well Coalbed Methane Well: NO		5. UNIT or COMMUNITIZATION AGREEMENT NAME GMBU (GRRV)
6. NAME OF OPERATOR NEWFIELD PRODUCTION COMPANY		7. OPERATOR PHONE 435 646-4825
8. ADDRESS OF OPERATOR Rt 3 Box 3630 , Myton, UT, 84052		9. OPERATOR E-MAIL mcozier@newfield.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU-15855	11. MINERAL OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>	12. SURFACE OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>
13. NAME OF SURFACE OWNER (if box 12 = 'fee')		14. SURFACE OWNER PHONE (if box 12 = 'fee')
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')		16. SURFACE OWNER E-MAIL (if box 12 = 'fee')
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')	18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>	19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	686 FSL 2160 FWL	SESW	23	9.0 S	16.0 E	S
Top of Uppermost Producing Zone	1131 FSL 1603 FWL	SESW	23	9.0 S	16.0 E	S
At Total Depth	1636 FSL 1000 FWL	NWSW	23	9.0 S	16.0 E	S

21. COUNTY DUCHEсне	22. DISTANCE TO NEAREST LEASE LINE (Feet) 1000	23. NUMBER OF ACRES IN DRILLING UNIT 20
25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 690	26. PROPOSED DEPTH MD: 6080 TVD: 5850	
27. ELEVATION - GROUND LEVEL 5781	28. BOND NUMBER WYB000493	29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 437478

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	12.25	8.625	0 - 300	24.0	J-55 ST&C	8.3	Class G	138	1.17	15.8
Prod	7.875	5.5	0 - 6080	15.5	J-55 LT&C	8.3	Premium Lite High Strength	282	3.26	11.0
							50/50 Poz	363	1.24	14.3

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

NAME Heather Calder	TITLE Production Technician	PHONE 435 646-4936
SIGNATURE	DATE 08/11/2014	EMAIL hcalder@newfield.com
API NUMBER ASSIGNED 43013531050000	APPROVAL  Permit Manager	

NEWFIELD PRODUCTION COMPANY
 GMBU Q-23-9-16
 AT SURFACE: SE/SW SECTION 23, T9S R16E
 DUCHESNE COUNTY, UTAH

TEN POINT DRILLING PROGRAM

1. **GEOLOGIC SURFACE FORMATION:**

Uinta formation of Upper Eocene Age

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

Uinta	0' – 1,378'	
Green River	1,378'	
Wasatch	5,954'	
Proposed TD	6,080'(MD)	5,850' (TVD)

3. **ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:**

Green River Formation (Oil) 1,378' – 5,954'

Fresh water may be encountered in the Uinta Formation, but would not be expected below about 350'. All water shows and water bearing geologic units shall be reported to the geologic and engineering staff of the Vernal Office prior to running the next string of casing or before plugging orders are requested. All water shows must be reported within one (1) business day after being encountered.

All usable (<10,000 PPM TDS) water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling will be recorded by depth and adequately protected. This information shall be reported to the Vernal Office.

Detected water flows shall be sampled, analyzed, and reported to the geologic & engineering staff of the Vernal Office. The office may request additional water samples for further analysis. Usage of the State of Utah form *Report of Water Encountered* is acceptable, but not required.

The following information is requested for water shows and samples where applicable:

Location & Sampled Interval	Date Sampled
Flow Rate	Temperature
Hardness	pH
Water Classification (State of Utah)	Dissolved Calcium (Ca) (mg/l)
Dissolved Iron (Fe) (ug/l)	Dissolved Sodium (Na) (mg/l)
Dissolved Magnesium (Mg) (mg/l)	Dissolved Carbonate (CO ₃) (mg/l)
Dissolved Bicarbonate (NaHCO ₃) (mg/l)	Dissolved Chloride (Cl) (mg/l)
Dissolved Sulfate (SO ₄) (mg/l)	Dissolved Total Solids (TDS) (mg/l)

4. **PROPOSED CASING PROGRAM**

a. **Casing Design: GMBU Q-23-9-16**

Size	Interval		Weight	Grade	Coupling	Design Factors		
	Top	Bottom				Burst	Collapse	Tension
Surface casing 8-5/8"	0'	300'	24.0	J-55	STC	2,950 17.53	1,370 14.35	244,000 33.89
Prod casing 5-1/2"	0'	6,080'	15.5	J-55	LTC	4,810 2.49	4,040 2.09	217,000 2.30

Assumptions:

- 1) Surface casing max anticipated surface press (MASP) = Frac gradient – gas gradient
- 2) Prod casing MASP (production mode) = Pore pressure – gas gradient
- 3) All collapse calculations assume fully evacuated casing w/ gas gradient
- 4) All tension calculations assume air weight

Frac gradient at surface casing shoe = 13.0 ppg
 Pore pressure at surface casing shoe = 8.33 ppg
 Pore pressure at prod casing shoe = 8.33 ppg
 Gas gradient = 0.115 psi/ft

All casing shall be new or, if used, inspected and tested. Used casing shall meet or exceed API standards for new casing.

All casing strings shall have a minimum of 1 (one) centralizer on each of the bottom three (3) joints.

b. **Cementing Design: GMBU Q-23-9-16**

Job	Fill	Description	Sacks	OH Excess*	Weight (ppg)	Yield (ft ³ /sk)
			ft ³			
Surface casing	300'	Class G w/ 2% CaCl	138	30%	15.8	1.17
			161			
Prod casing Lead	4,080'	Prem Lite II w/ 10% gel + 3% KCl	282	30%	11.0	3.26
			919			
Prod casing Tail	2,000'	50/50 Poz w/ 2% gel + 3% KCl	363	30%	14.3	1.24
			451			

- *Actual volume pumped will be 15% over the caliper log
- Compressive strength of lead cement: 1800 psi @ 24 hours, 2250 psi @ 72 hours
- Compressive strength of tail cement: 2500 psi @ 24 hours

Hole Sizes: A 12-1/4" hole will be drilled for the 8-5/8" surface casing. A 7-7/8" hole will be drilled for the 5-1/2" production casing.

The 8-5/8" surface casing shall in all cases be cemented back to surface. In the event that during the primary surface cementing operation the cement does not circulate to surface, or if the cement level should fall back more than 8 feet from surface, then a remedial surface cementing operation shall be performed to insure adequate isolation and stabilization of the surface casing.

5. **MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:**

The operator's minimum specifications for pressure control equipment are as follows:

An 8" Double Ram Hydraulic unit with a closing unit will be utilized. Function test of BOP's will be check daily.

Refer to **Exhibit C** for a diagram of BOP equipment that will be used on this well.

6. **TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:**

From surface to ± 300 feet will be drilled with an air/mist system. The air rig is equipped with a 6 1/2" blooie line that is straight run and securely anchored. The blooie line is used with a discharge less than 100 ft from the wellbore in order to minimize the well pad size. The blooie line is not equipped with an automatic igniter or continuous pilot light and the compressor is located less than 100 ft from the well bore due to the low possibility of combustion with the air dust mixture. The trailer mounted compressor (capacity of 2000 CFM) has a safety shut-off valve which is located 15 feet from the air rig. A truck with 70 bbls of water is on stand by to be used as kill fluid, if necessary. From about ± 300 feet to TD, a fresh water system will be utilized. Clay inhibition and hole stability will be achieved with a KCl substitute additive. This additive will be identified in the APD and reviewed to determine if the reserve pit shall be lined. This fresh water system will typically contain Total Dissolved Solids (TDS) of less than 3000 PPM. Anticipated mud weight is 8.4 lbs/gal. If necessary to control formation fluids or pressure, the system will be weighted with the addition of bentonite gel, and if pressure conditions warrant, with barite

No chromate additives will be used in the mud system on Federal and/or Indian lands without prior BLM approval to ensure adequate protection of fresh aquifers.

No chemicals subject to reporting under SARA Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of this 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 completing of this well.

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

Newfield Production will **visually** monitor pit levels and flow from the well during drilling operations.

7. **AUXILIARY SAFETY EQUIPMENT TO BE USED:**

Auxiliary safety equipment will be a Kelly Cock, bit float, and a TIW valve with drill pipe threads.

8. **TESTING, LOGGING AND CORING PROGRAMS:**

The logging program will consist of a Dual Induction, Gamma Ray and Caliper log from TD to base of surface casing @ 300' +/-, and a Compensated Neutron-Formation Density Log from TD to 3500' +/- . A cement bond log will be run from PBDT to cement top. No drill stem testing or coring is planned for this well.

9. **ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:**

No abnormal temperatures or pressures are anticipated. No hydrogen sulfide has been encountered or is known to exist from previous drilling in the area at this depth. Maximum anticipated

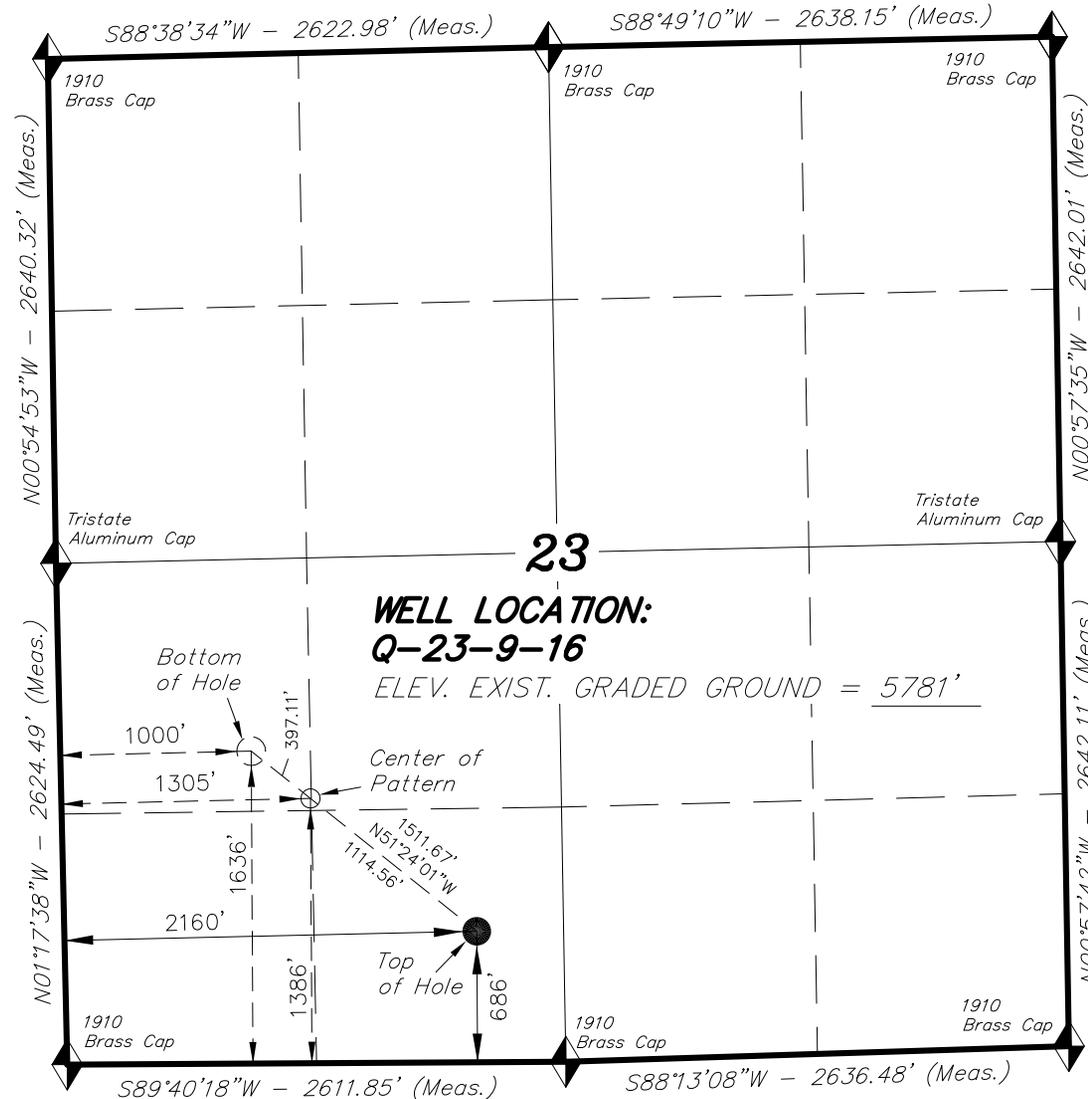
bottomhole pressure will approximately equal total depth in feet multiplied by a 0.433 psi/foot gradient.

10. **ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:**

It is anticipated that the drilling operations will commence the first quarter of 2015, and take approximately seven (7) days from spud to rig release.

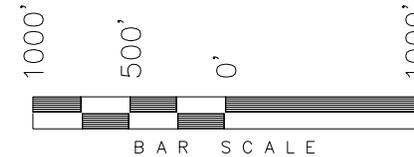
T9S, R16E, S.L.B.&M.

NEWFIELD EXPLORATION COMPANY



WELL LOCATION, Q-23-9-16, LOCATED AS SHOWN IN THE SE 1/4 SW 1/4 OF SECTION 23, T9S, R16E, S.L.B.&M. DUCHESNE COUNTY, UTAH.

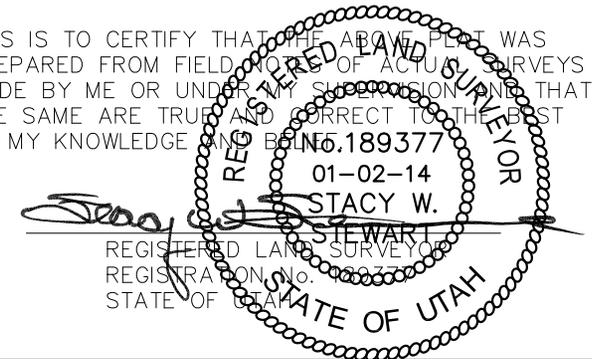
TARGET BOTTOM HOLE, Q-23-9-16, LOCATED AS SHOWN IN THE NW 1/4 SW 1/4 OF SECTION 23, T9S, R16E, S.L.B.&M. DUCHESNE COUNTY, UTAH.



NOTES:

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

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



◆ = SECTION CORNERS LOCATED

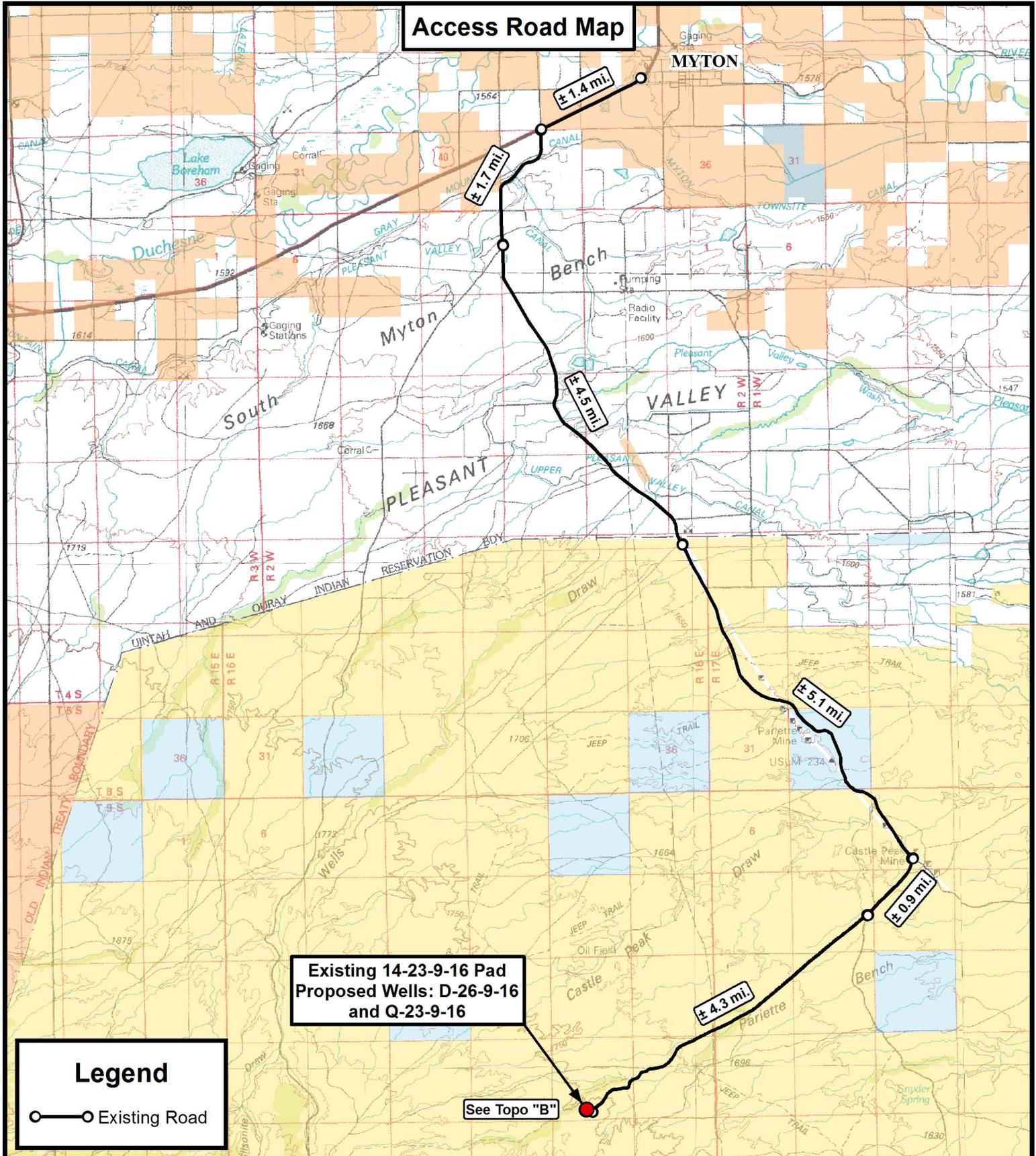
BASIS OF ELEV; Elevations are based on an N.G.S. OPUS Correction. LOCATION: LAT. 40°04'09.56" LONG. 110°00'43.28" (Tristate Aluminum Cap) Elev. 5281.57'

NAD 83 (SURFACE LOCATION)	NAD 83 (SURFACE LOCATION)
LATITUDE = 40°00'39.35"	LATITUDE = 40°00'48.85"
LONGITUDE = 110°05'17.66"	LONGITUDE = 110°05'32.65"
NAD 27 (SURFACE LOCATION)	NAD 27 (SURFACE LOCATION)
LATITUDE = 40°00'39.48"	LATITUDE = 40°00'48.98"
LONGITUDE = 110°05'15.12"	LONGITUDE = 110°05'30.11"
NAD 83 (CENTER OF PATTERN)	NAD 83 (SURFACE LOCATION)
LATITUDE = 40°00'46.35"	LATITUDE = 40°00'48.85"
LONGITUDE = 110°05'28.71"	LONGITUDE = 110°05'32.65"
NAD 27 (CENTER OF PATTERN)	NAD 27 (SURFACE LOCATION)
LATITUDE = 40°00'46.49"	LATITUDE = 40°00'48.98"
LONGITUDE = 110°05'26.17"	LONGITUDE = 110°05'30.11"

TRI STATE LAND SURVEYING & CONSULTING

180 NORTH VERNAL AVE. - VERNAL, UTAH 84078
 (435) 781-2501

DATE SURVEYED: 12-20-13	SURVEYED BY: Q.M.	VERSION:
DATE DRAWN: 01-02-14	DRAWN BY: F.T.M.	V1
REVISED:	SCALE: 1" = 1000'	



Legend

○—○ Existing Road

Existing 14-23-9-16 Pad
Proposed Wells: D-26-9-16 and Q-23-9-16

Tri State Land Surveying, Inc.
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NEWFIELD EXPLORATION COMPANY

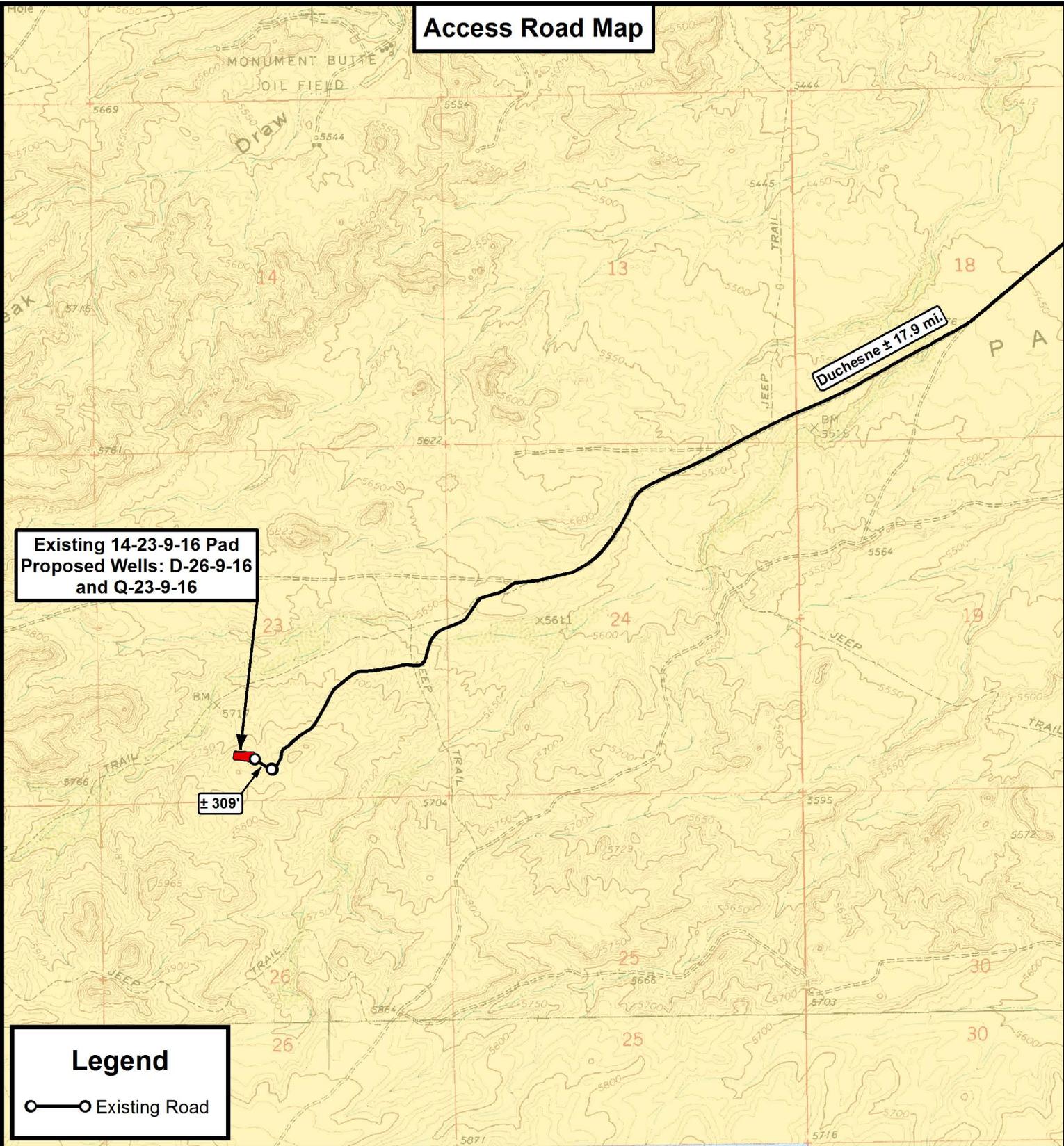
Existing 14-23-9-16 Pad
Proposed Wells: D-26-9-16 and Q-23-9-16
Sec. 23, T9S, R16E, S.L.B.&M.
Duchesne County, UT.

DRAWN BY:	A.P.C.	REVISED:	VERSION:
DATE:	01-02-2014		V1
SCALE:	1:100,000		

TOPOGRAPHIC MAP

SHEET
A

Access Road Map



**Existing 14-23-9-16 Pad
Proposed Wells: D-26-9-16
and Q-23-9-16**

± 309'

Duchesne ± 17.9 mi.

Legend

○ — ○ Existing Road

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

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

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NEWFIELD EXPLORATION COMPANY
Existing 14-23-9-16 Pad
Proposed Wells: D-26-9-16 and Q-23-9-16
Sec. 23, T9S, R16E, S.L.B.&M.
Duchesne County, UT.

DRAWN BY:	A.P.C.	REVISED:	VERSION:
DATE:	01-02-2014		V1
SCALE:	1" = 2,000'		

TOPOGRAPHIC MAP

SHEET
B

Proposed Pipeline Map

**Existing 14-23-9-16 Pad
Proposed Wells: D-26-9-16
and Q-23-9-16**

Existing Gas Pipeline

Existing Waterline

Legend

○—○ Existing Road

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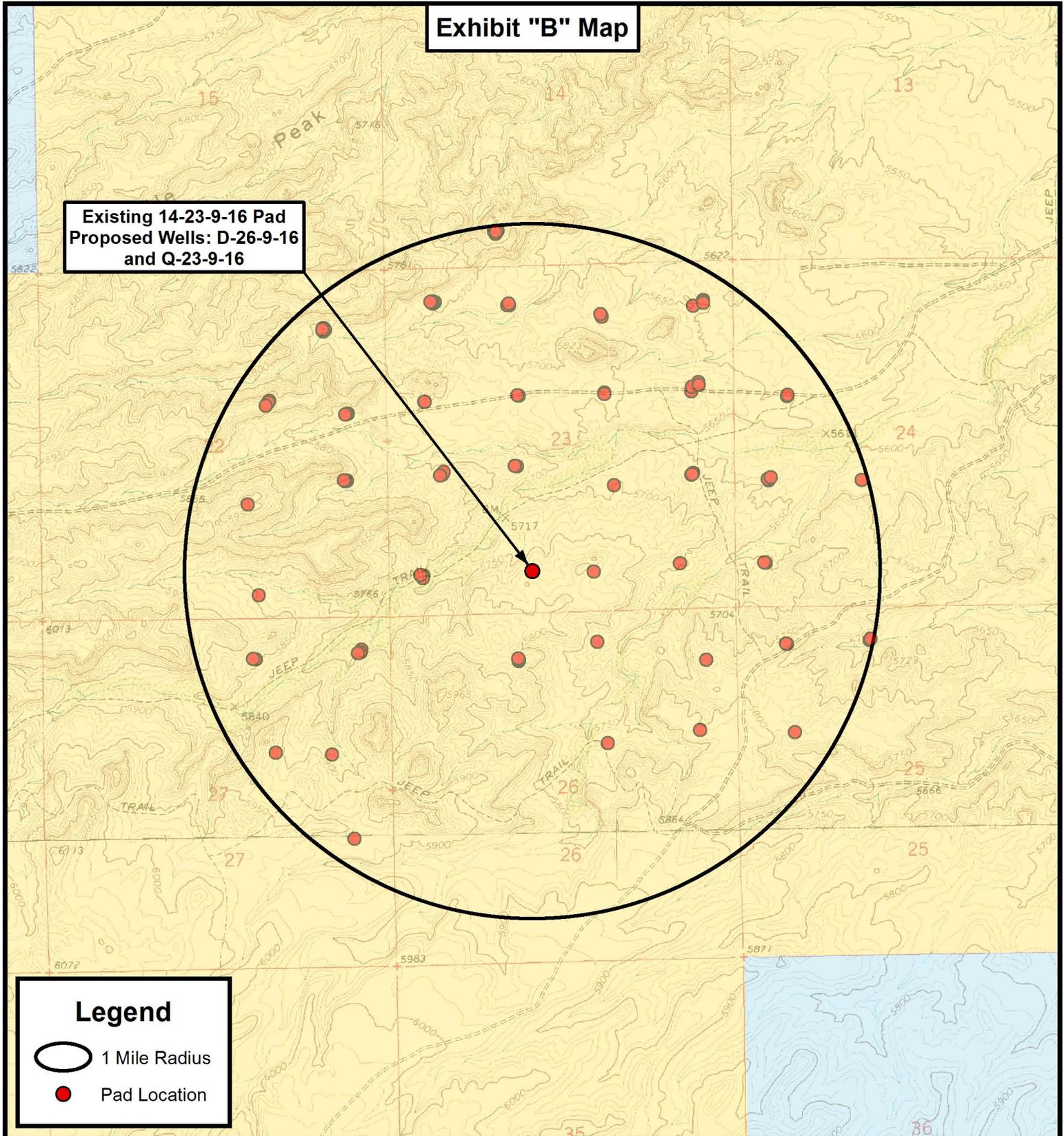
NEWFIELD EXPLORATION COMPANY
Existing 14-23-9-16 Pad
Proposed Wells: D-26-9-16 and Q-23-9-16
Sec. 23, T9S, R16E, S.L.B.&M.
Duchesne County, UT.

DRAWN BY:	A.P.C.	REVISED:	VERSION:
DATE:	01-02-2014		V1
SCALE:	1" = 2,000'		

TOPOGRAPHIC MAP **SHEET C**

Exhibit "B" Map

Existing 14-23-9-16 Pad
Proposed Wells: D-26-9-16
and Q-23-9-16



Legend

- 1 Mile Radius
- Pad Location

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NEWFIELD EXPLORATION COMPANY

Existing 14-23-9-16 Pad
Proposed Wells: D-26-9-16 and Q-23-9-16
Sec. 23, T9S, R16E, S.L.B.&M.
Duchesne County, UT.

DRAWN BY:	A.P.C.	REVISED:	VERSION:
DATE:	01-02-2014		V1
SCALE:	1" = 2,000'		

TOPOGRAPHIC MAP

SHEET
D

Coordinate Report

Well Number	Feature Type	Latitude (NAD 83) (DMS)	Longitude (NAD 83) (DMS)
14-23-9-16	Surface Hole	40° 00' 39.08" N	110° 05' 18.08" W
D-26-9-16	Surface Hole	40° 00' 39.21" N	110° 05' 17.87" W
Q-23-9-16	Surface Hole	40° 00' 39.35" N	110° 05' 17.66" W
D-26-9-16	Center of Pattern	40° 00' 33.80" N	110° 05' 28.74" W
Q-23-9-16	Center of Pattern	40° 00' 46.35" N	110° 05' 28.71" W
D-26-9-16	Bottom of Hole	40° 00' 31.98" N	110° 05' 32.39" W
Q-23-9-16	Bottom of Hole	40° 00' 48.85" N	110° 05' 32.65" W
Well Number	Feature Type	Latitude (NAD 83) (DD)	Longitude (NAD 83) (DD)
14-23-9-16	Surface Hole	40.010854	110.088354
D-26-9-16	Surface Hole	40.010892	110.088297
Q-23-9-16	Surface Hole	40.010931	110.088240
D-26-9-16	Center of Pattern	40.009388	110.091318
Q-23-9-16	Center of Pattern	40.012876	110.091309
D-26-9-16	Bottom of Hole	40.008884	110.092330
Q-23-9-16	Bottom of Hole	40.013570	110.092403
Well Number	Feature Type	Northing (NAD 83) (UTM Meters)	Longitude (NAD 83) (UTM Meters)
14-23-9-16	Surface Hole	4429359.936	577806.041
D-26-9-16	Surface Hole	4429364.216	577810.882
Q-23-9-16	Surface Hole	4429368.496	577815.724
D-26-9-16	Center of Pattern	4429194.609	577554.803
Q-23-9-16	Center of Pattern	4429581.785	577551.561
D-26-9-16	Bottom of Hole	4429137.738	577468.937
Q-23-9-16	Bottom of Hole	4429657.779	577457.441
Well Number	Feature Type	Latitude (NAD 27) (DMS)	Longitude (NAD 27) (DMS)
14-23-9-16	Surface Hole	40° 00' 39.21" N	110° 05' 15.53" W
D-26-9-16	Surface Hole	40° 00' 39.35" N	110° 05' 15.33" W
Q-23-9-16	Surface Hole	40° 00' 39.48" N	110° 05' 15.12" W
D-26-9-16	Center of Pattern	40° 00' 33.93" N	110° 05' 26.20" W
Q-23-9-16	Center of Pattern	40° 00' 46.49" N	110° 05' 26.17" W
D-26-9-16	Bottom of Hole	40° 00' 32.11" N	110° 05' 29.85" W
Q-23-9-16	Bottom of Hole	40° 00' 48.98" N	110° 05' 30.11" W



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NEWFIELD EXPLORATION COMPANY

Existing 14-23-9-16 Pad
Proposed Wells: D-26-9-16 and Q-23-9-16
Sec. 23, T9S, R16E, S.L.B.&M.
Duchesne County, UT.

DRAWN BY: A.P.C.
DATE: 01-02-2014
VERSION: V1

REVISED:

COORDINATE REPORT

SHEET

1

RECEIVED: August 11, 2014



NEWFIELD EXPLORATION

USGS Myton SW (UT)

SECTION 23 T9, R16

Q-23-9-16

Wellbore #1

Plan: Design #1

Standard Planning Report

31 December, 2013





Payzone Directional
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Q-23-9-16
Company:	NEWFIELD EXPLORATION	TVD Reference:	Q-23-9-16 @ 5791.0usft (PLAN)
Project:	USGS Myton SW (UT)	MD Reference:	Q-23-9-16 @ 5791.0usft (PLAN)
Site:	SECTION 23 T9, R16	North Reference:	True
Well:	Q-23-9-16	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	USGS Myton SW (UT), DUCHESNE COUNTY, UT, USA		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Utah Central Zone		

Site	SECTION 23 T9, R16				
Site Position:		Northing:	7,179,880.99 usft	Latitude:	40° 1' 19.660 N
From:	Lat/Long	Easting:	2,034,310.39 usft	Longitude:	110° 5' 36.270 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.90 °

Well	Q-23-9-16, SHL: 40°00'39.35" -110°05'17.66"					
Well Position	+N/-S	-4,078.6 usft	Northing:	7,175,825.69 usft	Latitude:	40° 0' 39.350 N
	+E/-W	1,447.9 usft	Easting:	2,035,822.26 usft	Longitude:	110° 5' 17.660 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	5,791.0 usft	Ground Level:	5,781.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/31/2013	10.99	65.70	51,995

Design	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	308.60

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,802.1	18.03	308.60	1,782.3	117.0	-146.6	1.50	1.50	-4.28	308.60	
4,796.8	18.03	308.60	4,630.0	695.4	-871.1	0.00	0.00	0.00	0.00	Q-23-9-16 TGT
6,079.8	18.03	308.60	5,850.0	943.1	-1,181.4	0.00	0.00	0.00	0.00	



Payzone Directional
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Q-23-9-16
Company:	NEWFIELD EXPLORATION	TVD Reference:	Q-23-9-16 @ 5791.0usft (PLAN)
Project:	USGS Myton SW (UT)	MD Reference:	Q-23-9-16 @ 5791.0usft (PLAN)
Site:	SECTION 23 T9, R16	North Reference:	True
Well:	Q-23-9-16	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	1.50	308.60	700.0	0.8	-1.0	1.3	1.50	1.50	0.00
800.0	3.00	308.60	799.9	3.3	-4.1	5.2	1.50	1.50	0.00
900.0	4.50	308.60	899.7	7.3	-9.2	11.8	1.50	1.50	0.00
1,000.0	6.00	308.60	999.3	13.1	-16.4	20.9	1.50	1.50	0.00
1,100.0	7.50	308.60	1,098.6	20.4	-25.5	32.7	1.50	1.50	0.00
1,200.0	9.00	308.60	1,197.5	29.3	-36.8	47.0	1.50	1.50	0.00
1,300.0	10.50	308.60	1,296.1	39.9	-50.0	64.0	1.50	1.50	0.00
1,400.0	12.00	308.60	1,394.2	52.1	-65.2	83.5	1.50	1.50	0.00
1,500.0	13.50	308.60	1,491.7	65.8	-82.5	105.5	1.50	1.50	0.00
1,600.0	15.00	308.60	1,588.6	81.2	-101.7	130.2	1.50	1.50	0.00
1,700.0	16.50	308.60	1,684.9	98.1	-122.9	157.3	1.50	1.50	0.00
1,802.1	18.03	308.60	1,782.3	117.0	-146.6	187.6	1.50	1.50	0.00
1,900.0	18.03	308.60	1,875.4	135.9	-170.3	217.9	0.00	0.00	0.00
2,000.0	18.03	308.60	1,970.5	155.3	-194.5	248.9	0.00	0.00	0.00
2,100.0	18.03	308.60	2,065.6	174.6	-218.7	279.8	0.00	0.00	0.00
2,200.0	18.03	308.60	2,160.7	193.9	-242.9	310.8	0.00	0.00	0.00
2,300.0	18.03	308.60	2,255.8	213.2	-267.1	341.7	0.00	0.00	0.00
2,400.0	18.03	308.60	2,350.9	232.5	-291.2	372.7	0.00	0.00	0.00
2,500.0	18.03	308.60	2,446.0	251.8	-315.4	403.6	0.00	0.00	0.00
2,600.0	18.03	308.60	2,541.1	271.1	-339.6	434.6	0.00	0.00	0.00
2,700.0	18.03	308.60	2,636.2	290.4	-363.8	465.5	0.00	0.00	0.00
2,800.0	18.03	308.60	2,731.2	309.7	-388.0	496.5	0.00	0.00	0.00
2,900.0	18.03	308.60	2,826.3	329.1	-412.2	527.4	0.00	0.00	0.00
3,000.0	18.03	308.60	2,921.4	348.4	-436.4	558.4	0.00	0.00	0.00
3,100.0	18.03	308.60	3,016.5	367.7	-460.6	589.3	0.00	0.00	0.00
3,200.0	18.03	308.60	3,111.6	387.0	-484.8	620.3	0.00	0.00	0.00
3,300.0	18.03	308.60	3,206.7	406.3	-509.0	651.2	0.00	0.00	0.00
3,400.0	18.03	308.60	3,301.8	425.6	-533.2	682.2	0.00	0.00	0.00
3,500.0	18.03	308.60	3,396.9	444.9	-557.3	713.2	0.00	0.00	0.00
3,600.0	18.03	308.60	3,492.0	464.2	-581.5	744.1	0.00	0.00	0.00
3,700.0	18.03	308.60	3,587.0	483.5	-605.7	775.1	0.00	0.00	0.00
3,800.0	18.03	308.60	3,682.1	502.9	-629.9	806.0	0.00	0.00	0.00
3,900.0	18.03	308.60	3,777.2	522.2	-654.1	837.0	0.00	0.00	0.00
4,000.0	18.03	308.60	3,872.3	541.5	-678.3	867.9	0.00	0.00	0.00
4,100.0	18.03	308.60	3,967.4	560.8	-702.5	898.9	0.00	0.00	0.00
4,200.0	18.03	308.60	4,062.5	580.1	-726.7	929.8	0.00	0.00	0.00
4,300.0	18.03	308.60	4,157.6	599.4	-750.9	960.8	0.00	0.00	0.00
4,400.0	18.03	308.60	4,252.7	618.7	-775.1	991.7	0.00	0.00	0.00
4,500.0	18.03	308.60	4,347.8	638.0	-799.2	1,022.7	0.00	0.00	0.00
4,600.0	18.03	308.60	4,442.8	657.3	-823.4	1,053.6	0.00	0.00	0.00
4,700.0	18.03	308.60	4,537.9	676.7	-847.6	1,084.6	0.00	0.00	0.00
4,796.8	18.03	308.60	4,630.0	695.4	-871.1	1,114.6	0.00	0.00	0.00
4,800.0	18.03	308.60	4,633.0	696.0	-871.8	1,115.5	0.00	0.00	0.00
4,900.0	18.03	308.60	4,728.1	715.3	-896.0	1,146.5	0.00	0.00	0.00
5,000.0	18.03	308.60	4,823.2	734.6	-920.2	1,177.5	0.00	0.00	0.00
5,100.0	18.03	308.60	4,918.3	753.9	-944.4	1,208.4	0.00	0.00	0.00
5,200.0	18.03	308.60	5,013.4	773.2	-968.6	1,239.4	0.00	0.00	0.00



Payzone Directional
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Q-23-9-16
Company:	NEWFIELD EXPLORATION	TVD Reference:	Q-23-9-16 @ 5791.0usft (PLAN)
Project:	USGS Myton SW (UT)	MD Reference:	Q-23-9-16 @ 5791.0usft (PLAN)
Site:	SECTION 23 T9, R16	North Reference:	True
Well:	Q-23-9-16	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,300.0	18.03	308.60	5,108.5	792.5	-992.8	1,270.3	0.00	0.00	0.00	
5,400.0	18.03	308.60	5,203.6	811.8	-1,017.0	1,301.3	0.00	0.00	0.00	
5,500.0	18.03	308.60	5,298.6	831.1	-1,041.2	1,332.2	0.00	0.00	0.00	
5,600.0	18.03	308.60	5,393.7	850.5	-1,065.3	1,363.2	0.00	0.00	0.00	
5,700.0	18.03	308.60	5,488.8	869.8	-1,089.5	1,394.1	0.00	0.00	0.00	
5,800.0	18.03	308.60	5,583.9	889.1	-1,113.7	1,425.1	0.00	0.00	0.00	
5,900.0	18.03	308.60	5,679.0	908.4	-1,137.9	1,456.0	0.00	0.00	0.00	
6,000.0	18.03	308.60	5,774.1	927.7	-1,162.1	1,487.0	0.00	0.00	0.00	
6,079.8	18.03	308.60	5,850.0	943.1	-1,181.4	1,511.7	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Q-23-9-16 TGT - hit/miss target - Shape - plan hits target center - Circle (radius 75.0)	0.00	0.00	4,630.0	695.4	-871.1	7,176,507.20	2,034,940.35	40° 0' 46.222 N	110° 5' 28.856 W	



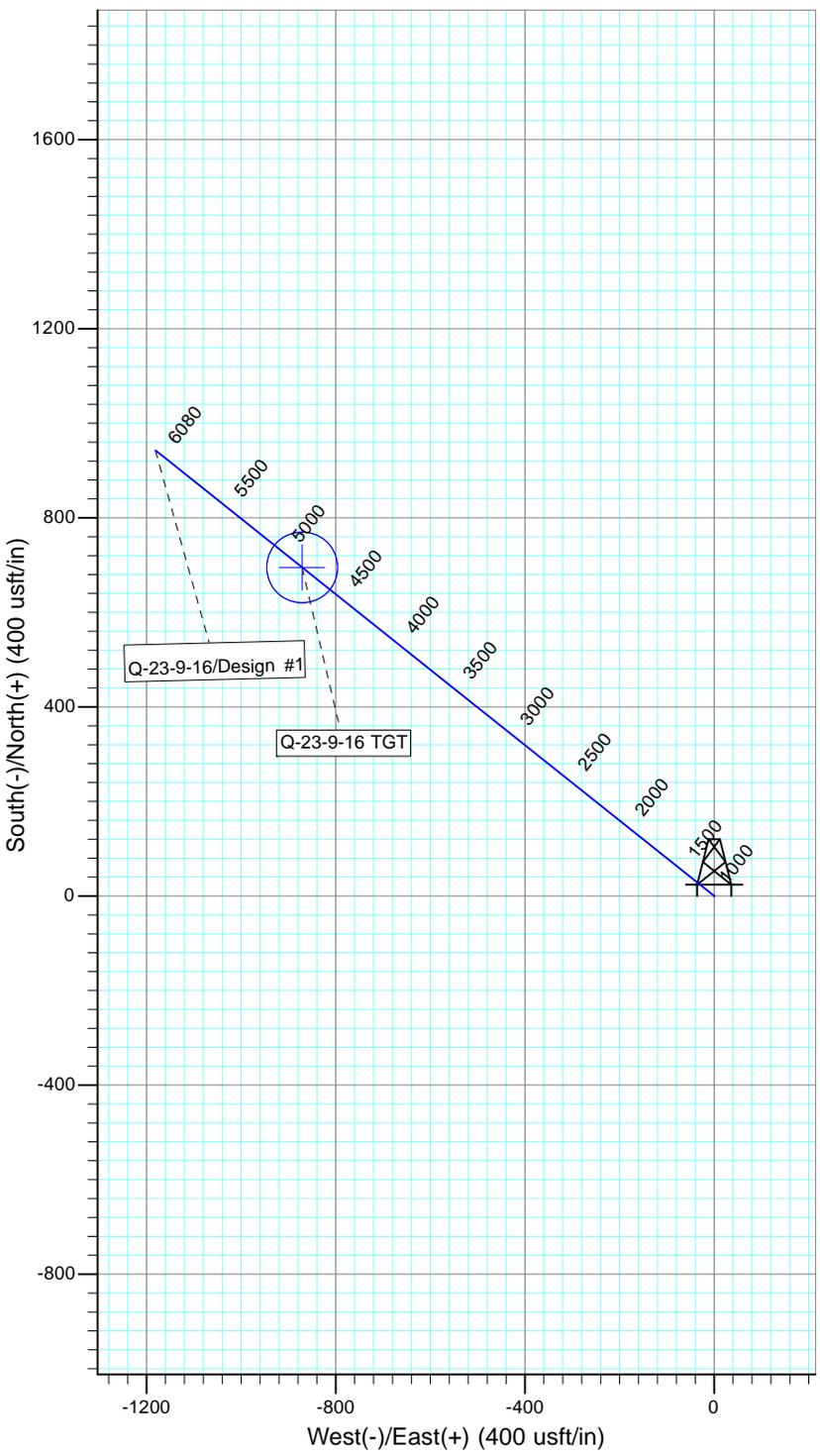
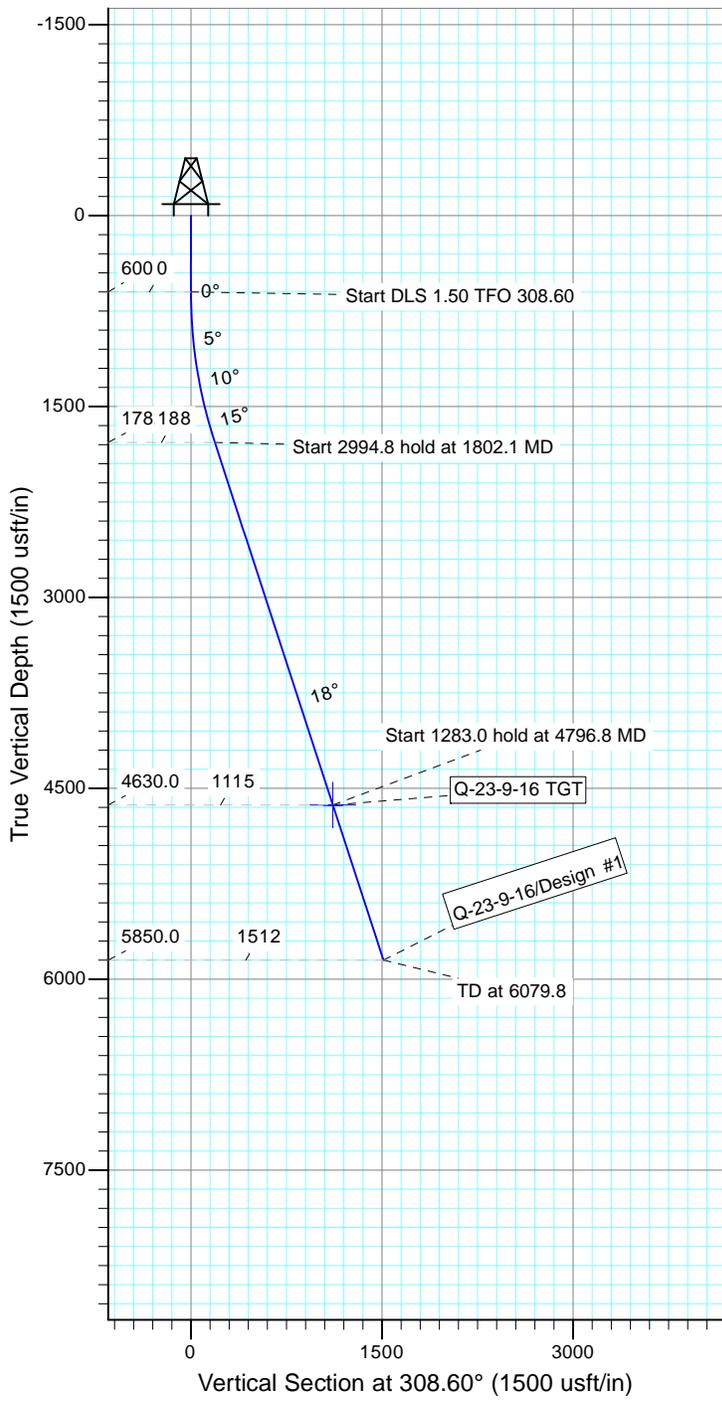
Project: USGS Myton SW (UT)
 Site: SECTION 23 T9, R16
 Well: Q-23-9-16
 Wellbore: Wellbore #1
 Design: Design #1



Azimuths to True North
 Magnetic North: 10.99°

Magnetic Field
 Strength: 51994.8snT
 Dip Angle: 65.70°
 Date: 12/31/2013
 Model: IGRF2010

KOP @ 600'
 DOGLEG RATE 1.5 DEG/100
 TARGET RADIUS IS 75'



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Q-23-9-16 TGT	4630.0	695.4	-871.1	Circle (Radius: 75.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1802.1	18.03	308.60	1782.3	117.0	-146.6	1.50	308.60	187.6	
4	4796.8	18.03	308.60	4630.0	695.4	-871.1	0.00	0.00	1114.6	Q-23-9-16 TGT
5	6079.8	18.03	308.60	5850.0	943.1	-1181.4	0.00	0.00	1511.7	



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

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

IN REPLY REFER TO:

3160
(UT-922)

August 18, 2014

Memorandum

To: Assistant Field Office Manager Minerals,
Vernal Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2014 Plan of Development Greater Monument
Butte Unit, Duchesne and Uintah Counties,
Utah.

Pursuant to email between Diana Mason, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2014 within the Greater Monument Butte Unit, Duchesne and Uintah Counties, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ GREEN RIVER)		
43-013-53100	GMBU P-22-9-17	Sec 21 T09S R17E 1837 FSL 0558 FEL
		BHL Sec 22 T09S R17E 1091 FSL 0264 FWL
43-013-53101	GMBU L-22-9-17	Sec 22 T09S R17E 2027 FSL 0643 FEL
		BHL Sec 22 T09S R17E 2565 FNL 1511 FEL
43-013-53102	GMBU O-22-9-17	Sec 21 T09S R17E 1857 FSL 0551 FEL
		BHL Sec 22 T09S R17E 2390 FNL 0223 FWL
43-013-53103	GMBU T-22-9-16	Sec 23 T09S R16E 0578 FSL 0468 FWL
		BHL Sec 22 T09S R16E 1564 FSL 0135 FEL
43-013-53104	GMBU L-23-9-16	Sec 23 T09S R16E 2061 FSL 0688 FEL
		BHL Sec 23 T09S R16E 2485 FNL 1575 FEL
43-013-53105	GMBU Q-23-9-16	Sec 23 T09S R16E 0686 FSL 2160 FWL
		BHL Sec 23 T09S R16E 1636 FSL 1000 FWL
43-013-53106	GMBU O-24-9-16	Sec 23 T09S R16E 2075 FSL 0672 FEL
		BHL Sec 24 T09S R16E 2489 FNL 0203 FWL
43-013-53107	GMBU A-27-9-16	Sec 23 T09S R16E 0557 FSL 0466 FWL
		BHL Sec 27 T09S R16E 0075 FNL 0125 FEL
43-013-53108	GMBU M-13-9-16	Sec 13 T09S R16E 2011 FSL 1902 FEL
		BHL Sec 13 T09S R16E 2400 FNL 2342 FWL

RECEIVED: August 19, 2014

API #	WELL NAME	LOCATION
(Proposed PZ GREEN RIVER)		
43-013-53109	GMBU L-13-9-16	Sec 13 T09S R16E 1997 FSL 1918 FEL
		BHL Sec 13 T09S R16E 2401 FNL 1139 FEL
43-013-53110	GMBU I-29-8-17	Sec 29 T08S R17E 0680 FNL 0648 FEL
		BHL Sec 29 T08S R17E 1490 FNL 1466 FEL
43-047-54687	GMBU L-26-8-17	Sec 26 T08S R17E 1812 FNL 2038 FEL
		BHL Sec 26 T08S R17E 2457 FSL 1186 FEL
43-047-54688	GMBU I-26-8-17	Sec 26 T08S R17E 0505 FNL 1782 FEL
		BHL Sec 26 T08S R17E 1526 FNL 1238 FEL

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

Michael Coulthard Digitally signed by Michael Coulthard
 DN: cn=Michael Coulthard, o=Bureau of Land Management,
 ou=Division of Minerals, email=mcoultha@blm.gov, c=US
 Date: 2014.08.18 15:12:49 -06'00'

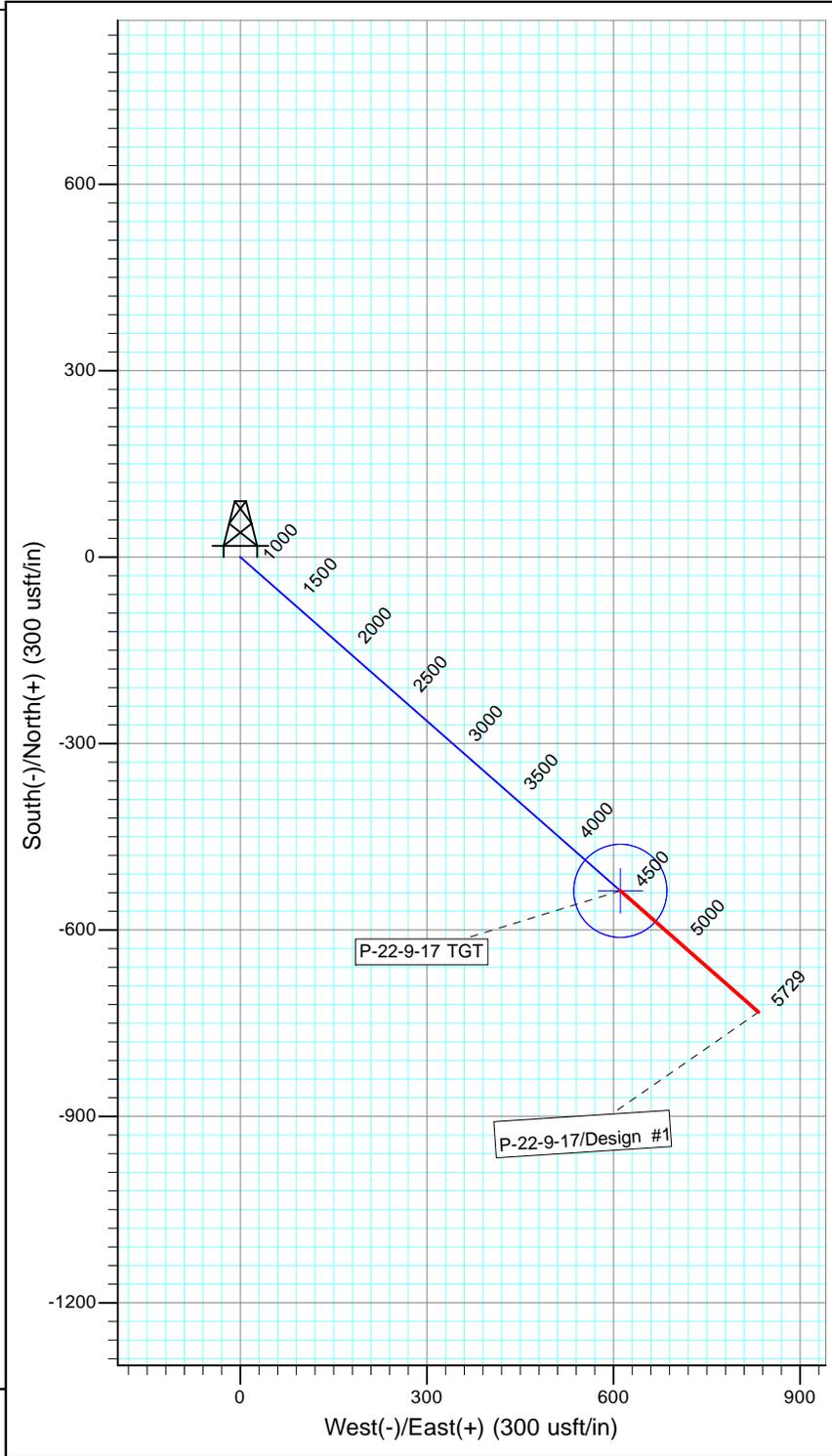
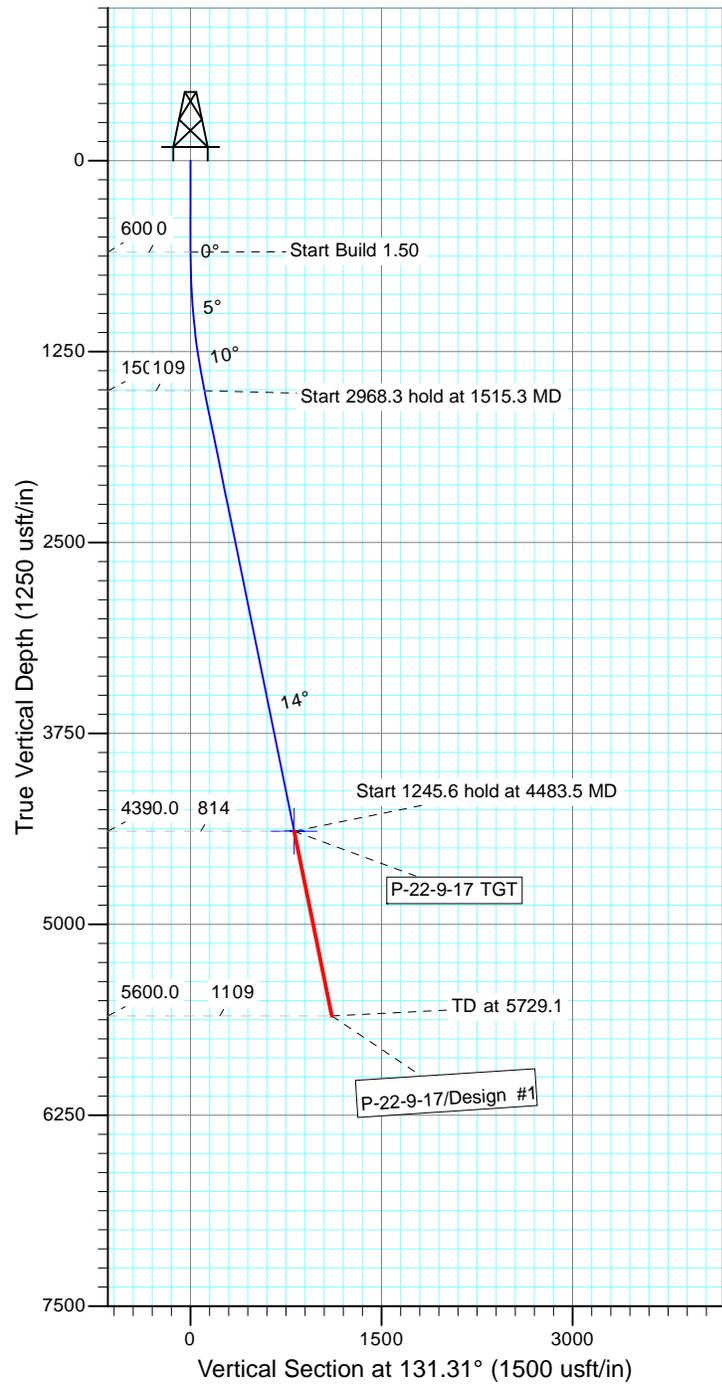
bcc: File - Greater Monument Butte Unit
 Division of Oil Gas and Mining
 Central Files
 Agr. Sec. Chron
 Fluid Chron

MCoulthard:mc:8-18-14



Project: USGS Myton SW (UT)
 Site: SECTION 21 T9, R17
 Well: P-22-9-17
 Wellbore: Wellbore #1
 Design: Design #1

T M Azimuths to True North
 Magnetic North: 10.88°
 Magnetic Field
 Strength: 51954.9snT
 Dip Angle: 65.70°
 Date: 7/31/2014
 Model: IGRF2010



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
P-22-9-17 TGT	4390.0	-537.1	611.1	Circle (Radius: 75.0)

SECTION DETAILS

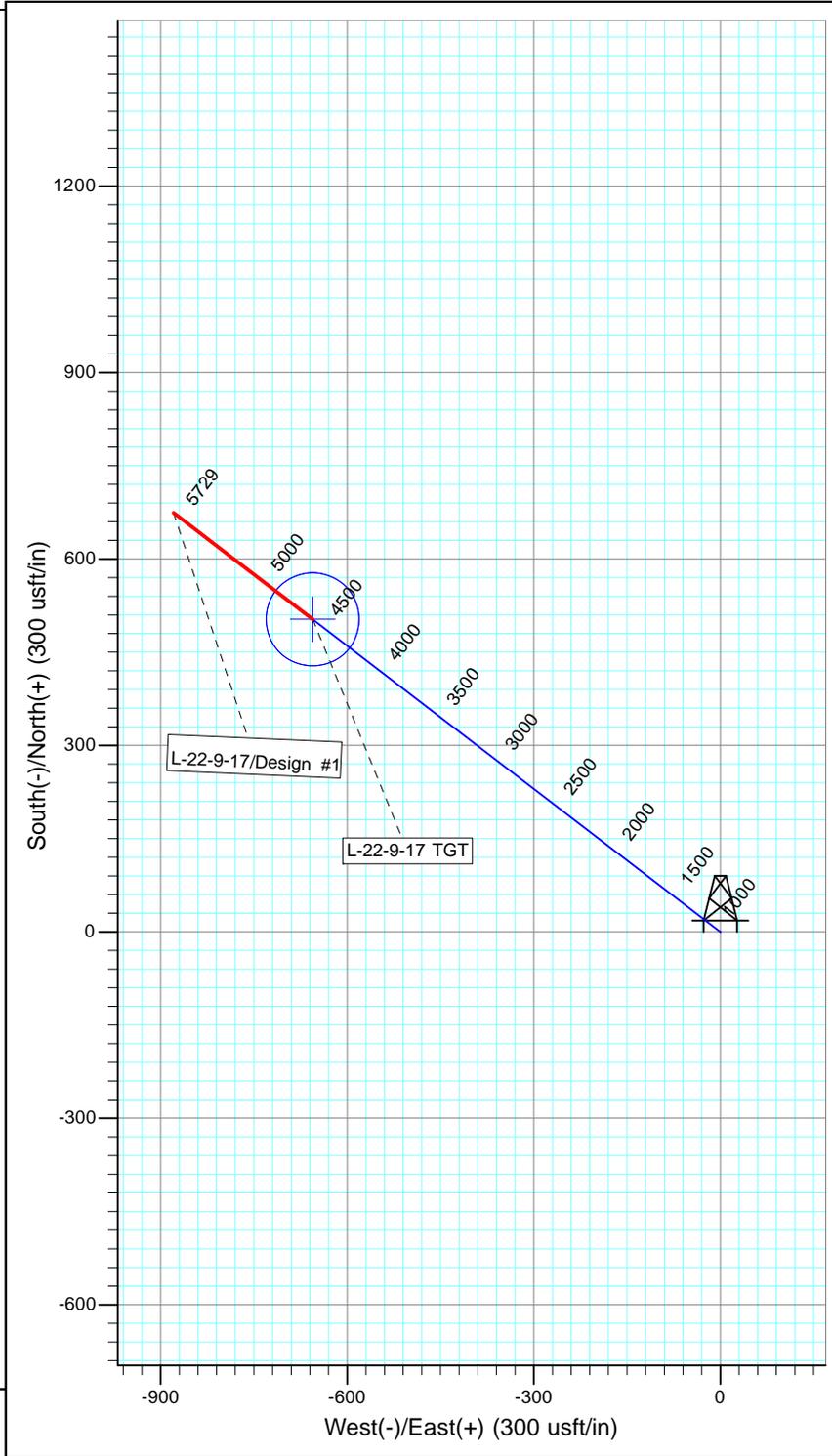
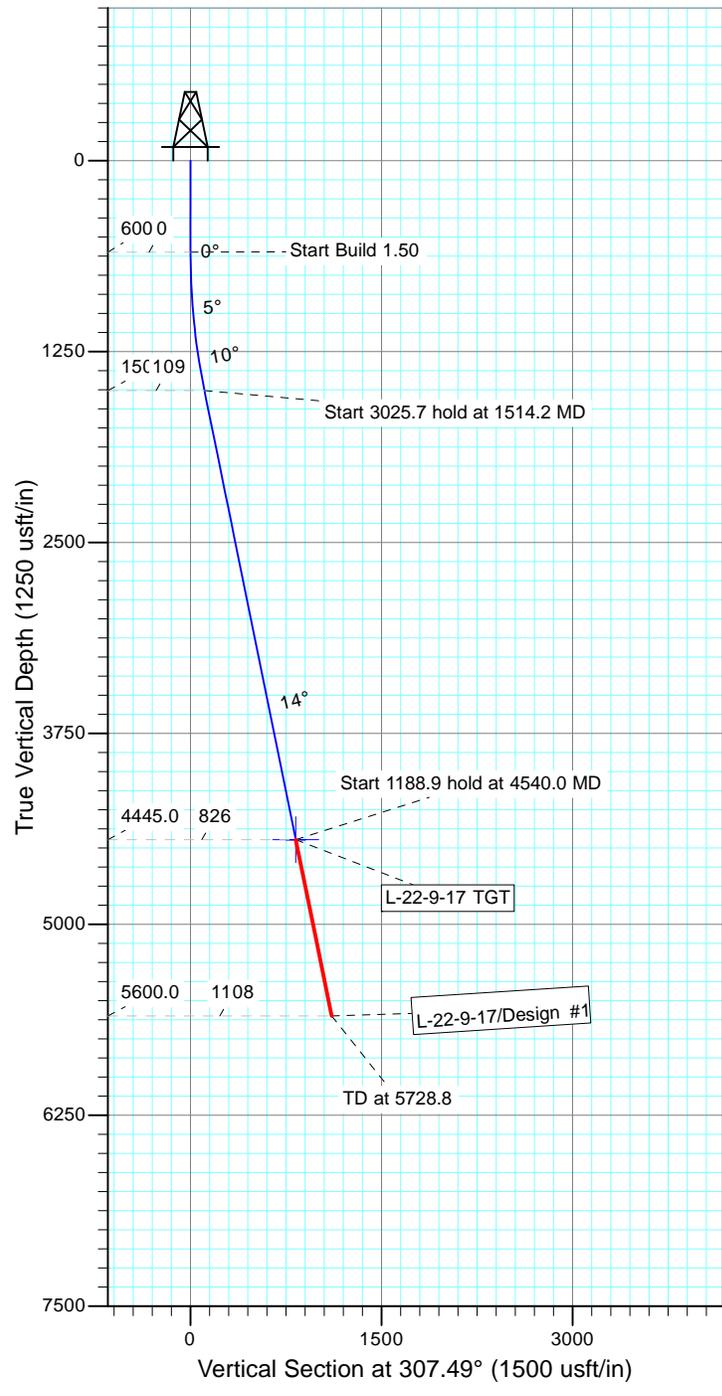
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1515.3	13.73	131.31	1506.5	-72.0	82.0	1.50	131.31	109.1	
4	4483.5	13.73	131.31	4390.0	-537.1	611.1	0.00	0.00	813.6	P-22-9-17 TGT
5	5729.1	13.73	131.31	5600.0	-732.2	833.2	0.00	0.00	1109.2	





Project: USGS Myton SW (UT)
 Site: SECTION 22 T9S R17E
 Well: L-22-9-17
 Wellbore: Wellbore #1
 Design: Design #1

T M
 Azimuths to True North
 Magnetic North: 10.88°
 Magnetic Field
 Strength: 51958.0snT
 Dip Angle: 65.71°
 Date: 7/31/2014
 Model: IGRF2010



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
L-22-9-17 TGT	4445.0	502.8	-655.5	Circle (Radius: 75.0)

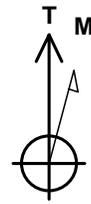
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1514.2	13.71	307.49	1505.5	66.3	-86.4	1.50	307.49	108.9	
4	4540.0	13.71	307.49	4445.0	502.8	-655.5	0.00	0.00	826.2	L-22-9-17 TGT
5	5728.8	13.71	307.49	5600.0	674.4	-879.2	0.00	0.00	1108.0	



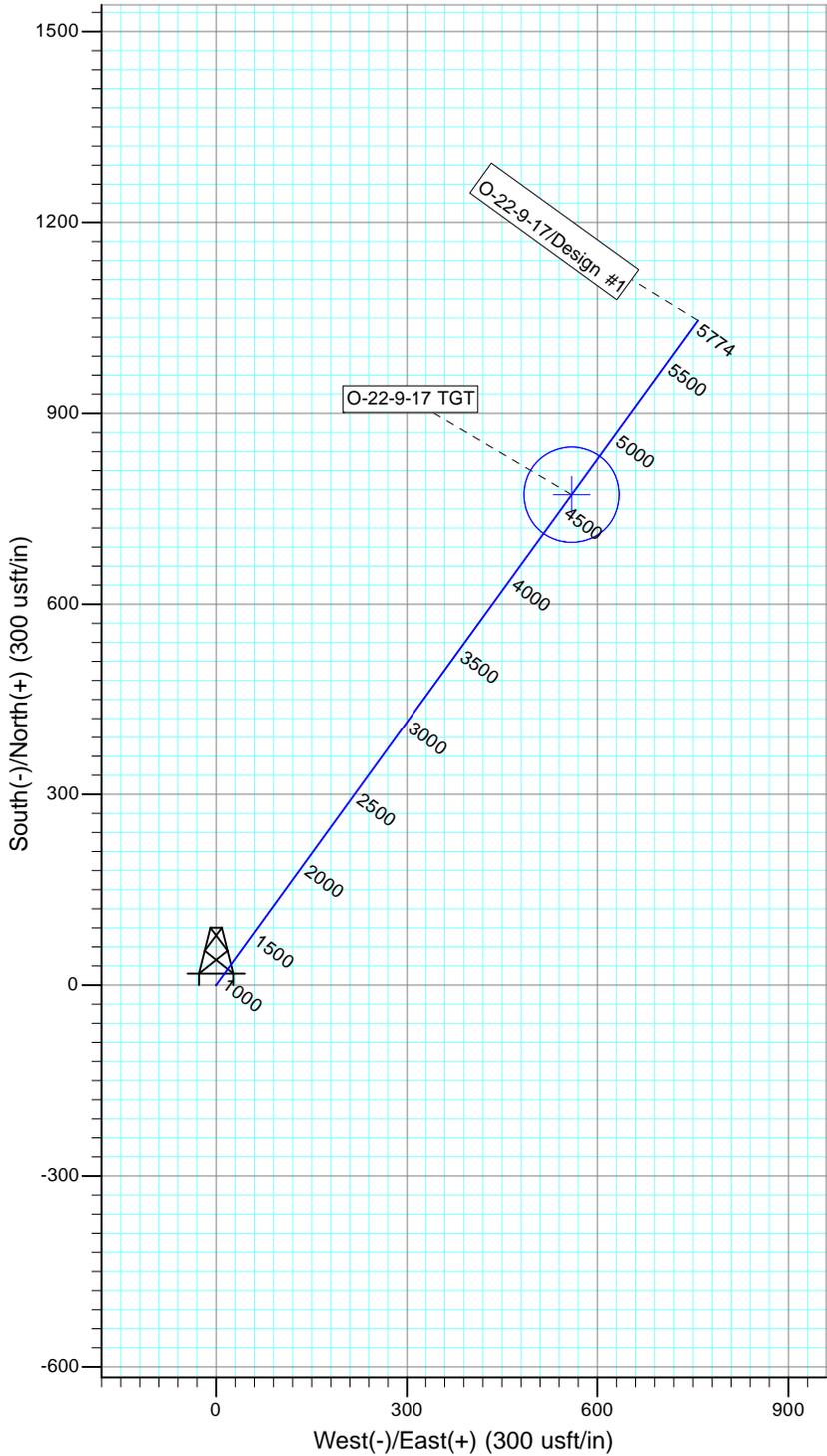
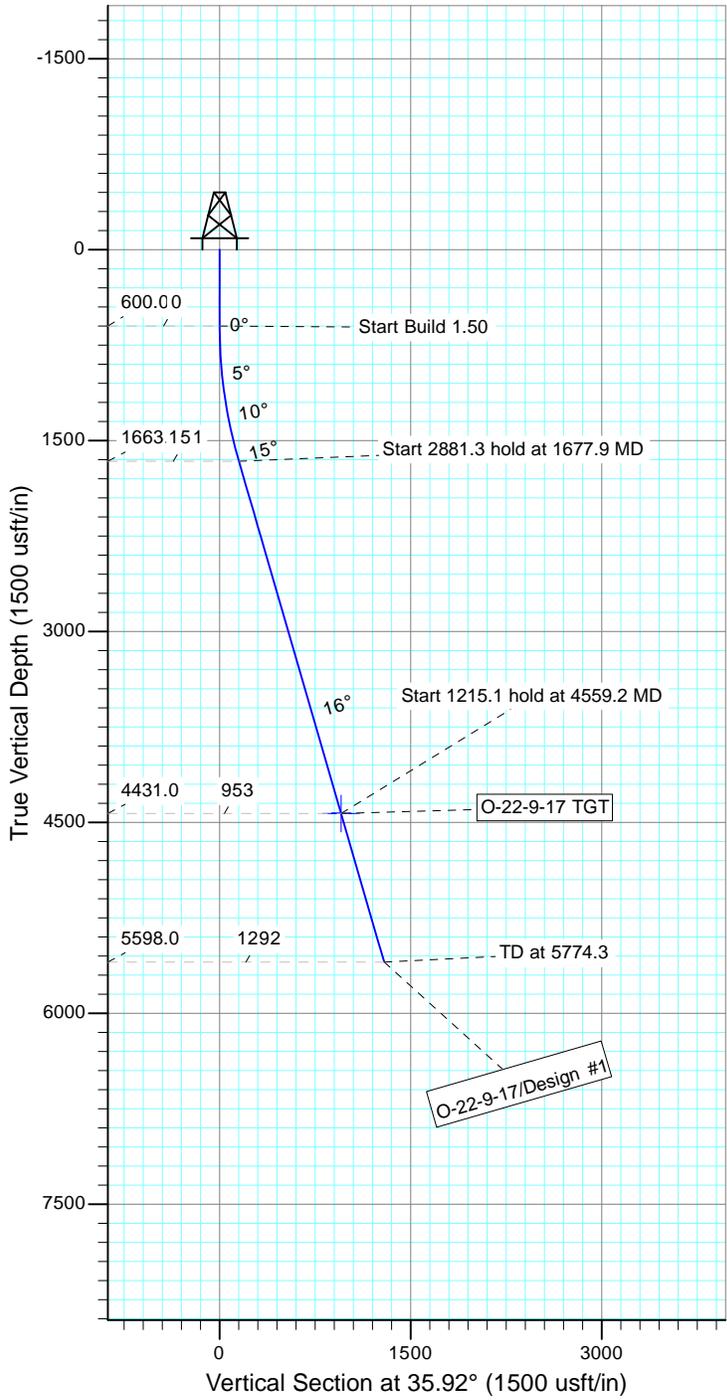


Project: USGS Myton SW (UT)
 Site: SECTION 21 T9, R17
 Well: O-22-9-17
 Wellbore: Wellbore #1
 Design: Design #1



Azimuths to True North
 Magnetic North: 10.94°

Magnetic Field
 Strength: 51993.3snT
 Dip Angle: 65.71°
 Date: 3/11/2014
 Model: IGRF2010



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
O-22-9-17 TGT	4431.0	772.1	559.3	Circle (Radius: 75.0)

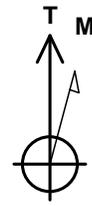
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1677.9	16.17	35.92	1663.6	122.3	88.6	1.50	35.92	151.1	
4	4559.2	16.17	35.92	4431.0	772.1	559.3	0.00	0.00	953.4	O-22-9-17 TGT
5	5774.3	16.17	35.92	5598.0	1046.1	757.8	0.00	0.00	1291.7	





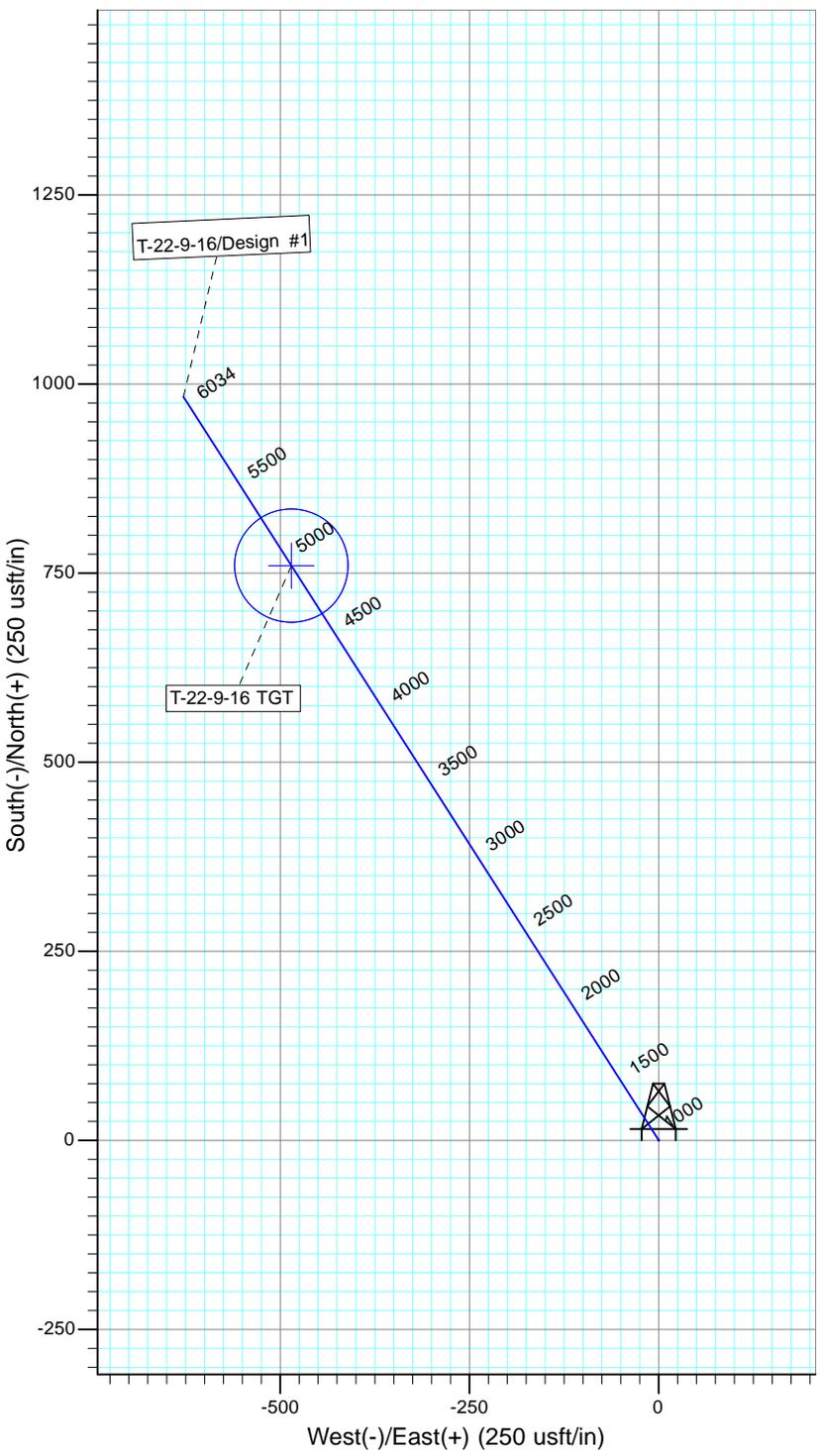
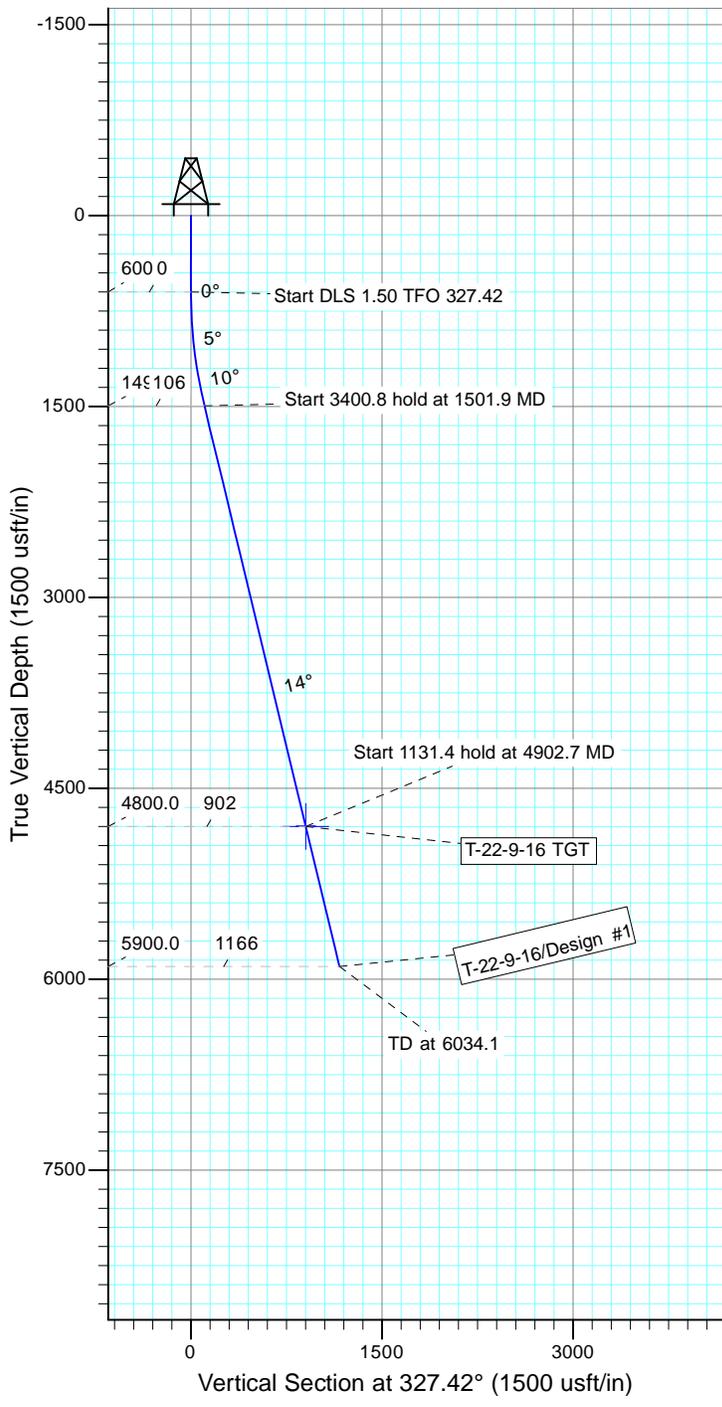
Project: USGS Myton SW (UT)
 Site: SECTION 23 T9, R16
 Well: T-22-9-16
 Wellbore: Wellbore #1
 Design: Design #1



Azimuths to True North
 Magnetic North: 10.99°

Magnetic Field
 Strength: 51994.1snT
 Dip Angle: 65.70°
 Date: 12/31/2013
 Model: IGRF2010

KOP @ 600'
 DOGLEG RATE 1.5 DEG/100
 TARGET RADIUS IS 75'



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
T-22-9-16 TGT	4800.0	759.7	-485.5	Circle (Radius: 75.0)

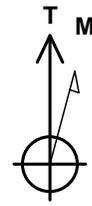
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1501.9	13.53	327.42	1493.6	89.3	-57.1	1.50	327.42	106.0	
4	4902.7	13.53	327.42	4800.0	759.7	-485.5	0.00	0.00	901.5	T-22-9-16 TGT
5	6034.1	13.53	327.42	5900.0	982.7	-628.0	0.00	0.00	1166.2	





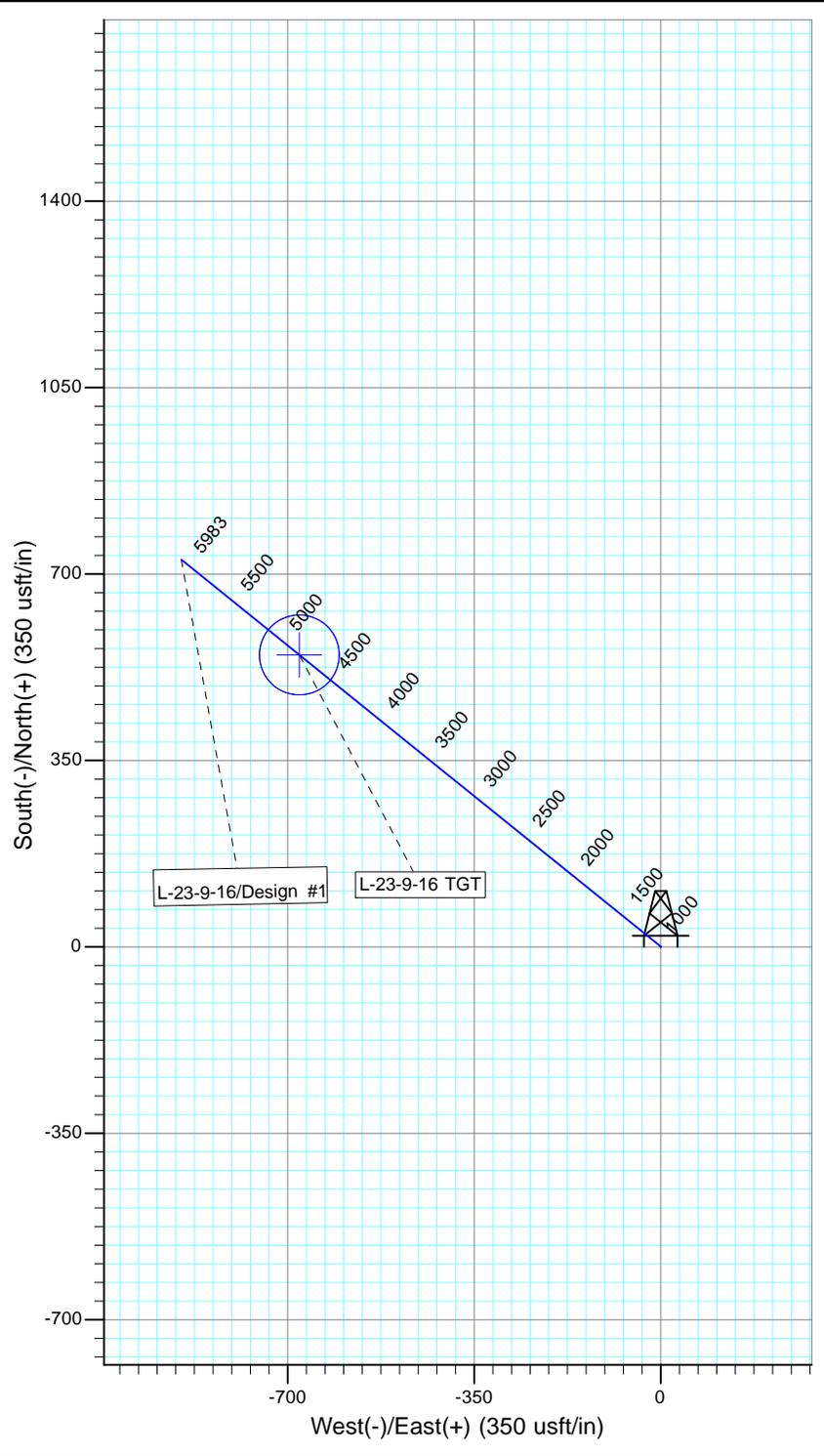
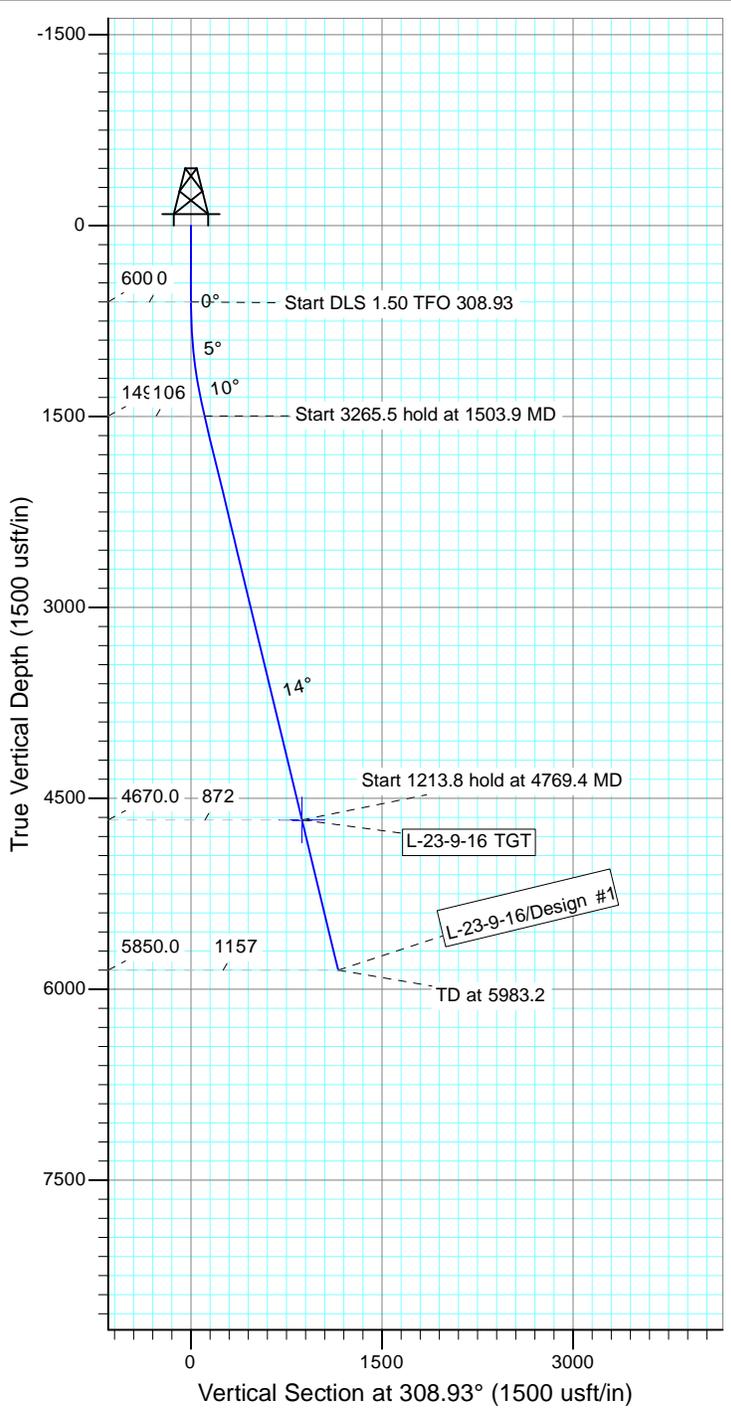
Project: USGS Myton SW (UT)
 Site: SECTION 23 T9, R16
 Well: L-23-9-16
 Wellbore: Wellbore #1
 Design: Design #1



Azimuths to True North
 Magnetic North: 10.99°

Magnetic Field
 Strength: 51998.5snT
 Dip Angle: 65.70°
 Date: 1/2/2014
 Model: IGRF2010

KOP @ 600'
 DOGLEG RATE 1.5 DEG/100
 TARGET RADIUS IS 75'



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
L-23-9-16 TGT	4670.0	547.9	-678.3	Circle (Radius: 75.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1503.9	13.56	308.93	1495.5	66.9	-82.8	1.50	308.93	106.4	
4	4769.4	13.56	308.93	4670.0	547.9	-678.3	0.00	0.00	872.0	L-23-9-16 TGT
5	5983.2	13.56	308.93	5850.0	726.7	-899.7	0.00	0.00	1156.6	





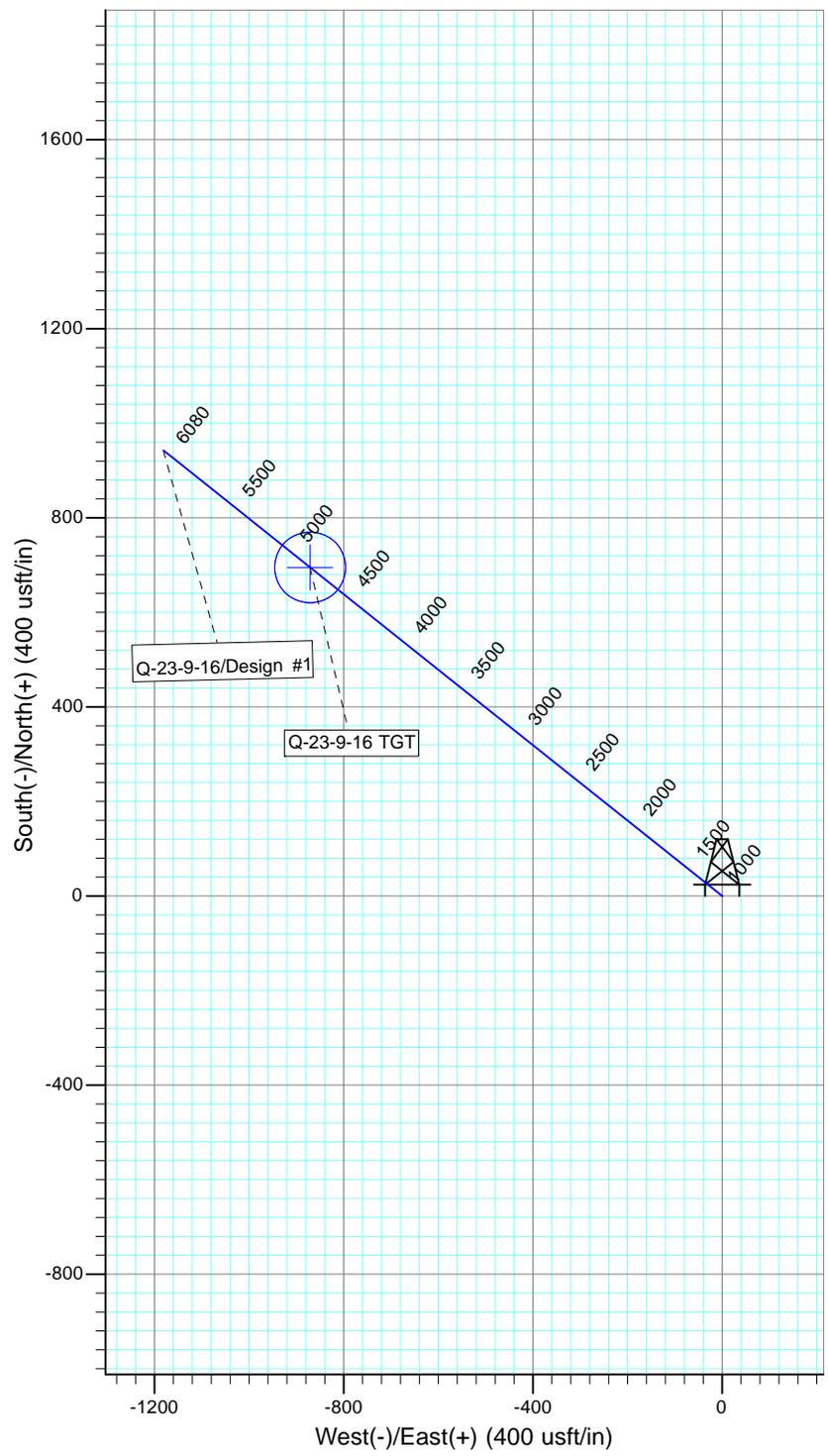
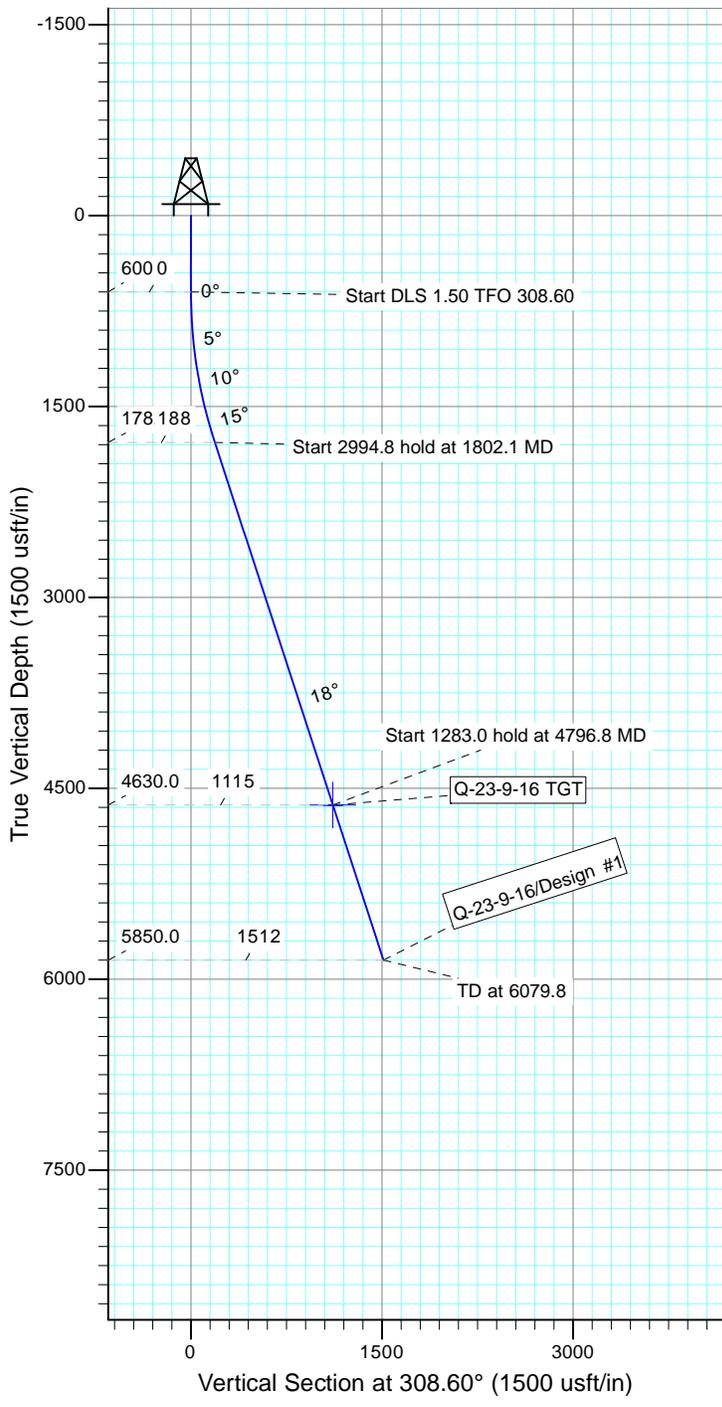
Project: USGS Myton SW (UT)
 Site: SECTION 23 T9, R16
 Well: Q-23-9-16
 Wellbore: Wellbore #1
 Design: Design #1



Azimuths to True North
 Magnetic North: 10.99°

Magnetic Field
 Strength: 51994.8snT
 Dip Angle: 65.70°
 Date: 12/31/2013
 Model: IGRF2010

KOP @ 600'
 DOGLEG RATE 1.5 DEG/100
 TARGET RADIUS IS 75'



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Q-23-9-16 TGT	4630.0	695.4	-871.1	Circle (Radius: 75.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1802.1	18.03	308.60	1782.3	117.0	-146.6	1.50	308.60	187.6	
4	4796.8	18.03	308.60	4630.0	695.4	-871.1	0.00	0.00	1114.6	Q-23-9-16 TGT
5	6079.8	18.03	308.60	5850.0	943.1	-1181.4	0.00	0.00	1511.7	





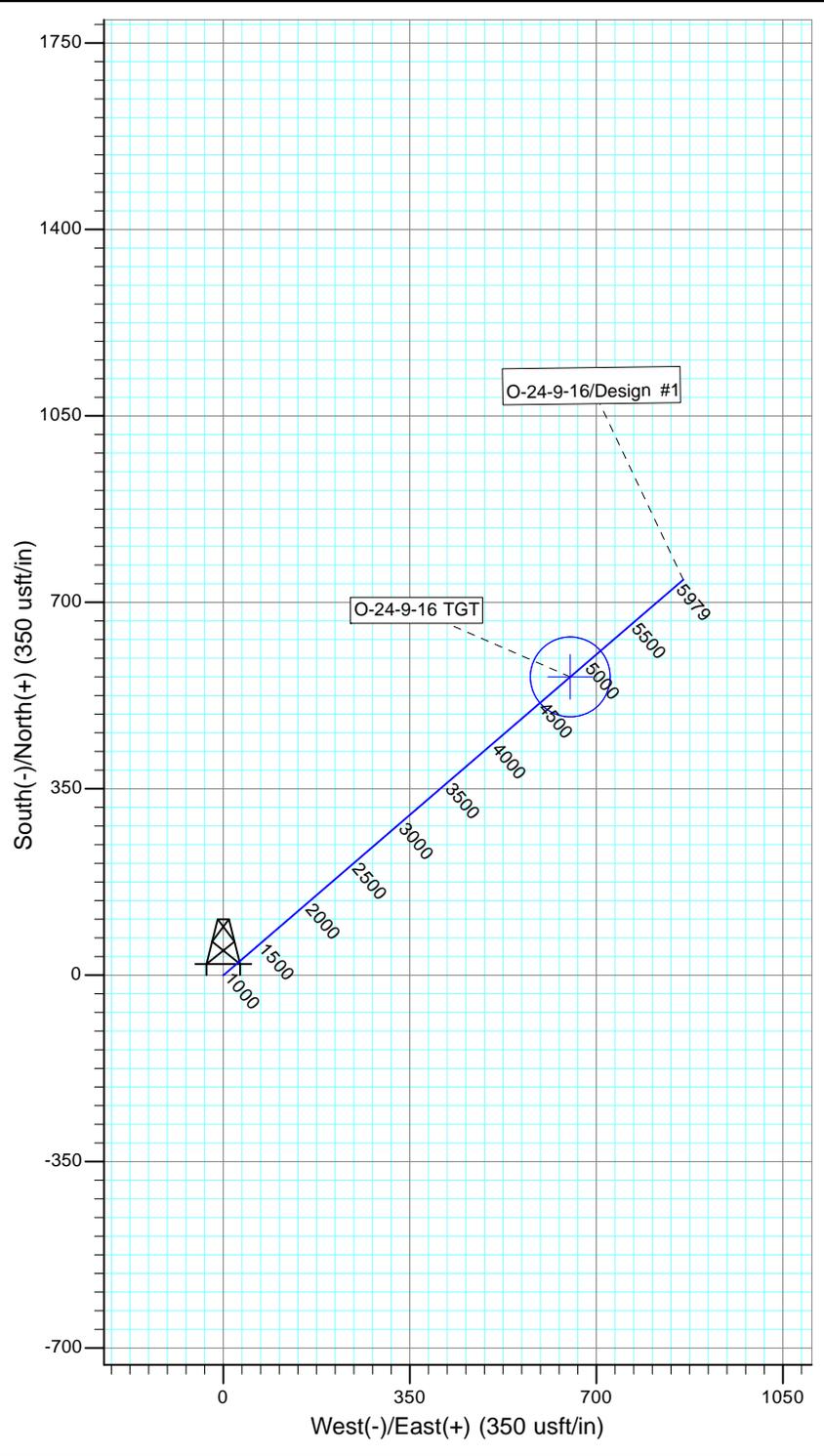
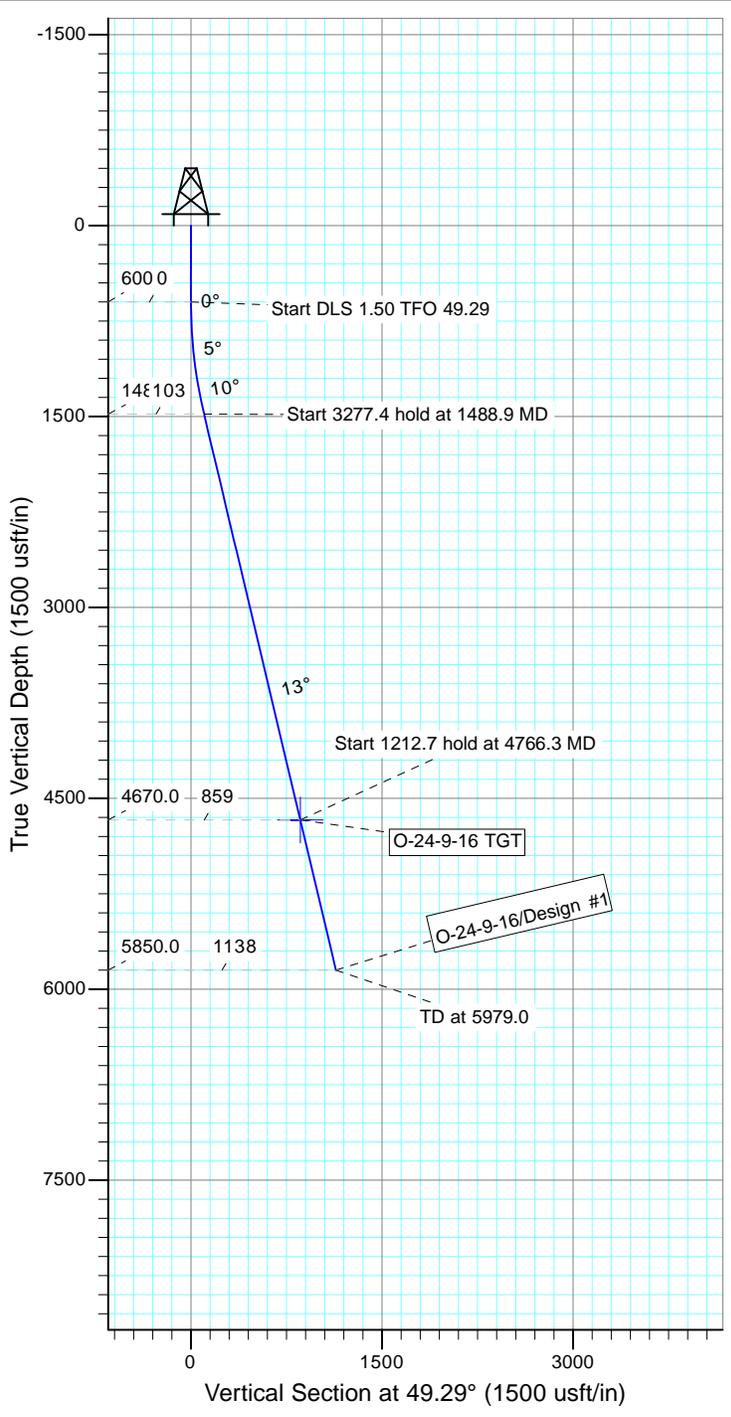
Project: USGS Myton SW (UT)
 Site: SECTION 23 T9, R16
 Well: O-24-9-16
 Wellbore: Wellbore #1
 Design: Design #1



Azimuths to True North
 Magnetic North: 10.99°

Magnetic Field
 Strength: 51998.5snT
 Dip Angle: 65.70°
 Date: 1/2/2014
 Model: IGRF2010

KOP @ 600'
 DOGLEG RATE 1.5 DEG/100
 TARGET RADIUS IS 75'



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
O-24-9-16 TGT	4670.0	560.1	651.0	Circle (Radius: 75.0)

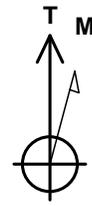
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1488.9	13.33	49.29	1488.9	67.2	78.1	1.50	49.29	103.0	
4	4766.3	13.33	49.29	4670.0	560.1	651.0	0.00	0.00	858.8	O-24-9-16 TGT
5	5979.0	13.33	49.29	5850.0	742.5	863.0	0.00	0.00	1138.5	





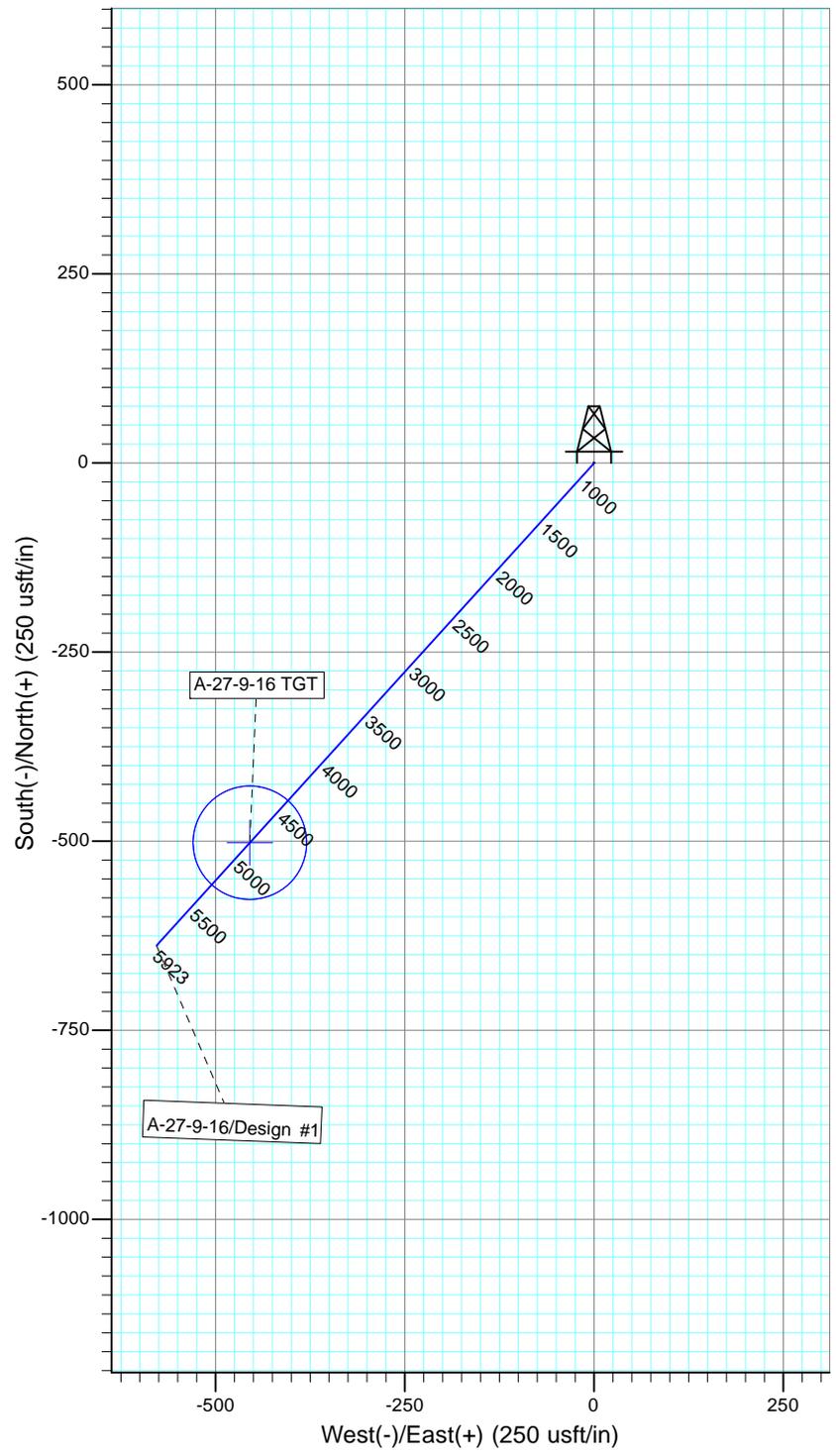
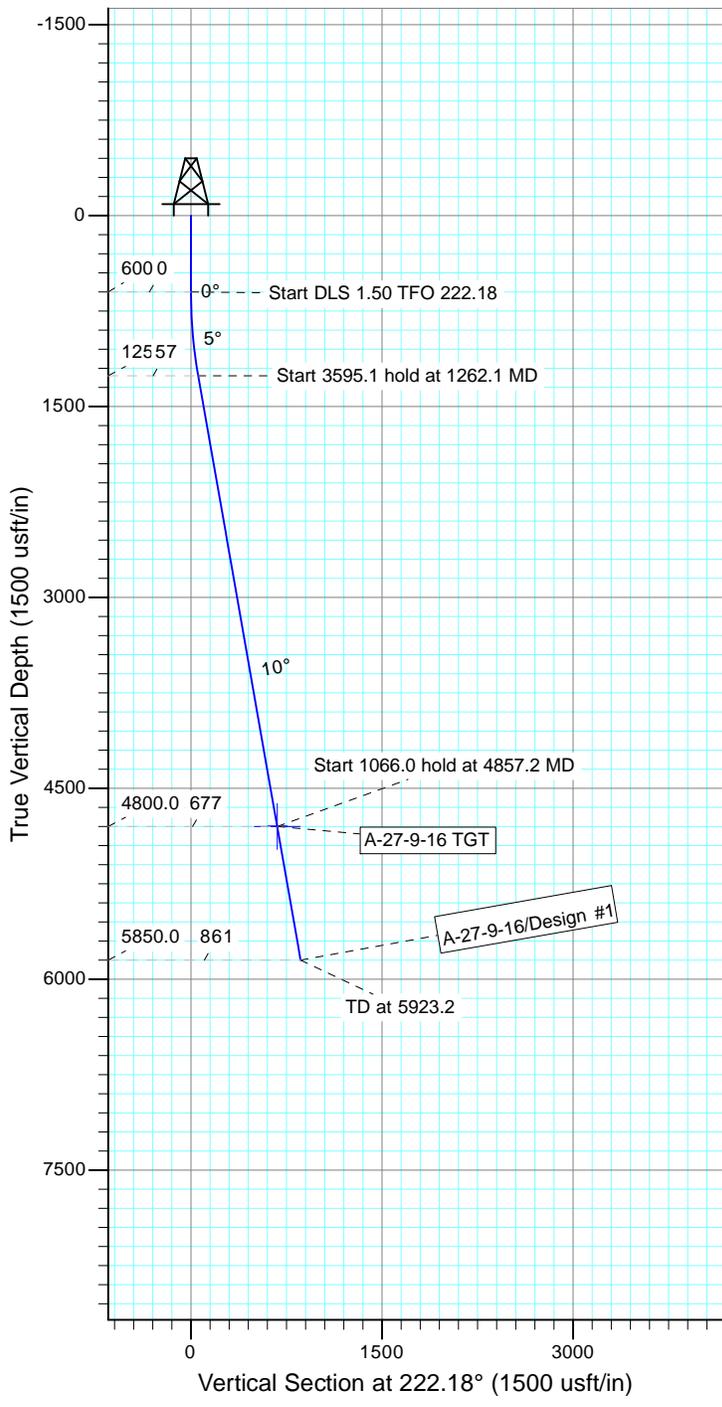
Project: USGS Myton SW (UT)
 Site: SECTION 23 T9, R16
 Well: A-27-9-16
 Wellbore: Wellbore #1
 Design: Design #1



Azimuths to True North
 Magnetic North: 10.99°

Magnetic Field
 Strength: 51994.0snT
 Dip Angle: 65.70°
 Date: 12/31/2013
 Model: IGRF2010

KOP @ 600'
 DOGLEG RATE 1.5 DEG/100'
 TARGET RADIUS IS 75'



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
A-27-9-16 TGT	4800.0	-501.9	-454.8	Circle (Radius: 75.0)

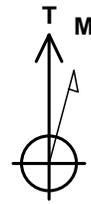
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1262.1	9.93	222.18	1258.8	-42.4	-38.4	1.50	222.18	57.2	
4	4857.2	9.93	222.18	4800.0	-501.9	-454.8	0.00	0.00	677.3	A-27-9-16 TGT
5	5923.2	9.93	222.18	5850.0	-638.1	-578.2	0.00	0.00	861.1	



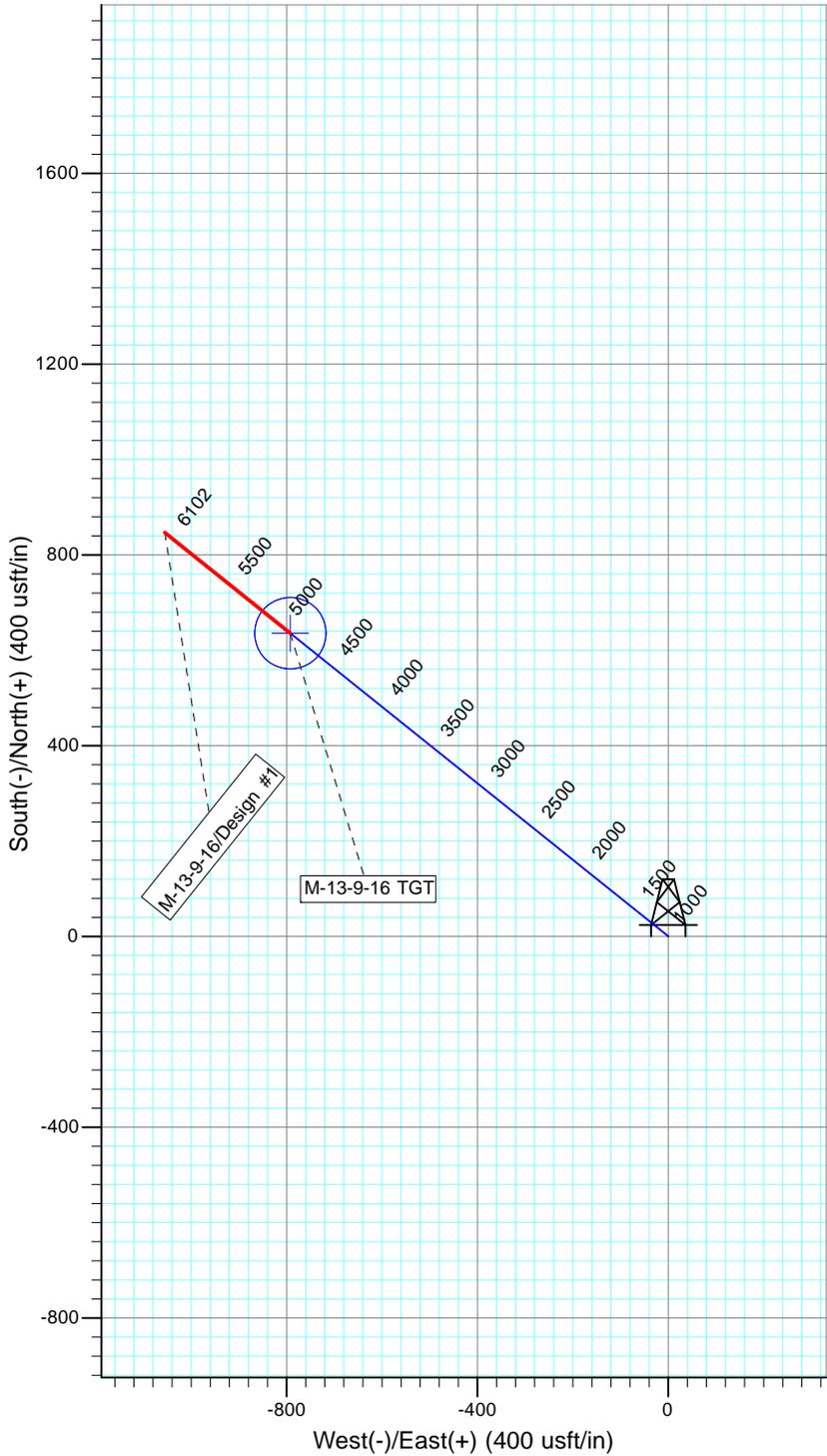
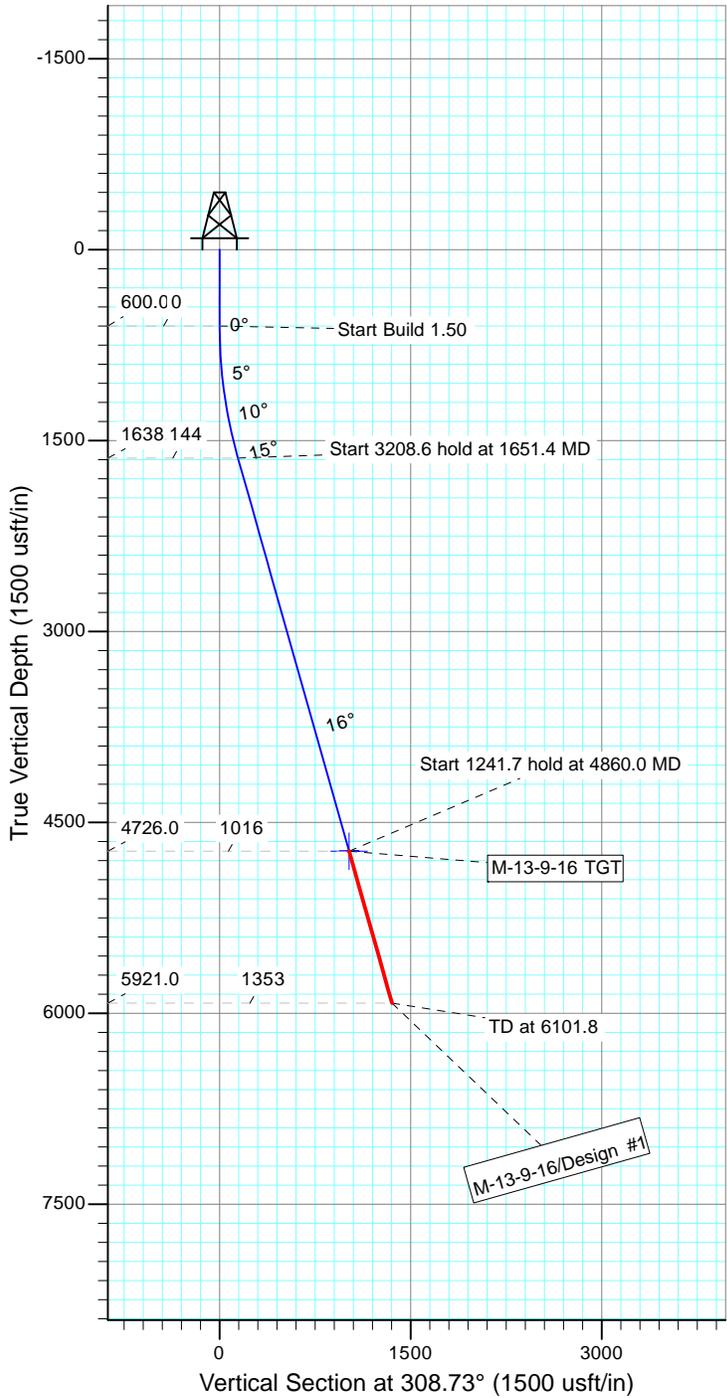


Project: USGS Myton SW (UT)
 Site: SECTION 13 T9S, R16E
 Well: M-13-9-16
 Wellbore: Wellbore #1
 Design: Design #1



Azimuths to True North
 Magnetic North: 10.96°

Magnetic Field
 Strength: 51991.1snT
 Dip Angle: 65.71°
 Date: 3/11/2014
 Model: IGRF2010



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
M-13-9-16 TGT	4726.0	635.6	-792.5	Circle (Radius: 75.0)

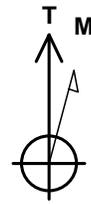
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1651.4	15.77	308.73	1638.2	90.0	-112.2	1.50	308.73	143.8	
4	4860.0	15.77	308.73	4726.0	635.6	-792.5	0.00	0.00	1015.9	M-13-9-16 TGT
5	6101.8	15.77	308.73	5921.0	846.7	-1055.8	0.00	0.00	1353.4	



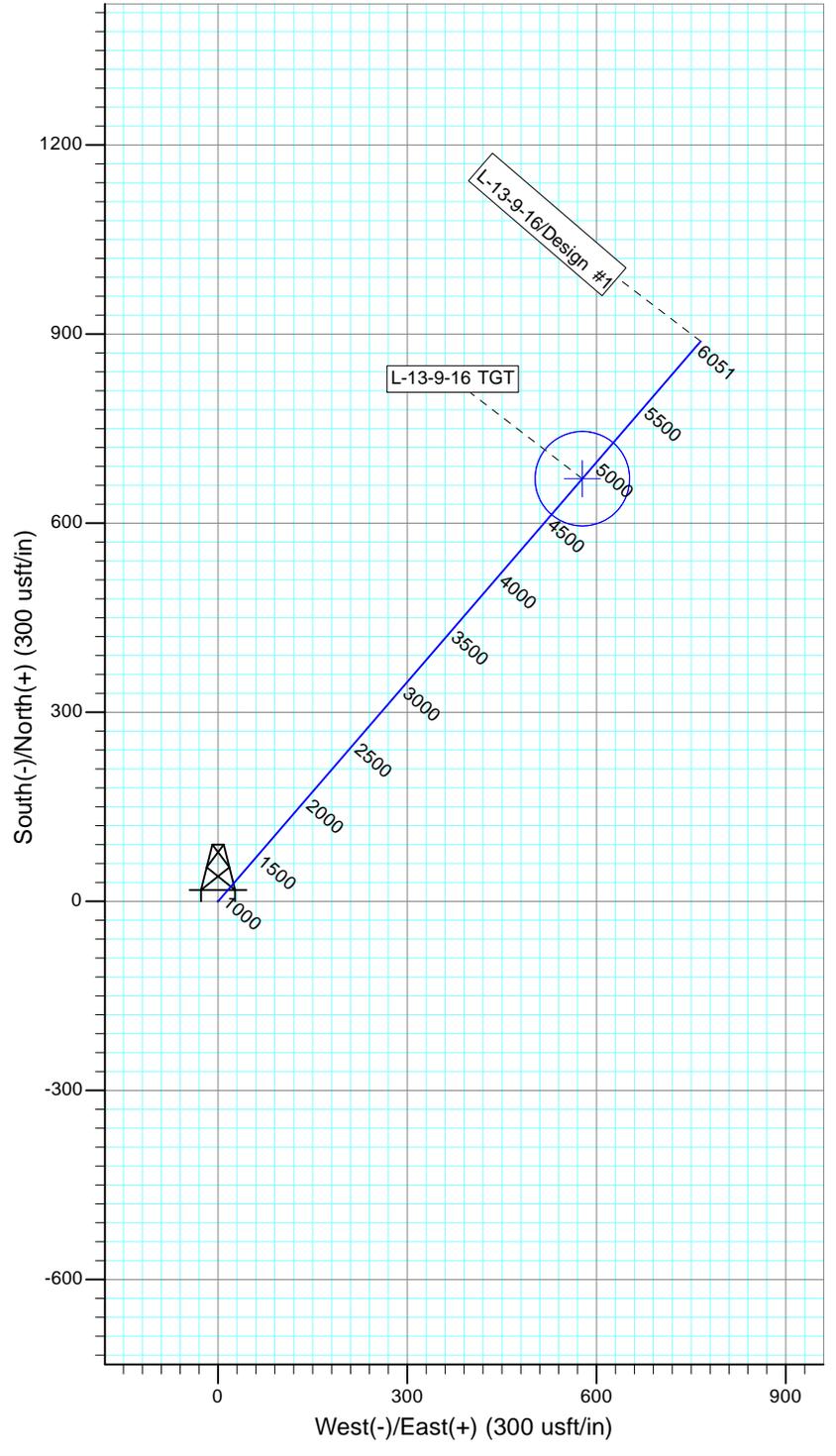
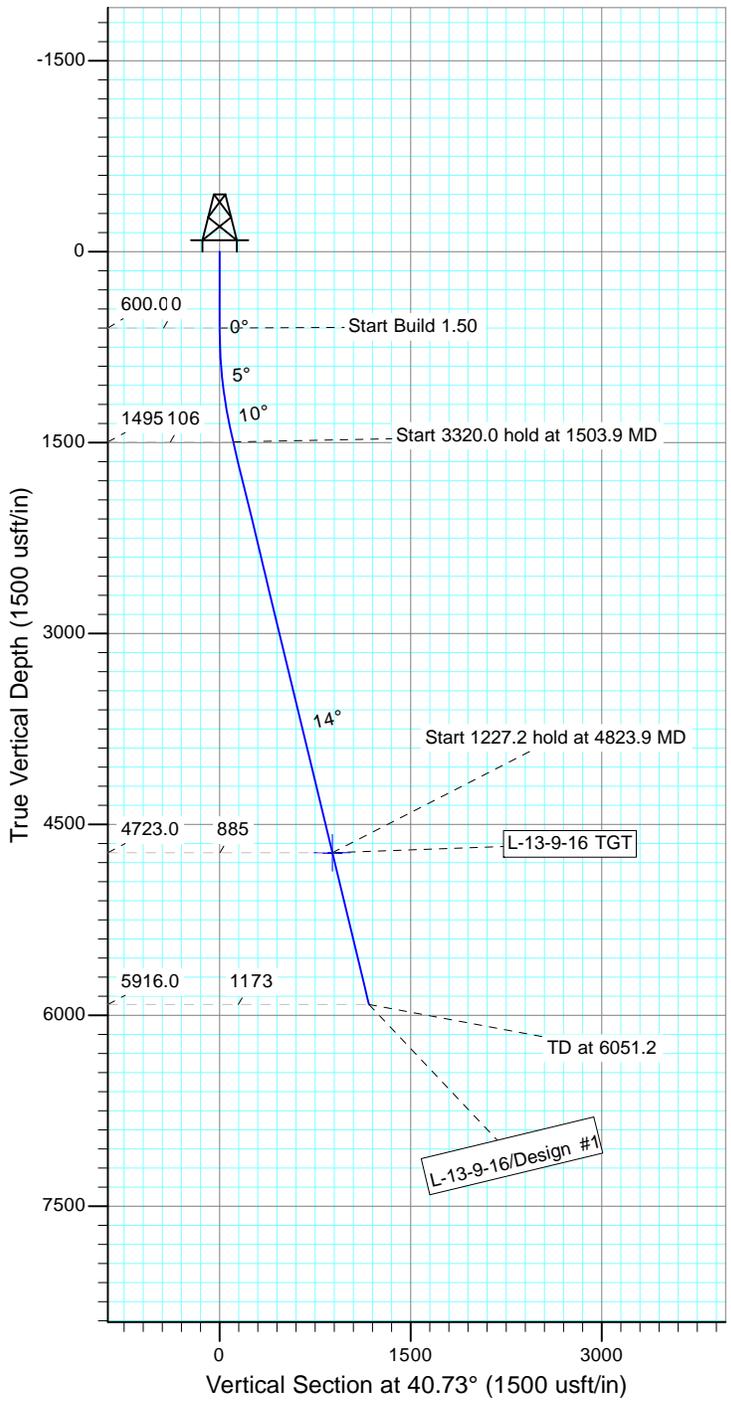


Project: USGS Myton SW (UT)
 Site: SECTION 13 T9S, R16E
 Well: L-13-9-16
 Wellbore: Wellbore #1
 Design: Design #1



Azimuths to True North
 Magnetic North: 10.96°

Magnetic Field
 Strength: 51991.0snT
 Dip Angle: 65.71°
 Date: 3/11/2014
 Model: IGRF2010



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
L-13-9-16 TGT	4723.0	670.6	577.3	Circle (Radius: 75.0)

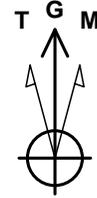
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1503.9	13.56	40.73	1495.5	80.7	69.5	1.50	40.73	106.5	
4	4823.9	13.56	40.73	4723.0	670.6	577.3	0.00	0.00	884.8	L-13-9-16 TGT
5	6051.2	13.56	40.73	5916.0	888.6	765.0	0.00	0.00	1172.5	





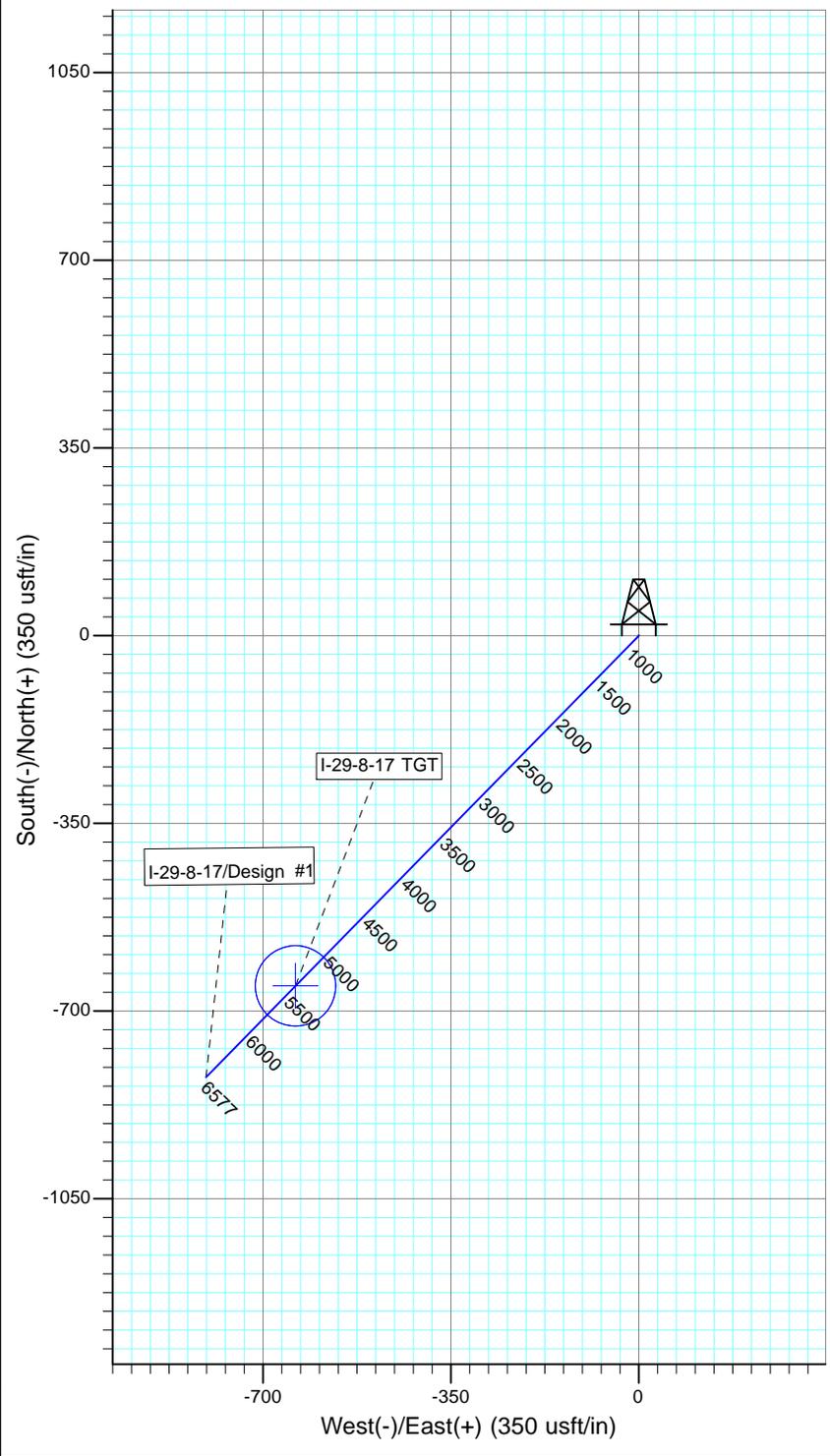
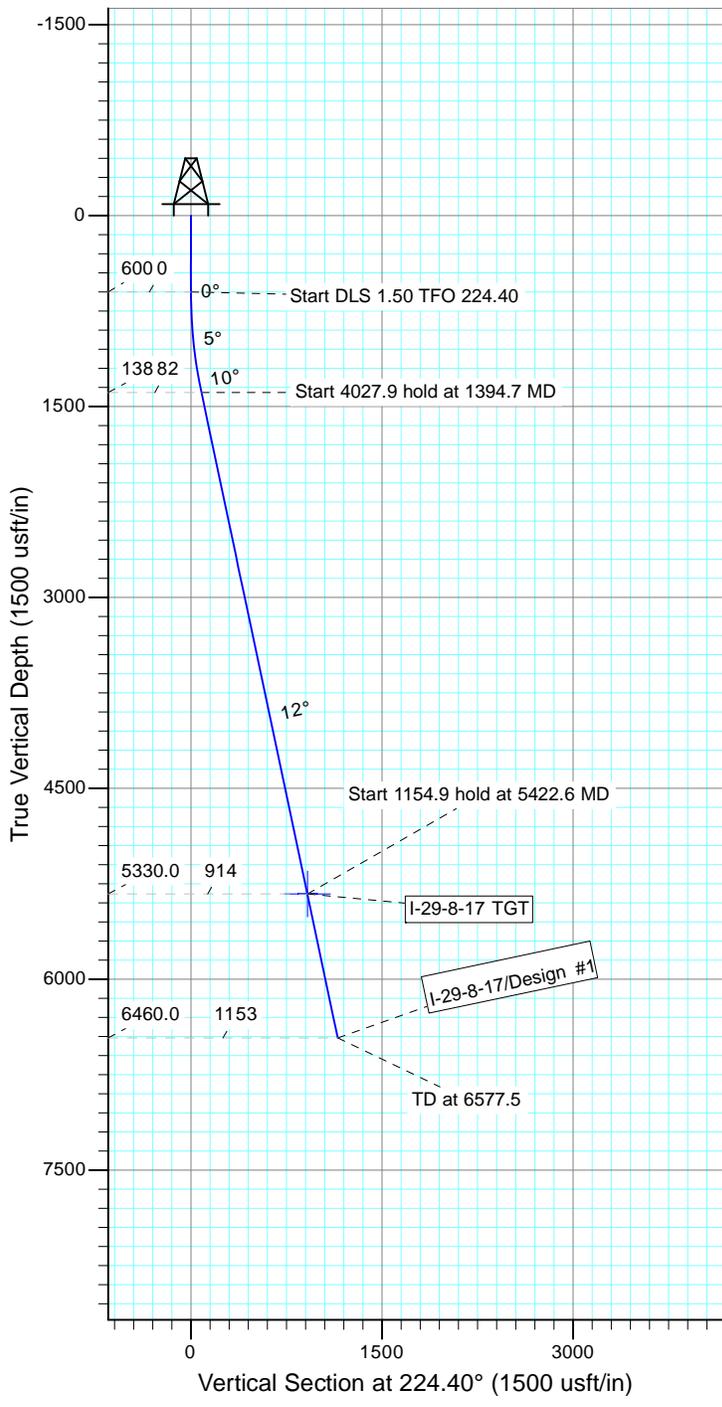
Project: USGS Myton SW (UT)
 Site: SECTION 29 T8S, R17E
 Well: I-29-8-17
 Wellbore: Wellbore #1
 Design: Design #1



Azimuths to Grid North
 True North: -0.95°
 Magnetic North: 10.03°

Magnetic Field
 Strength: 52053.4snT
 Dip Angle: 65.78°
 Date: 12/31/2013
 Model: IGRF2010

KOP @ 600'
 DOGLEG RATE 1.5 DEG/100'
 TARGET RADIUS IS 75'



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
I-29-8-17 TGT	5330.0	-653.3	-639.7	Circle (Radius: 75.0)

SECTION DETAILS

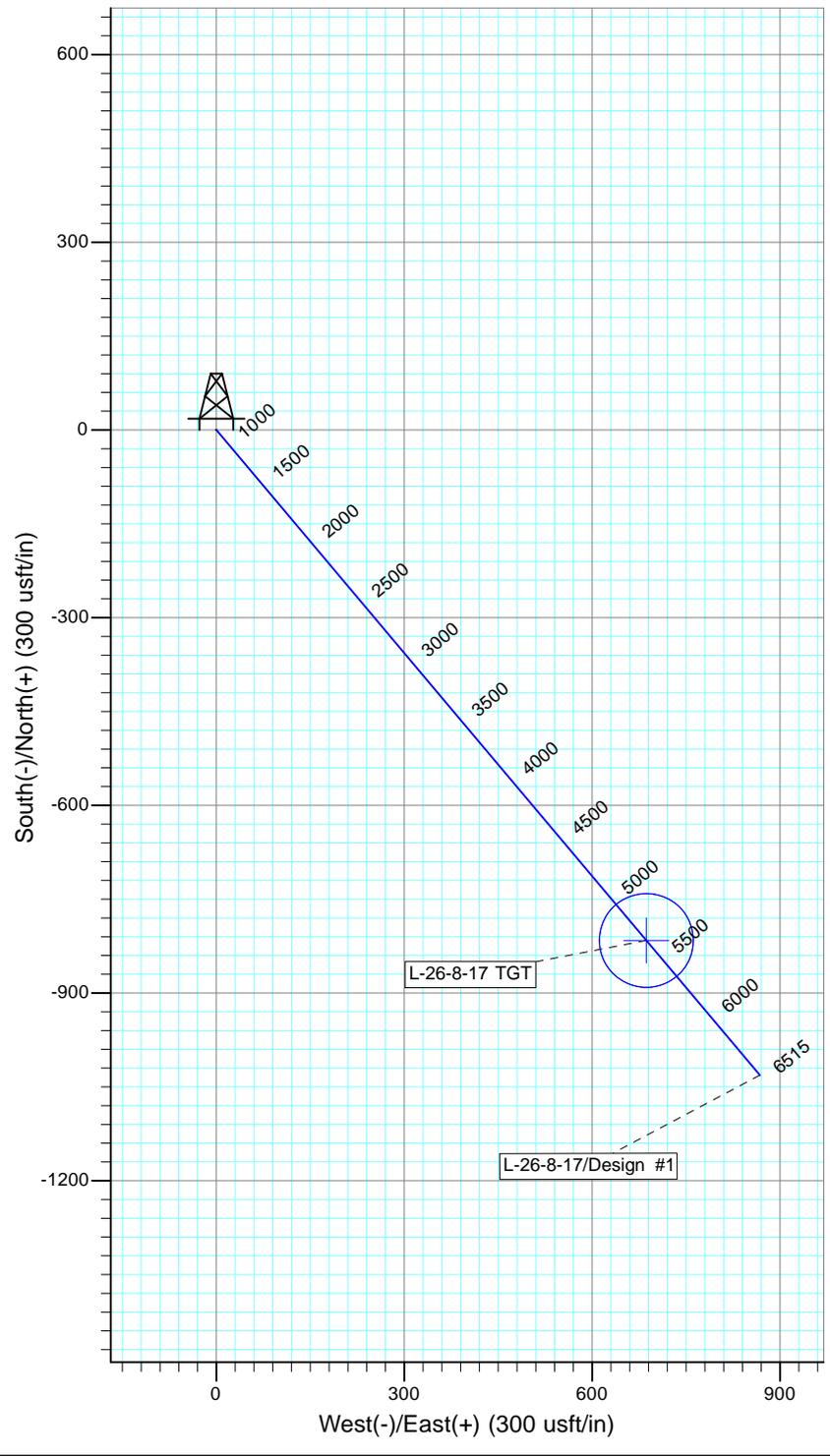
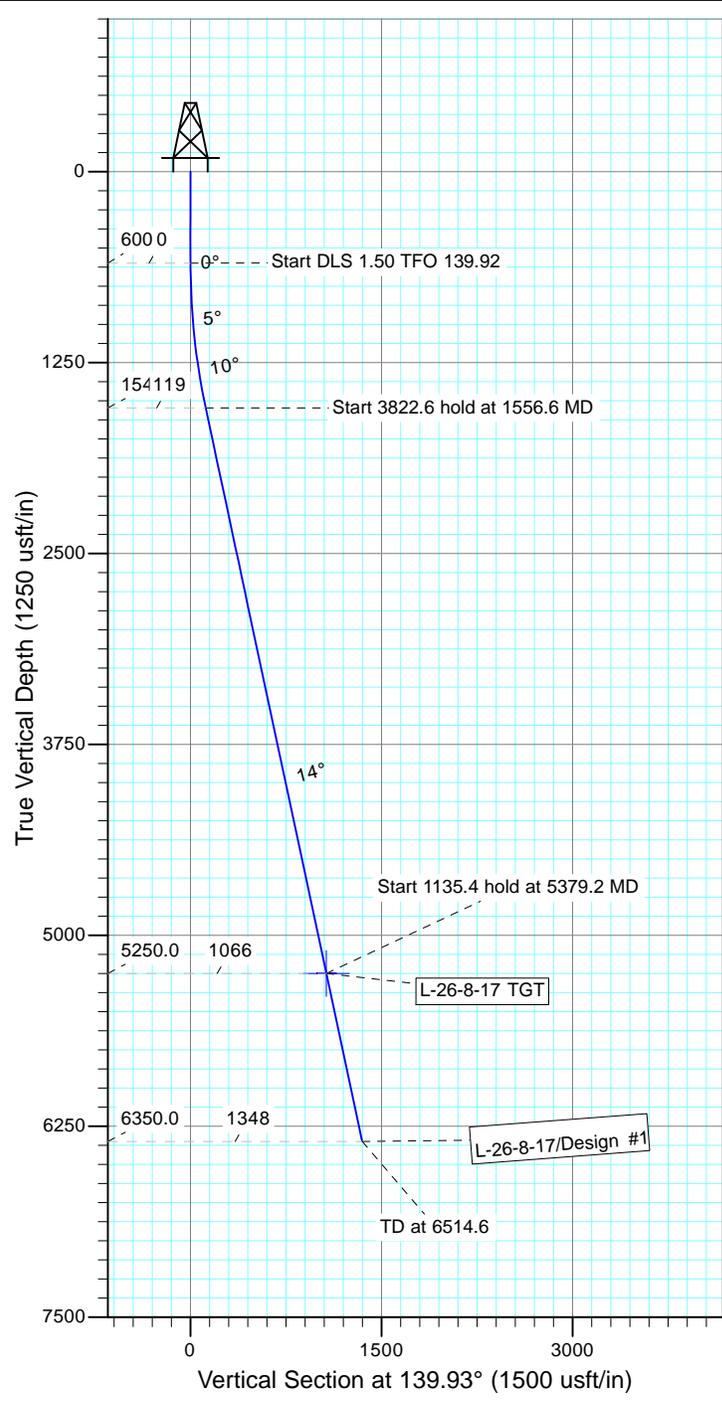
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1394.7	11.92	224.40	1389.0	-58.9	-57.6	1.50	224.40	82.4	
4	5422.6	11.92	224.40	5330.0	-653.3	-639.7	0.00	0.00	914.3	I-29-8-17 TGT
5	6577.5	11.92	224.40	6460.0	-823.7	-806.6	0.00	0.00	1152.9	





Project: USGS Myton SW (UT)
 Site: SECTION 26 T8, R17
 Well: L-26-8-17
 Wellbore: Wellbore #1
 Design: Design #1

T M
 Azimuths to True North
 Magnetic North: 10.88°
 Magnetic Field
 Strength: 52003.1snT
 Dip Angle: 65.77°
 Date: 7/31/2014
 Model: IGRF2010



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
L-26-8-17 TGT	5250.0	-816.0	686.7	Circle (Radius: 75.0)

SECTION DETAILS

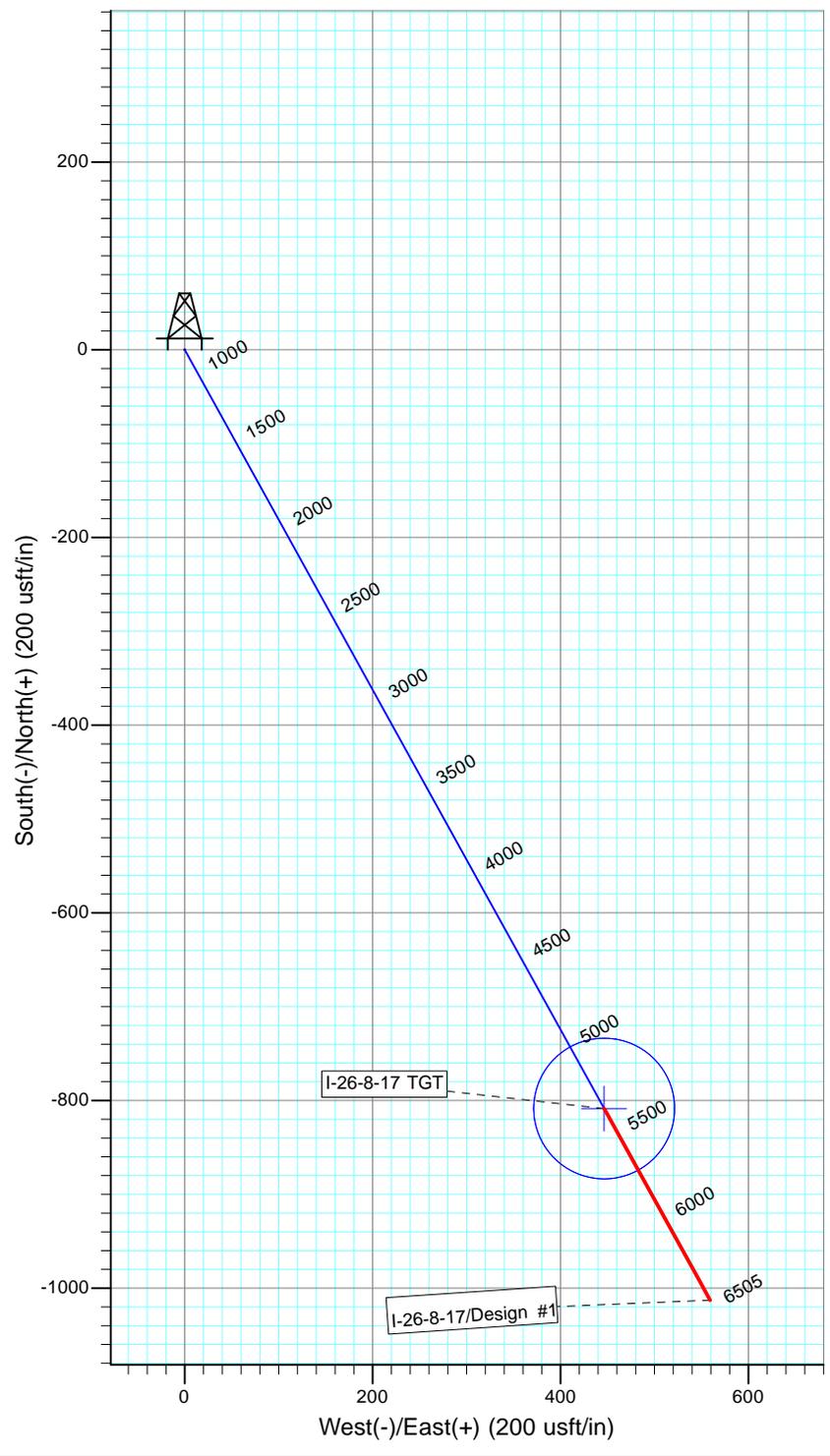
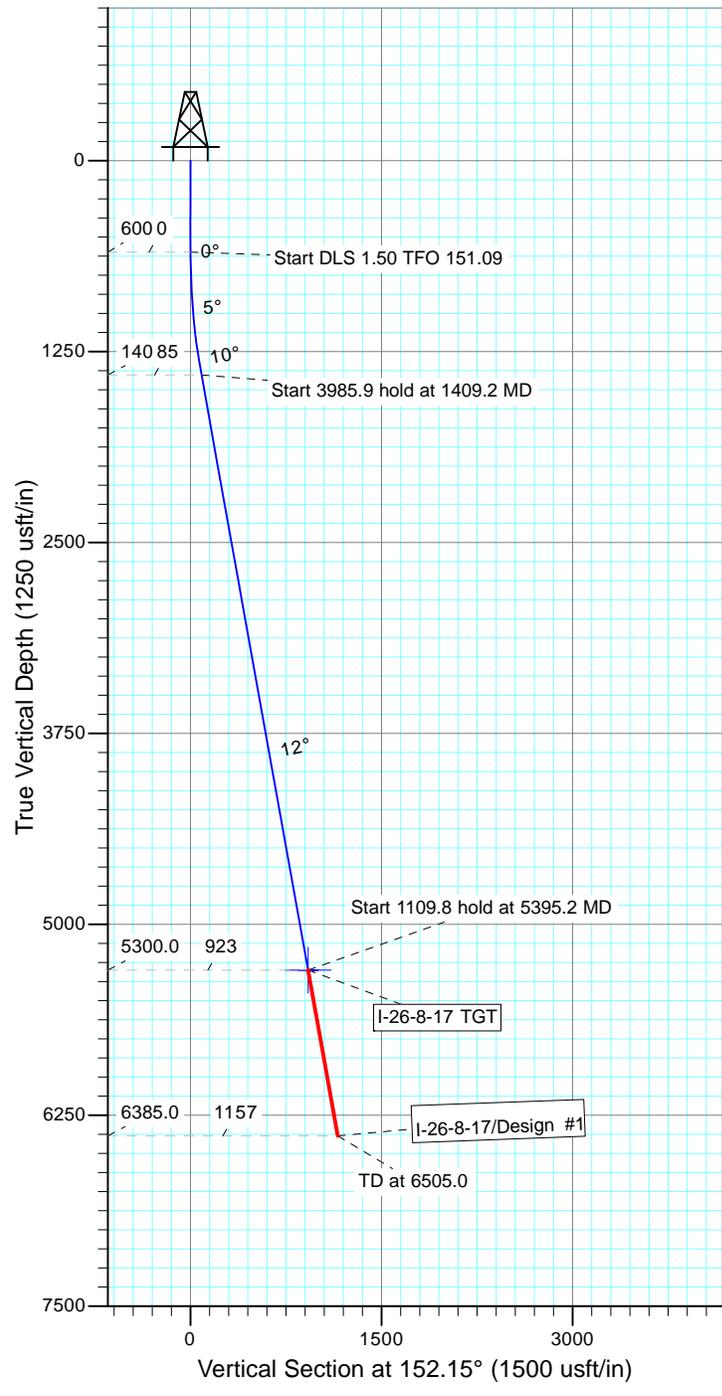
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1556.6	14.35	139.92	1546.6	-91.2	76.7	1.50	139.92	119.1	
4	5379.2	14.35	139.92	5250.0	-816.0	686.7	0.00	0.00	1066.5	L-26-8-17 TGT
5	6514.6	14.35	139.92	6350.0	-1031.3	867.8	0.00	0.00	1347.8	





Project: USGS Myton SW (UT)
 Site: SECTION 26 T8, R17
 Well: I-26-8-17
 Wellbore: Wellbore #1
 Design: Design #1

T M
 Azimuths to True North
 Magnetic North: 10.88°
 Magnetic Field
 Strength: 52005.1snT
 Dip Angle: 65.77°
 Date: 7/31/2014
 Model: IGRF2010



WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
I-26-8-17 TGT	5300.0	-808.5	446.5	Circle (Radius: 75.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1409.2	12.14	151.09	1403.2	-74.8	41.3	1.50	151.09	85.4	
4	5395.2	12.14	151.09	5300.0	-808.5	446.5	0.00	0.00	923.4	I-26-8-17 TGT
5	6505.0	12.14	151.09	6385.0	-1012.7	559.3	0.00	0.00	1156.7	



WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 8/11/2014

API NO. ASSIGNED: 43013531050000

WELL NAME: GMBU Q-23-9-16

OPERATOR: NEWFIELD PRODUCTION COMPANY (N2695)

PHONE NUMBER: 435 646-4936

CONTACT: Heather Calder

PROPOSED LOCATION: SESW 23 090S 160E

Permit Tech Review:

SURFACE: 0686 FSL 2160 FWL

Engineering Review:

BOTTOM: 1636 FSL 1000 FWL

Geology Review:

COUNTY: DUCHESNE

LATITUDE: 40.01101

LONGITUDE: -110.08838

UTM SURF EASTINGS: 577804.00

NORTHINGS: 4429377.00

FIELD NAME: MONUMENT BUTTE

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-15855

PROPOSED PRODUCING FORMATION(S): GREEN RIVER

SURFACE OWNER: 1 - Federal

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: FEDERAL - WYB000493
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: 437478
- RDCC Review:
- Fee Surface Agreement
- Intent to Commingle

Commingling Approved

LOCATION AND SITING:

- R649-2-3.
- Unit: GMBU (GRRV)
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: Cause 213-11
- Effective Date: 11/30/2009
- Siting: Suspends General Siting
- R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 4 - Federal Approval - dmason
15 - Directional - dmason
27 - Other - bhll



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. HAZA
Division Director

Permit To Drill

Well Name: GMBU Q-23-9-16
API Well Number: 43013531050000
Lease Number: UTU-15855
Surface Owner: FEDERAL
Approval Date: 8/19/2014

Issued to:

NEWFIELD PRODUCTION COMPANY , Rt 3 Box 3630 , Myton, UT 84052

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 213-11. The expected producing formation or pool is the GREEN RIVER Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

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

General:

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

Conditions of Approval:

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

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

Production casing cement shall be brought up to or above the top of the unitized interval for the Greater Monument Butte Unit (Cause No. 213-11).

Notification Requirements:

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

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

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website
at <http://oilgas.ogm.utah.gov>

Reporting Requirements:

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

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

Approved By:

A handwritten signature in black ink, appearing to read "John Rogers", written over a horizontal line.

For John Rogers
Associate Director, Oil & Gas

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: UTU-15855	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT or CA AGREEMENT NAME: GMBU (GRRV)	8. WELL NAME and NUMBER: GMBU Q-23-9-16
1. TYPE OF WELL Oil Well	9. API NUMBER: 43013531050000
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY	9. FIELD and POOL or WILDCAT: MONUMENT BUTTE
3. ADDRESS OF OPERATOR: Rt 3 Box 3630 , Myton, UT, 84052	PHONE NUMBER: 435 646-4825 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0686 FSL 2160 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 23 Township: 09.0S Range: 16.0E Meridian: S	COUNTY: DUCHESNE 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: 8/19/2015	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input 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 checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

Newfield proposes to extend the Application for Permit to Drill this well.

Approved by the
August 05, 2015
Oil, Gas and Mining

Date: _____
By: 

NAME (PLEASE PRINT) Mandie Crozier	PHONE NUMBER 435 646-4825	TITLE Regulatory Tech
SIGNATURE N/A	DATE 8/4/2015	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43013531050000

API: 43013531050000

Well Name: GMBU Q-23-9-16

Location: 0686 FSL 2160 FWL QTR SESW SEC 23 TWNP 090S RNG 160E MER S

Company Permit Issued to: NEWFIELD PRODUCTION COMPANY

Date Original Permit Issued: 8/19/2014

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

- If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes No

- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes No

- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes No

- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? Yes No

- Has the approved source of water for drilling changed? Yes No

- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No

- Is bonding still in place, which covers this proposed well? Yes No

Signature: Mandie Crozier

Date: 8/4/2015

Title: Regulatory Tech Representing: NEWFIELD PRODUCTION COMPANY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

AUG 12 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

BLM Vernal UT

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU15855
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator NEWFIELD EXPLORATION Contact: HEATHER A CALDER E-Mail: hcalder@newfield.com		7. If Unit or CA Agreement, Name and No. UTU87538X
3a. Address ROUTE 3 BOX 3630 MYTON, UT 84052	3b. Phone No. (include area code) Ph: 435-646-4936 Fx: 435-646-3031	8. Lease Name and Well No. GMBU Q-23-9-16
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESW 686FSL 2160FWL At proposed prod. zone NWSW 1636FSL 1000FWL		9. API Well No.
14. Distance in miles and direction from nearest town or post office* 17.9	15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1000	10. Field and Pool, or Exploratory MONUMENT BUTTE
16. No. of Acres in Lease 1200.00	17. Spacing Unit dedicated to this well 20.00	11. Sec., T., R., M., or Blk. and Survey or Area Sec 23 T9S R16E Mer SLB
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 690	19. Proposed Depth 6080 MD 5850 TVD	12. County or Parish DUCHESNE
21. Elevations (Show whether DF, KB, RT, GL, etc.) 5781 GL	22. Approximate date work will start 01/01/2015	13. State UT
23. Estimated duration 7 DAYS		

RECEIVED

SEP 22 2014

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature (Electronic Submission)	Name (Printed/Typed) HEATHER A CALDER Ph: 435-646-4936	Date 08/12/2014
Title REGULATORY TECHNICIAN		
Approved by (Signature) 	Name (Printed/Typed) Jerry Kenczka	Date SEP 15 2015
Title Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFICE	

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

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.

Additional Operator Remarks (see next page)

Electronic Submission #256732 verified by the BLM Well Information System
For NEWFIELD EXPLORATION, sent to the Vernal
Committed to AFMSS for processing by ROBIN R. HANSEN on 08/13/2014 ()

NOTICE OF APPROVAL

UDOGM

CONDITIONS OF APPROVAL ATTACHED

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****



**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE**

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Newfield Exploration Company
Well No: GMBU Q-23-9-16
API No: 43-013-53105

Location: SESW, Sec 23, T9S, R16E
Lease No: UTU 15855
Agreement: Monument Butte

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Construction Activity (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	- The Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist shall be notified at least 48 hours in advance of any construction activity. The Ute Tribal office is open Monday through Thursday.
Construction Completion (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	- Upon completion of the pertinent APD/ROW construction, notify the Ute Tribe Energy & Minerals Dept. for a Tribal Technician to verify the Affidavit of Completion. Notify the BLM Environmental Scientist prior to moving on the drilling rig.
Spud Notice (Notify BLM Petroleum Engineer)	- Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify BLM Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify BLM Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify BLM Petroleum Engineer)	- Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

**SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)**

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

Green River District Reclamation Guidelines

The Operator will comply with the requirements of the **Green River District (GRD) Reclamation Guidelines** formalized by Green River District Instructional Memo UTG000-2014-004 on May 21, 2014.

CONDITIONS OF APPROVAL

Wildlife

In accordance with the Record of Decision for the Castle Peak and Eightmile Flat Oil and Gas Expansion Project, Newfield Rocky Mountains Inc., the following COA's are required:

- WFM-1 On level or gently sloping ground (5 percent slope or less) Newfield will elevate surface pipelines (4 inches or greater in diameter) a minimum of 6 inches above the ground to allow passage of small animals beneath the pipe. This ground clearance will be achieved by placing the pipeline on blocks at intervals of 150 to 200 feet.
- WFM-4 Newfield will install noise reduction devices on all pump jacks to reduce intermittent noise to 45 dBA at 660 feet from the source.

COA's derived from mitigating measures in the EA:

If construction and drilling is anticipated during any of the following wildlife seasonal spatial restrictions, a BLM biologist or a qualified consulting firm biologist must conduct applicable surveys using an accepted protocol prior to any ground disturbing activities.

For protection of T&E Fish if drawing water from the Green River

- For areas of fresh water collection, an infiltration gallery will be constructed in a Service approved location. An infiltration gallery is basically a pit or trench dug within the floodplain to a

depth below the water table. Water is drawn from the pit rather than from the river directly. If this is not possible, limit pumping within the river to off-channel locations that do not connect to the river during high spring flows.

- If water cannot be drawn using the measures above and the pump head will be located in the river channel where larval fish are known to occur, the following measures apply:
 - Avoid pumping from low-flow or no-flow areas as these habitats tend to concentrate larval fish
 - Avoid pumping to the greatest extent possible, during that period of the year when larval fish may be present (see previous bullet); and
 - Avoid pumping, to the greatest extent possible, during the midnight hours (10:00 p.m. to 2:00 a.m.) as larval drift studies indicate that this is a period of greatest daily activity. Dusk is the preferred pumping time, as larval drift abundance is lowest during this time.
 - Screen all pump intakes with 3/32-inch mesh material.
- Report any fish impinged on the intake screen to the FWS office (801.975.3330) and the:
Utah Division of Wildlife Resources
Northeastern Region
318 N Vernal Ave.
Vernal, UT 84078
(435) 781-9453

Air Quality

- All internal combustion equipment will be kept in good working order.
- Water or other approved dust suppressants will be used at construction sites and along roads, as determined appropriate by the Authorized Officer. Dust suppressant such as magnesium chloride or fresh water may be used, as needed, during the drilling phase.
- Open burning of garbage or refuse will not occur at well sites or other facilities.
- Drill rigs will be equipped with Tier II or better diesel engines.
- Low bleed pneumatics will be installed on separator dump valves and other controllers.
- During completion, no venting will occur, and flaring will be limited as much as possible. Production equipment and gathering lines will be installed as soon as possible.
- Telemetry will be installed to remotely monitor and control production.
- When feasible, two or more rigs (including drilling and completion rigs) will not be run simultaneously within 200 meters of each other. If two or more rigs must be run simultaneously within 200 meters of each other, then effective public health buffer zones out to 200 meters (m) from the nearest emission source will be implemented. Examples of an effective public health protection buffer zone include the demarcation of a public access exclusion zone by signage at intervals of every 250 feet that is visible from a distance of 125 feet during daylight hours, and a physical buffer such as active surveillance to ensure the property is not accessible by the public during drilling operations. Alternatively, the proponent may demonstrate compliance with the 1-hour NO₂ National Ambient Air Quality Standards (NAAQS) with appropriate and accepted near-field modeling. As part of this demonstration, the proponent may propose alternative mitigation

that could include but is not limited to natural gas-fired drill rigs, installation of NO_x controls, time/use restrictions, and/or drill rig spacing.

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horse power must not emit more than 2 grams of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower-hour.
- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NO_x per horsepower-hour.
- Green completions will be used for all well completion activities where technically feasible.

**DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)**

SITE SPECIFIC DOWNHOLE COAs:

- For surface casing cement, the minimum cement slurry weights are for: lead cement is 12 #/gal; tail cement is 15.8 #/gal; top out cement is 15.8 #/gal.
- Production casing cement shall be brought up and into the surface.
- Surface casing cement shall be brought to surface.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.

- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well by CD (compact disc). This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and

Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent

Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

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: UTU-15855	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT or CA AGREEMENT NAME: GMBU (GRRV)	8. WELL NAME and NUMBER: GMBU Q-23-9-16
1. TYPE OF WELL Oil Well	9. API NUMBER: 43013531050000
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY	9. FIELD and POOL or WILDCAT: MONUMENT BUTTE
3. ADDRESS OF OPERATOR: Rt 3 Box 3630 , Myton, UT, 84052	PHONE NUMBER: 435 646-4825 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0686 FSL 2160 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 23 Township: 09.0S Range: 16.0E Meridian: S	COUNTY: DUCHESNE 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: 8/19/2016	<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 checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

Newfield proposes to extend the Application for Permit to Drill this well.

Approved by the
August 11, 2016
Oil, Gas and Mining

Date: _____
By: *[Signature]*

NAME (PLEASE PRINT) Mandie Crozier	PHONE NUMBER 435 646-4825	TITLE Regulatory Tech
SIGNATURE N/A	DATE 8/11/2016	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43013531050000

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

Signature: Mandie Crozier

Date: 8/11/2016

Title: Regulatory Tech **Representing:** NEWFIELD PRODUCTION COMPANY