

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 NBU 1022-2M1BS
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 NATURAL BUTTES
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO		5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. OPERATOR PHONE 720 929-6515
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217		9. OPERATOR E-MAIL julie.jacobson@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ST UT ML 22651	11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>	
12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" 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 checked="" type="checkbox"/> (Submit Commingling Application) NO <input 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	1071 FSL 686 FWL	SWSW	2	10.0 S	22.0 E	S
Top of Uppermost Producing Zone	1075 FSL 820 FWL	SWSW	2	10.0 S	22.0 E	S
At Total Depth	1075 FSL 820 FWL	SWSW	2	10.0 S	22.0 E	S

21. COUNTY UINTAH	22. DISTANCE TO NEAREST LEASE LINE (Feet) 617	23. NUMBER OF ACRES IN DRILLING UNIT 620
24. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 974	25. PROPOSED DEPTH MD: 8595 TVD: 8591	
26. ELEVATION - GROUND LEVEL 5050	27. BOND NUMBER 22013542	28. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-8496

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
SURF	11	8.625	0 - 2160	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8
							Class G	270	1.15	15.8
PROD	7.875	4.5	0 - 8595	11.6	I-80 LT&C	12.5	Premium Lite High Strength	270	3.38	11.0
							50/50 Poz	1170	1.31	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 Andy Lytle	TITLE Regulatory Analyst	PHONE 720 929-6100
SIGNATURE	DATE 08/01/2011	EMAIL andrew.lytle@anadarko.com
API NUMBER ASSIGNED 43047517780000	APPROVAL  Permit Manager	

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 1022-2M1BS**

Surface: 1071 FSL / 686 FWL SWSW
 BHL: 1075 FSL / 820 FWL SWSW

Section 2 T10S R22E

Uintah County, Utah
 Mineral Lease: ST UT ML 22651

ONSHORE ORDER NO. 1**DRILLING PROGRAM**

1. & 2. **Estimated Tops of Important Geologic Markers:**
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1066	
Birds Nest	1331	Water
Mahogany	1711	Water
Wasatch	4152	Gas
Mesaverde	6440	Gas
MVU2	7399	Gas
MVL1	7980	Gas
TVD	8591	Gas
TD	8595	Gas

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

7. **Abnormal Conditions:**

Maximum anticipated bottom hole pressure calculated at 8591' TVD, approximately equals

$$\frac{5,498 \text{ psi}}{0.64 \text{ psi/ft}} = \text{actual bottomhole gradient}$$

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,596 psi (bottom hole pressure
 minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-
 (0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. **Anticipated Starting Dates:**

Drilling is planned to commence immediately upon approval of this application.

9. **Variances:**

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

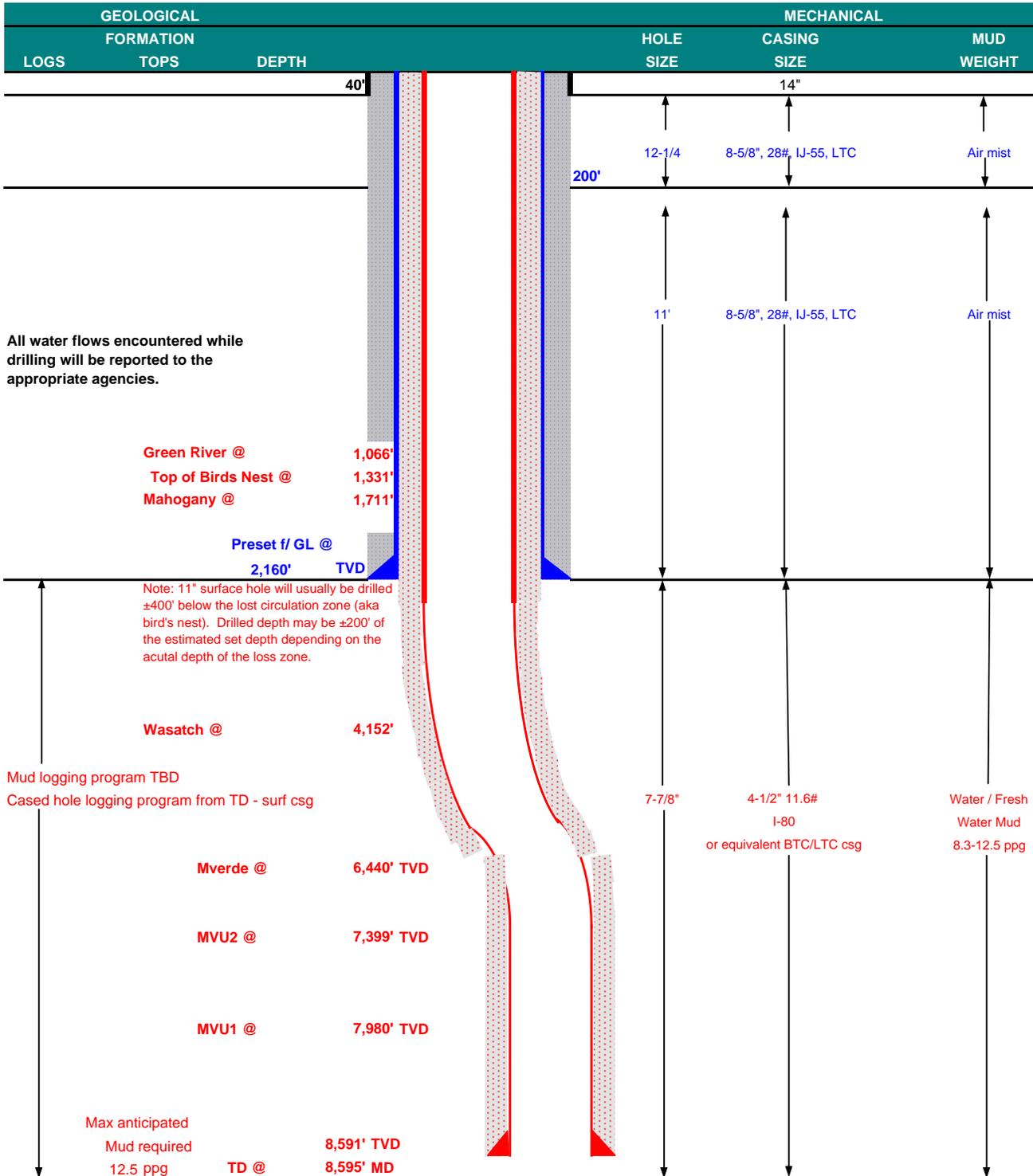
10. **Other Information:**

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	July 25, 2011	
WELL NAME	NBU 1022-2M1BS		TD	8,591' TVD	8,595' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah
SURFACE LOCATION	SWSW	1071 FSL	686 FWL	Sec 2 T 10S R 22E	FINISHED ELEVATION 5,046'
	Latitude: 39.973682		Longitude: -109.413538		NAD 27
BTM HOLE LOCATION	SWSW	1075 FSL	820 FWL	Sec 2 T 10S R 22E	
	Latitude: 39.973693		Longitude: -109.413062		NAD 27
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.				





KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	COLLAPSE	LTC	BTC
CONDUCTOR	14"	0-40'							
SURFACE	8-5/8"	0 to 2,160	28.00	IJ-55	LTC	3,390	1,880	348,000	N/A
						2.50	1.86	6.57	N/A
PRODUCTION	4-1/2"	0 to 8,595	11.60	I-80	LTC/BTC	7,780	6,350	279,000	367,000
						1.11	1.14	3.46	4.55

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe
Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE Option 1	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
NOTE: If well will circulate water to surface, option 2 will be utilized							
SURFACE Option 2	LEAD	1,660'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	150	35%	11.00	3.82
	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	3,645'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	270	20%	11.00	3.38
	TAIL	4,950'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,170	35%	14.30	1.31

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER:

Chad Loesel / Danny Showers

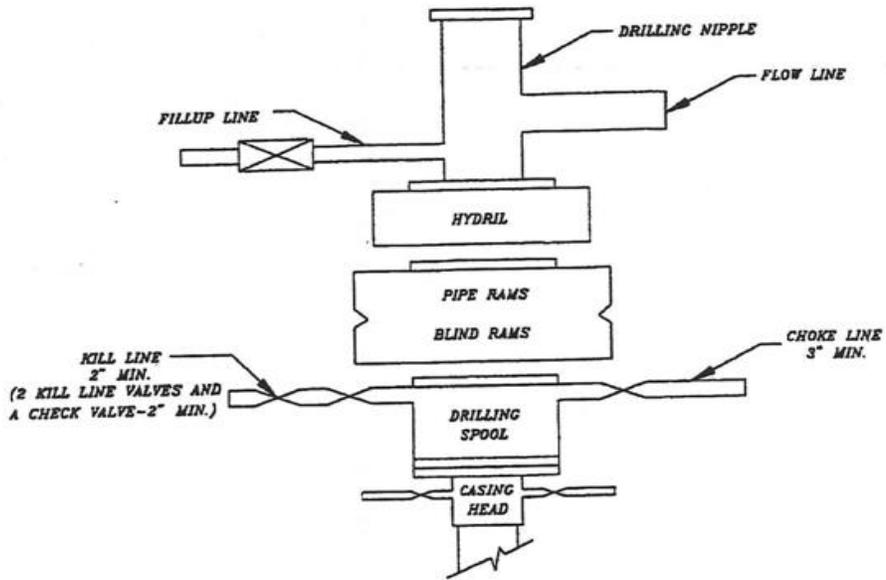
DATE: _____

DRILLING SUPERINTENDENT:

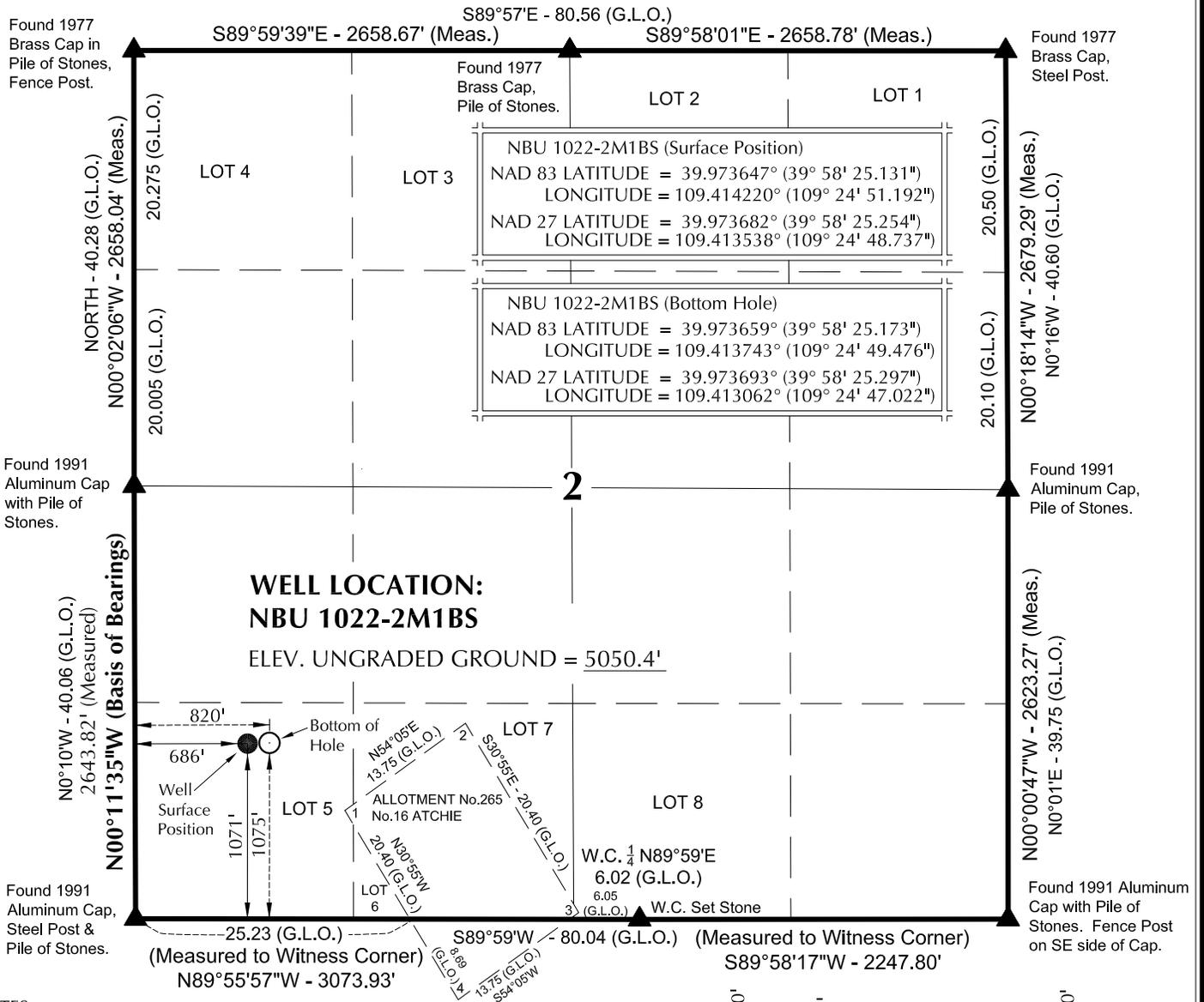
Kenny Gathings / Lovel Young

DATE: _____

EXHIBIT A
NBU 1022-2M1BS

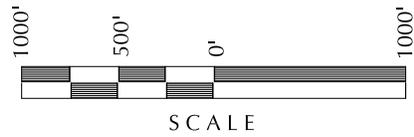


T10S, R22E, S.L.B.&M.



NOTES:

- ▲ = Section Corners Located
- 1. Well footages are measured at right angles to the Section Lines.
- 2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
- 3. The Bottom of hole bears N88°08'34"E 133.65' from the Surface Position.
- 4. Bearings are based on Global Positioning Satellite observations.
- 5. Basis of elevation is Tri-Sta "Two Water" located in the NW 1/4 of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SURVEYOR'S CERTIFICATE

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

John R. Slaugh
 PROFESSIONAL LAND SURVEYOR
 REGISTRATION NO. 6028691
 STATE OF UTAH
 2-1-11

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street - Denver, Colorado 80202

WELL PAD: NBU 1022-2M

**NBU 1022-2M1BS
 WELL PLAT
 1075' FSL, 820' FWL (Bottom Hole)
 LOT 5 OF SECTION 2, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH.**

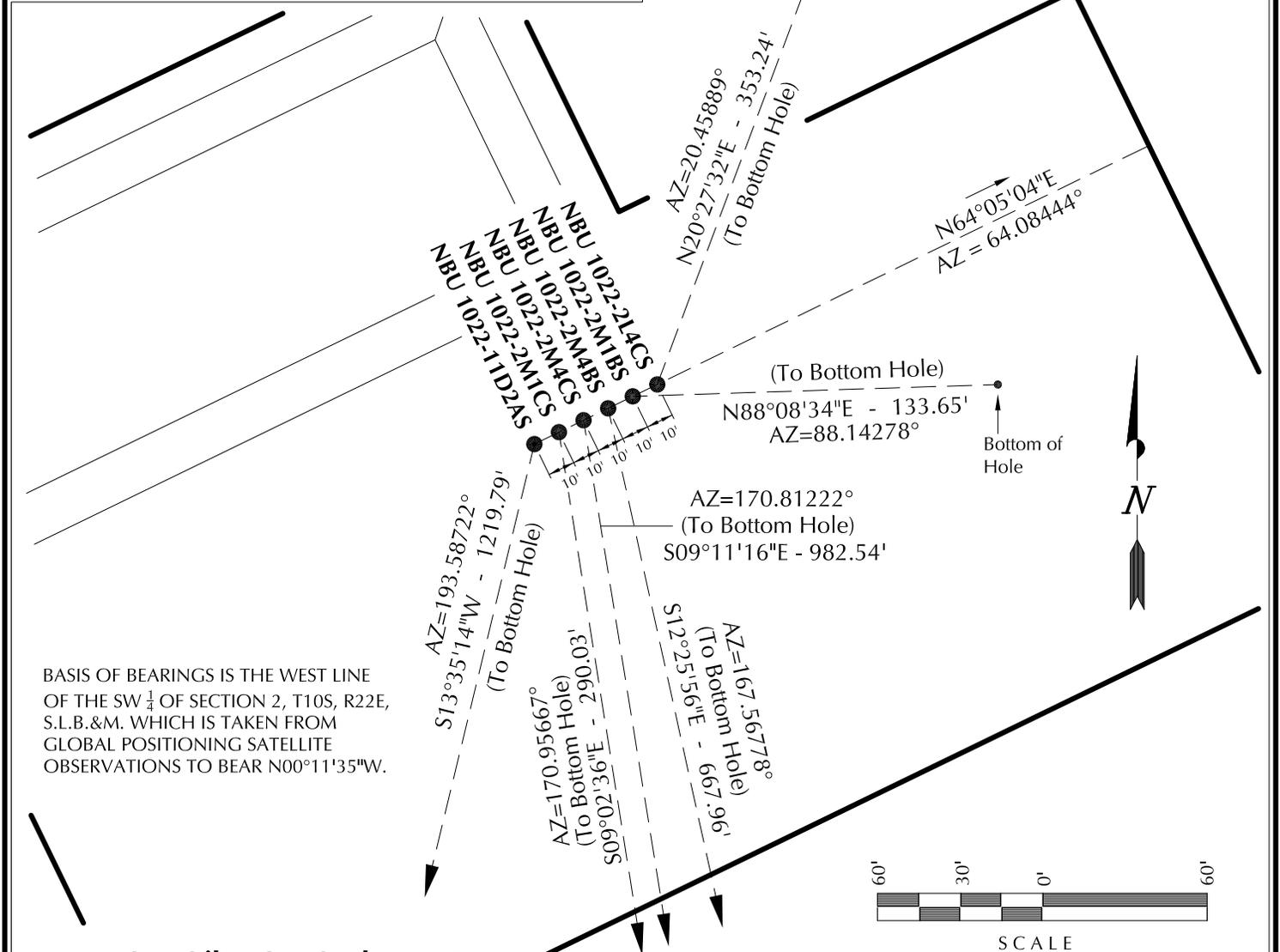
609
CONSULTING, LLC
 2155 North Main Street
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

TIMBERLINE		(435) 789-1365
ENGINEERING & LAND SURVEYING, INC.		
209 NORTH 300 WEST - VERNAL, UTAH 84078		
DATE SURVEYED: 01-12-11	SURVEYED BY: R.Y.	SHEET NO: 5
DATE DRAWN: 01-31-11	DRAWN BY: E.M.S.	
SCALE: 1" = 1000'	Date Last Revised:	5 OF 18

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
NBU 1022-11D2AS	39°58'24.958"	109°24'51.654"	39°58'25.082"	109°24'49.199"	1053' FSL 650' FWL	39°58'13.246"	109°24'55.342"	39°58'13.369"	109°24'52.888"	133' FNL 360' FWL
NBU 1022-2M1CS	39°58'25.001"	109°24'51.538"	39°58'25.125"	109°24'49.084"	1057' FSL 659' FWL	39°58'22.171"	109°24'50.955"	39°58'22.295"	109°24'48.501"	771' FSL 704' FWL
NBU 1022-2M4CS	39°58'25.044"	109°24'51.423"	39°58'25.168"	109°24'48.968"	1062' FSL 668' FWL	39°58'15.461"	109°24'49.415"	39°58'15.584"	109°24'46.961"	92' FSL 822' FWL
NBU 1022-2M4BS	39°58'25.087"	109°24'51.307"	39°58'25.211"	109°24'48.853"	1066' FSL 677' FWL	39°58'18.642"	109°24'49.465"	39°58'18.766"	109°24'47.011"	414' FSL 819' FWL
NBU 1022-2M1BS	39°58'25.131"	109°24'51.192"	39°58'25.254"	109°24'48.737"	1071' FSL 686' FWL	39°58'25.173"	109°24'49.476"	39°58'25.297"	109°24'47.022"	1075' FSL 820' FWL
NBU 1022-2L4CS	39°58'25.174"	109°24'51.076"	39°58'25.298"	109°24'48.622"	1075' FSL 695' FWL	39°58'28.443"	109°24'49.488"	39°58'28.567"	109°24'47.034"	1406' FSL 820' FWL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 1022-11D2AS	-1,185.7'	-286.6'	NBU 1022-2M1CS	-286.4'	45.6'	NBU 1022-2M4CS	-969.9'	156.9'	NBU 1022-2M4BS	-652.3'	143.8'
NBU 1022-2M1BS	4.3'	133.6'	NBU 1022-2L4CS	331.0'	123.5'						



BASIS OF BEARINGS IS THE WEST LINE OF THE SW 1/4 OF SECTION 2, T10S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°11'35"W.

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-2M

WELL PAD INTERFERENCE PLAT
WELLS - NBU 1022-11D2AS, NBU 1022-2M1CS, NBU 1022-2M4CS, NBU 1022-2M4BS, NBU 1022-2M1BS & NBU 1022-2L4CS LOCATED IN SECTION 2, T10S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

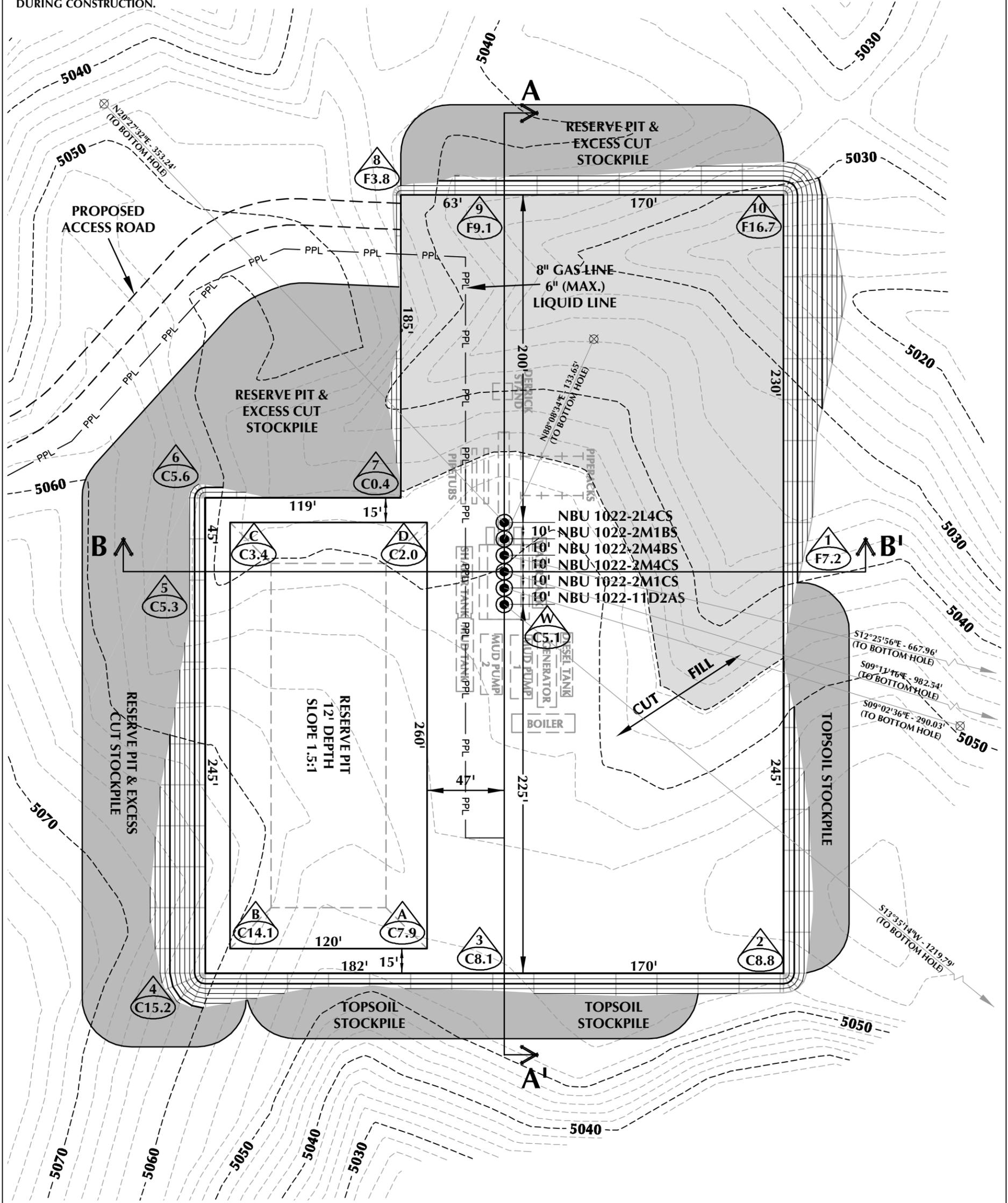


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Fax 307-674-0182

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

DATE SURVEYED: 01-12-11	SURVEYED BY: R.Y.	SHEET NO: 7
DATE DRAWN: 01-31-11	DRAWN BY: E.M.S.	
SCALE: 1" = 60'		7 OF 18

PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.



WELL PAD - NBU 1022-2M DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5050.8'
 FINISHED GRADE ELEVATION = 5045.7'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.89 ACRES
 TOTAL DISTURBANCE AREA = 6.49 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-2M

WELL PAD - LOCATION LAYOUT
 NBU 1022-11D2AS, NBU 1022-2M1CS,
 NBU 1022-2M4CS, NBU 1022-2M4BS,
 NBU 1022-2M1BS & NBU 1022-2L4CS
 LOCATED IN SECTION 2, T10S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH



CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 26,725 C.Y.
 TOTAL FILL FOR WELL PAD = 23,062 C.Y.
 TOPSOIL @ 6" DEPTH = 3,138 C.Y.
 EXCESS MATERIAL = 3,663 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
 +/- 11,020 C.Y.
 RESERVE PIT CAPACITY (2' OF FREEBOARD)
 +/- 42,290 BARRELS

WELL PAD LEGEND

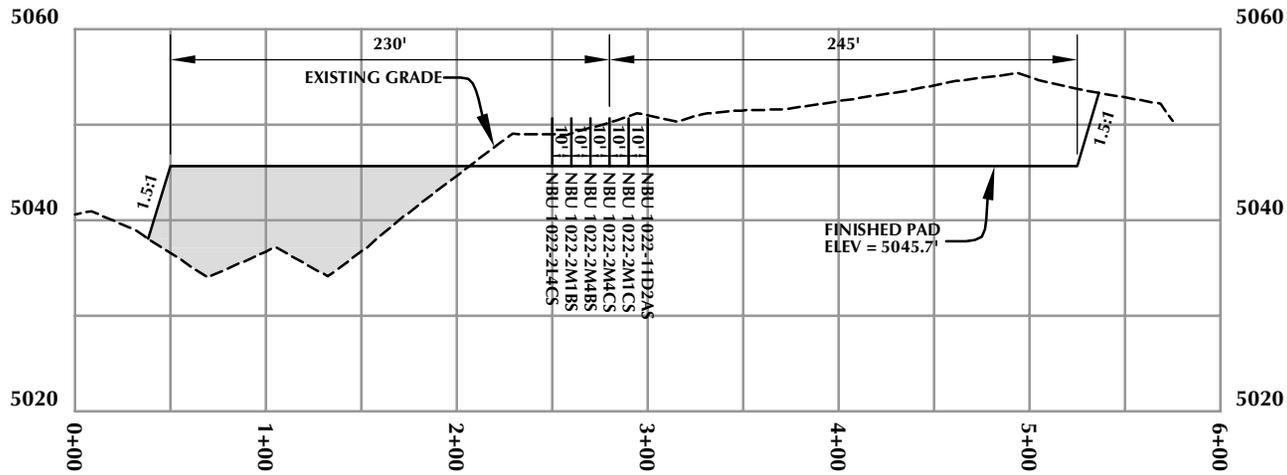
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL - PROPOSED PIPELINE
- EPL - EXISTING PIPELINE



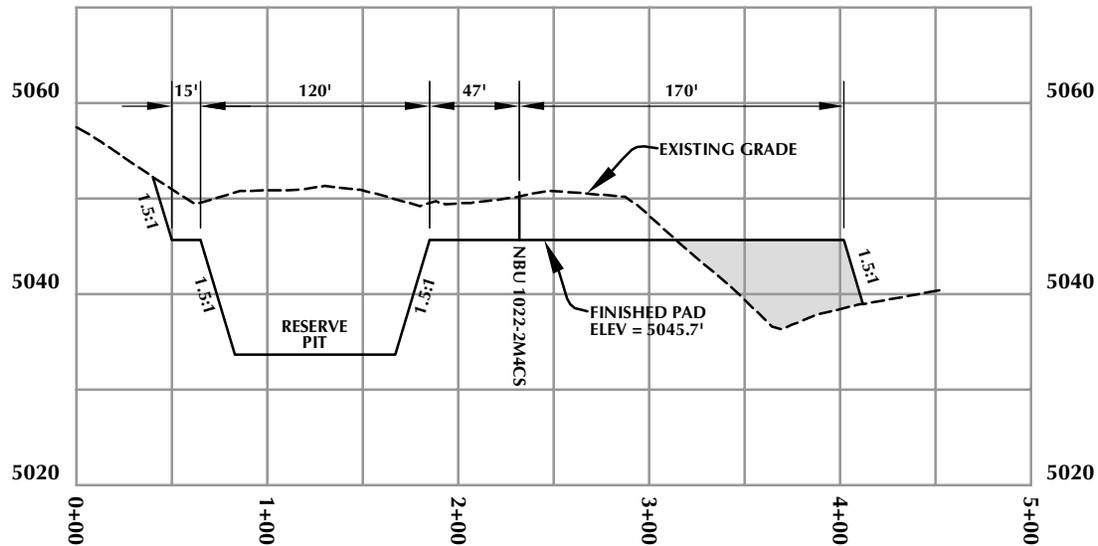
HORIZONTAL 0 30' 60' 1" = 60'
 2' CONTOURS

SCALE: 1"=60' DATE: 3/30/11 SHEET NO:
 REVISED: GRB 4/19/11 **8** 8 OF 18

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



CROSS SECTION A-A'



CROSS SECTION B-B'

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-2M

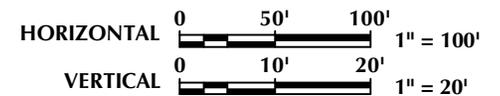
WELL PAD - CROSS SECTIONS
NBU 1022-11D2AS, NBU 1022-2M1CS,
NBU 1022-2M4CS, NBU 1022-2M4BS,
NBU 1022-2M1BS & NBU 1022-2L4CS
LOCATED IN SECTION 2, T10S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH



CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

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

(435) 789-1365



Scale: 1"=100'

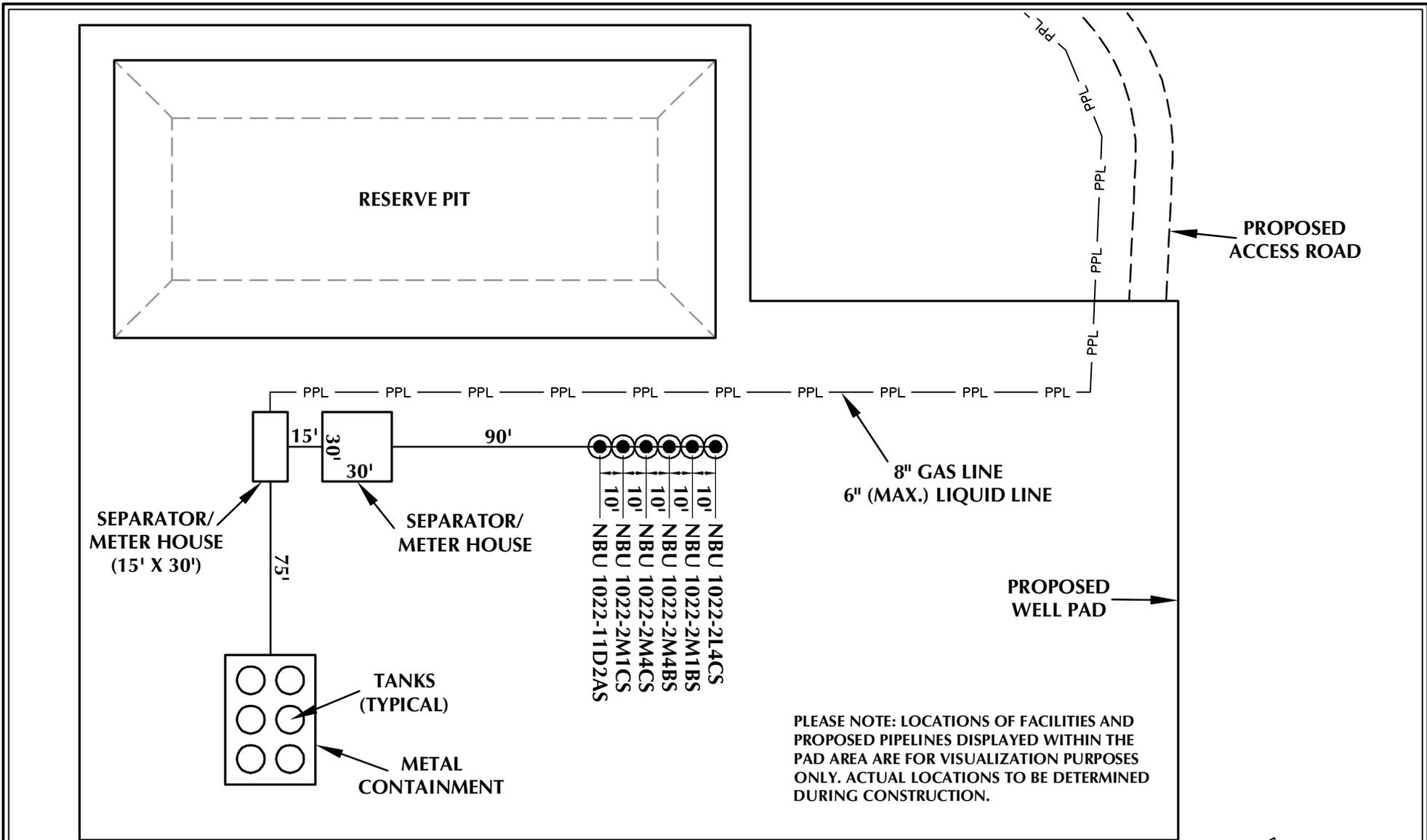
Date: 3/30/11

SHEET NO:

REVISED:

9

9 OF 18



PLEASE NOTE: LOCATIONS OF FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-2M

WELL PAD - FACILITIES DIAGRAM
NBU 1022-11D2AS, NBU 1022-2M1CS,
NBU 1022-2M4CS, NBU 1022-2M4BS,
NBU 1022-2M1BS & NBU 1022-2L4CS
LOCATED IN SECTION 2, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH



CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
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WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE



HORIZONTAL 1" = 60'

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

Scale: 1"=60' Date: 3/30/11
REVISED:

SHEET NO:
10 10 OF 18

K:\ANADARKO\2010_03_NBU_FOCUS_1022-2\DWG\NBU_1022-2M\NBU_1022-2M_10110125.dwg

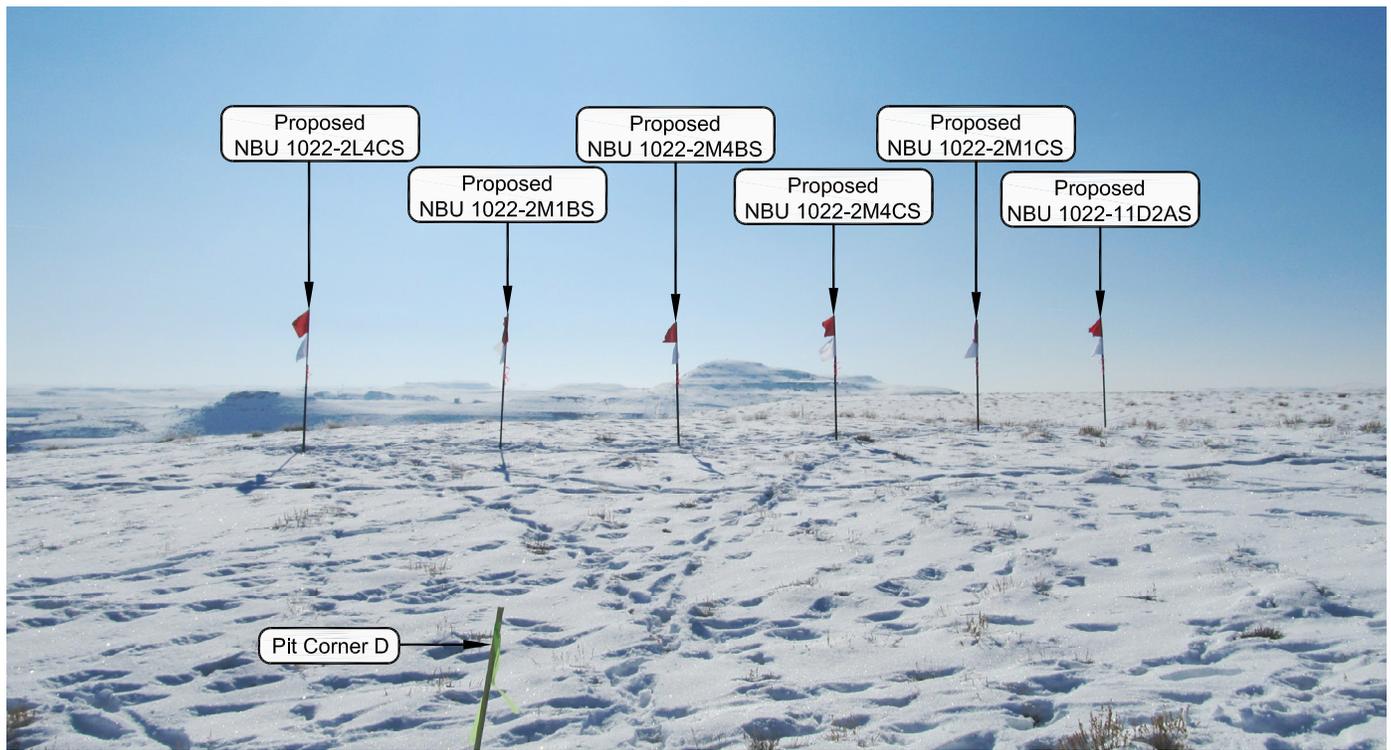


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: SOUTHERLY



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: SOUTHEASTERLY

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-2M

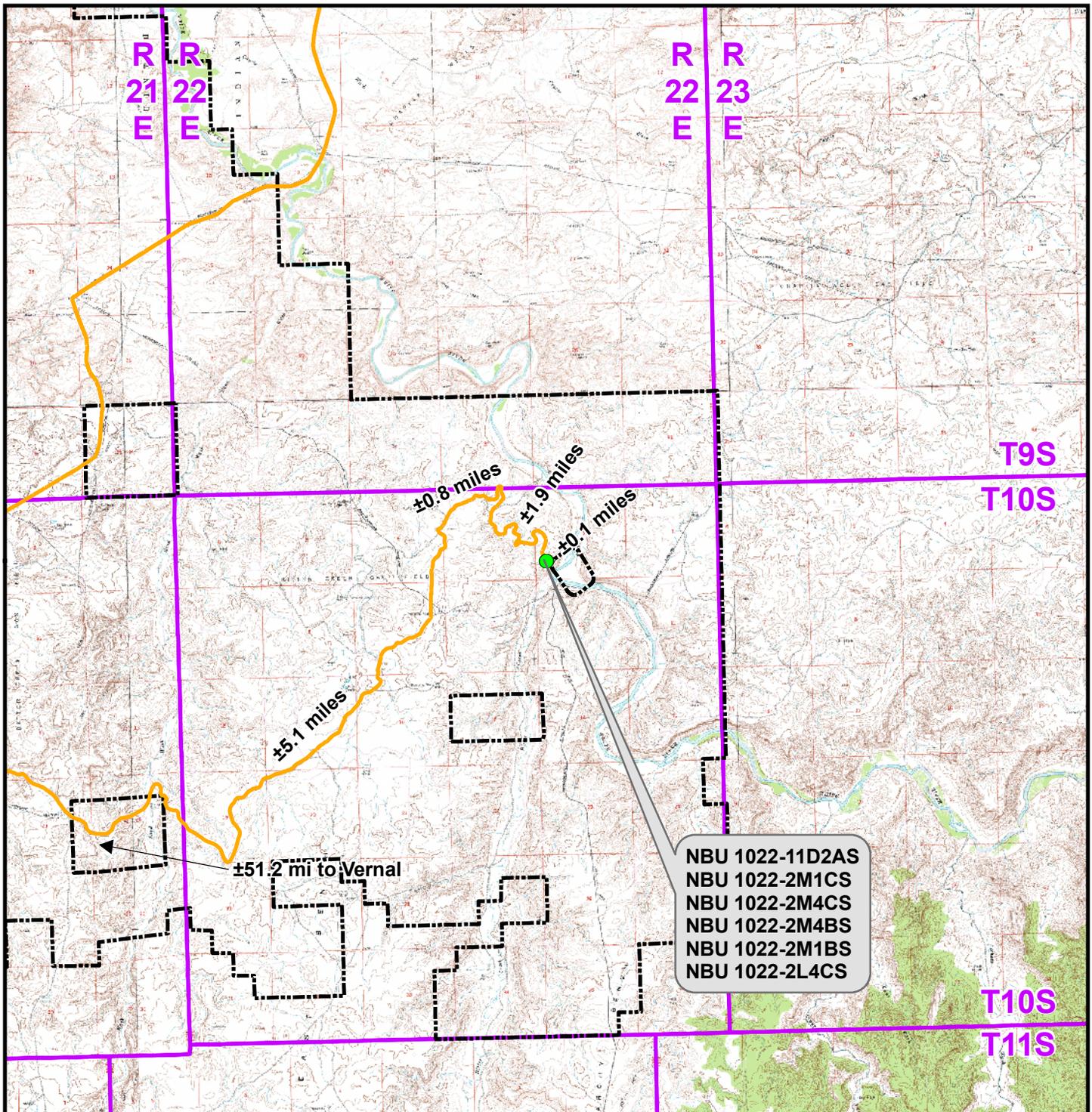
LOCATION PHOTOS
 NBU 1022-11D2AS, NBU 1022-2M1CS,
 NBU 1022-2M4CS, NBU 1022-2M4BS,
 NBU 1022-2M1BS & NBU 1022-2L4CS
 LOCATED IN SECTION 2, T10S, R22E,
 S.L.B.&M., Uintah County, Utah.



CONSULTING, LLC
 2155 North Main Street
 Sheridan WY 82801
 Phone 307-674-0609
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TIMBERLINE (435) 789-1365
 ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 01-12-11	PHOTOS TAKEN BY: R.Y.	SHEET NO: 11
DATE DRAWN: 01-31-11	DRAWN BY: E.M.S.	
Date Last Revised:		11 OF 18



Legend

- Proposed Well Location
- Natural Buttes Unit Boundary
- Access Route - Proposed

Distance From Well Pad - NBU 1022-2M To Unit Boundary: ±715ft

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1022-2M

TOPO A

NBU 1022-11D2AS, NBU 1022-2M1CS,
 NBU 1022-2M4CS, NBU 1022-2M4BS,
 NBU 1022-2M1BS & NBU 1022-2L4CS
 LOCATED IN SECTION 2, T10S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH

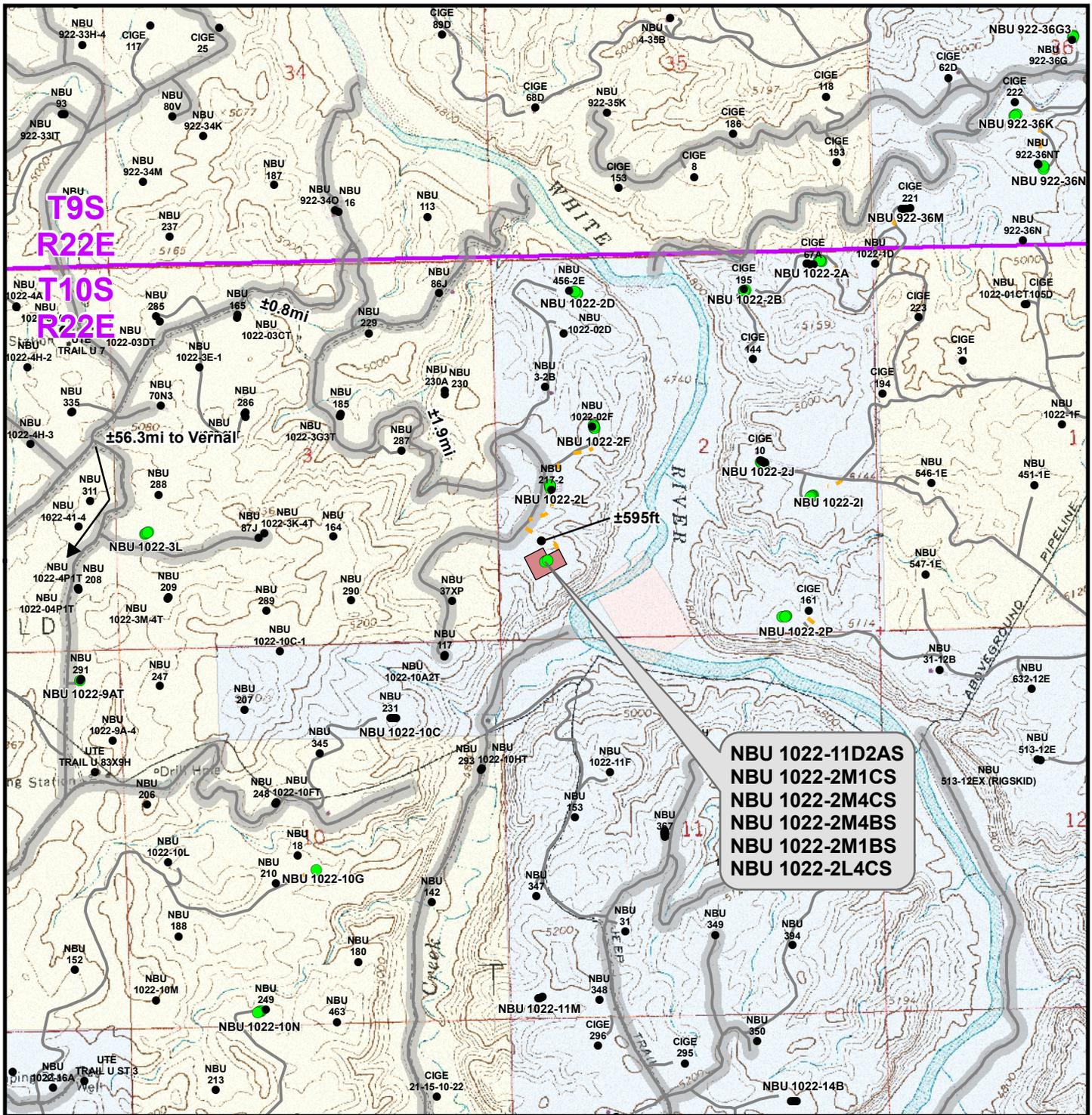


CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone (307) 674-0609
 Fax (307) 674-0182



Scale: 1:100,000	NAD83 USP Central
Drawn: TL	Date: 30 Mar 2011
Revised:	Date:

Sheet No:
12 12 of 18



NBU 1022-11D2AS
NBU 1022-2M1CS
NBU 1022-2M4CS
NBU 1022-2M4BS
NBU 1022-2M1BS
NBU 1022-2L4CS

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- Road - Proposed
- Road - Existing
- County Road
- Bureau of Land Management
- Indian Reservation
- State
- Private

Total Proposed Road Length: ±595ft

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1022-2M

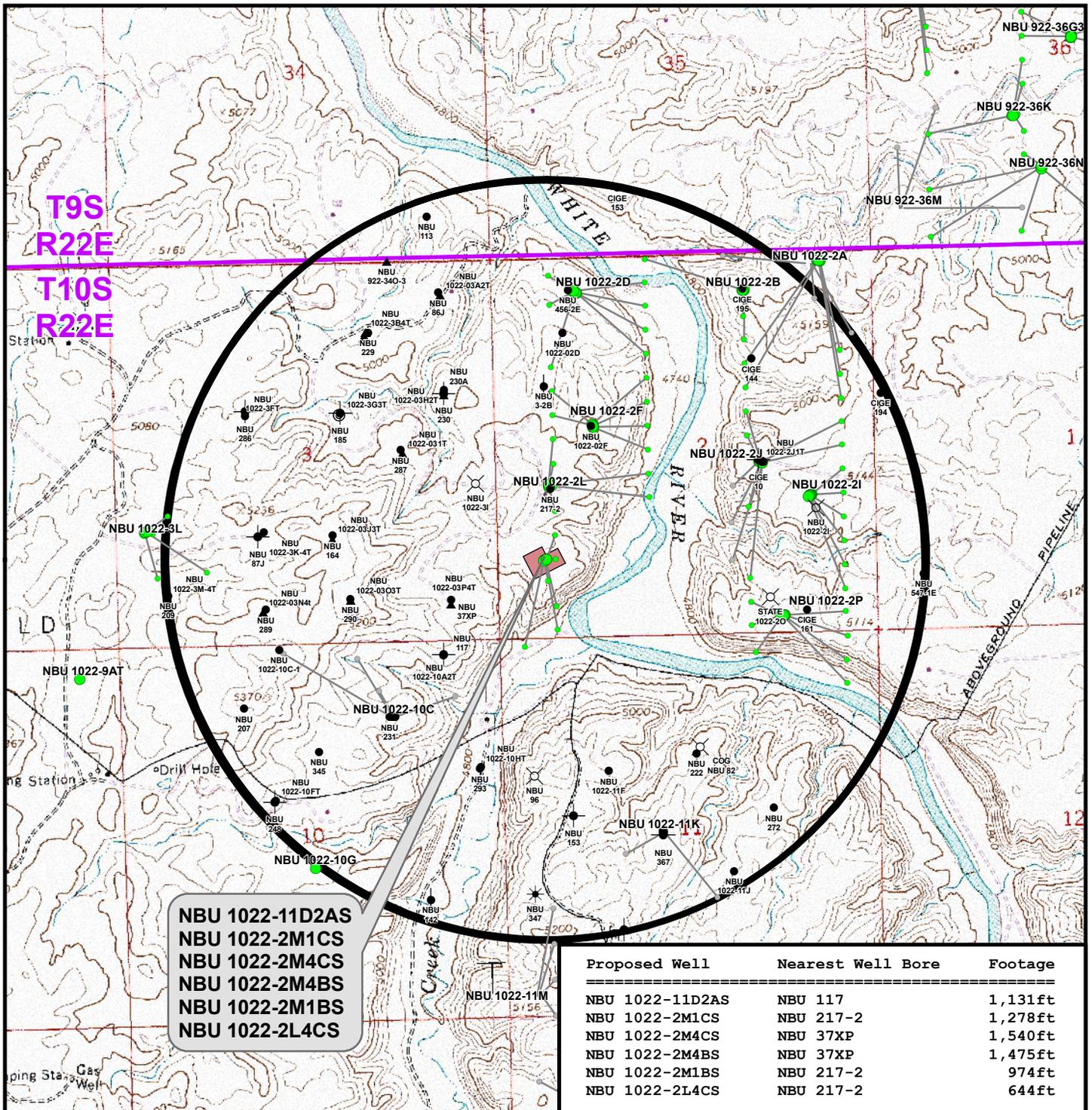
TOPO B
 NBU 1022-11D2AS, NBU 1022-2M1CS,
 NBU 1022-2M4CS, NBU 1022-2M4BS,
 NBU 1022-2M1BS & NBU 1022-2L4CS
 LOCATED IN SECTION 2, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH



CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone (307) 674-0609
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Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:	13
Drawn: TL	Date: 30 Mar 2011	13 of 18	
Revised:	Date:		



NBU 1022-11D2AS
 NBU 1022-2M1CS
 NBU 1022-2M4CS
 NBU 1022-2M4BS
 NBU 1022-2M1BS
 NBU 1022-2L4CS

Proposed Well	Nearest Well Bore	Footage
NBU 1022-11D2AS	NBU 117	1,131ft
NBU 1022-2M1CS	NBU 217-2	1,278ft
NBU 1022-2M4CS	NBU 37XP	1,540ft
NBU 1022-2M4BS	NBU 37XP	1,475ft
NBU 1022-2M1BS	NBU 217-2	974ft
NBU 1022-2L4CS	NBU 217-2	644ft

Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Well Pad
- Producing
- Temporarily-Abandoned
- Well Path
- Bottom Hole - Existing
- Well - 1 Mile Radius
- ★ Active
- Shut-In
- Spudded (Drilling commenced; Not yet completed)
- ▲ Approved permit (APD); not yet spudded
- Plugged and Abandoned
- New Permit (Not yet approved or drilled)
- ⊕ Inactive
- Location Abandoned
- ⊗ Drilling Operations Suspended
- Dry hole marker, buried
- Returned APD (Unapproved)

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

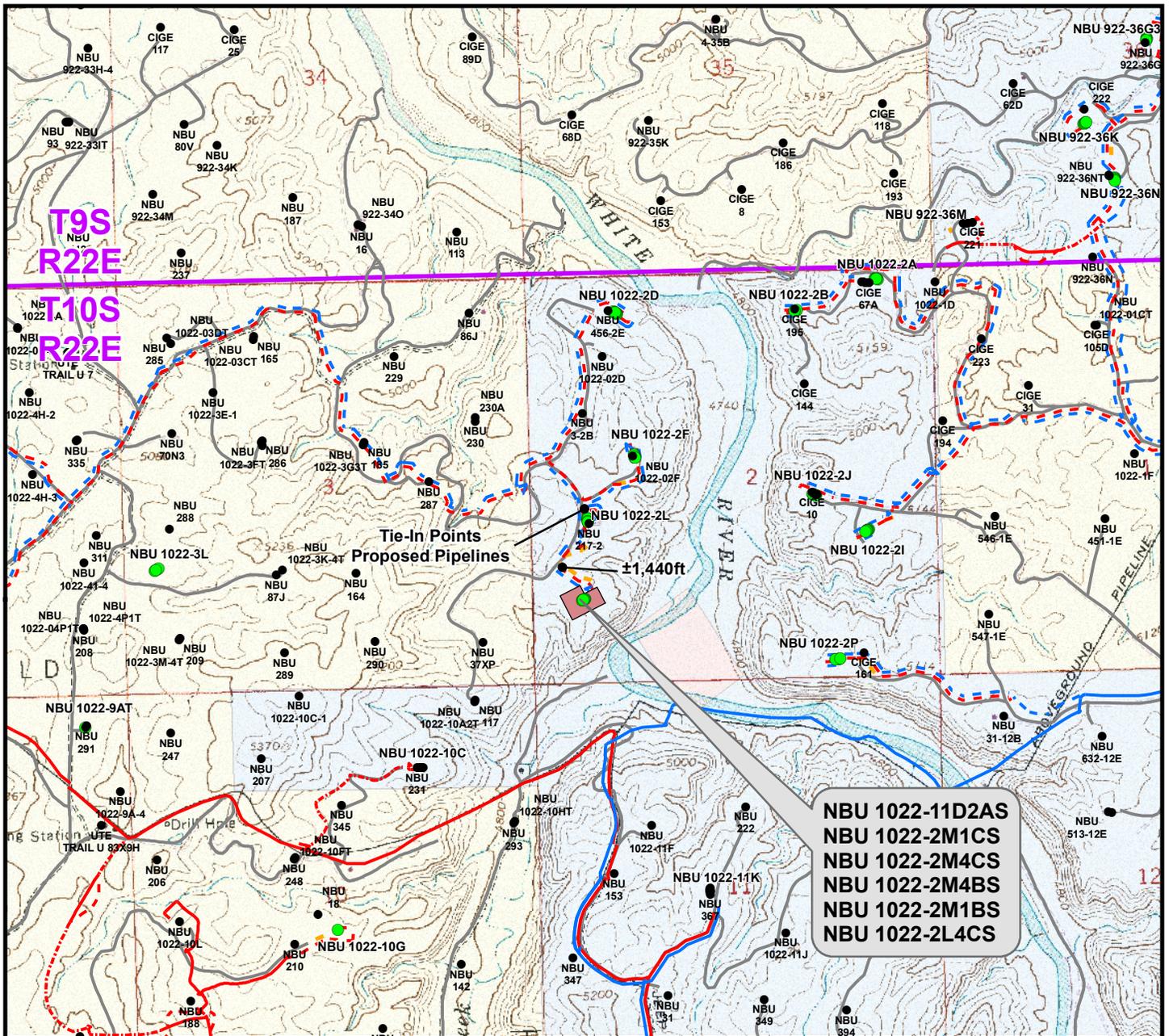
WELL PAD - NBU 1022-2M

TOPO C
 NBU 1022-11D2AS, NBU 1022-2M1CS,
 NBU 1022-2M4CS, NBU 1022-2M4BS,
 NBU 1022-2M1BS & NBU 1022-2L4CS
 LOCATED IN SECTION 2, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH

609
 CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone (307) 674-0609
 Fax (307) 674-0182



Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 14 14 of 18
Drawn: TL	Date: 30 Mar 2011	
Revised:	Date:	



Proposed Liquid Pipeline	Length	Proposed Gas Pipeline	Length
Proposed 6" (Max.) (Meter House to Edge of Pad)	±420ft	Proposed 8" (Meter House to Edge of Pad)	±420ft
Proposed 6" (Max.) (Edge of Pad to 2L Intersection)	±1,440ft	Proposed 8" (Edge of Pad to 2L Intersection)	±1,440ft
TOTAL PROPOSED LIQUID PIPELINE =	±1,860ft	TOTAL PROPOSED GAS PIPELINE =	±1,860ft

Legend

- Well - Proposed
- Well Pad
- - - Gas Pipeline - Proposed
- - - Liquid Pipeline - Proposed
- - - Road - Proposed
- Bureau of Land Management
- Well - Existing
- - - Gas Pipeline - To Be Upgraded
- - - Liquid Pipeline - Existing
- - - Road - Existing
- Indian Reservation
- - - Gas Pipeline - Existing
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1022-2M

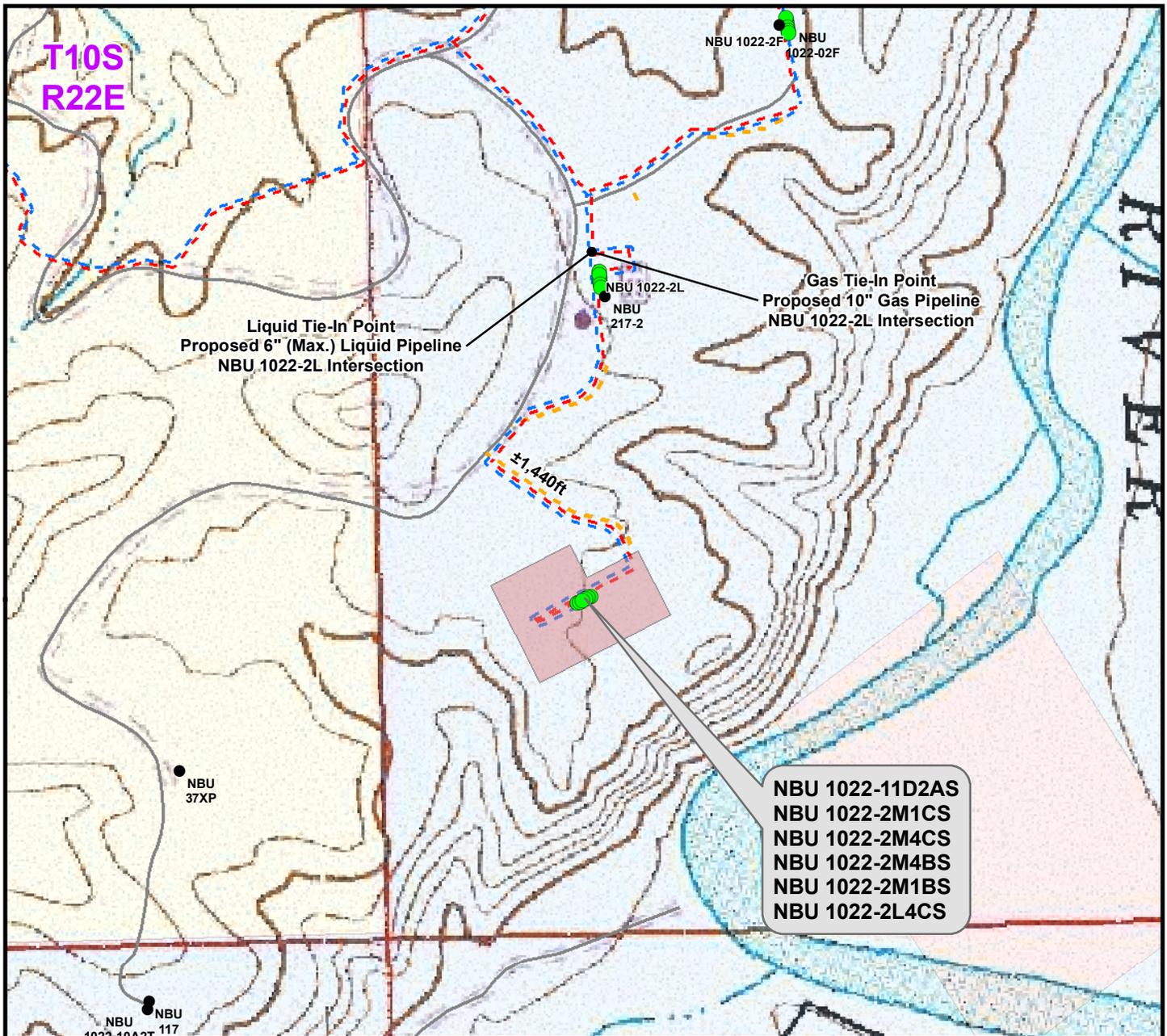
TOPO D

NBU 1022-11D2AS, NBU 1022-2M1CS,
 NBU 1022-2M4CS, NBU 1022-2M4BS,
 NBU 1022-2M1BS & NBU 1022-2L4CS
 LOCATED IN SECTION 2, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH

CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
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Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: KGS	Date: 30 Mar 2011	15
Revised:	Date:	



NBU 1022-11D2AS
 NBU 1022-2M1CS
 NBU 1022-2M4CS
 NBU 1022-2M4BS
 NBU 1022-2M1BS
 NBU 1022-2L4CS

Proposed Liquid Pipeline	Length
Proposed 6" (Max.) (Meter House to Edge of Pad)	±420ft
Proposed 6" (Max.) (Edge of Pad to 2L Intersection)	±1,440ft
TOTAL PROPOSED LIQUID PIPELINE =	±1,860ft

Proposed Gas Pipeline	Length
Proposed 8" (Meter House to Edge of Pad)	±420ft
Proposed 8" (Edge of Pad to 2L Intersection)	±1,440ft
TOTAL PROPOSED GAS PIPELINE =	±1,860ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- - - Gas Pipeline - Proposed
- - - Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- - - Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- - - Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

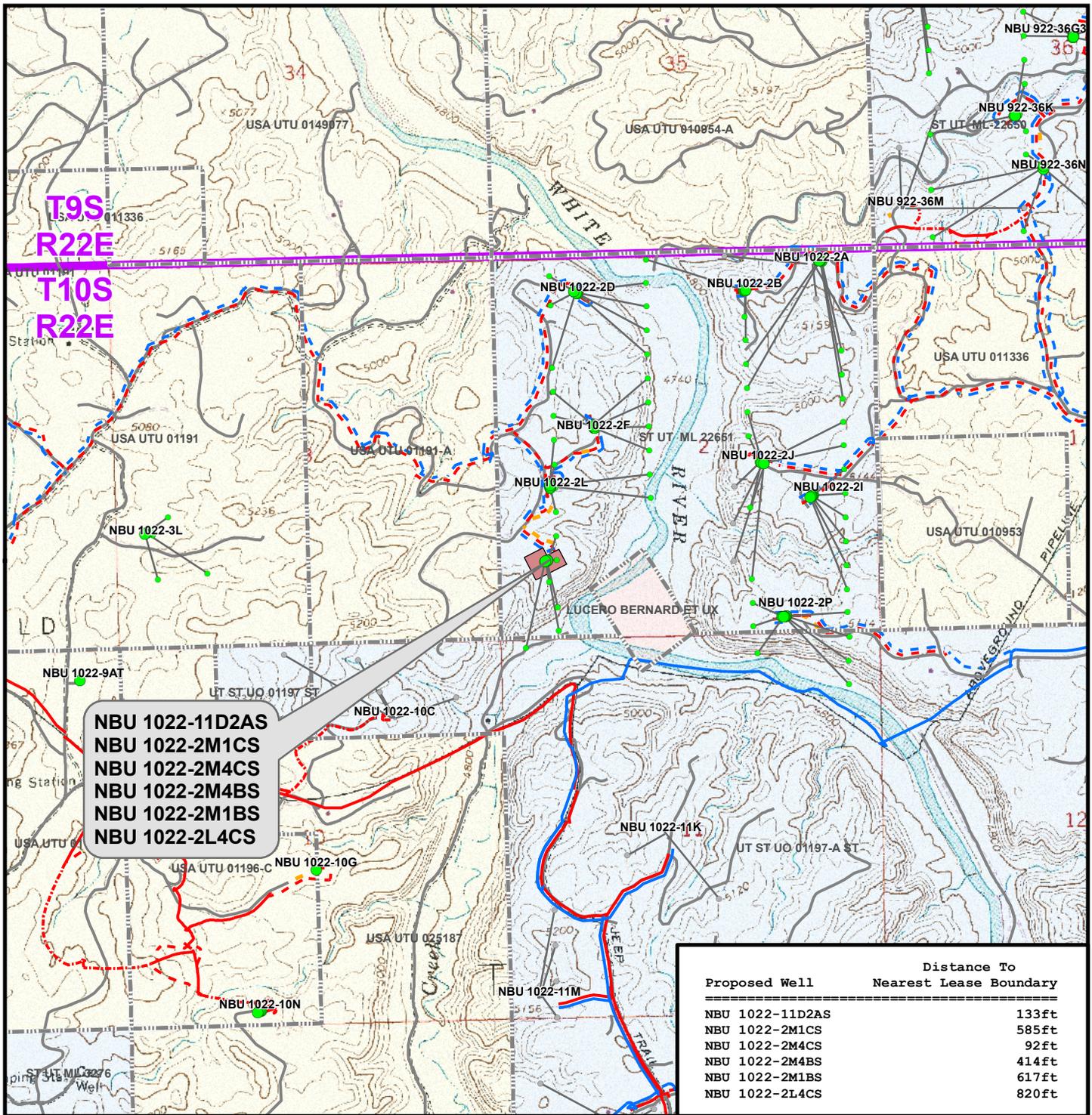
WELL PAD - NBU 1022-2M

TOPO D2 (PAD & PIPELINE DETAIL)
 NBU 1022-11D2AS, NBU 1022-2M1CS,
 NBU 1022-2M4CS, NBU 1022-2M4BS,
 NBU 1022-2M1BS & NBU 1022-2L4CS
 LOCATED IN SECTION 2, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH

609

CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone (307) 674-0609
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Scale: 1" = 500ft	NAD83 USP Central	Sheet No:
Drawn: KGS	Date: 30 Mar 2011	16
Revised:	Date:	



Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- ▭ Lease Boundary
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1022-2M

TOPO E
 NBU 1022-11D2AS, NBU 1022-2M1CS,
 NBU 1022-2M4CS, NBU 1022-2M4BS,
 NBU 1022-2M1BS & NBU 1022-2L4CS
 LOCATED IN SECTION 2, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH



CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
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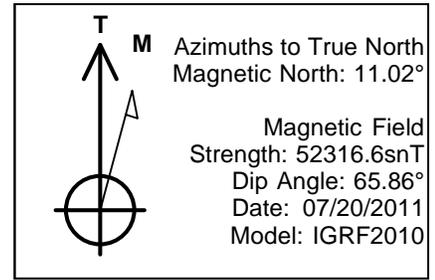


Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 30 Mar 2011	17
Revised:	Date:	

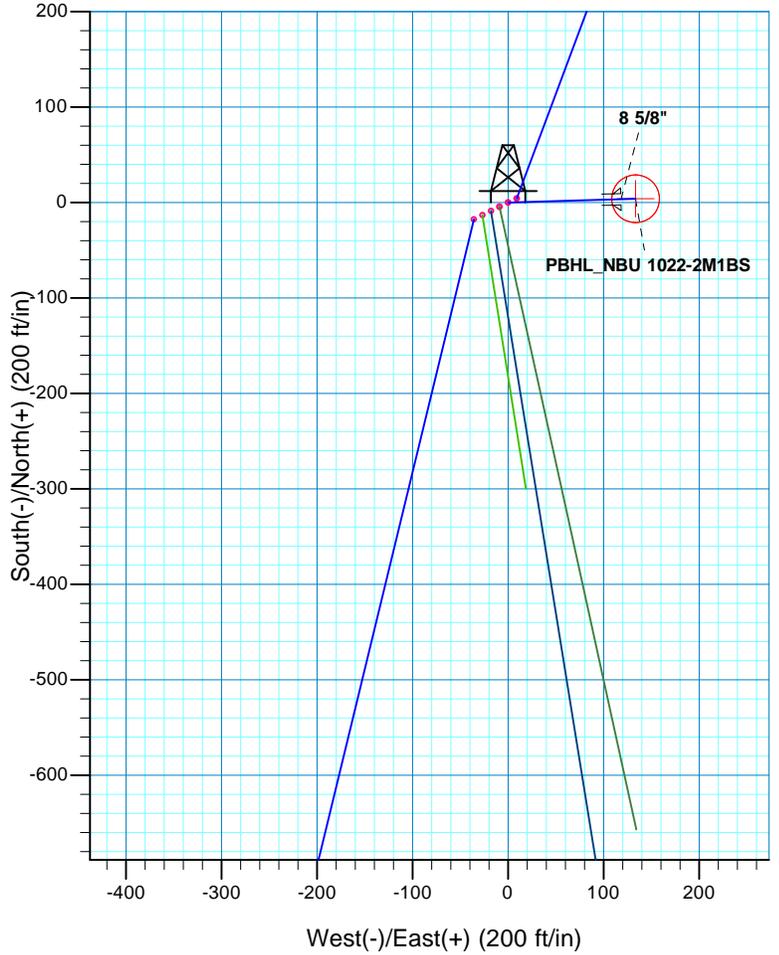
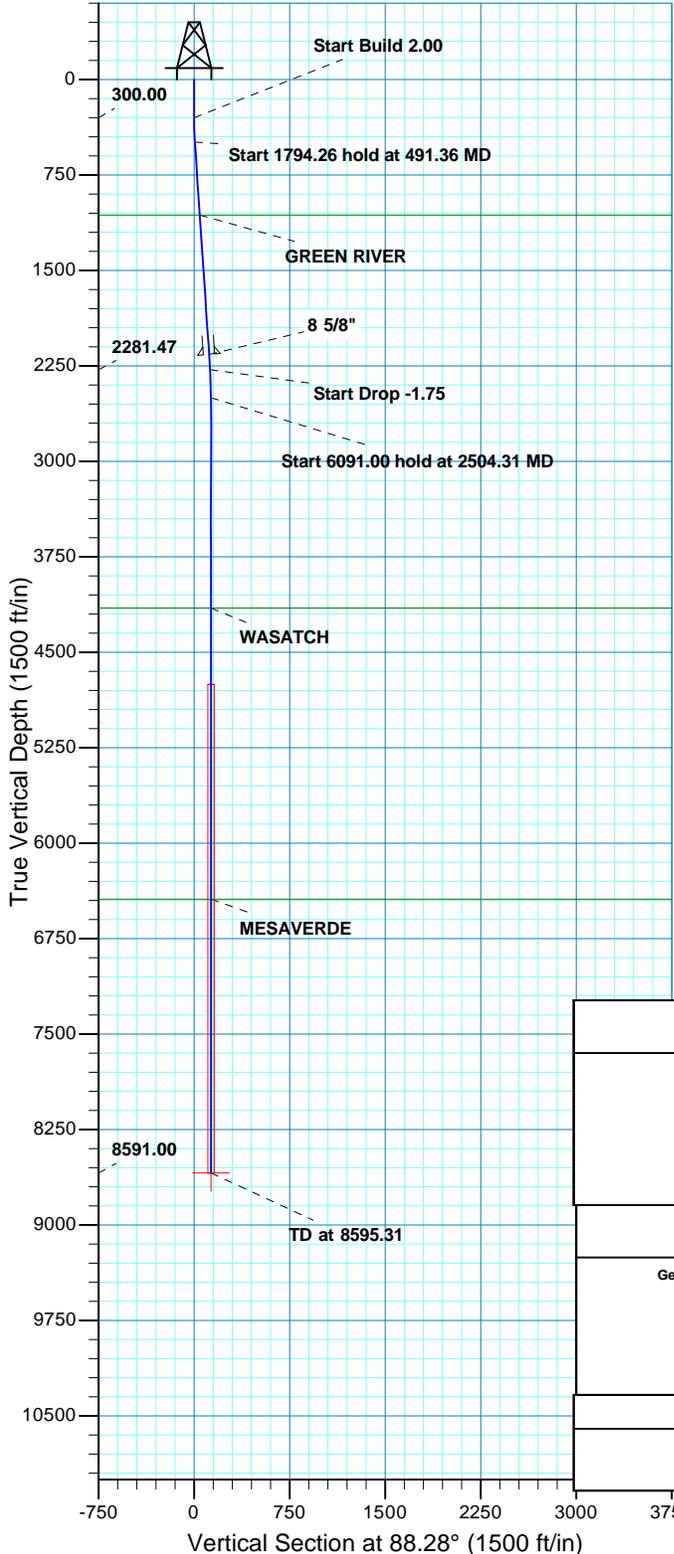
**Kerr-McGee Oil & Gas Onshore, LP
WELL PAD - NBU 1022-2M
WELLS – NBU 1022-11D2AS, NBU 1022-2M1CS,
NBU 1022-2M4CS, NBU 1022-2M4BS,
NBU 1022-2M1BS & NBU 1022-2L4CS
Section 2, T10S, R22E, S.L.B.&M.**

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 23.8 miles to the intersection of the Bitter Creek Road (County B Road 4120). Exit left and proceed in a southeasterly direction along the Bitter Creek Road approximately 3.9 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 5.1 miles to a second Class D County Road to the northeast. Exit right and proceed in a northeasterly direction along the second Class D County Road approximately 0.8 miles to a third Class D County Road to the south. Exit right and proceed in a southerly, then easterly, then south westerly direction along the third Class D County Road approximately 1.9 miles to the proposed access road. Follow road flags in a southeasterly direction approximately 595 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 59.1 miles in a southerly direction.



WELL DETAILS: NBU 1022-2M1BS									
GL 5046' & KB 4' @ 5050.00ft (ASSUMED)									
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude				
0.00	0.00	14520414.99	2084899.08	39° 58' 25.255 N	109° 24' 48.737 W				
DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
PBHL	8591.00	4.01	133.39	14520421.37	2085032.38	39° 58' 25.295 N	109° 24' 47.023 W	Circle (Radius: 25.00)	
- plan hits target center									



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
491.36	3.83	88.28	491.21	0.19	6.39	2.00	88.28	6.39	
2285.61	3.83	88.28	2281.47	3.79	126.09	0.00	0.00	126.15	
2504.31	0.00	0.00	2500.00	4.01	133.39	1.75	180.00	133.45	
8595.31	0.00	0.00	8591.00	4.01	133.39	0.00	0.00	133.45	PBHL_NBU 1022-2M1BS
PROJECT DETAILS: Uintah County, UT UTM12					FORMATION TOP DETAILS				
Geodetic System: Universal Transverse Mercator (US Survey Feet)					TVDPath				
Datum: NAD 1927 - Western US					1066.00				
Ellipsoid: Clarke 1866					4152.00				
Zone: Zone 12N (114 W to 108 W)					1067.43				
Location: SECTION 2 T10S R22E					4156.31				
System Datum: Mean Sea Level					6440.00				
					6444.31				
					FORMATION				
					GREEN RIVER				
					WASATCH				
					MESAVERDE				
CASING DETAILS									
TVD		MD		Name		Size			
2161.00		2164.87		8 5/8"		8.625			

RECEIVED



Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT UTM12
NBU 1022-2M PAD
NBU 1022-2M1BS**

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

20 July, 2011





SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-2M1BS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5046' & KB 4' @ 5050.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5046' & KB 4' @ 5050.00ft (ASSUMED)
Site:	NBU 1022-2M PAD	North Reference:	True
Well:	NBU 1022-2M1BS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Project	Uintah County, UT UTM12		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 1022-2M PAD, SECTION 2 T10S R22E				
Site Position:		Northing:	14,520,419.52 usft	Latitude:	39° 58' 25.298 N
From:	Lat/Long	Easting:	2,084,907.97 usft	Longitude:	109° 24' 48.622 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	1.02 °

Well	NBU 1022-2M1BS, 1071 FSL 686 FWL					
Well Position	+N/-S	-4.37 ft	Northing:	14,520,414.99 usft	Latitude:	39° 58' 25.255 N
	+E/-W	-8.97 ft	Easting:	2,084,899.08 usft	Longitude:	109° 24' 48.737 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,046.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	07/20/11	11.02	65.86	52,317

Design	PLAN #1 PRELIMINARY			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	88.28

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
491.36	3.83	88.28	491.21	0.19	6.39	2.00	2.00	0.00	88.28	
2,285.61	3.83	88.28	2,281.47	3.79	126.09	0.00	0.00	0.00	0.00	
2,504.31	0.00	0.00	2,500.00	4.01	133.39	1.75	-1.75	0.00	180.00	
8,595.31	0.00	0.00	8,591.00	4.01	133.39	0.00	0.00	0.00	0.00	PBHL_NBU 1022-2M



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-2M1BS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5046' & KB 4' @ 5050.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5046' & KB 4' @ 5050.00ft (ASSUMED)
Site:	NBU 1022-2M PAD	North Reference:	True
Well:	NBU 1022-2M1BS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00										
400.00	2.00	88.28	399.98	0.05	1.74	1.75	2.00	2.00	0.00	0.00
491.36	3.83	88.28	491.21	0.19	6.39	6.39	2.00	2.00	0.00	0.00
Start 1794.26 hold at 491.36 MD										
500.00	3.83	88.28	499.84	0.21	6.96	6.97	0.00	0.00	0.00	0.00
600.00	3.83	88.28	599.62	0.41	13.63	13.64	0.00	0.00	0.00	0.00
700.00	3.83	88.28	699.39	0.61	20.31	20.31	0.00	0.00	0.00	0.00
800.00	3.83	88.28	799.17	0.81	26.98	26.99	0.00	0.00	0.00	0.00
900.00	3.83	88.28	898.95	1.01	33.65	33.66	0.00	0.00	0.00	0.00
1,000.00	3.83	88.28	998.72	1.21	40.32	40.34	0.00	0.00	0.00	0.00
1,067.43	3.83	88.28	1,066.00	1.35	44.82	44.84	0.00	0.00	0.00	0.00
GREEN RIVER										
1,100.00	3.83	88.28	1,098.50	1.41	46.99	47.01	0.00	0.00	0.00	0.00
1,200.00	3.83	88.28	1,198.28	1.61	53.66	53.69	0.00	0.00	0.00	0.00
1,300.00	3.83	88.28	1,298.05	1.81	60.34	60.36	0.00	0.00	0.00	0.00
1,400.00	3.83	88.28	1,397.83	2.01	67.01	67.04	0.00	0.00	0.00	0.00
1,500.00	3.83	88.28	1,497.61	2.21	73.68	73.71	0.00	0.00	0.00	0.00
1,600.00	3.83	88.28	1,597.39	2.41	80.35	80.39	0.00	0.00	0.00	0.00
1,700.00	3.83	88.28	1,697.16	2.61	87.02	87.06	0.00	0.00	0.00	0.00
1,800.00	3.83	88.28	1,796.94	2.81	93.69	93.74	0.00	0.00	0.00	0.00
1,900.00	3.83	88.28	1,896.72	3.01	100.36	100.41	0.00	0.00	0.00	0.00
2,000.00	3.83	88.28	1,996.49	3.22	107.04	107.08	0.00	0.00	0.00	0.00
2,100.00	3.83	88.28	2,096.27	3.42	113.71	113.76	0.00	0.00	0.00	0.00
2,164.87	3.83	88.28	2,161.00	3.55	118.04	118.09	0.00	0.00	0.00	0.00
8 5/8"										
2,200.00	3.83	88.28	2,196.05	3.62	120.38	120.43	0.00	0.00	0.00	0.00
2,285.61	3.83	88.28	2,281.47	3.79	126.09	126.15	0.00	0.00	0.00	0.00
Start Drop -1.75										
2,300.00	3.58	88.28	2,295.83	3.82	127.02	127.08	1.75	-1.75	0.00	0.00
2,400.00	1.83	88.28	2,395.71	3.96	131.73	131.79	1.75	-1.75	0.00	0.00
2,500.00	0.08	88.28	2,495.69	4.01	133.39	133.45	1.75	-1.75	0.00	0.00
2,504.31	0.00	0.00	2,500.00	4.01	133.39	133.45	1.75	-1.75	0.00	0.00
Start 6091.00 hold at 2504.31 MD										
2,600.00	0.00	0.00	2,595.69	4.01	133.39	133.45	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,695.69	4.01	133.39	133.45	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,795.69	4.01	133.39	133.45	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,895.69	4.01	133.39	133.45	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	2,995.69	4.01	133.39	133.45	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,095.69	4.01	133.39	133.45	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,195.69	4.01	133.39	133.45	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,295.69	4.01	133.39	133.45	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,395.69	4.01	133.39	133.45	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,495.69	4.01	133.39	133.45	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,595.69	4.01	133.39	133.45	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,695.69	4.01	133.39	133.45	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,795.69	4.01	133.39	133.45	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,895.69	4.01	133.39	133.45	0.00	0.00	0.00	0.00



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-2M1BS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5046' & KB 4' @ 5050.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5046' & KB 4' @ 5050.00ft (ASSUMED)
Site:	NBU 1022-2M PAD	North Reference:	True
Well:	NBU 1022-2M1BS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,000.00	0.00	0.00	3,995.69	4.01	133.39	133.45	0.00	0.00	0.00	
4,100.00	0.00	0.00	4,095.69	4.01	133.39	133.45	0.00	0.00	0.00	
4,156.31	0.00	0.00	4,152.00	4.01	133.39	133.45	0.00	0.00	0.00	
WASATCH										
4,200.00	0.00	0.00	4,195.69	4.01	133.39	133.45	0.00	0.00	0.00	
4,300.00	0.00	0.00	4,295.69	4.01	133.39	133.45	0.00	0.00	0.00	
4,400.00	0.00	0.00	4,395.69	4.01	133.39	133.45	0.00	0.00	0.00	
4,500.00	0.00	0.00	4,495.69	4.01	133.39	133.45	0.00	0.00	0.00	
4,600.00	0.00	0.00	4,595.69	4.01	133.39	133.45	0.00	0.00	0.00	
4,700.00	0.00	0.00	4,695.69	4.01	133.39	133.45	0.00	0.00	0.00	
4,800.00	0.00	0.00	4,795.69	4.01	133.39	133.45	0.00	0.00	0.00	
4,900.00	0.00	0.00	4,895.69	4.01	133.39	133.45	0.00	0.00	0.00	
5,000.00	0.00	0.00	4,995.69	4.01	133.39	133.45	0.00	0.00	0.00	
5,100.00	0.00	0.00	5,095.69	4.01	133.39	133.45	0.00	0.00	0.00	
5,200.00	0.00	0.00	5,195.69	4.01	133.39	133.45	0.00	0.00	0.00	
5,300.00	0.00	0.00	5,295.69	4.01	133.39	133.45	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,395.69	4.01	133.39	133.45	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,495.69	4.01	133.39	133.45	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,595.69	4.01	133.39	133.45	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,695.69	4.01	133.39	133.45	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,795.69	4.01	133.39	133.45	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,895.69	4.01	133.39	133.45	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,995.69	4.01	133.39	133.45	0.00	0.00	0.00	
6,100.00	0.00	0.00	6,095.69	4.01	133.39	133.45	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,195.69	4.01	133.39	133.45	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,295.69	4.01	133.39	133.45	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,395.69	4.01	133.39	133.45	0.00	0.00	0.00	
6,444.31	0.00	0.00	6,440.00	4.01	133.39	133.45	0.00	0.00	0.00	
MESAVERDE										
6,500.00	0.00	0.00	6,495.69	4.01	133.39	133.45	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,595.69	4.01	133.39	133.45	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,695.69	4.01	133.39	133.45	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,795.69	4.01	133.39	133.45	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,895.69	4.01	133.39	133.45	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,995.69	4.01	133.39	133.45	0.00	0.00	0.00	
7,100.00	0.00	0.00	7,095.69	4.01	133.39	133.45	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,195.69	4.01	133.39	133.45	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,295.69	4.01	133.39	133.45	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,395.69	4.01	133.39	133.45	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,495.69	4.01	133.39	133.45	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,595.69	4.01	133.39	133.45	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,695.69	4.01	133.39	133.45	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,795.69	4.01	133.39	133.45	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,895.69	4.01	133.39	133.45	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,995.69	4.01	133.39	133.45	0.00	0.00	0.00	
8,100.00	0.00	0.00	8,095.69	4.01	133.39	133.45	0.00	0.00	0.00	
8,200.00	0.00	0.00	8,195.69	4.01	133.39	133.45	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,295.69	4.01	133.39	133.45	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,395.69	4.01	133.39	133.45	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,495.69	4.01	133.39	133.45	0.00	0.00	0.00	
8,595.31	0.00	0.00	8,591.00	4.01	133.39	133.45	0.00	0.00	0.00	
PBHL_NBU 1022-2M1BS										



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-2M1BS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5046' & KB 4' @ 5050.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 5046' & KB 4' @ 5050.00ft (ASSUMED)
Site:	NBU 1022-2M PAD	North Reference:	True
Well:	NBU 1022-2M1BS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 1022-2M1B - hit/miss target - Shape - plan hits target center - Circle (radius 25.00)	0.00	0.00	8,591.00	4.01	133.39	14,520,421.37	2,085,032.38	39° 58' 25.295 N	109° 24' 47.023 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,164.87	2,161.00	8 5/8"	8.625	11.000	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,067.43	1,066.00	GREEN RIVER			
4,156.31	4,152.00	WASATCH			
6,444.31	6,440.00	MESAVERDE			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
300.00	300.00	0.00	0.00	Start Build 2.00	
491.36	491.21	0.19	6.39	Start 1794.26 hold at 491.36 MD	
2,285.61	2,281.47	3.79	126.09	Start Drop -1.75	
2,504.31	2,500.00	4.01	133.39	Start 6091.00 hold at 2504.31 MD	
8,595.31	8,591.00	4.01	133.39	TD at 8595.31	

NBU 1022-11D2AS			
Surface:	1053 FSL / 650 FWL	SWSW	Lot 5
BHL:	133 FNL / 360 FWL	NWNW	Lot
NBU 1022-2L4CS			
Surface:	1075 FSL / 695 FWL	SWSW	Lot 5
BHL:	1406 FSL / 820 FWL	NWSW	Lot
NBU 1022-2M1BS			
Surface:	1071 FSL / 686 FWL	SWSW	Lot 5
BHL:	1075 FSL / 820 FWL	SWSW	Lot 5
NBU 1022-2M1CS			
Surface:	1057 FSL / 659 FWL	SWSW	Lot 5
BHL:	771 FSL / 704 FWL	SWSW	Lot 5
NBU 1022-2M4BS			
Surface:	1066 FSL / 677 FWL	SWSW	Lot 5
BHL:	414 FSL / 819 FWL	SWSW	Lot 5
NBU 1022-2M4CS			
Surface:	1062 FSL / 668 FWL	SWSW	Lot 5
BHL:	92 FSL / 822 FWL	SWSW	Lot 5

Pad: NBU 1022-2M PAD
Section 2 T10S R22E
Mineral Lease: ST UT ML 22651

Uintah County, Utah
Operator: Kerr-McGee Oil & Gas Onshore LP

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including but not limited to, APDs/SULAs/ROEs/ROWs and/or easements.)

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. Existing Roads:

Existing roads consist of county and improved/unimproved lease roads. KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

One new access road is proposed (see Topo Map B). The $\pm 595'$ proposed road will follow the proposed gas and liquid pipelines from the NE edge of the pad to the existing county road. Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

If there are roads that are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

During the onsite, turnouts, major cut and fills, culverts, bridges, gates, cattle guards, low water crossings, or modifications needed to existing infrastructure/facilities were determined, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

The NBU 1022-2M pad is a newly proposed well pad with no existing wells.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of the well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Gathering Facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 1,860'$ and the individual segments are broken up as follows:

- $\pm 420'$ (0.08 miles) – New 8" buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 1,440'$ (0.27 miles) – New 8" buried gas pipeline from edge of the pad to the proposed 1022-2L Intersection 10" gas pipeline. Please Topo D2 - Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 1,860'$ and the individual segments are broken up as follows:

- $\pm 420'$ (0.08 miles) – Up to 6" new buried liquid pipeline from the separator to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 1,440'$ (0.27 miles) – Up to 6" new buried liquid pipeline from the edge of the pad to the proposed 1022-2L Intersection 6" (max) liquid pipeline. Please Topo D2 - Pad and Pipeline Detail.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. Location and Type of Water Supply:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods for Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E
Ouray #1 SWD in Sec. 1 T9S R21E
NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E
NBU 921-34K SWD in Sec. 34 T9S R21E
NBU 921-33F SWD in Sec. 33 T9S R21E
NBU 921-34L SWD in Sec. 34 T9S R21E

Drill cuttings and/or fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless otherwise approved, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods (e.g. solidification.)

The reserve and/or fracture stimulation pit will be lined with a synthetic material 20 mil or thicker. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, including accidental release of fluids, or release in excess of reportable quantities, will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule. Where State wells are participatory to a Federal agreement, according to NTL-3A, the appropriate Federal agencies will be notified.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

L. Other Information:

None

M. Lessee's or Operators' Representative & Certification:

Andy Lytle
Regulatory Analyst I
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6100

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and 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 operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.



Andy Lytle

July 21, 2011

Date



Joseph D. Johnson
1099 18TH STREET STE. 1800 • DENVER, CO 80202
720-929-6708 • FAX 720-929-7708
E-MAIL: JOE.JOHNSON@ANADARKO.COM

July 21, 2011

Ms. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 1022-2M1BS
T10S-R22E
Section 2: SWSW
Surface: 1071' FSL, 686' FWL
T10S-R22E
Section 2: SWSW
Bottom Hole: 1075' FSL, 820' FWL
Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 1022-2M1BS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

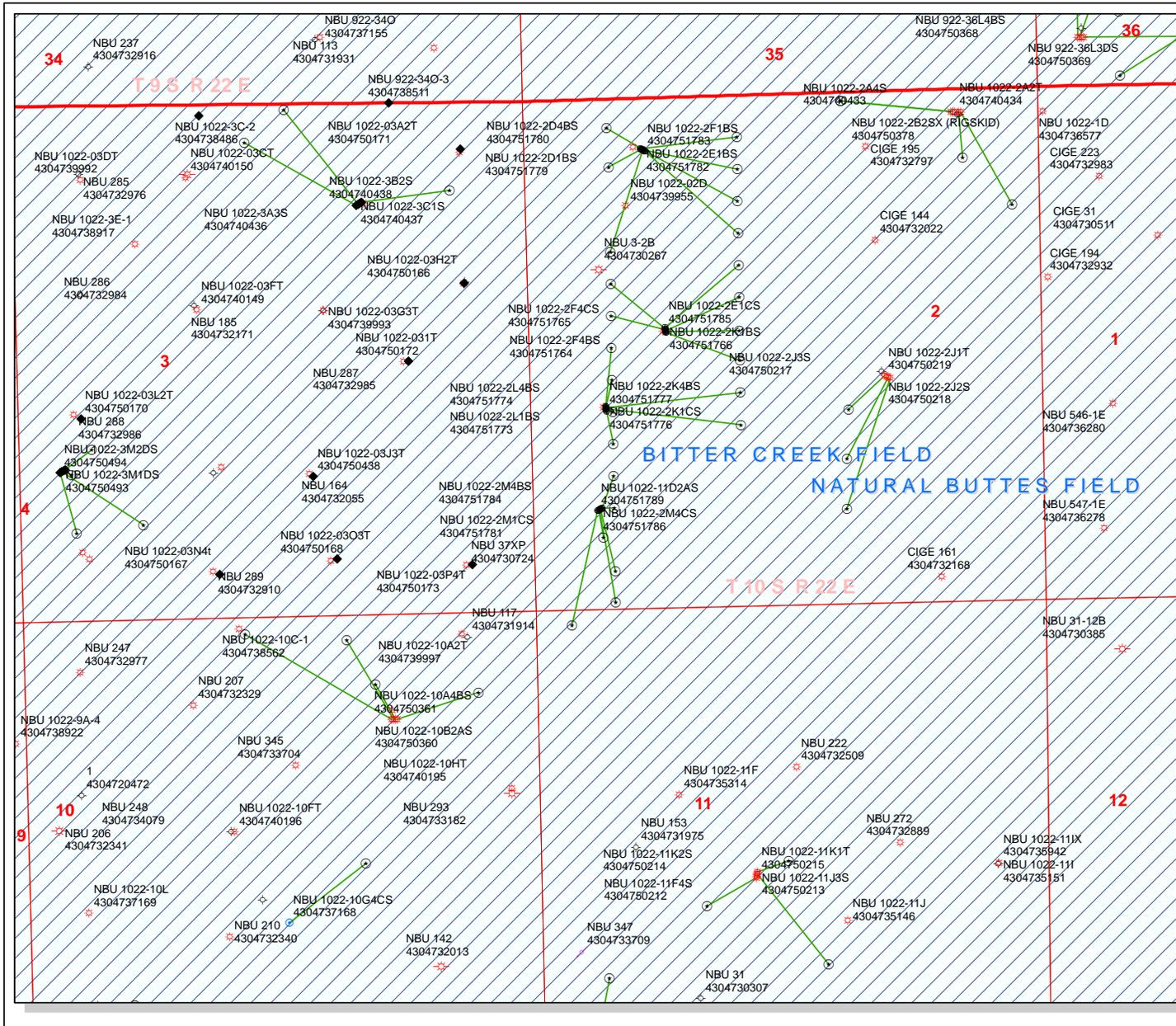
Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

A handwritten signature in blue ink, appearing to read 'Joe D. Johnson', with a horizontal line underneath.

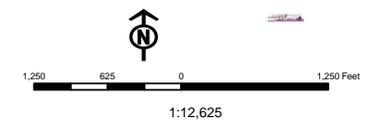
Joseph D. Johnson
Landman



API Number: 4304751778
Well Name: NBU 1022-2M1BS
 Township T1.0 . Range R2.2 . Section 02
 Meridian: SLBM
 Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
 Map Produced by Diana Mason

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



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:

3160

(UT-922)

August 5, 2011

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2011 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2011 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
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(Proposed PZ WASATCH-MESA VERDE)

NBU 1022-2F PAD

43-047-51760	NBU 1022-E4BS	Sec 02 T10S R22E 2386 FNL 1379 FWL
	BHL	Sec 02 T10S R22E 2231 FNL 0822 FWL

43-047-51761	NBU 1022-2F1CS	Sec 02 T10S R22E 2366 FNL 1376 FWL
	BHL	Sec 02 T10S R22E 1738 FNL 2145 FWL

43-047-51764	NBU 1022-2F4BS	Sec 02 T10S R22E 2395 FNL 1381 FWL
	BHL	Sec 02 T10S R22E 2069 FNL 2144 FWL

43-047-51765	NBU 1022-2F4CS	Sec 02 T10S R22E 2405 FNL 1382 FWL
	BHL	Sec 02 T10S R22E 2412 FNL 2141 FWL

43-047-51766	NBU 1022-2K1BS	Sec 02 T10S R22E 2415 FNL 1384 FWL
	BHL	Sec 02 T10S R22E 2566 FSL 2142 FWL

43-047-51785	NBU 1022-2E1CS	Sec 02 T10S R22E 2376 FNL 1377 FWL
	BHL	Sec 02 T10S R22E 1900 FNL 0823 FWL

NBU 1022-2D PAD

43-047-51767	NBU 1022-2C4BS	Sec 02 T10S R22E 0526 FNL 1185 FWL
	BHL	Sec 02 T10S R22E 0745 FNL 2148 FWL

43-047-51768	NBU 1022-2C4CS	Sec 02 T10S R22E 0537 FNL 1202 FWL
	BHL	Sec 02 T10S R22E 1076 FNL 2147 FWL

43-047-51779	NBU 1022-2D1BS	Sec 02 T10S R22E 0503 FNL 1152 FWL
	BHL	Sec 02 T10S R22E 0291 FNL 0807 FWL

RECEIVED: August 08, 2011

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-51780	NBU 1022-2D4BS	Sec 02 T10S R22E 0514 FNL 1168 FWL
	BHL	Sec 02 T10S R22E 0692 FNL 0820 FWL
43-047-51782	NBU 1022-2E1BS	Sec 02 T10S R22E 0520 FNL 1177 FWL
	BHL	Sec 02 T10S R22E 1569 FNL 0823 FWL
43-047-51783	NBU 1022-2F1BS	Sec 02 T10S R22E 0531 FNL 1193 FWL
	BHL	Sec 02 T10S R22E 1407 FNL 2146 FWL
NBU 1022-2L PAD		
43-047-51771	NBU 1022-2E4CS	Sec 02 T10S R22E 2127 FSL 0750 FWL
	BHL	Sec 02 T10S R22E 2561 FNL 0822 FWL
43-047-51772	NBU 1022-2L1CS	Sec 02 T10S R22E 2087 FSL 0753 FWL
	BHL	Sec 02 T10S R22E 2067 FSL 0821 FWL
43-047-51773	NBU 1022-2L1BS	Sec 02 T10S R22E 2117 FSL 0751 FWL
	BHL	Sec 02 T10S R22E 2398 FSL 0822 FWL
43-047-51774	NBU 1022-2L4BS	Sec 02 T10S R22E 2077 FSL 0754 FWL
	BHL	Sec 02 T10S R22E 1736 FSL 0821 FWL
43-047-51776	NBU 1022-2K1CS	Sec 02 T10S R22E 2107 FSL 0752 FWL
	BHL	Sec 02 T10S R22E 2235 FSL 2141 FWL
43-047-51777	NBU 1022-2K4BS	Sec 02 T10S R22E 2097 FSL 0752 FWL
	BHL	Sec 02 T10S R22E 1904 FSL 2140 FWL
NBU 1022-2M PAD		
43-047-51775	NBU 1022-2L4CS	Sec 02 T10S R22E 1075 FSL 0695 FWL
	BHL	Sec 02 T10S R22E 1406 FSL 0820 FWL
43-047-51778	NBU 1022-2M1BS	Sec 02 T10S R22E 1071 FSL 0686 FWL
	BHL	Sec 02 T10S R22E 1075 FSL 0820 FWL
43-047-51781	NBU 1022-2M1CS	Sec 02 T10S R22E 1057 FSL 0659 FWL
	BHL	Sec 02 T10S R22E 0771 FSL 0704 FWL
43-047-51784	NBU 1022-2M4BS	Sec 02 T10S R22E 1066 FSL 0677 FWL
	BHL	Sec 02 T10S R22E 0414 FSL 0819 FWL
43-047-51786	NBU 1022-2M4CS	Sec 02 T10S R22E 1062 FSL 0668 FWL
	BHL	Sec 02 T10S R22E 0092 FSL 0822 FWL
43-047-51789	NBU 1022-11D2AS	Sec 02 T10S R22E 1053 FSL 0650 FWL
	BHL	Sec 11 T10S R22E 0133 FNL 0360 FWL

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

Michael L. Coulthard

Digitally signed by Michael L. Coulthard
 DN: cn=Michael L. Coulthard, o=Bureau of Land Management,
 ou=Branch of Minerals, email=Michael_Coulthard@blm.gov,
 c=US
 Date: 2011.08.08 08:31:52 -06'00'

RECEIVED: August 08, 2011

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

MCoulthard:mc:8-5-11

From: Jim Davis
To: Hill, Brad; Mason, Diana
CC: Bonner, Ed; Garrison, LaVonne; Lytle, Andy
Date: 9/26/2011 5:08 PM
Subject: Anadarko APD approvals 10S 22E Sec 2, 11 and 14
Attachments: Anadarko Approvals from SITLA 9.26.11.xls

The following APDs have been approved by SITLA including arch clearance and paleo clearance:

4304751840 NBU 1022-11P4CS
4304751860 NBU 1022-12M1CS
4304751868 NBU 1022-12M4BS
4304751870 NBU 1022-12M4CS
4304751803 NBU 1022-2G1CS
4304751807 NBU 1022-2G1BS
4304751808 NBU 1022-2H1BS
4304751812 NBU 1022-2H1CS
4304751825 NBU 1022-2H4BS
4304751811 NBU 1022-2B1CS
4304751827 NBU 1022-2B4CS
4304751828 NBU 1022-2B4BS
4304751830 NBU 1022-2C1BS
4304751809 NBU 1022-2I4CS
4304751810 NBU 1022-2P1BS
4304751824 NBU 1022-2I1CS
4304751829 NBU 1022-2I4BS
4304751838 NBU 1022-2P4BS
4304751852 NBU 1022-2P1CS
4304751839 NBU 1022-2P4CS
4304751841 NBU 1022-11B1BS
4304751842 NBU 1022-11A1BS
4304751846 NBU 1022-2O4CS
4304751848 NBU 1022-11A4BS
4304751849 NBU 1022-2O4BS
4304751850 NBU 1022-11A1CS

These APDS are approved including arch clearance but will require **spot paleo monitoring** as recommended in the applicable paleo reports:

4304751758 NBU 1022-2C1CS
4304751767 NBU 1022-2C4BS
4304751768 NBU 1022-2C4CS
4304751779 NBU 1022-2D1BS
4304751780 NBU 1022-2D4BS
4304751782 NBU 1022-2E1BS
4304751783 NBU 1022-2F1BS
4304751760 NBU 1022-2E4BS
4304751761 NBU 1022-2F1CS
4304751764 NBU 1022-2F4BS
4304751765 NBU 1022-2F4CS
4304751766 NBU 1022-2K1BS
4304751785 NBU 1022-2E1CS
4304751775 NBU 1022-2L4CS
4304751778 NBU 1022-2M1BS
4304751781 NBU 1022-2M1CS
4304751784 NBU 1022-2M4BS
4304751786 NBU 1022-2M4CS
4304751789 NBU 1022-11D2AS

4304751802 NBU 1022-11B4CS
4304751813 NBU 1022-11B4BS
4304751815 NBU 1022-11B1CS
4304751817 NBU 1022-11C4AS
4304751818 NBU 1022-11C4CS
4304751855 NBU 1022-11F4AS
4304751805 NBU 1022-11A4CS
4304751814 NBU 1022-11H1BS
4304751822 NBU 1022-11G4CS
4304751823 NBU 1022-11G1BS
4304751837 NBU 1022-11G1CS
4304751853 NBU 1022-11G4BS
4304751834 NBU 1022-11I1CS
4304751835 NBU 1022-12L1CS
4304751857 NBU 1022-11H4BS
4304751858 NBU 1022-11H4CS
4304751861 NBU 1022-12L1BS
4304751863 NBU 1022-11H1CS
4304751866 NBU 1022-11I4BS
4304751871 NBU 1022-11I4CS
4304751872 NBU 1022-12L4BS
4304751873 NBU 1022-12L4CS
4304751816 NBU 1022-11K4BS
4304751843 NBU 1022-11J1CS
4304751851 NBU 1022-11J1BS
4304751859 NBU 1022-11K4CS
4304751862 NBU 1022-11N1BS
4304751864 NBU 1022-11N1CS
4304751865 NBU 1022-11N4BS
4304751867 NBU 1022-11N4CS
4304751869 NBU 1022-11O2AS

These APDS are approved including arch clearance but will require **full paleo monitoring** as recommended in the applicable paleo reports:

4304751771 NBU 1022-2E4CS
4304751772 NBU 1022-2L1CS
4304751773 NBU 1022-2L1BS
4304751774 NBU 1022-2L4BS
4304751776 NBU 1022-2K1CS
4304751777 NBU 1022-2K4BS
4304751819 NBU 1022-2G4CS
4304751820 NBU 1022-2H4CS
4304751844 NBU 1022-2J4BS
4304751845 NBU 1022-2O1CS
4304751847 NBU 1022-2I1BS
4304751854 NBU 1022-2G4BS
4304751797 NBU 1022-11C2CS
4304751799 NBU 1022-11C3DS
4304751800 NBU 1022-11D1CS
4304751801 NBU 1022-11F2DS
4304751821 NBU 1022-11O1CS
4304751831 NBU 1022-11O4CS
4304751832 NBU 1022-11P1BS
4304751833 NBU 1022-11P4BS
4304751836 NBU 1022-12M1BS
4304751856 NBU 1022-11O4BS

That's a big enough list that I'm including a simple spreadsheet that has this same information, but organized in such a way as may be more useful to some of you.

Thanks.

-Jim

Jim Davis
Utah Trust Lands Administration
jimdavis1@utah.gov
Phone: (801) 538-5156

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1022-2M1BS			
String	SURF	PROD		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2156	8591		
Previous Shoe Setting Depth (TVD)	40	2156		
Max Mud Weight (ppg)	8.3	12.5		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	7780		
Operators Max Anticipated Pressure (psi)	5498	12.3		

Calculations	SURF String	8.625	"
Max BHP (psi)	.052*Setting Depth*MW=	931	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	672	NO <input type="checkbox"/> air drill
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	457	YES <input type="checkbox"/> OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	465	NO <input type="checkbox"/> Reasonable for area
Required Casing/BOPE Test Pressure=		2156	psi
*Max Pressure Allowed @ Previous Casing Shoe=		40	psi *Assumes 1psi/ft frac gradient

Calculations	PROD String	4.500	"
Max BHP (psi)	.052*Setting Depth*MW=	5584	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4553	YES <input type="checkbox"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3694	YES <input type="checkbox"/> OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	4168	NO <input type="checkbox"/> Reasonable
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2156	psi *Assumes 1psi/ft frac gradient

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

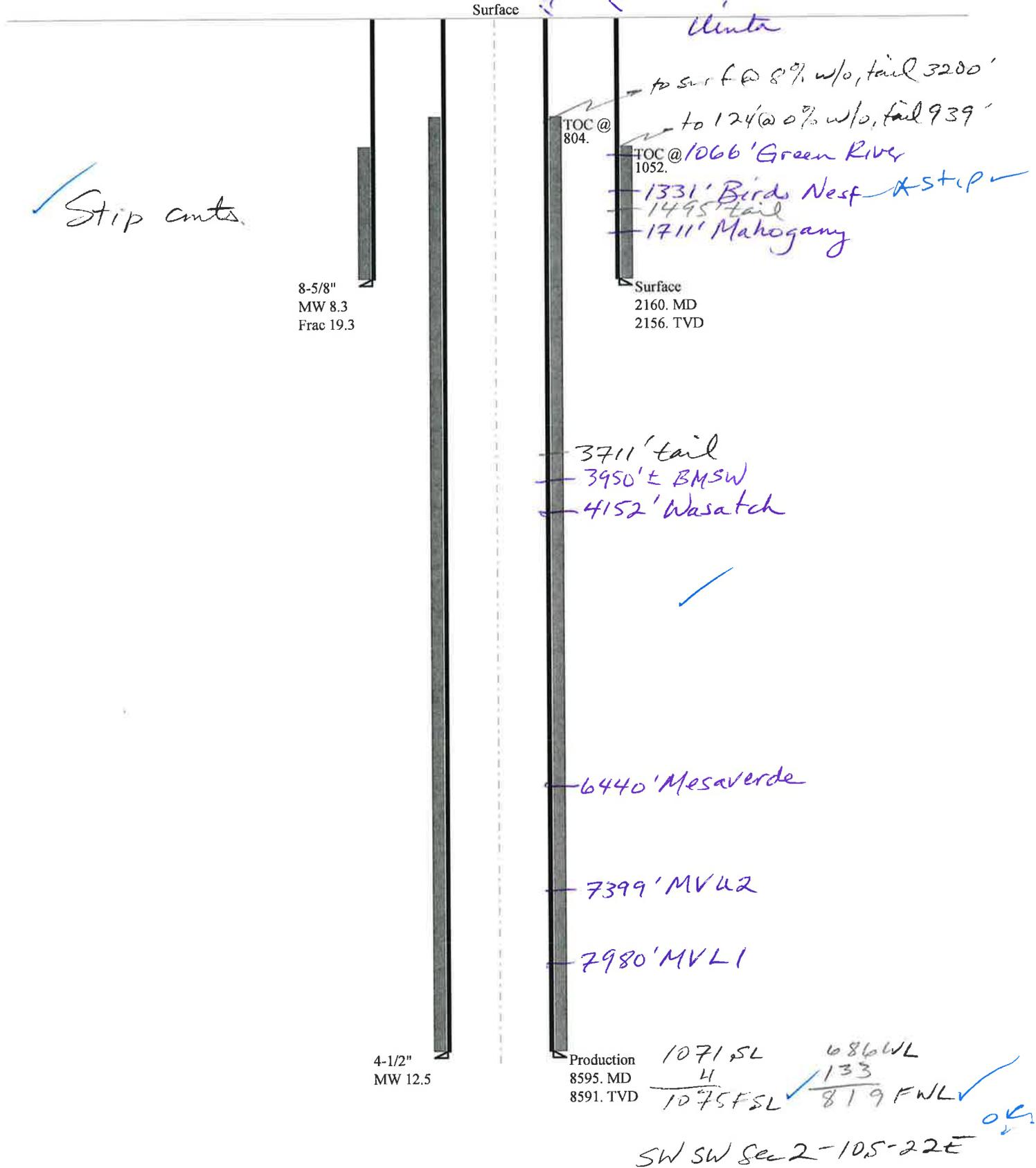
Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO <input type="checkbox"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO <input type="checkbox"/>
			*Can Full Expected Pressure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

API Well Number: 43047517780000

*Max Pressure Allowed @ Previous Casing Shoe=	<input type="text"/>	psi *Assumes 1psi/ft frac gradient
-----------------------------------------------	----------------------	------------------------------------

43047517780000 NBU 1022-2M1BS

Casing Schematic



Well name:	43047517780000 NBU 1022-2M1BS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Surface	Project ID:	43-047-51778
Location:	UINTAH COUNTY		

Design parameters:

Collapse

Mud weight: 8.330 ppg
 Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 104 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft
 Cement top: 1,052 ft

Burst

Max anticipated surface pressure: 1,901 psi
 Internal gradient: 0.120 psi/ft
 Calculated BHP 2,160 psi

No backup mud specified.

Tension:

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

Tension is based on air weight.
 Neutral point: 1,895 ft

Directional Info - Build & Drop

Kick-off point 300 ft
 Departure at shoe: 118 ft
 Maximum dogleg: 2 °/100ft
 Inclination at shoe: 3.83 °

Re subsequent strings:

Next setting depth: 8,591 ft
 Next mud weight: 12.500 ppg
 Next setting BHP: 5,578 psi
 Fracture mud wt: 19.250 ppg
 Fracture depth: 2,160 ft
 Injection pressure: 2,160 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2160	8.625	28.00	I-55	LT&C	2156	2160	7.892	85536
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	933	1880	2.015	2160	3390	1.57	60.4	348	5.76 J

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

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

Date: August 23, 2011
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2156 ft, a mud weight of 8.33 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:	43047517780000 NBU 1022-2M1BS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Production	Project ID:	43-047-51778
Location:	UINTAH COUNTY		

Design parameters:

Collapse

Mud weight: 12.500 ppg
 Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 194 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft
 Cement top: 804 ft

Burst

Max anticipated surface pressure: 3,688 psi
 Internal gradient: 0.220 psi/ft
 Calculated BHP 5,578 psi

No backup mud specified.

Tension:

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

Tension is based on air weight.
 Neutral point: 6,990 ft

Directional Info - Build & Drop

Kick-off point 300 ft
 Departure at shoe: 133 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)	Est. Cost (\$)
1	8595	4.5	11.60	I-80	LT&C	8591	8595	3.875	113454
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	5578	6360	1.140	5578	7780	1.39	99.7	212	2.13 J

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

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

Date: August 23, 2011
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8591 ft, a mud weight of 12.5 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

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.
Well Name NBU 1022-2M1BS
API Number 43047517780000 **APD No** 4311 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 SWSW **Sec 2 Tw** 10.0S **Rng** 22.0E 1071 FSL 686 FWL
GPS Coord (UTM) 635475 4425828 **Surface Owner**

Participants

Andy Lytle, Sheila Wopsock, Charles Chase, Grizz Oleen, Mark Kuehn, Doyle Holmes, (Kerr McGee). John Slaugh, Mitch Batty, (Timberline). Jim Davis (SITLA). David Hackford, (DOGM).

Regional/Local Setting & Topography

The general area is in the southeast portion of the Natural Buttes Unit on the northeast end of a major drainage divide called Archy Bench. Within this area is the White River and rugged drainages that drain into it. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is approx. 1100 feet to the southeast. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 41 air miles to the northwest. Access from Vernal is approximately 59.1 road miles following Utah State, Uintah County and oilfield development roads. Five wells, in addition to this one (for a total of six) will be directionally drilled from this pad. This proposed location will be a new pad. A 595 foot access road will be constructed. The proposed location will run in an east-west direction along the top of a flat topped ridge. This ridge breaks off sharply into rugged secondary canyons especially on the south and west sides. A shallow draw coming to this site from the north will be re-routed around the location. The reserve pit will be on the north side of the location and the excess cut stockpile will be on the east and north sides of the location. The east half of the location will be compacted fill. The pad should be stable and should be a suitable location for six wells, and is on the best site available in the immediate area.

Surface Use Plan

Current Surface Use
Wildlfe Habitat

New Road Miles	Well Pad	Src Const Material	Surface Formation
0.09	Width 352 Length 425	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Prickly pear, wild onion, shadscale, mat saltbrush, Indian ricegrass, halogeton, pepper grass, annuals and curly Vegetation is a salt desert shrub type. Principal species present are cheatgrass, black sagebrush, stipa, mesquite grass.

Sheep, antelope, raptors and small mammals and birds.

Soil Type and Characteristics

Shallow rocky sandy loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues Y

East side of location will be fill and it shall be compacted during location construction.

Drainage Diverson Required? Y

Shallow draw coming onto location from the north shall be re-routed around location.

Berm Required? N

Erosion Sedimentation Control Required? N

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

Reserve Pit

Site-Specific Factors

Site Ranking

Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	40	1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut on the north side of the location. Dimensions are 120' x 245' x 12' deep with 2' of freeboard. Kerr McGee agreed to line the pit with a 30-mil liner and 2 layers of felt.

Closed Loop Mud Required? N **Liner Required?** Y **Liner Thickness** 30 **Pit Underlayment Required?** Y

Other Observations / Comments

Of the six wells being drilled from this pad, one will have a well bore that leave section two and produces from section eleven to the south. This well is the NBU 1022-11D2AS.

David Hackford
Evaluator

8/18/2011
Date / Time

Application for Permit to Drill Statement of Basis

9/27/2011

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
4311	43047517780000	LOCKED	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		Surface Owner-APD		
Well Name	NBU 1022-2M1BS		Unit	NATURAL BUTTES	
Field	NATURAL BUTTES		Type of Work	DRILL	
Location	SWSW 2 10S 22E S 1071 FSL 686 FWL GPS Coord (UTM)			635480E	4425823N

Geologic Statement of Basis

Kerr McGee proposes to set 2,160' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 3,950'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 2. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought up above the base of the moderately saline ground water to isolate it from fresher waters uphole.

Brad Hill
APD Evaluator

9/21/2001
Date / Time

Surface Statement of Basis

The general area is in the southeast portion of the Natural Buttes Unit on the northeast end of a major drainage divide called Archy Bench. Within this area is the White River and rugged drainages that drain into it. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is 1100' to the southwest. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 41 air miles to the northwest. Access from Vernal is approximately 59.1 road miles following Utah State, Uintah County and oilfield development roads. A 595' access road will be constructed.

Six wells will be directionally drilled from this location. They are the NBU 1022-11D2AS, NBU 1022-2M1CS, NBU 1022-2M4CS, NBU 1022-2M4BS, NBU 1022-2M1BS, and the NBU 1022-2L4CS. The proposed location is on a flat topped ridge that runs in an east-west direction. This ridge breaks off sharply into rugged secondary canyons especially to the south and west sides. A shallow drainage enters the proposed site from the north and will be re-routed around the location.. The pad as constructed should be stable and sufficient for six wells, and is the best site in the immediate area.

Excess material will be stockpiled on the east and north sides of the location. The east side of location will be fill and will be compacted during construction.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA and Ben Williams with DWR were invited by email to the pre-site evaluation. Jim Davis was present. Kerr McGee was told to consult with SITLA for reclamation standards including seeding mixes to be used.

David Hackford
Onsite Evaluator

8/18/2011
Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
-----------------	------------------

RECEIVED: September 27, 2011

Application for Permit to Drill Statement of Basis

9/27/2011

Utah Division of Oil, Gas and Mining

Page 2

Pits	A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the north side of the location.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 8/1/2011

API NO. ASSIGNED: 43047517780000

WELL NAME: NBU 1022-2M1BS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)

PHONE NUMBER: 720 929-6100

CONTACT: Andy Lytle

PROPOSED LOCATION: SWSW 02 100S 220E

Permit Tech Review:

SURFACE: 1071 FSL 0686 FWL

Engineering Review:

BOTTOM: 1075 FSL 0820 FWL

Geology Review:

COUNTY: UINTAH

LATITUDE: 39.97360

LONGITUDE: -109.41352

UTM SURF EASTINGS: 635480.00

NORTHINGS: 4425823.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ST UT ML 22651

PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 3 - State

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: STATE - 22013542
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: 43-8496
- RDCC Review:
- Fee Surface Agreement
- Intent to Commingle

Commingling Approved

LOCATION AND SITING:

- R649-2-3.
- Unit:** NATURAL BUTTES
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No:** Cause 173-14
- Effective Date:** 12/2/1999
- Siting:** 460' Fr U Bdry & Uncommitted Tracts
- R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations:
 3 - Commingling - ddoucet
 5 - Statement of Basis - bhill
 15 - Directional - dmason
 17 - Oil Shale 190-5(b) - dmason
 25 - Surface Casing - hmadonald



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 1022-2M1BS
API Well Number: 43047517780000
Lease Number: ST UT ML 22651
Surface Owner: STATE
Approval Date: 9/27/2011

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

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 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE 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

Commingle:

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

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:

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.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

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

Surface casing shall be cemented to the surface.

Additional Approvals:

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

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

Notification Requirements:

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

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

Contact Information:

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

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

Reporting Requirements:

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

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

Approved By:



For John Rogers
Associate Director, Oil & Gas

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: ST UT ML 22651
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1022-2M1BS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1071 FSL 0686 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 02 Township: 10.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047517780000
PHONE NUMBER: 720 929-6511		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 4/11/2012	<input type="checkbox"/> CASING REPAIR	
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> CONVERT WELL TYPE	
	<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"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU TRIPPLE A BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL ON 04/11/2012 AT 1030 HRS.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY April 18, 2012		
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 4/12/2012	

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
 Submitted By JAIME SCHARNOWSKE Phone Number 720.929.6304
 Well Name/Number NBU 1022-2M1BS
 Qtr/Qtr SWSW Section 2 Township 10S Range 22E
 Lease Serial Number ST UT ML 22651
 API Number 4304751778

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 04/11/2012 14:00 HRS AM PM

Casing – Please report time casing run starts, not cementing times.

- Surface Casing
 Intermediate Casing
 Production Casing
 Liner
 Other

RECEIVED

APR 10 2012

DIV. OF OIL, GAS & MINING

Date/Time 04/26/2012 08:00 HRS AM PM

BOPE

- Initial BOPE test at surface casing point
 BOPE test at intermediate casing point
 30 day BOPE test
 Other

Date/Time _____ AM PM

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT

435.828.0986 OR LOVEL YOUNG AT 435.781.7051

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
 Submitted By JAIME SCHARNOWSKE Phone Number 720.929.6304
 Well Name/Number NBU 1022-2M1BS
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RECEIVED

APR 10 2012

DIV. OF OIL, GAS & MINING

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 Other

Date/Time _____ AM PM

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT

435.828.0986 OR LOVEL YOUNG AT 435.781.7051

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: ST UT ML 22651	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES	
8. WELL NAME and NUMBER: NBU 1022-2M1BS	
9. API NUMBER: 43047517780000	
9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
COUNTY: UINTAH	
STATE: UTAH	

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 Gas Well	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1071 FSL 0686 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 02 Township: 10.0S Range: 22.0E Meridian: S	

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 4/21/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

MIRU AIR RIG ON APRIL 20, 2012. DRILLED SURFACE HOLE TO 2298'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.

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

FOR RECORD ONLY

April 27, 2012

NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 4/24/2012	

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

FORM 6

ENTITY ACTION FORM

Operator: KERR MCGEE OIL & GAS ONSHORE LP Operator Account Number: N 2995
 Address: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078 Phone Number: (435) 781-7024

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751781	NBU 1022-2M1CS		SWSW	2	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	99999	2900	4/10/2012		4/24/2012		
Comments: MIRU TRIPPLE A BUCKET RIG. SPUD WELL ON 04/10/2012 AT 2300 HRS. WSMVD							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751778	NBU 1022-2M1BS		SWSW	2	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	99999	2900	4/11/2012		4/24/2012		
Comments: MIRU TRIPPLE A BUCKET RIG. SPUD WELL ON 04/11/2012 AT 1030 HRS. WSMVD							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751775	NBU 1022-2L4CS		SWSW	2	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	99999	2900	4/11/2012		4/24/2012		
Comments: MIRU TRIPPLE A BUCKET RIG. SPUD WELL ON 04/11/2012 AT 1330 HRS. WSMVD							

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)

SHEILA WOPSOCK

Name (Please Print)

Signature

REGULATORY ANALYST

Title

4/12/2012

Date

(5/2000)

RECEIVED

APR 18 2012

Div. of Oil, Gas & Mining

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: ST UT ML 22651
1. TYPE OF WELL Gas Well	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	8. WELL NAME and NUMBER: NBU 1022-2M1BS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1071 FSL 0686 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 02 Township: 10.0S Range: 22.0E Meridian: S	9. API NUMBER: 43047517780000
5. PHONE NUMBER: 720 929-6511	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH	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: 4/26/2012	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input checked="" 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 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.

THE OPERATOR REQUESTS APPROVAL FOR A FIT WAIVER, A CLOSED LOOP DRILLING OPTION, AND A PRODUCTION CASING CHANGE. ALL OTHER ASPECTS OF THE PREVIOUSLY APPROVED DRILLING PLAN WILL NOT CHANGE. PLEASE SEE THE ATTACHMENT. THANK YOU.

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

Date: May 10, 2012

By: *D. K. Duff*

NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 4/26/2012	

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 1022-2M1BS**

Surface: 1071 FSL / 686 FWL SWSW
 BHL: 1075 FSL / 820 FWL SWSW

Section 2 T10S R22E

Uintah County, Utah
 Mineral Lease: ST UT ML 22651

ONSHORE ORDER NO. 1**DRILLING PROGRAM**

1. & 2. **Estimated Tops of Important Geologic Markers:**
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,066'	
Birds Nest	1,331'	Water
Mahogany	1,711'	Water
Wasatch	4,152'	Gas
Mesaverde	6,440'	Gas
Sego	8,591'	Gas
TVD	8,591'	
TD	8,595'	

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. **Evaluation Program:**

Please refer to the attached Drilling Program

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 8591' TVD, approximately equals
5,498 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,596 psi (bottom hole pressure
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-
(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

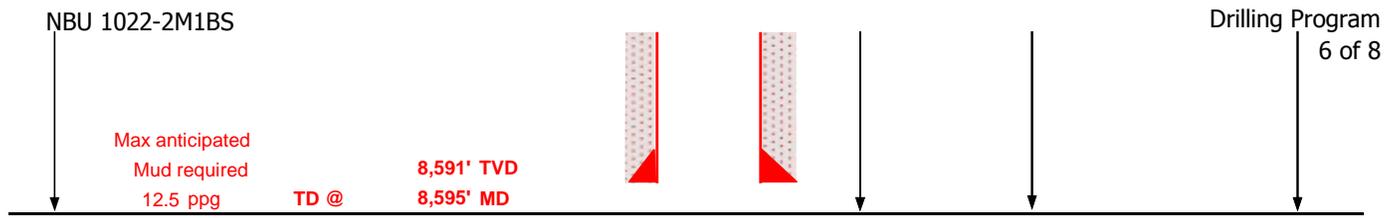
KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.





KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	LTC		DQX
							COLLAPSE	TENSION	
CONDUCTOR	14"	0-40'							
SURFACE	8-5/8"	0 to 2,160	28.00	IJ-55	LTC	3,390	1,880	348,000	N/A
						2.50	1.86	6.57	N/A
PRODUCTION	4-1/2"	0 to 5,000	11.60	I-80	DQX	7,780	6,350	223,000	267,035
						1.11	1.14		3.31
						7,780	6,350	223,000	267,035
	4-1/2"	5,000 to 8,595'	11.60	I-80	LTC	1.11	1.14	6.61	

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE Option 1	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
NOTE: If well will circulate water to surface, option 2 will be utilized							
SURFACE Option 2	LEAD	1,660'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	150	35%	11.00	3.82
	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
	TAIL	4,950'	celloflake + 5 pps gilsonite + 10% gel + 0.5% extender 50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,170	35%	14.30	1.31

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well. 1 centralizer on the first 3 joints and one every third joint thereafter.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

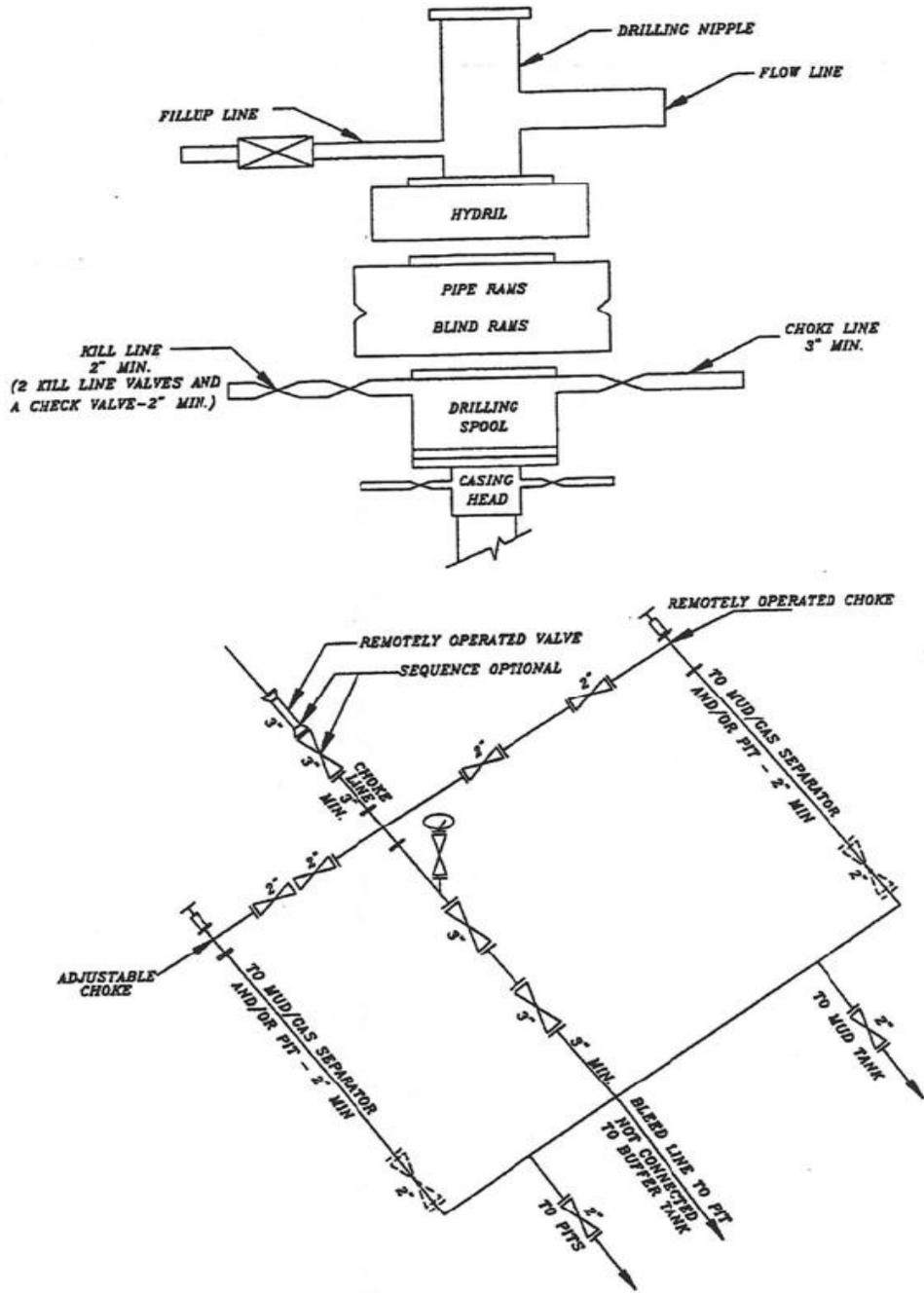
DRILLING ENGINEER: _____
Nick Spence / Danny Showers / Chad Loesel

DATE: _____

DRILLING SUPERINTENDENT: _____
Kenny Gathings / Lovel Young

DATE: _____

EXHIBIT A NBU 1022-2M1BS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

Requested Drilling Options:

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# Ensign 146
Submitted By SID ARMSTRONG Phone Number 435- 828-0987
Well Name/Number NBU 1022-2M1BS
Qtr/Qtr SW/SW Section 2 Township 10S Range 22E
Lease Serial Number ST UT ML 22651
API Number 43047517780000

Casing – Time casing run starts, not cementing times.

- Production Casing
- Other

Date/Time _____ AM PM

RECEIVED
JUN 12 2012

BOPE

- Initial BOPE test at surface casing point
- Other

DIV. OF OIL, GAS & MINING

Date/Time 6/13/2012 11:30 AM PM

Rig Move

Location To: _____

Date/Time _____ AM PM

Remarks SKID TO MBU 1022-2M1BS & WILL TEST B.O.P'S

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: ST UT ML 22651
1. TYPE OF WELL Gas Well	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	8. WELL NAME and NUMBER: NBU 1022-2M1BS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1071 FSL 0686 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 02 Township: 10.0S Range: 22.0E Meridian: S	9. API NUMBER: 43047517780000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1071 FSL 0686 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 02 Township: 10.0S Range: 22.0E Meridian: S	COUNTY: Uintah
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1071 FSL 0686 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 02 Township: 10.0S Range: 22.0E Meridian: 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 Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 6/18/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

MIRU ROTARY RIG. FINISHED DRILLING FROM 2298' TO 8605' ON 6/17/2012. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED ENSIGN 146 RIG ON 6/18/2012 @ 6:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 June 21, 2012**

NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 6/21/2012	

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# Ensign 146
Submitted By KENNY MORRIS Phone Number 435- 828-0987
Well Name/Number NBU 1022-2M1BS
Qtr/Qtr SW/SW Section 2 Township 10S Range 22E
Lease Serial Number ST UT ML 22651
API Number 43047517780000

Casing – Time casing run starts, not cementing times.

- Production Casing
- Other

Date/Time 6/17 /2012 12:00 AM PM

BOPE

- Initial BOPE test at surface casing point
- Other

RECEIVED

JUN 20 2012

DEPT OF OIL, GAS & MINING

Date/Time 6/13/2012 11:30 AM PM

Rig Move

Location To: SKID TO NBU1022-2L4CS WITH BOP TEST
MONDAY 6/18/2012

Date/Time _____ AM PM

Remarks SKID TO NBU1022-2L4BS & WILL TEST B.O.P'S

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: ST UT ML 22651
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.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-2M1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047517780000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1071 FSL 0686 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 02 Township: 10.0S Range: 22.0E Meridian: S	COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 8/3/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.
 No activity for the month of July 2012. Well TD at 8,605'.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 August 07, 2012**

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regularatory Analyst
SIGNATURE N/A	DATE 8/3/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: ST UT ML 22651
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.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-2M1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047517780000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1071 FSL 0686 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 02 Township: 10.0S Range: 22.0E Meridian: S	COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 9/5/2012	<input 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 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.

Started completing the well in August 2012. Well TD at 8,605

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 FOR RECORD ONLY
 September 07, 2012**

NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMBER 720 929-6857	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 9/5/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: ST UT ML 22651
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.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-2M1BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047517780000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1071 FSL 0686 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 02 Township: 10.0S Range: 22.0E Meridian: S	COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 9/14/2012	<input 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 checked="" type="checkbox"/> PRODUCTION START OR RESUME <input 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.

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 09/14/2012. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 September 18, 2012

NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMBER 720 929-6857	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 9/18/2012	

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

AMENDED REPORT FORM 8
(highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> DRY <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: ST UT ML 22651	
b. TYPE OF WORK: NEW WELL <input checked="" type="checkbox"/> HORIZ. LATS. <input type="checkbox"/> DEEP-EN <input type="checkbox"/> RE-ENTRY <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR: KERR MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME UTU63047A	
3. ADDRESS OF OPERATOR: P.O. BOX 173779 CITY DENVER STATE CO ZIP 80217		8. WELL NAME and NUMBER: NBU 1022-2M1BS	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: SWSW 1071 FSL 686 FWL S2, T10S, R22E		9. API NUMBER: 4304751778	
AT TOP PRODUCING INTERVAL REPORTED BELOW: SWSW 1096 FSL 812 FWL S2, T10S, R22E		10. FIELD AND POOL, OR WILDCAT NATURAL BUTTES	
AT TOTAL DEPTH: SWSW 1066 FSL 820 FWL S2, T10S, R22E <i>BHL by HSM</i>		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSW 2 10S 22E	
14. DATE SPUNDED: 4/11/2012		15. DATE T.D. REACHED: 6/17/2012	
16. DATE COMPLETED: 9/14/2012		17. ELEVATIONS (DF, RKB, RT, GL): 5046 GL	
18. TOTAL DEPTH: MD 8,605 TVD 8,599 <i>1066</i>		19. PLUG BACK T.D.: MD 8,545 TVD 8,539 <i>40</i>	
20. IF MULTIPLE COMPLETIONS, HOW MANY? *		21. DEPTH BRIDGE MD PLUG SET: TVD	
22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) CBL/GR/CCL/TEMP		23. WAS WELL CORED? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit analysis) WAS DST RUN? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit report) DIRECTIONAL SURVEY? NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (Submit copy)	

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

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#	0	40		28			
11"	8 5/8" IJ-55	28#	0	2,277		675		0	
7 7/8"	4 1/2" I-80	11.6#	0	8,592		1,440		380	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	8,098							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) MESAVERDE	6,565	8,505		
(B)				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
6,565 8,505	0.36	190	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
6840-8505	PUMP 7627 BBLs SLICK H2O & 156,352 LBS 30/50 OTTAWA SAND
	PERF'D 8 STAGES; FRAC'D 7 STAGES

29. ENCLOSED ATTACHMENTS:

- ELECTRICAL/MECHANICAL LOGS
 GEOLOGIC REPORT
 DST REPORT
 DIRECTIONAL SURVEY
 SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION
 CORE ANALYSIS
 OTHER: _____

30. WELL STATUS:

PROD

RECEIVED

31. INITIAL PRODUCTION

INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED: 9/14/2012		TEST DATE: 9/15/2012		HOURS TESTED: 24		TEST PRODUCTION RATES: →		OIL – BBL: 0	GAS – MCF: 3,660	WATER – BBL: 0	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS. 6,761	CSG. PRESS. 2,782	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 3,660	WATER – BBL: 0	INTERVAL STATUS: PROD	

INTERVAL B (As shown in Item #26)

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

INTERVAL C (As shown in Item #26)

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

INTERVAL D (As shown in Item #26)

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

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

SOLD

33. SUMMARY OF POROUS ZONES (Include Aquifers):

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

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				GREEN RIVER	1,066
				BIRD'S NEST	1,333
				MAHOGANY	1,713
				WASATCH	4,188
				MESAVERDE	6,359

35. ADDITIONAL REMARKS (Include plugging procedure)

The first 210' of the surface hole was drilled with a 12 1/4" bit. The remainder of surface hole was drilled with an 11" bit. DQX csg was run from surface to 5034'; LTC csg was run from 5034' to 8592'. Attached is the chronological well history, perforation report & final survey.

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

NAME (PLEASE PRINT) JAIME SCHARNOWSKE TITLE REGULATORY ANALYST

SIGNATURE *Jaime Scharnowske* DATE 10/4/2012

This report must be submitted within 30 days of

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

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

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

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

Phone: 801-538-5340
Fax: 801-359-3940

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-2M1BS ORANGE

Spud Date: 4/20/2012

Project: UTAH-UINTAH

Site: NBU 1022-2M PAD

Rig Name No: ENSIGN 146/146, PROPETRO 11/11

Event: DRILLING

Start Date: 12/8/2011

End Date: 6/18/2012

Active Datum: RKB @5,060.00usft (above Mean Sea Level)

UWI: SW/SW/0/10/S/22/E/2/0/0/26/PM/S/1071/W/0/686/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
4/20/2012	10:30 - 14:00	3.50	MIRU	01	B	P		NBU 1022 - 2M1BS (WELL 5 OF 6) INSTALL DIVERTOR HEAD AND BLUEY LINE. BUILD DITCH. SPOT IN RIG. SPOT IN CATWALK AND PIPE RACKS. RIG UP PIT PUMP. RIG UP PUMP. PRIME PUMP. INSPECT RIG. SAFETY MEETING
	14:00 - 14:30	0.50	DRLSUR	06	A	P		PU 12.25" BIT & DIR. TOOLS
	14:30 - 16:00	1.50	DRLSUR	02	D	P		DRL F/ 44'- T/210' (166'@ 110.6' PER HR) W.O.B. 5-15K RPM 45 UP/DWN/ROT 20/20/20 PSI ON/OFF 600/400 M.W. 8.4# VIS 27
	16:00 - 17:00	1.00	DRLSUR	06	A	P		512 GPM PUMP RATE / NO AIR TOOH #1 BHA AND TOOLS
	17:00 - 18:00	1.00	DRLSUR	06	A	P		TIH WITH DRILL STRING AND #2 BHA TAG @ 210'
	18:00 - 0:00	6.00	DRLSUR	02	D	P		DRL F/210' T/1240' (1030'@171.6' PER HR) W.O.B. 20K RPM 45 UP/DWN/ROT 65/55/60 PSI ON/OFF 1300/1070 M.W. 8.4# VIS 27
4/21/2012	0:00 - 8:30	8.50	DRLSUR	02	D	P		512 GPM PUMP RATE / NO AIR DRL F/1570' T/2366' (796'@ 88.4' PER HR) W.O.B. 20K RPM 45 UP/DWN/ROT PSI ON/OFF M.W. 8.4# VIS 27
	8:30 - 10:30	2.00	DRLSUR	05	C	P		512 GPM PUMP RATE 2420 CFM AIR RATE 2' LOW 12' RIGHT OF TARGET CIRCULATE FOR CASING
	10:30 - 13:30	3.00	DRLSUR	06	D	P		LDDS, BHA & DIRECTIONAL TOOLS
	13:30 - 14:30	1.00	DRLSUR	12	A	P		MOVE PIPE RACKS AND CATWALK. PULL DIVERTER HEAD. RIG UP TO RUN CSG. MOVE CSG INTO POSITION TO P/U.
	14:30 - 17:00	2.50	DRLSUR	12	C	P		RUN 51 JTS 8 5/8, 28# J55 CASING LAND SHOE @ 2262.9' SET BAFFLE @ 2218.4'
	17:00 - 17:30	0.50	DRLSUR	12	B	P		HOLD SAFETY MEETING, PUMP ON CASING RUN 200' OF 1". RIG DOWN RIG MOVE OFF WELL, REBUILD DITCH. RIG UP CEMENT TRUCK, 2" HARD LINES.
	17:30 - 18:30	1.00	DRLSUR	12	E	P		HOLD SAFETY MEETING. PRO PETRO CMTERS MAKE UP HEAD & LOAD PLUG TEST LINES TO 2000 PSI. PUMP 130 BBLS OF 8.4# H2O AHEAD, PUMP 20 BBLS OF 8.4# GEL WATER AHEAD. PUMP 300 SX (61.4 BBLS) OF 15.8# 1.15 YIELD TAIL(2% CALC, 1/4# /SK OF FLOCELE). DROP PLUG ON FLY AND DISPLACE W/ 138.5 BBLS OF 8.4# H2O. LIFT PRESSURE 200 PSI. BUMP PLUG AND HOLD 500 PSI FOR 5 MIN. PLUG HELD. NO RETURNS THRU OUT JOB. PUMP 150 SX (30.7 BBLS) 15.8# CMT W/4% CALCIUM DOWN 1".

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-2M1BS ORANGE

Spud Date: 4/20/2012

Project: UTAH-UINTAH

Site: NBU 1022-2M PAD

Rig Name No: ENSIGN 146/146, PROPETRO 11/11

Event: DRILLING

Start Date: 12/8/2011

End Date: 6/18/2012

Active Datum: RKB @5,060.00usft (above Mean Sea Level)

UWI: SW/SW/0/10/S/22/E/2/0/0/26/PM/S/1071/W/0/686/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/13/2012	18:30 - 19:30	1.00	DRLSUR	13	A	P		WOC, 1.5 HOURS PUMP 125 SKS (25.6 BBLS) CLEAN TRUCKS
	19:30 - 19:30	0.00	DRLSUR	13	A	P		WOC, 1.5 HOURS PUMP 100 SKS (20.5 BBLS) CEMENT TO SURFACE, CLEAN TRUCKS
	15:00 - 17:00	2.00	MIRU	01	C	P		SKID ON SET IN CATWALK
	17:00 - 18:00	1.00	PRPSPD	14	A	P		NIPPLE UP BOP,FUNCTION TEST
	18:00 - 23:00	5.00	PRPSPD	15	A			TEST BOPE, RAMS, CHOKE, CHOKE LINE, MANUAL VALVES, FLOOR VALVES, HCR & IBOP 250 LOW 5000 HIGH, ANNULAR 250 LOW 2500 HIGH, CASING 1500 INSTALL WEARBUSHING
6/14/2012	23:00 - 0:00	1.00	PRPSPD	06	A	P		P/U BHA #1,SCRIBE DIR TOOLS
	0:00 - 1:30	1.50	PRPSPD	06	A	P		TIH TAG CEMENT AT 2150
	1:30 - 2:00	0.50	PRPSPD	07	B	P		LEVEL DERRICK ON HOLE
	2:00 - 3:00	1.00	DRLPRO	02	F	P		DRILL CEMENT AND SHOE TRACK F/ 2150 TO 2308'
	3:00 - 11:30	8.50	DRLPRO	02	D	P		DRILL/SLIDE F/2308 TO 3492'=1184 AVG 139 MW 8.3 VIS 27 WOB 20/22 RPM 45 MM RPM 115 TQ LOW4000 HIGH 8200 SPM 116 GPM 565 PSI OFF/ON 1500/1850 PU 122, SO 100, ROT 115 NOV - ON LINE SLIDE 168' 15% 1.8 HR ROT 940 85% 2 WEST 3 NORTH OF CENTER RIG SERVICE
11:30 - 12:00	0.50	DRLPRO	07	A	P			
12:00 - 0:00	12.00	DRLPRO	02	D	P		DRILL/SLIDE F/3492 TO 5200 '=1708 AVG 142MW 8.5 VIS 27 WOB 20/22 RPM 45 MM RPM 115 TQ LOW6000 HIGH 9400 SPM 116 GPM 565 PSI OFF/ON 1500/1850 PU 1168, SO 140, ROT 152 NOV - ON LINE SLIDE 0% ROT 100% 12HR 6' WEST 17' NORTH OF CENTER	

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-2M1BS ORANGE

Spud Date: 4/20/2012

Project: UTAH-UINTAH

Site: NBU 1022-2M PAD

Rig Name No: ENSIGN 146/146, PROPETRO 11/11

Event: DRILLING

Start Date: 12/8/2011

End Date: 6/18/2012

Active Datum: RKB @5,060.00usft (above Mean Sea Level)

UWI: SW/SW/0/10/S/22/E/2/0/0/26/PM/S/1071/W/0/686/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/15/2012	0:00 - 11:00	11.00	DRLPRO	02	D	P		DRILL/SLIDE F/5200 TO 6573 '=1373 AVG 125 MW8.6/28 WOB 20/22 RPM 45 MM RPM 115 TQ LOW6000 HIGH 9400 SPM 116 GPM 565 PSI OFF/ON 1800/2400 PU 168 , SO 140, ROT 152 NOV - ON LINE SLIDE 45' 3% 1.25HR ROT 1315' 97% 9.75HR 7' WEST 21' NORTH OF CENTER PUMPING 25% LCM SWEEPS F/ 35 BBLS HR SEEPAGE
	11:00 - 12:00	1.00	DRLPRO	07	A	P		DIPLACE HOLE WITH MUD F/ LOSSES
	12:00 - 16:00	4.00	DRLPRO	02	D			DRILL/SLIDE F/6573 TO 6845 '=272 AVG 68 PUMP 2-25% LCM F/LOSSES BYPASS SHAKER WITH 8% LCM MW 11.5/34 8% LCM WOB 20/22 RPM 45 MM RPM 115 TQ LOW6000 HIGH 9400 SPM 116 GPM 565 PSI OFF/ON 1800/2400 PU 168 , SO 140, ROT 152 NOV - ON LINE SLIDE 0% ROT 1315' 100% 4HR 6 WEST 20 NORTH OF CENTER RIG SERVICE
	16:00 - 16:30	0.50	DRLPRO	07	A	P		
	16:30 - 0:00	7.50	DRLPRO	02	D	P		DRILL/SLIDE F/6845 TO 7310 '=465 AVG 62 PUMP 2-25% LCM F/LOSSES BYPASS SHAKER WITH 8% LCM MW 11.5/34 8% LCM WOB 20/22 RPM 45 MM RPM 115 TQ LOW6000 HIGH 9400 SPM 100 GPM 500 PSI OFF/ON 1800/2400 PU 195 , SO 160, ROT 172 NOV - BYPASSED SLIDE 0% ROT 465' 100% 4HR 6 WEST 13 NORTH OF CENTER

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-2M1BS ORANGE

Spud Date: 4/20/2012

Project: UTAH-UINTAH

Site: NBU 1022-2M PAD

Rig Name No: ENSIGN 146/146, PROPETRO 11/11

Event: DRILLING

Start Date: 12/8/2011

End Date: 6/18/2012

Active Datum: RKB @5,060.00usft (above Mean Sea Level)

UWI: SW/SW/010/S/22/E/210/0/26/PM/S/1071/W/0/686/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/16/2012	0:00 - 13:00	13.00	DRLPRO	02	D	P		DRILL/SLIDE F/7310 TO 8024'=714 AVG 55 MW 11.9/40 8%LCM WOB 20/25 RPM 45 MM RPM 105 TQ LOW6000 HIGH 9400 SPM 100 GPM 500 PSI OFF/ON 2650-3000 PU 195 , SO 160, ROT 172 NOV - BYPASSED SLIDE 0% ROT 100% 13HR 4 WEST 8 NORTH OF CENTER DRLG WITH 5-10' FLARE RIG SERVICE
	13:00 - 13:30	0.50	DRLPRO	07	A	P		
	13:30 - 0:00	10.50	DRLPRO	02	D	P		DRILL/SLIDE F/78024 TO 8436'=412 AVG 39 MW 12.1/45 10%LCM WOB 20/25 RPM 35 MM RPM 105 TQ LOW6000 HIGH 9400 SPM 100 GPM 500 PSI OFF/ON 2650-3000 PU 195 , SO 160, ROT 172 NOV - BYPASSED SLIDE 0% ROT 100% HR 1 WEST 2 NORTH OF CENTER CONN GAS 8' FLARE
6/17/2012	0:00 - 4:30	4.50	DRLPRO	02	D	P		DRILL/SLIDE F/8436 TO TD 8605'=169AVG 37 MW 12.3/45 10%LCM WOB 20/25 RPM 35 MM RPM 105 TQ LOW 5500 HIGH 9400 SPM 100 GPM 500 PSI OFF/ON 2650-3000 PU 220 , SO 170, ROT 202 NOV - BYPASSED SLIDE 0% ROT 100% HR 1 WEST 6' SOUTH OF CENTER CONN GAS 5' FLARE
	4:30 - 5:00	0.50	DRLPRO	05	C	P		FINAL SURVEY,FLOW CHECK,,CIRC BOTTOMS UP FOR SHORTTRIP
	5:00 - 6:30	1.50	DRLPRO	06	E	P		SHORTTRIP BACK TO 7750', TRIP IN
	6:30 - 8:00	1.50	DRLPRO	05	C	P		CIRCULATE BOTTOMS UP 2- TIMES,10-20' FLARE FOR 10 MINUTES
	8:00 - 14:30	6.50	DRLPRO	06	A	P		SPOT WEIGHTED PILL ON BOTTOM,,TRIP OUT FOR CASING,FLOW CHECK EVERY 1000' ,,STAND BACK DIR TOOLS,PULL WEARBUSHING
	14:30 - 22:30	8.00	DRLPRO	12	C			SAFETY MEET W/ FRANKS,RUN 199 JTS 4.5" #11.6 I-80 LTC & DQX CASING TO SHOE DEPTH 8591,FLOAT COLLAR @8547,MVL MARKER @6362'

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-2M1BS ORANGE

Spud Date: 4/20/2012

Project: UTAH-UINTAH

Site: NBU 1022-2M PAD

Rig Name No: ENSIGN 146/146, PROPETRO 11/11

Event: DRILLING

Start Date: 12/8/2011

End Date: 6/18/2012

Active Datum: RKB @5,060.00usft (above Mean Sea Level)

UWI: SW/SW/0/10/S/22/E/2/0/0/26/PM/S/1071/W/0/686/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	22:30 - 23:30	1.00	DRLPRO	05	D	P		CIRCULATE BOTTOMS UP FOR CEMENT, 15' FLARE F/20 MINUTES
	23:30 - 0:00	0.50	DRLPRO	12	E	P		SAFETY MEET WITH BAKER HUGHES, PRESSURE TEST TO 5000 , BAKER PUMPED 25 BBLS WATER AHEAD - 50 sacks Premium Lite II Cement + 0.35% bwoc R-3 + 5 lbs/sack Kol-Seal, 50 lb bag + 1% bwoc FL-25 + 1% bwoc Sodium Metasilicate + 4% bwoc Bentonite II + 83.6% Fresh Water FIRST LEAD 13.0 PPG YIELD 1.75 440 sacks Premium Lite II Cement + 0.05 lbs/sack Static Free + 0.35% bwoc R-3 + 5 lbs/sack Kol-Seal, 50 lb bag + 1% bwoc FL-25 + 1% bwoc Sodium Metasilicate + 0.2% bwoc BA-59 + 4% bwoc Bentonite II + 83.7% Fresh Water SECOND LEAD 13.0 PPG YIELD 1.75 950 sacks (50:50) Poz (Fly Ash):Class G Cement + 0.005 lbs/sack Static Free + 10% bwow Sodium Chloride + 0.3% bwoc R-3 + 0.3% bwoc Sodium Metasilicate + 0.2% bwoc BA-59 + 2% bwoc Bentonite II + 58.9% Fresh Water FOR TAIL 14.3 PPG YIELD 1.32 133 bbls ClayCare + 1 gal Magnacide @ 8.34 ppg & BUMP PLUG WITH 500 OVER FINAL CIRULATE PRESSURE OF 2630-BUMP PLUG FLOATS HELD & GOT BACK 8 BBL LEAD TO PIT/1.5 BBL TO TRUCK FINISH CEMENT WITH BAKER, FINALLIFT 2630, 8 BBL CEMENT BACK ,BUMPPLUG & FLOATS HELD SET C-22 CASING SLIS 100K, NIPPLE DOWN, CUT OFF SAVE MUD,CLEAN PITS,RIG RELEASE AT 06:00 AM 6/18/2012
6/18/2012	0:00 - 1:30	1.50	DRLPRO	12	E	P		
	1:30 - 3:00	1.50	DRLPRO	01	E	P		
	3:00 - 6:00	3.00	DRLPRO	01	E	P		

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 1022-2M1BS ORANGE	Wellbore No.	OH
Well Name	NBU 1022-2M1BS	Wellbore Name	NBU 1022-2M1BS
Report No.	1	Report Date	9/13/2012
Project	UTAH-UINTAH	Site	NBU 1022-2M PAD
Rig Name/No.	SWABBCO 6/6	Event	COMPLETION
Start Date	9/13/2012	End Date	9/14/2012
Spud Date	4/20/2012	Active Datum	RKB @5,060.00usft (above Mean Sea Level)
UWI	SW/SW/0/10/S/22/E/2/0/0/26/PM/S/1071/W/0/686/0/0		

1.3 General

Contractor		Job Method		Supervisor	
Perforated Assembly		Conveyed Method			

1.4 Initial Conditions

Fluid Type		Fluid Density	
Surface Press		Estimate Res Press	
TVD Fluid Top		Fluid Head	
Hydrostatic Press		Press Difference	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	6,565.0 (usft)-8,505.0 (usft)	Start Date/Time	8/19/2012 12:00AM
No. of Intervals	51	End Date/Time	8/19/2012 12:00AM
Total Shots	190	Net Perforation Interval	54.00 (usft)
Avg Shot Density	3.52 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
8/19/2012 12:00AM	MESAVERDE/			6,565.0	6,566.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
8/19/2012 12:00AM	MESAVERDE/			6,618.0	6,619.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			6,660.0	6,661.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			6,704.0	6,705.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			6,728.0	6,729.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			6,764.0	6,765.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			6,794.0	6,795.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			6,840.0	6,841.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			6,858.0	6,859.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			6,874.0	6,875.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			6,897.0	6,898.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			6,950.0	6,951.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,038.0	7,039.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,198.0	7,199.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,212.0	7,213.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,234.0	7,235.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,270.0	7,272.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,282.0	7,283.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,500.0	7,501.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,542.0	7,543.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,594.0	7,595.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,608.0	7,609.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

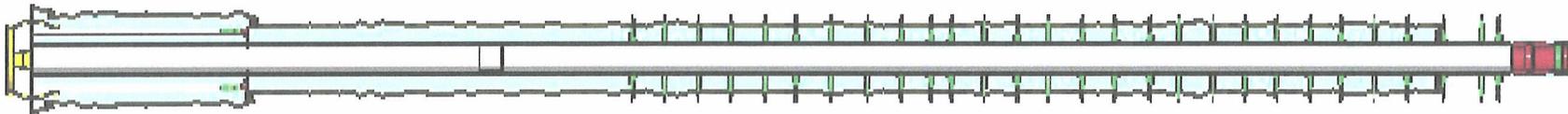
Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
8/19/2012 12:00AM	MESAVERDE/			7,630.0	7,631.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,642.0	7,643.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,652.0	7,654.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,760.0	7,761.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,785.0	7,786.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,828.0	7,829.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,871.0	7,872.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,910.0	7,911.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,924.0	7,925.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,930.0	7,931.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,946.0	7,947.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			7,982.0	7,983.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			8,006.0	8,007.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			8,032.0	8,033.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			8,044.0	8,045.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			8,062.0	8,063.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			8,074.0	8,075.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			8,135.0	8,136.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			8,170.0	8,171.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			8,182.0	8,183.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			8,196.0	8,197.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
8/19/2012 12:00AM	MESAVERDE/			8,223.0	8,224.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			8,247.0	8,248.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			8,264.0	8,265.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			8,325.0	8,326.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			8,434.0	8,435.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			8,467.0	8,468.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			8,484.0	8,485.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
8/19/2012 12:00AM	MESAVERDE/			8,503.0	8,505.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



**US ROCKIES REGION
Operation Summary Report**

Well: NBU 1022-2M1BS ORANGE

Spud Date: 4/20/2012

Project: UTAH-UINTAH

Site: NBU 1022-2M PAD

Rig Name No: SWABBCO 6/6, SWABBCO 6/6

Event: COMPLETION

Start Date: 9/13/2012

End Date: 9/14/2012

Active Datum: RKB @5,060.00usft (above Mean Sea Level)

UWI: SW/SW/0/10/S/22/E/2/0/0/26/PM/S/1071/W/0/686/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
4/20/2012	-							
4/21/2012	-							
8/27/2012	8:00 - 9:30	1.50	FRAC	33	C	P		FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 8 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 32 PSI. 1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 84 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. MOVE T/ NEXT WELL. SWFW
8/28/2012	-							
8/31/2012	7:00 - 10:00	3.00	FRAC	37		P		PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER PERF DESIGN. POOH. SWFW

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-2M1BS ORANGE

Spud Date: 4/20/2012

Project: UTAH-UINTAH

Site: NBU 1022-2M PAD

Rig Name No: SWABBCO 6/6, SWABBCO 6/6

Event: COMPLETION

Start Date: 9/13/2012

End Date: 9/14/2012

Active Datum: RKB @5,060.00usft (above Mean Sea Level)

UWI: SW/SW0/10/S/22/E/2/0/0/26/PM/S/1071/W/0/686/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/4/2012	7:00 - 18:00	11.00	FRAC	36	B	P		<p>FRAC STG 1)WHP 1752 PSI, BRK 3288 PSI @ 4.7 BPM. ISIP 2638 PSI, FG .75. CALC PERFS OPEN @ 51.5 BPM @ 4594 PSI = 100% HOLES OPEN. (24/24 HOLES OPEN) ISIP 2653 PSI, FG .75, NPI 15 PSI. MP 5785 PSI, MR 52.5 BPM, AP 4919 PSI, AR 51.8 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 & 120 DEG PHASING. RIH SET CBP @ 8295' P/U PERF AS PER DESIGN. POOH. XO T/ FRAC.</p> <p>FRAC STG 2)WHP 2220 PSI, BRK 3294 PSI @ 4.7 BPM. ISIP 2338 PSI, FG .72. CALC PERFS OPEN @ 52.2 BPM @ 4955 PSI = 100% HOLES OPEN. (24/24 HOLES OPEN) ISIP 2672 PSI, FG .76, NPI 334 PSI. MP 5360 PSI, MR 55.6 BPM, AP 4875 PSI, AR 53.7 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 3)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8105' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 3)WHP 1802 PSI, BRK 3308 PSI @ 4.7 BPM. ISIP 2425 PSI, FG .74. CALC PERFS OPEN @ 51.5 BPM @ 5056 PSI = 100% HOLES OPEN. (24/24 HOLES OPEN) ISIP 2700 PSI, FG .78, NPI 275 PSI. MP 5353 PSI, MR 52.5 BPM, AP 4843 PSI, AR 51.6 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 4)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7972' P/U PERF AS PER DESIGN. POOH, SWMFn.</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-2M1BS ORANGE

Spud Date: 4/20/2012

Project: UTAH-UINTAH

Site: NBU 1022-2M PAD

Rig Name No: SWABBCO 6/6, SWABBCO 6/6

Event: COMPLETION

Start Date: 9/13/2012

End Date: 9/14/2012

Active Datum: RKB @5,060.00usft (above Mean Sea Level)

UWI: SW/SW/0/10/S/22/E/2/0/0/26/PM/S/1071/W/0/686/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/5/2012	7:00 - 18:00	11.00	FRAC	36	B	P		<p>FRAC STG 4)WHP 1836 PSI, BRK 3236 PSI @ 4.7 BPM. ISIP 2313 PSI, FG .73. CALC PERFS OPEN @ 51.5 BPM @ 4434 PSI = 100% HOLES OPEN. (24/24 HOLES OPEN) ISIP 2450 PSI, FG .75, NPI 137 PSI. MP 5282 PSI, MR 53.5 BPM, AP 4656 PSI, AR 52.9 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 5)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7684' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 5)WHP 1410 PSI, BRK 3909 PSI @ 4.7 BPM. ISIP 1975 PSI, FG .70. CALC PERFS OPEN @ 53.4 BPM @ 4598 PSI = 100% HOLES OPEN. (24/24 HOLES OPEN) ISIP 2308 PSI, FG .74, NPI 333 PSI. MP 5636 PSI, MR 55.6 BPM, AP 4846 PSI, AR 53.7 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 6)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7313', P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 6)WHP 1078 PSI, BRK 6101 PSI @ 4.7 BPM. ISIP 1914 PSI, FG .70. CALC PERFS OPEN @ 53.6 BPM @ 5007 PSI = 88% HOLES OPEN. (21/24 HOLES OPEN) ISIP 2636 PSI, FG .80, NPI 722 PSI. MP 6101 PSI, MR 54.5 BPM, AP 4940 PSI, AR 53.4 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 7)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7069' P/U PERF AS PER DESIGN. POOH, SWMFn.</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-2M1BS ORANGE

Spud Date: 4/20/2012

Project: UTAH-UINTAH

Site: NBU 1022-2M PAD

Rig Name No: SWABBCO 6/6, SWABBCO 6/6

Event: COMPLETION

Start Date: 9/13/2012

End Date: 9/14/2012

Active Datum: RKB @5,060.00usft (above Mean Sea Level)

UWI: SW/SW/0/10/S/22/E/2/0/0/26/PM/S/1071/W/0/686/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/6/2012	8:00 - 18:00	10.00	FRAC	36	B	P		<p>FRAC STG 7)WHP 1272 PSI, BRK 2921 PSI @ 4.7 BPM. ISIP 1750 PSI, FG .69. CALC PERFS OPEN @ 51.2 BPM @ 5277 PSI = 71% HOLES OPEN. (17/24 HOLES OPEN) ISIP 2250 PSI, FG .76, NPI 500 PSI. MP 6017 PSI, MR 52.5 BPM, AP 4734 PSI, AR 51.5 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 8)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 & 120 DEG PHASING. RIH SET CBP @ 6825' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 8)WHP 924 PSI, BRK 2192 PSI @ 4.7 BPM. ISIP 586 PSI, FG .53. DIDN'T FRAC THIS STG DUE T/ LOW FG.</p> <p>DIDN'T SET KILL PLUG IN THIS WELL.</p> <p>(((PERF STG 8, BUT DID NOT FRAC STG 8. DUE TO LOW FG.))))</p> <p>TOTAL SAND = 156,352 LBS TOTAL CLFL = 7627 BBL</p>
9/13/2012	11:00 - 15:00	4.00	DRLOUT	30		P		<p>MIRU ND W/H NU BOPS RU FLOOR & TUBING EQUIP PU POBS PKG RIH TO 6700' LOST AIR COMPRESSOR ON RIG SHUT DOWN FOR REPAIRS JSA= DRILLING PLUGS</p>
9/14/2012	7:00 - 7:15	0.25	DRLOUT	48		P		

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-2M1BS ORANGE

Spud Date: 4/20/2012

Project: UTAH-UINTAH

Site: NBU 1022-2M PAD

Rig Name No: SWABBCO 6/6, SWABBCO 6/6

Event: COMPLETION

Start Date: 9/13/2012

End Date: 9/14/2012

Active Datum: RKB @5,060.00usft (above Mean Sea Level)

UWI: SW/SW/0/10/S/22/E/2/0/0/26/PM/S/1071/W/0/686/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 17:00	9.75	DRLOUT	30		P		REPAIR COMPRESSOR ON RIG RIH TAG 1ST CBP @ 6825' EST CIRC TEST BOPS TO 3000# DRILL 1ST PLG PLUG #1] DRILL THRU HALLI 8K CBP @ 6825' IN 7 MIN W/ 0# INCREASE PLUG #2] CONTINUE TO RIH TAG SAND @ 7039' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7069' IN 9 MIN W/ 100# INCREASE PLUG #3] CONTINUE TO RIH TAG SAND @ 7283' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7313' IN 9 MIN W/ 100# INCREASE PLUG #4] CONTINUE TO RIH TAG SAND @ 7659' (25' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7684' IN 8 MIN W/ 100# INCREASE PLUG #5] CONTINUE TO RIH TAG SAND @ 7945' (25' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7972' IN 10 MIN W/ 100# INCREASE PLUG #6] CONTINUE TO RIH TAG SAND @ 8080' (25' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8105' IN 8 MIN W/ 50# INCREASE PLUG #7] CONTINUE TO RIH TAG SAND @ 8265' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8295' IN 8 MIN W/ 100# INCREASE PBDT] CONTINUE TO RIH TAG SAND @ 8510' (35' FILL) C/O TO PBDT CIRC CLEAN POOH LD 15 JNTS LAND TUBING ON HNGR W/ 255 JNTS EOT @ 8098' W/ 700 PSI FLOWING ON WELL RD FLOOR & TUBING EQUIP ND BOPS NU WELLHEAD DROP BALL PUMP OFF BIT @ 2700 PSI SIW NU & TEST FLOW LINE TURN WELL OVER TO FBC RD RIG MOVE TO 2M4BS RU SDFW TUBING DETAIL K.B.....14.00 HANGER.....83" 255 JNTS 2-3/8" L-80.....8080.01' POBS.....2.20' EOT.....8098.04' TOTAL FLUID PUMPED= 7672 BBLS RIG REC= 2200 BBLS LEFT TO REC= 5472 BBLS CTAP DEL= 283 JNTS USED= 255 JNTS RETURNED= 28 JNTS

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-2M1BS ORANGE

Spud Date: 4/20/2012

Project: UTAH-UINTAH

Site: NBU 1022-2M PAD

Rig Name No: SWABBCO 6/6, SWABBCO 6/6

Event: COMPLETION

Start Date: 9/13/2012

End Date: 9/14/2012

Active Datum: RKB @5,060.00usft (above Mean Sea Level)

UWI: SW/SW0/10/S/22/E/2/0/0/26/PM/S/1071/W/0/686/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	17:00 - 17:00	0.00	DRLOUT	50				WELL TURNED TO SALES @ 13:30 HR ON 9/14/2012 2400 MCFD, 1920 BWPD, FCP 2800#, FTP 2700#, 20/64" CK.
9/15/2012	7:00 -			50				WELL IP'D ON 9/15/12 - 3660 MCFD, 0 BOPD, 0 BWPD, CP 2782# FTP 6761#, CK 20/64", LP 152#, 24 HRS

Project: UTAH - UTM (feet), NAD27, Zone 12N
 Site: UINTAH_NBU 1022-2M PAD
 Well: NBU 1022-2M1BS
 Wellbore: NBU 1022-2M1BS
 Section:
 SHL:
 Design: NBU 1022-2M1BS (wp01)
 Latitude: 39.973682
 Longitude: -109.413538
 GL: 5046.00
 KB: 14' rkb + 5046' GL @ 5060.00ft (Ensign 146)

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4149.00	4154.19	WASATCH
4749.00	4754.20	top of cylinder
6439.00	6444.22	MESAVERDE
8593.00	8598.25	MESAVERDE

WELL DETAILS: NBU 1022-2M1BS							
+N/-S	+E/-W	Northing	Ground Level: Easting	5046.00 Latitude	5046.00 39.973682	Longitude	Slot
0.00	0.00	14520414.99	2084899.08			-109.413538	

CASING DETAILS			
TVD	MD	Name	Size
2266.82	2266.93	8-5/8"	8-5/8

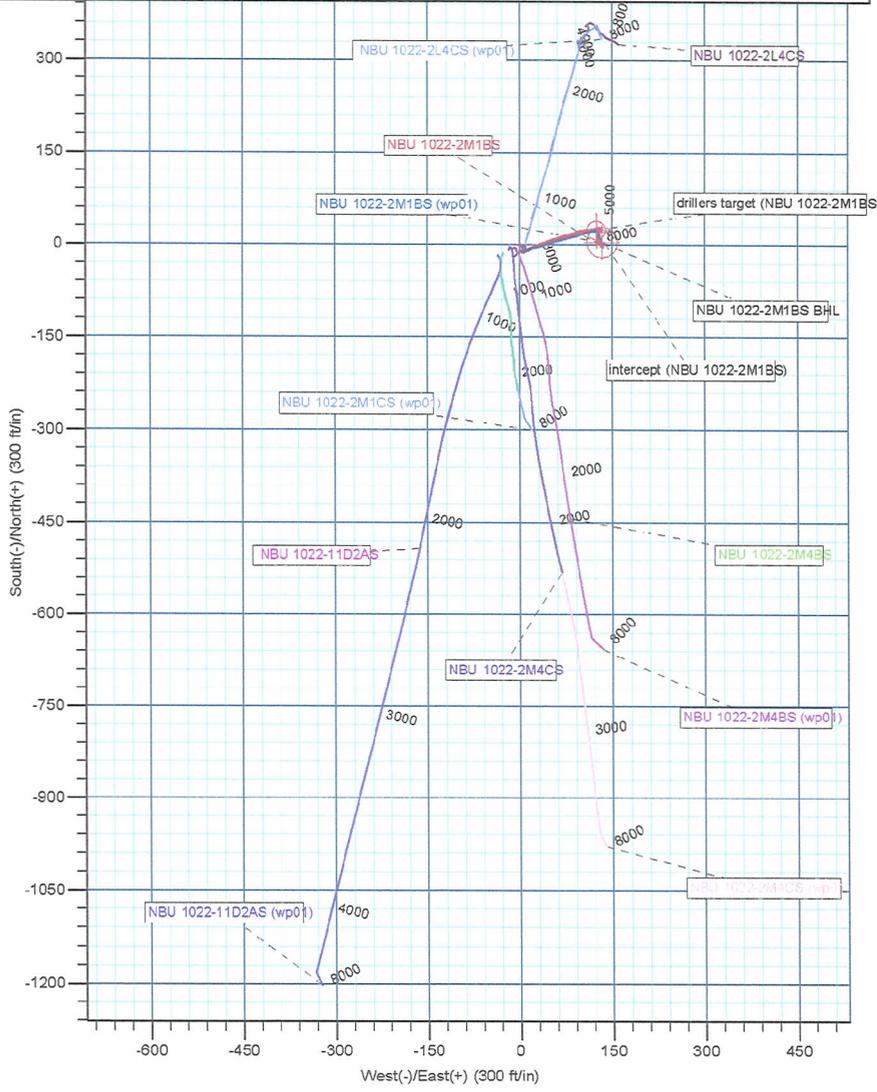
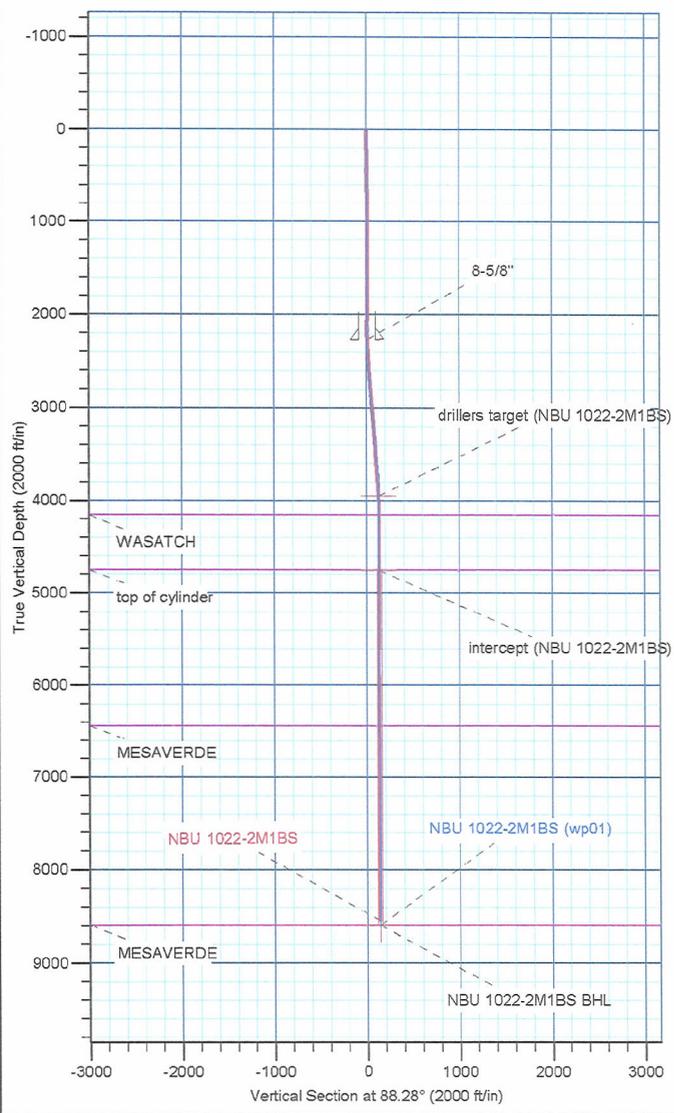
Azimuths to True North
 Magnetic North: 10.92°
 Magnetic Field
 Strength: 52236.7snT
 Dip Angle: 65.84°
 Date: 5/8/2012
 Model: IGRF2010

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
drillers target (NBU 1022-2M1BS)	3950.00	24.01	123.39	14520441.19	2085022.03	39.973748	-109.413098	Circle (Radius: 15.00)
intercept (NBU 1022-2M1BS)	4749.00	20.74	125.03	14520437.94	2085023.72	39.973739	-109.413092	Point
NBU 1022-2M1BS BHL	8593.00	4.01	133.39	14520421.37	2085032.38	39.973693	-109.413062	Circle (Radius: 25.00)

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
2243.00	0.97	53.91	2242.90	-11.83	5.90	0.00	0.00	5.54
2393.00	0.97	53.91	2392.88	-10.34	7.95	0.00	0.00	7.63
2604.47	5.13	73.72	2604.00	-6.63	18.47	2.00	24.26	18.27
3698.73	5.13	73.72	3693.88	20.79	112.38	0.00	0.00	112.95
3955.19	0.00	0.00	3950.00	24.01	123.39	2.00	180.00	124.06
4048.11	0.28	153.44	4042.92	23.81	123.49	0.30	153.44	124.15
8598.25	0.28	153.44	8593.00	4.01	133.39	0.00	0.00	133.45



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

UINTAH_NBU 1022-2M PAD

NBU 1022-2M1BS

NBU 1022-2M1BS

Design: NBU 1022-2M1BS

Standard Survey Report

26 September, 2012

Anadarko Petroleum Corp

Survey Report

Company: US ROCKIES REGION PLANNING	Local Co-ordinate Reference: Well NBU 1022-2M1BS
Project: UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference: 14' rkb + 5046' GL @ 5060.00ft (Ensign 146)
Site: UINTAH_NBU 1022-2M PAD	MD Reference: 14' rkb + 5046' GL @ 5060.00ft (Ensign 146)
Well: NBU 1022-2M1BS	North Reference: True
Wellbore: NBU 1022-2M1BS	Survey Calculation Method: Minimum Curvature
Design: NBU 1022-2M1BS	Database: edmp

Project	UTAH - UTM (feet), NAD27, Zone 12N		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	UINTAH_NBU 1022-2M PAD		
Site Position:		Northing:	14,520,396.87 usft
From:	Lat/Long	Easting:	2,084,863.53 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "
		Latitude:	39.973634
		Longitude:	-109.413666
		Grid Convergence:	1.02 °

Well	NBU 1022-2M1BS		
Well Position	+N-S	0.00 ft	Northing: 14,520,414.99 usft
	+E-W	0.00 ft	Easting: 2,084,899.08 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	39.973682
		Longitude:	-109.413538
		Ground Level:	5,046.00 ft

Wellbore	NBU 1022-2M1BS		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	5/8/2012	(°)
			10.92
			Dip Angle
			(°)
			65.84
			Field Strength
			(nT)
			52.237

Design	NBU 1022-2M1BS		
Audit Notes:		Phase:	ACTUAL
Version:	1.0	Tie On Depth:	10.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	10.00	0.00	0.00
			Direction
			(°)
			92.09

Survey Program	Date 9/26/2012		
From	To	Survey (Wellbore)	Tool Name
(ft)	(ft)		
155.00	2,243.00	Survey #1 (NBU 1022-2M1BS)	MWD
2,354.00	8,605.00	Survey #2 (NBU 1022-2M1BS)	MWD
			Description
			MWD - STANDARD
			MWD - STANDARD

Survey										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Buld Rate	Turn Rate	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100usft)	(°/100usft)	(°/100usft)	
10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.00	0.53	120.00	155.00	-0.34	0.58	0.59	0.37	0.37	0.00	
183.00	0.44	152.00	183.00	-0.49	0.74	0.76	1.00	-0.32	114.29	
212.00	0.44	129.23	212.00	-0.66	0.88	0.91	0.60	0.00	-78.52	
238.00	0.53	134.24	238.00	-0.81	1.05	1.07	0.38	0.35	19.27	
267.00	0.62	125.37	266.99	-1.00	1.27	1.30	0.44	0.31	-30.59	
296.00	0.53	130.11	295.99	-1.17	1.50	1.54	0.35	-0.31	16.34	
324.00	0.62	130.55	323.99	-1.35	1.71	1.76	0.32	0.32	1.57	
353.00	0.70	89.53	352.99	-1.45	2.01	2.06	1.62	0.28	-141.45	
443.00	0.53	119.92	442.98	-1.66	2.92	2.98	0.40	-0.19	33.77	

Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 1022-2M1BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	14' rkb + 5046' GL @ 5060.00ft (Ensign 146)
Site:	UINTAH_NBU 1022-2M PAD	MD Reference:	14' rkb + 5046' GL @ 5060.00ft (Ensign 146)
Well:	NBU 1022-2M1BS	North Reference:	True
Wellbore:	NBU 1022-2M1BS	Survey Calculation Method:	Minimum Curvature
Design:	NBU 1022-2M1BS	Database:	edmp

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
533.00	0.53	119.92	532.98	-2.07	3.64	3.72	0.00	0.00	0.00
623.00	0.70	116.66	622.98	-2.53	4.49	4.58	0.19	0.19	-3.62
713.00	0.53	96.12	712.97	-2.82	5.40	5.50	0.31	-0.19	-22.82
803.00	0.53	107.96	802.97	-2.99	6.21	6.31	0.12	0.00	13.16
893.00	0.53	104.27	892.96	-3.22	7.01	7.12	0.04	0.00	-4.10
983.00	0.26	152.88	982.96	-3.51	7.51	7.63	0.45	-0.30	54.01
1,073.00	0.18	151.59	1,072.96	-3.81	7.67	7.80	0.09	-0.09	-1.43
1,163.00	0.35	192.87	1,162.96	-4.21	7.67	7.82	0.27	0.19	45.87
1,253.00	0.53	183.46	1,252.96	-4.89	7.59	7.76	0.21	0.20	-10.46
1,343.00	0.70	187.15	1,342.95	-5.85	7.49	7.70	0.19	0.19	4.10
1,433.00	0.97	213.52	1,432.94	-7.03	7.00	7.25	0.51	0.30	29.30
1,523.00	0.62	241.56	1,522.93	-7.90	6.15	6.44	0.57	-0.39	31.16
1,613.00	0.62	238.66	1,612.93	-8.38	5.31	5.61	0.03	0.00	-3.22
1,703.00	0.62	212.64	1,702.92	-9.05	4.63	4.96	0.31	0.00	-28.91
1,793.00	0.79	192.60	1,792.92	-10.06	4.23	4.60	0.33	0.19	-22.27
1,883.00	0.53	186.01	1,882.91	-11.08	4.05	4.46	0.30	-0.29	-7.32
1,973.00	0.35	149.01	1,972.91	-11.73	4.15	4.58	0.36	-0.20	-41.11
2,063.00	0.26	157.51	2,062.91	-12.15	4.37	4.81	0.11	-0.10	9.44
2,153.00	0.53	85.81	2,152.90	-12.31	4.87	5.31	0.57	0.30	-79.67
2,243.00	0.97	53.91	2,242.90	-11.83	5.90	6.32	0.66	0.49	-35.44
FIRST MWD SURVEY									
2,354.00	2.05	54.26	2,353.86	-10.12	8.27	8.63	0.97	0.97	0.32
2,445.00	3.57	70.25	2,444.75	-8.21	12.25	12.55	1.86	1.67	17.57
2,536.00	5.25	66.83	2,535.47	-5.62	18.75	18.94	1.87	1.85	-3.76
2,626.00	4.63	67.95	2,625.14	-2.63	25.90	25.98	0.70	-0.69	1.24
2,717.00	4.00	66.58	2,715.88	0.01	32.22	32.20	0.70	-0.69	-1.51
2,807.00	3.19	66.70	2,805.70	2.25	37.40	37.29	0.90	-0.90	0.13
2,898.00	4.81	76.95	2,896.48	4.11	43.44	43.26	1.94	1.78	11.26
2,989.00	6.13	70.95	2,987.06	6.56	51.75	51.48	1.58	1.45	-6.59
3,079.00	4.88	71.33	3,076.65	9.35	59.92	59.54	1.39	-1.39	0.42
3,170.00	3.75	70.20	3,167.39	11.60	66.39	65.92	1.25	-1.24	-1.24
3,260.00	5.06	71.58	3,257.12	13.85	72.92	72.37	1.46	1.46	1.53
3,351.00	3.94	76.20	3,347.84	15.86	79.77	79.14	1.29	-1.23	5.08
3,442.00	5.63	64.33	3,438.52	18.54	86.83	86.09	2.14	1.86	-13.04
3,532.00	4.25	73.83	3,528.18	21.38	94.01	93.17	1.78	-1.53	10.56
3,623.00	3.88	88.45	3,618.96	22.41	100.33	99.44	1.21	-0.41	16.07
3,713.00	5.00	82.83	3,708.69	22.98	107.26	106.35	1.33	1.24	-6.24
3,804.00	4.38	83.45	3,799.38	23.87	114.65	113.70	0.68	-0.68	0.68
3,894.00	3.56	79.20	3,889.16	24.78	120.81	119.82	0.97	-0.91	-4.72
3,985.00	2.69	74.58	3,980.03	25.88	125.64	124.61	0.99	-0.96	-5.08
4,075.00	0.44	158.70	4,069.99	26.12	127.80	126.77	2.98	-2.50	93.47
4,166.00	0.50	161.58	4,160.99	25.42	128.05	127.04	0.07	0.07	3.16
4,257.00	0.63	136.83	4,251.99	24.68	128.52	127.54	0.30	0.14	-27.20

Anadarko Petroleum Corp

Survey Report

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_NBU 1022-2M PAD
Well: NBU 1022-2M1BS
Wellbore: NBU 1022-2M1BS
Design: NBU 1022-2M1BS

Local Co-ordinate Reference: Well NBU 1022-2M1BS
TVD Reference: 14' rkb + 5046' GL @ 5060.00ft (Ensign 146)
MD Reference: 14' rkb + 5046' GL @ 5060.00ft (Ensign 146)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: edmp

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,347.00	0.75	129.70	4,341.98	23.94	129.31	128.36	0.16	0.13	-7.92
4,438.00	0.63	134.20	4,432.97	23.21	130.13	129.20	0.14	-0.13	4.95
4,529.00	0.44	350.08	4,523.97	23.21	130.43	129.50	1.12	-0.21	-158.37
4,619.00	0.31	346.20	4,613.97	23.78	130.31	129.36	0.15	-0.14	-4.31
4,710.00	0.38	345.95	4,704.97	24.32	130.18	129.21	0.08	0.08	-0.27
4,801.00	0.25	9.95	4,795.97	24.80	130.14	129.15	0.20	-0.14	26.37
4,891.00	0.19	25.33	4,885.97	25.13	130.24	129.24	0.09	-0.07	17.09
4,982.00	0.13	72.95	4,976.97	25.30	130.40	129.39	0.15	-0.07	52.33
5,072.00	0.50	103.95	5,066.96	25.23	130.88	129.87	0.44	0.41	34.44
5,163.00	1.17	301.88	5,157.96	25.63	130.48	129.46	1.82	0.74	-178.10
5,254.00	0.69	272.70	5,248.95	26.15	129.14	128.10	0.73	-0.53	-32.07
5,344.00	0.75	245.33	5,338.94	25.93	128.06	127.03	0.38	0.07	-30.41
5,435.00	0.75	199.58	5,429.93	25.12	127.32	126.32	0.64	0.00	-50.27
5,526.00	0.94	192.20	5,520.92	23.82	126.97	126.01	0.24	0.21	-8.11
5,616.00	0.94	170.95	5,610.91	22.37	126.93	126.03	0.39	0.00	-23.61
5,707.00	1.00	131.83	5,701.90	21.11	127.64	126.78	0.72	0.07	-42.99
5,798.00	1.44	356.95	5,792.89	21.72	128.17	127.29	2.48	0.48	-148.22
5,888.00	1.06	354.70	5,882.87	23.68	128.03	127.08	0.43	-0.42	-2.50
5,979.00	0.88	350.83	5,973.86	25.21	127.84	126.84	0.21	-0.20	-4.25
6,070.00	0.44	3.70	6,064.85	26.24	127.75	126.71	0.51	-0.48	14.14
6,160.00	0.25	324.70	6,154.85	26.75	127.66	126.60	0.32	-0.21	-43.33
6,251.00	0.19	235.45	6,245.85	26.83	127.42	126.36	0.34	-0.07	-98.08
6,342.00	0.44	230.45	6,336.85	26.52	127.03	125.98	0.28	0.27	-5.49
6,432.00	0.38	219.58	6,426.84	26.07	126.57	125.54	0.11	-0.07	-12.08
6,523.00	0.56	195.20	6,517.84	25.41	126.26	125.25	0.29	0.20	-26.79
6,614.00	0.56	172.23	6,608.84	24.54	126.21	125.23	0.25	0.00	-25.24
6,704.00	0.88	167.20	6,698.83	23.43	126.42	125.48	0.36	0.36	-5.59
6,795.00	0.75	149.83	6,789.82	22.23	126.87	125.98	0.31	-0.14	-19.09
6,885.00	0.19	273.70	6,879.82	21.73	127.02	126.14	0.97	-0.62	137.63
6,976.00	0.19	221.45	6,970.82	21.63	126.77	125.90	0.18	0.00	-57.42
7,067.00	0.63	154.83	7,061.82	21.06	126.88	126.03	0.64	0.48	-73.21
7,158.00	1.06	156.20	7,152.81	19.84	127.43	126.63	0.47	0.47	1.51
7,248.00	0.13	204.08	7,242.80	18.98	127.73	126.95	1.09	-1.03	53.20
7,339.00	0.38	186.20	7,333.80	18.59	127.65	126.89	0.29	0.27	-19.65
7,430.00	0.38	177.95	7,424.80	17.99	127.63	126.89	0.06	0.00	-9.07
7,520.00	0.50	161.83	7,514.79	17.32	127.77	127.05	0.19	0.13	-17.91
7,611.00	0.69	185.20	7,605.79	16.39	127.84	127.16	0.33	0.21	25.68
7,702.00	0.75	183.20	7,696.78	15.25	127.76	127.12	0.07	0.07	-2.20
7,792.00	0.69	192.83	7,786.78	14.14	127.60	127.00	0.15	-0.07	10.70
7,883.00	0.88	189.95	7,877.77	12.91	127.36	126.81	0.21	0.21	-3.16
7,974.00	1.19	175.08	7,968.75	11.28	127.32	126.83	0.45	0.34	-16.34
8,064.00	1.19	161.95	8,058.73	9.46	127.69	127.26	0.30	0.00	-14.59
8,155.00	1.63	161.08	8,149.70	7.34	128.40	128.05	0.48	0.48	-0.96

Anadarko Petroleum Corp

Survey Report

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_NBU 1022-2M PAD
Well: NBU 1022-2M1BS
Wellbore: NBU 1022-2M1BS
Design: NBU 1022-2M1BS

Local Co-ordinate Reference: Well NBU 1022-2M1BS
TVD Reference: 14' rkb + 5046' GL @ 5060.00ft (Ensign 146)
MD Reference: 14' rkb + 5046' GL @ 5060.00ft (Ensign 146)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: edmp

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,245.00	1.56	160.33	8,239.67	4.98	129.23	128.96	0.08	-0.08	-0.83
8,336.00	1.81	150.20	8,330.63	2.56	130.36	130.18	0.43	0.27	-11.13
8,555.00	1.81	152.39	8,549.52	-3.50	133.68	133.72	0.03	0.00	1.00
LAST MWD SURVEY									
8,605.00	1.81	152.39	8,599.50	-4.90	134.42	134.50	0.00	0.00	0.00
PROJECTION TO BIT									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,243.00	2,242.90	-11.83	5.90	FIRST MWD SURVEY
8,555.00	8,549.52	-3.50	133.68	LAST MWD SURVEY
8,605.00	8,599.50	-4.90	134.42	PROJECTION TO BIT

Checked By: _____ Approved By: _____ Date: _____