

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 922-30E4BS
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) UTU463	11. MINERAL OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>	
12. SURFACE OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>		13. NAME OF SURFACE OWNER (if box 12 = 'fee')
14. SURFACE OWNER PHONE (if box 12 = 'fee')		15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')
16. SURFACE OWNER E-MAIL (if box 12 = 'fee')		17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')
18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input 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	2112 FSL 826 FWL	NWSW	30	9.0 S	22.0 E	S
Top of Uppermost Producing Zone	2194 FNL 760 FWL	SWNW	30	9.0 S	22.0 E	S
At Total Depth	2194 FNL 760 FWL	SWNW	30	9.0 S	22.0 E	S

21. COUNTY UINTAH	22. DISTANCE TO NEAREST LEASE LINE (Feet) 760	23. NUMBER OF ACRES IN DRILLING UNIT 551
25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 636	26. PROPOSED DEPTH MD: 9746 TVD: 9594	
27. ELEVATION - GROUND LEVEL 4971	28. BOND NUMBER WYB000291	29. 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 - 2580	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 - 9746	11.6	I-80 LT&C	12.5	Premium Lite High Strength	320	3.38	11.0
							50/50 Poz	1310	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 Laura Abrams	TITLE Regulatory Analyst II	PHONE 720 929-6356
SIGNATURE	DATE 06/21/2011	EMAIL Laura.Abrams@anadarko.com

API NUMBER ASSIGNED 43047517060000	APPROVAL  Permit Manager
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Kerr-McGee Oil & Gas Onshore. L.P.**NBU 922-30E4BS**

Surface: 2112 FSL / 826 FWL NWSW
 BHL: 2194 FNL / 760 FWL SWNW

Section 30 T9S R22E

Uintah County, Utah
 Mineral Lease: UTU 0463

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	1457	
Birds Nest	1769	Water
Mahogany	2126	Water
Wasatch	4717	Gas
Mesaverde	7355	Gas
MVU2	8302	Gas
MVL1	8837	Gas
TVD	9594	
TD	9746	

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 9594' TVD, approximately equals
 6,332 psi 0.64 psi/ft = actual bottomhole gradient

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

Maximum anticipated surface pressure equals approximately 4,016 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

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	COLLAPSE	LTC	BTC
CONDUCTOR	14"	0-40'							
						3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0 to 2,580	28.00	IJ-55	LTC	2.10	1.56	5.50	N/A
						7,780	6,350	279,000	367,000
PRODUCTION	4-1/2"	0 to 9,746	11.60	I-80	LTC/BTC	1.11	1.02	3.05	4.01

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	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
Option 1	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	LEAD	2,080'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	190	35%	11.00	3.82
Option 2	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	4,216'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	320	20%	11.00	3.38
	TAIL	5,530'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,310	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:

Nick Spence / Danny Showers

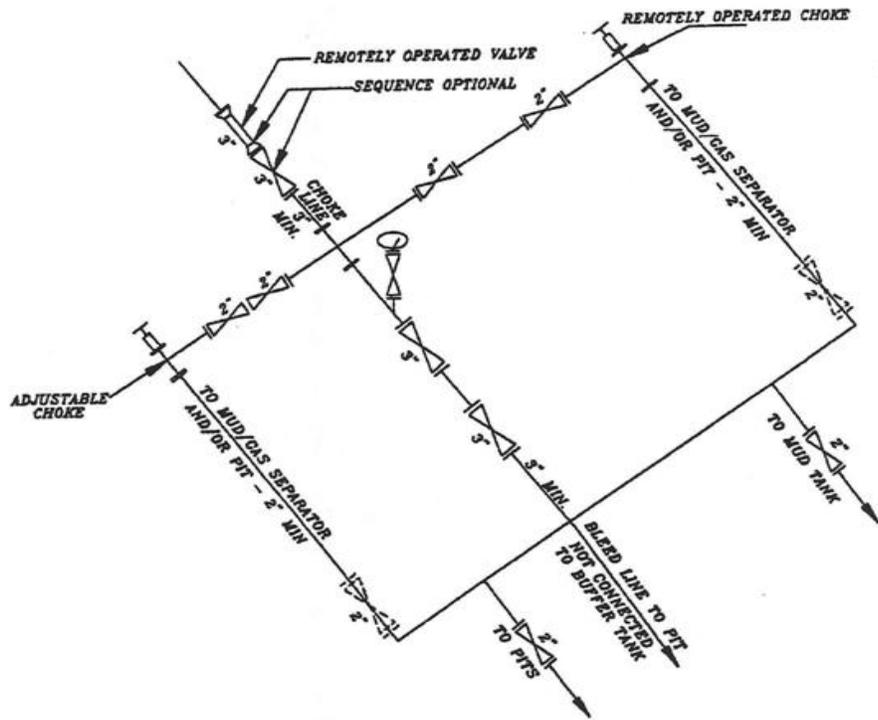
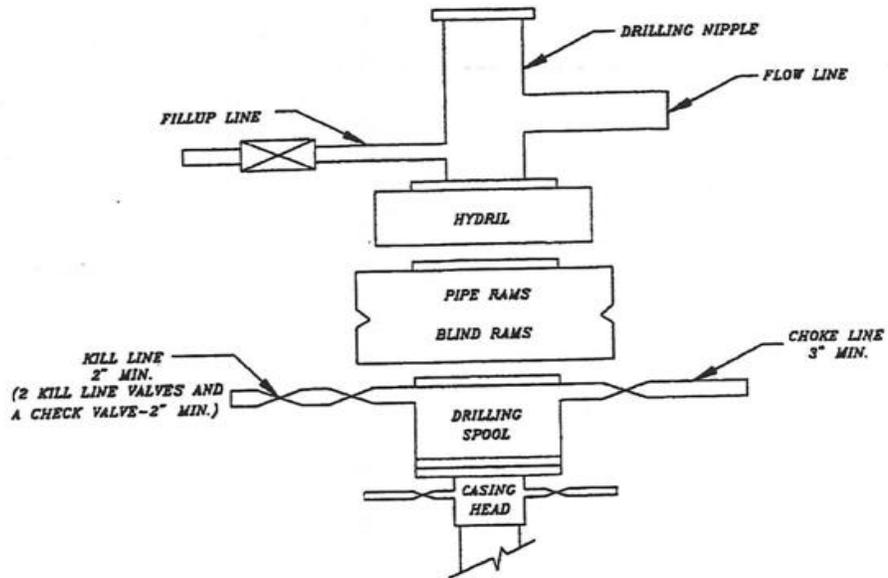
DATE: _____

DRILLING SUPERINTENDENT:

Kenny Gathings / Lovel Young

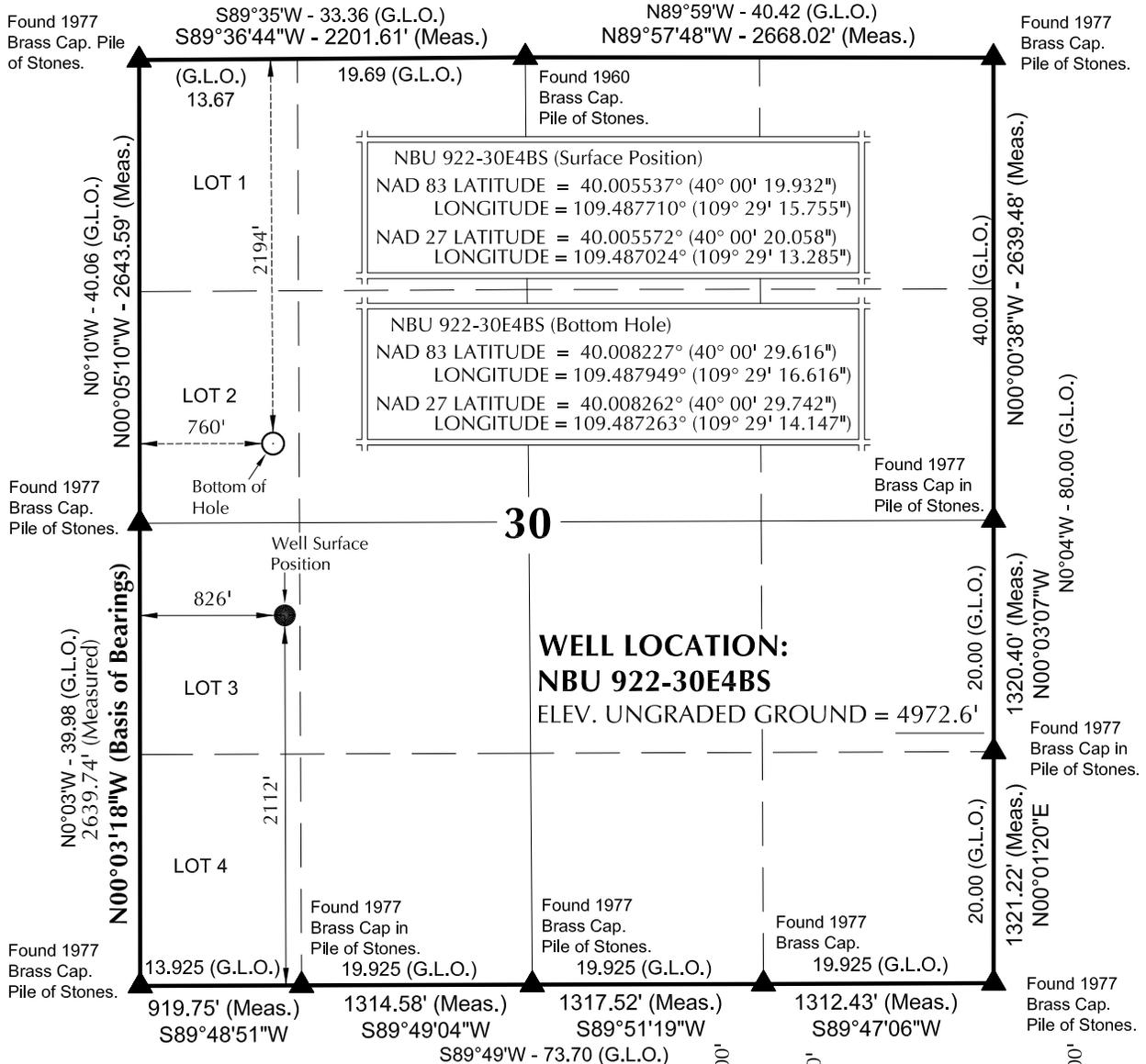
DATE: _____

EXHIBIT A
NBU 922-30E4BS



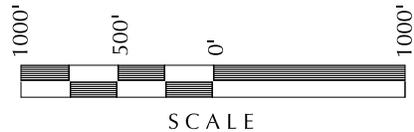
SCHMATIC DIAGRAM OF 5,000 PSI BOP STACK

T9S, 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 N03°53'52"W 982.42' 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 ¼ 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.

PROFESSIONAL LAND SURVEYOR
 No. 6028691
 JOHN R. LAUGH
 STATE OF UTAH
 2-9-11



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

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

WELL PAD: NBU 922-30L

**NBU 922-30E4BS
 WELL PLAT
 2194' FNL, 760' FWL (Bottom Hole)
 LOT 2 OF SECTION 30, T9S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH.**

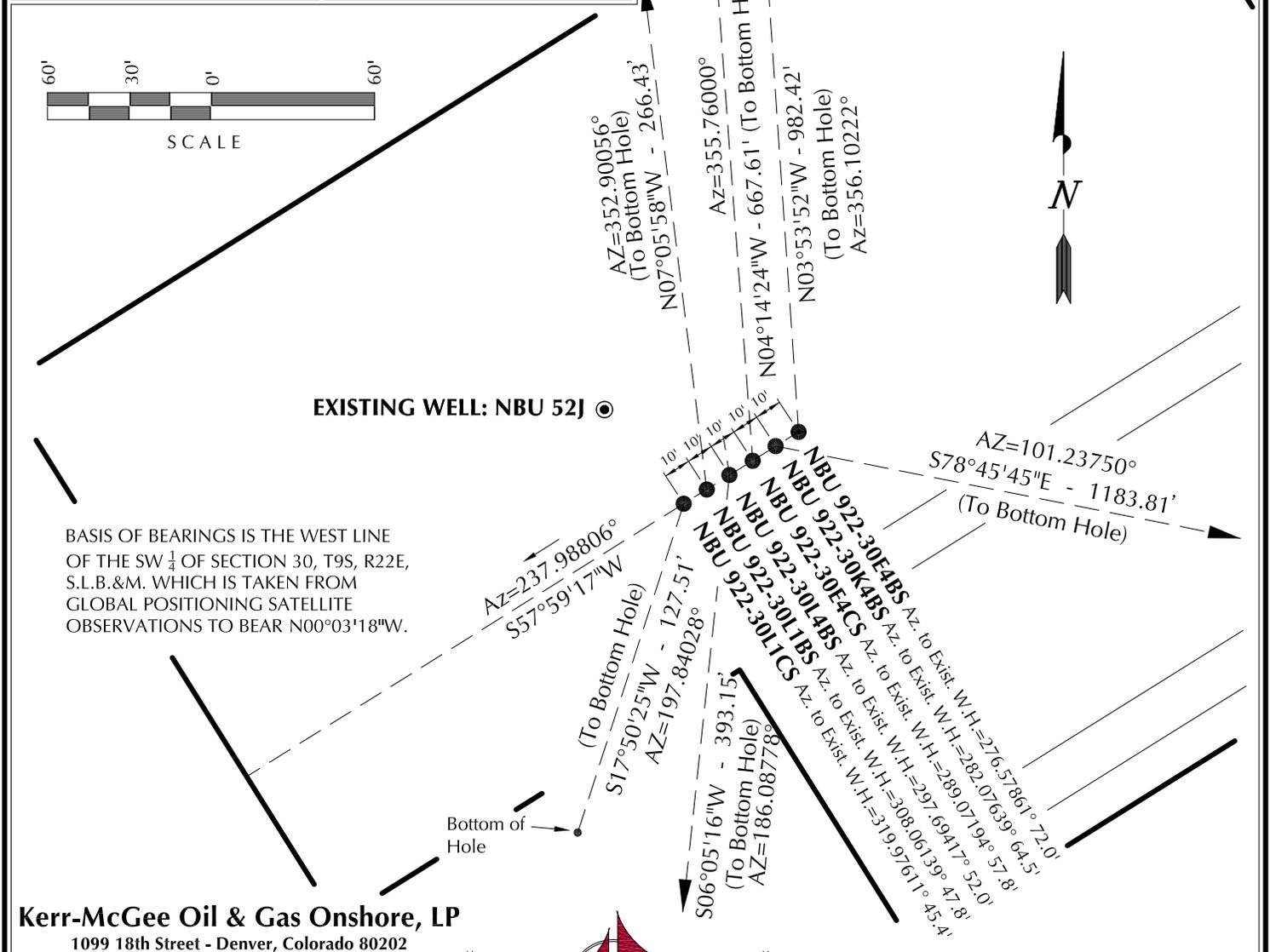
TIMBERLINE (435) 789-1365
 ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 07-16-10	SURVEYED BY: M.S.B.	SHEET NO:
DATE DRAWN: 07-28-10	DRAWN BY: K.O.B.	6 6 OF 18
SCALE: 1" = 1000'	Date Last Revised: 02-08-11 E.M.S.	

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
NBU 922-30L1CS	40°00'19.670"	109°29'16.299"	40°00'19.796"	109°29'13.830"	2085' FSL 783' FWL	40°00'18.471"	109°29'16.801"	40°00'18.597"	109°29'14.331"	1964' FSL 744' FWL
NBU 922-30L1BS	40°00'19.722"	109°29'16.190"	40°00'19.848"	109°29'13.721"	2090' FSL 792' FWL	40°00'22.334"	109°29'16.614"	40°00'22.460"	109°29'14.145"	2355' FSL 759' FWL
NBU 922-30L4BS	40°00'19.775"	109°29'16.083"	40°00'19.901"	109°29'13.613"	2096' FSL 800' FWL	40°00'15.912"	109°29'16.617"	40°00'16.038"	109°29'14.147"	1705' FSL 758' FWL
NBU 922-30E4CS	40°00'19.827"	109°29'15.972"	40°00'19.953"	109°29'13.503"	2101' FSL 809' FWL	40°00'26.405"	109°29'16.609"	40°00'26.531"	109°29'14.139"	2519' FSL 760' FWL
NBU 922-30K4BS	40°00'19.880"	109°29'15.864"	40°00'20.006"	109°29'13.394"	2106' FSL 817' FWL	40°00'17.604"	109°29'00.946"	40°00'17.730"	109°28'58.477"	1872' FSL 1978' FWL
NBU 922-30E4BS	40°00'19.932"	109°29'15.755"	40°00'20.058"	109°29'13.285"	2112' FSL 826' FWL	40°00'29.616"	109°29'16.616"	40°00'29.742"	109°29'14.147"	2194' FSL 760' FWL
NBU 52J	40°00'20.013"	109°29'16.674"	40°00'20.139"	109°29'14.205"	2120' FSL 754' 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 922-30L1CS	-121.4'	-39.1'	NBU 922-30L1BS	264.4'	-32.9'	NBU 922-30L4BS	-390.9'	-41.7'	NBU 922-30E4CS	665.8'	-49.4'
NBU 922-30K4BS	-230.7'	1161.1'	NBU 922-30E4BS	980.1'	-66.8'						



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

WELL PAD - NBU 922-30L

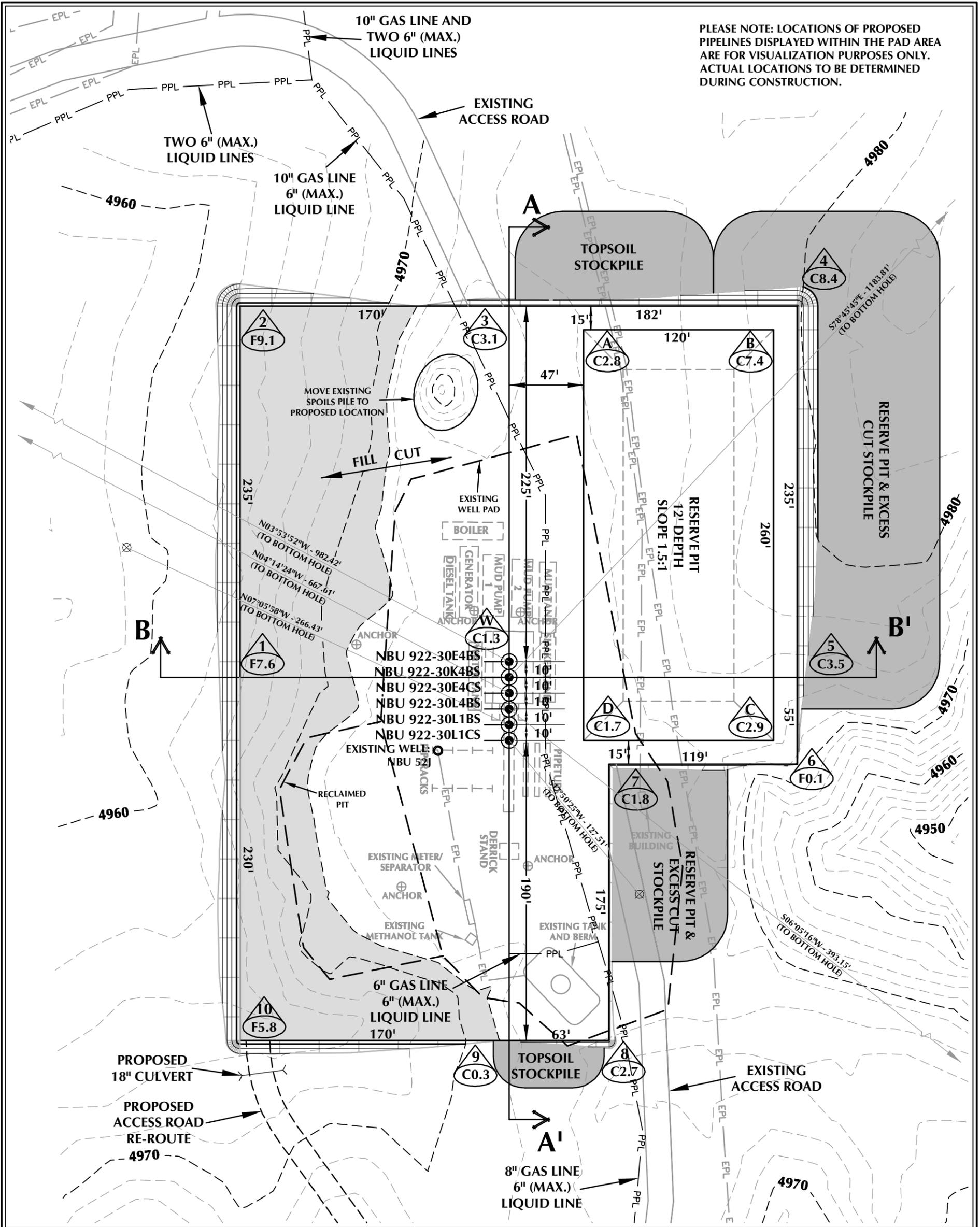
WELL PAD INTERFERENCE PLAT
WELLS - NBU 922-30L1CS, NBU 922-30L1BS, NBU 922-30L4BS, NBU 922-30E4CS, NBU 922-30K4BS & NBU 922-30E4BS LOCATED IN SECTION 30, T9S, R22E, S.L.B.&M., UTAH COUNTY, UTAH.

609

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Phone 307-674-0609
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TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 07-16-10	SURVEYED BY: M.S.B.	SHEET NO: 7
DATE DRAWN: 07-28-10	DRAWN BY: K.O.B.	
SCALE: 1" = 60'		Date Last Revised: 06-10-11 C.T.C.
		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 922-30L DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 4972.7'
 FINISHED GRADE ELEVATION = 4971.4'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.59 ACRES
 TOTAL DISTURBANCE AREA = 4.60 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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

WELL PAD - NBU 922-30L
 WELL PAD - LOCATION LAYOUT
 NBU 922-30L1CS, NBU 922-30L1BS,
 NBU 922-30L4BS, NBU 922-30E4CS,
 NBU 922-30K4BS & NBU 922-30E4BS,
 LOCATED IN SECTION 30, T9S, R22E,
 S.L.B.&M., Uintah County, Utah

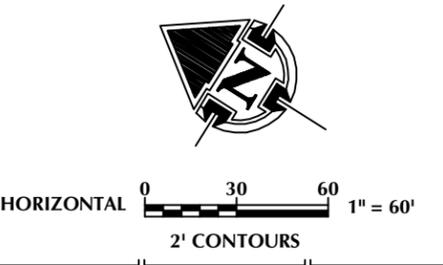


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WELL PAD QUANTITIES
 TOTAL CUT FOR WELL PAD = 9,244 C.Y.
 TOTAL FILL FOR WELL PAD = 8,003 C.Y.
 TOPSOIL @ 6" DEPTH = 2,043 C.Y.
 EXCESS MATERIAL = 1,241 C.Y.

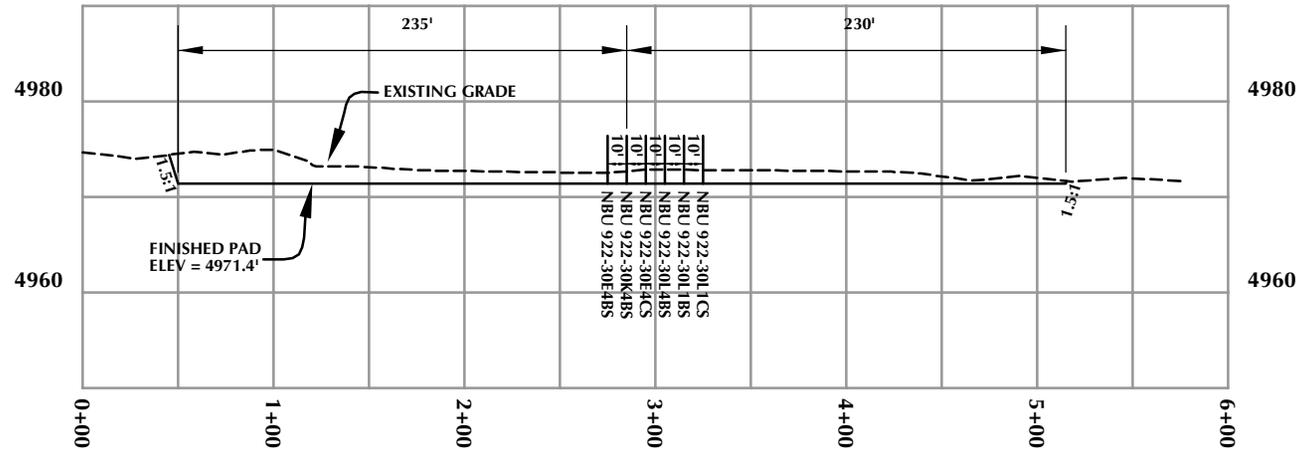
RESERVE PIT QUANTITIES
 TOTAL CUT FOR RESERVE PIT
 +/- 11,020 CY
 RESERVE PIT CAPACITY (2' OF FREEBOARD)
 +/- 42,290 BARRELS

- WELL PAD LEGEND**
- EXISTING WELL LOCATION
 - PROPOSED WELL LOCATION
 - PROPOSED BOTTOM HOLE LOCATION
 - EXISTING CONTOURS (2' INTERVAL)
 - PROPOSED CONTOURS (2' INTERVAL)
 - PROPOSED PIPELINE
 - EXISTING PIPELINE

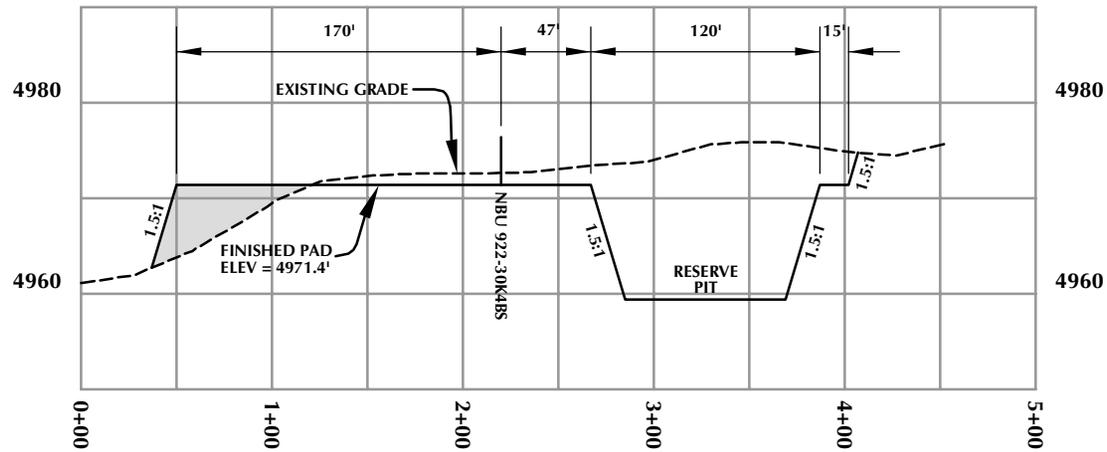


TIMBERLINE ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078
 (435) 789-1365

Scale: 1"=60' Date: 1/14/11 SHEET NO:
 REVISED: JFE 6/10/11 **8** 8 OF 18



CROSS SECTION A-A'



CROSS SECTION B-B'

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

WELL PAD - NBU 922-30L

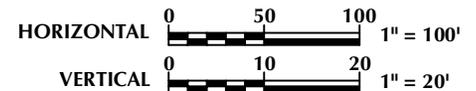
WELL PAD - CROSS SECTIONS
NBU 922-30L1CS, NBU 922-30L1BS,
NBU 922-30L4BS, NBU 922-30E4CS,
NBU 922-30K4BS & NBU 922-30E4BS,
LOCATED IN SECTION 30, T9S, R22E,
S.L.B.&M., Uintah County, Utah



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Phone 307-674-0609
Fax 307-674-0182

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209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365



Scale: 1"=100'

Date: 1/14/11

SHEET NO:

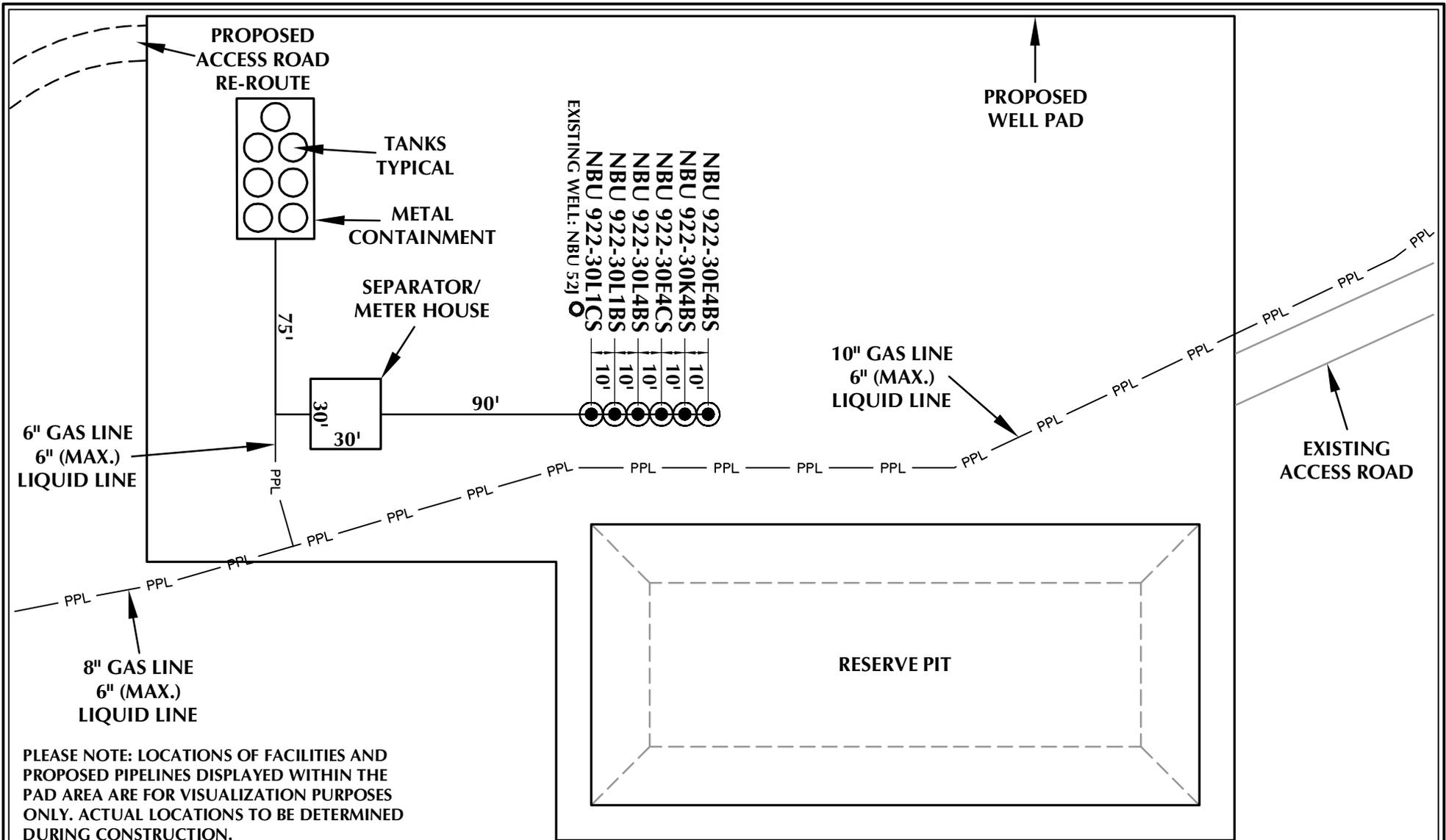
REVISED:

JFE
6/10/11

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9 OF 18

RECEIVED: June 21, 2011



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 922-30L

WELL PAD - FACILITIES DIAGRAM
 NBU 922-30L1CS, NBU 922-30L1BS,
 NBU 922-30L4BS, NBU 922-30E4CS,
 NBU 922-30K4BS & NBU 922-30E4BS,
 LOCATED IN SECTION 30, T9S, 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 LEGEND

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



HORIZONTAL 0 30' 60' 1" = 60'

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

Scale: 1"=60' Date: 1/14/11
 REVISED: JFE 6/10/11

SHEET NO:
10 10 OF 18

K:\ANADARKO\2010\10_35_NBU_FOCUS_SEC_922-30\DWG\NBU_922-30L1CS.dwg, 6/10/2011, 4:28:29 PM, jfe

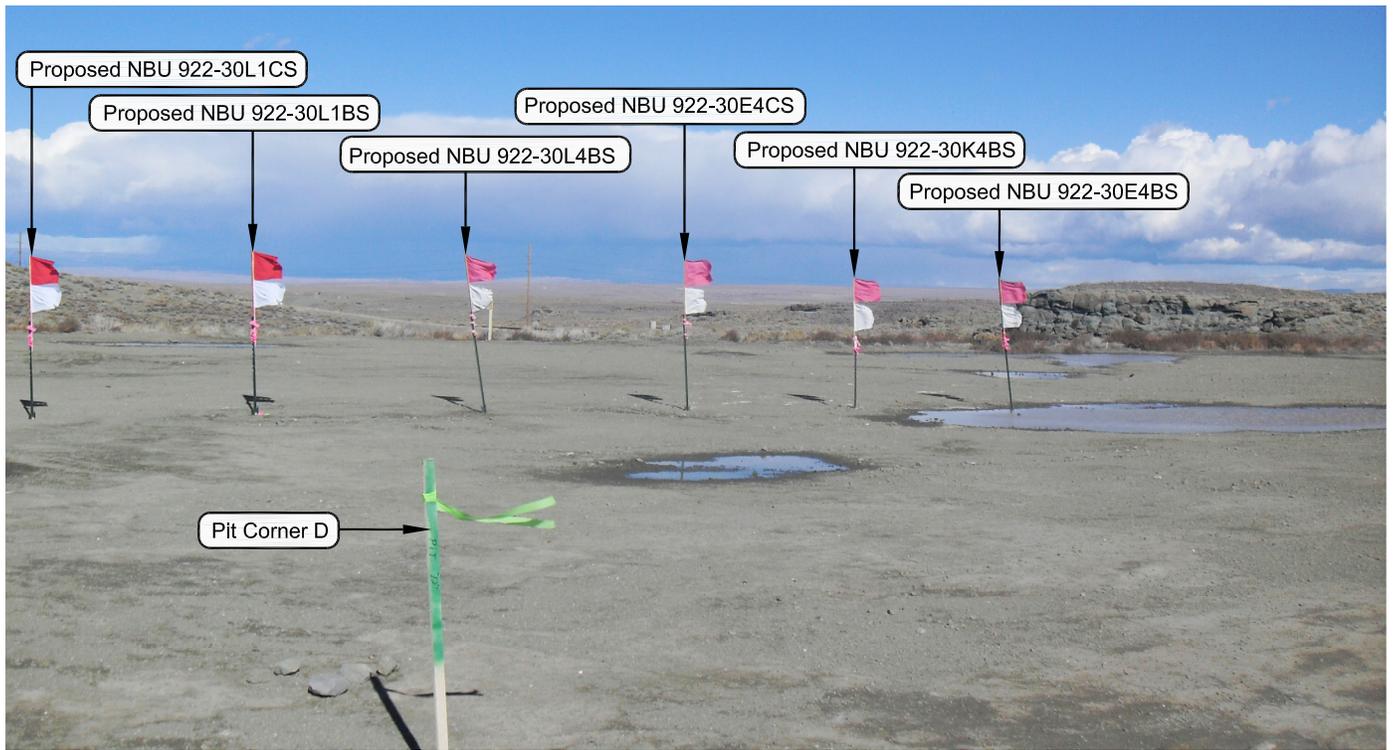


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: SOUTHERLY

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

WELL PAD - NBU 922-30L

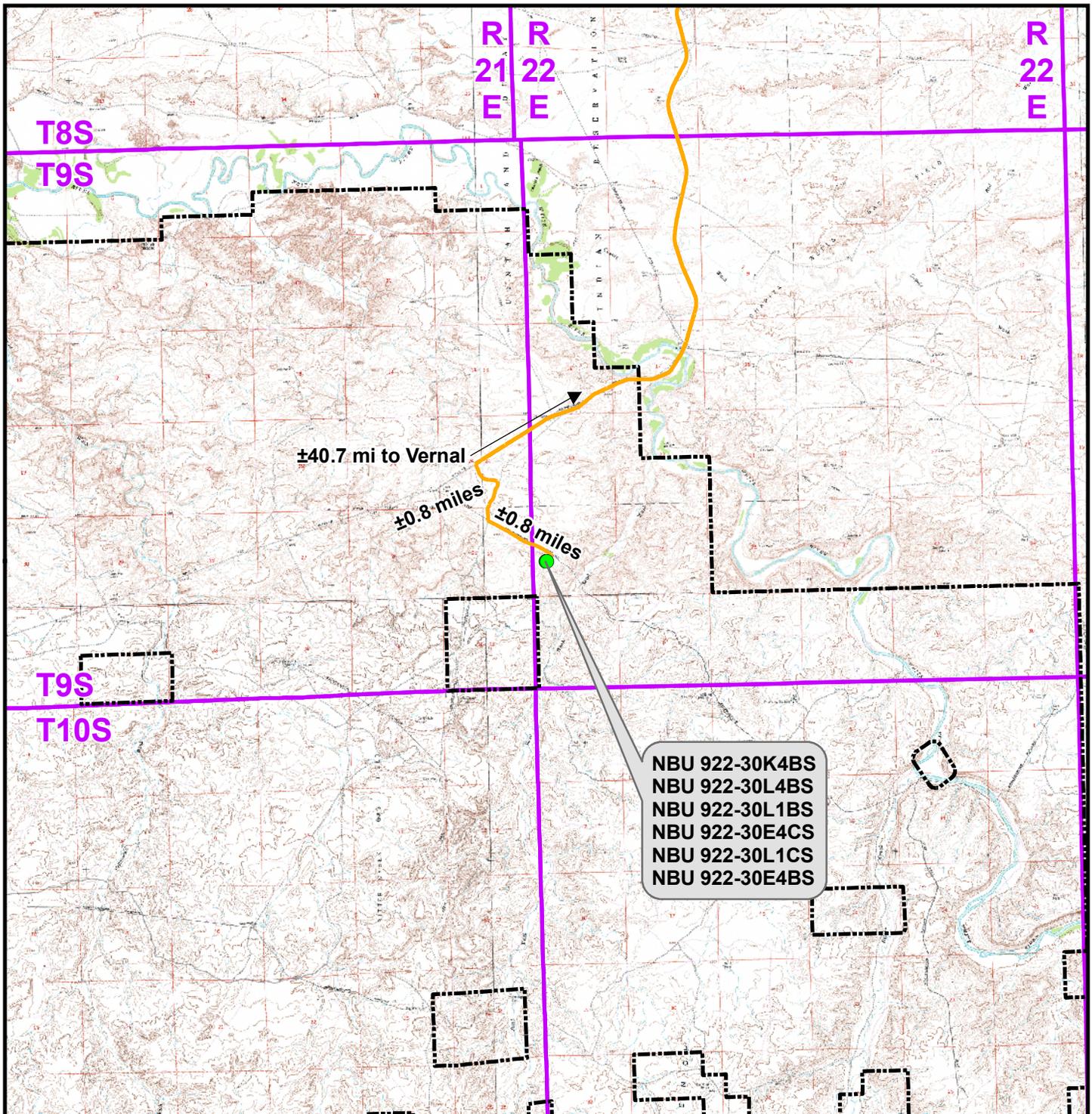
LOCATION PHOTOS
 NBU 922-30L1CS, NBU 922-30L1BS,
 NBU 922-30L4BS, NBU 922-30E4CS,
 NBU 922-30K4BS & NBU 922-30E4BS
 LOCATED IN SECTION 30, T9S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH.



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

DATE PHOTOS TAKEN: 07-16-10	PHOTOS TAKEN BY: M.S.B.	SHEET NO: 11
DATE DRAWN: 07-28-10	DRAWN BY: K.O.B.	
Date Last Revised: 06-10-11 C.T.C.		11 OF 18



Legend

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

Distance From Well Pad - NBU 922-30L To Unit Boundary: ±2,237ft

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

WELL PAD - NBU 922-30L

TOPO A

NBU 922-30K4BS, NBU 922-30L4BS,
 NBU 922-30L1BS, NBU 922-30E4CS,
 NBU 922-30L1CS & NBU 922-30E4BS
 LOCATED IN SECTION 30, T9S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH

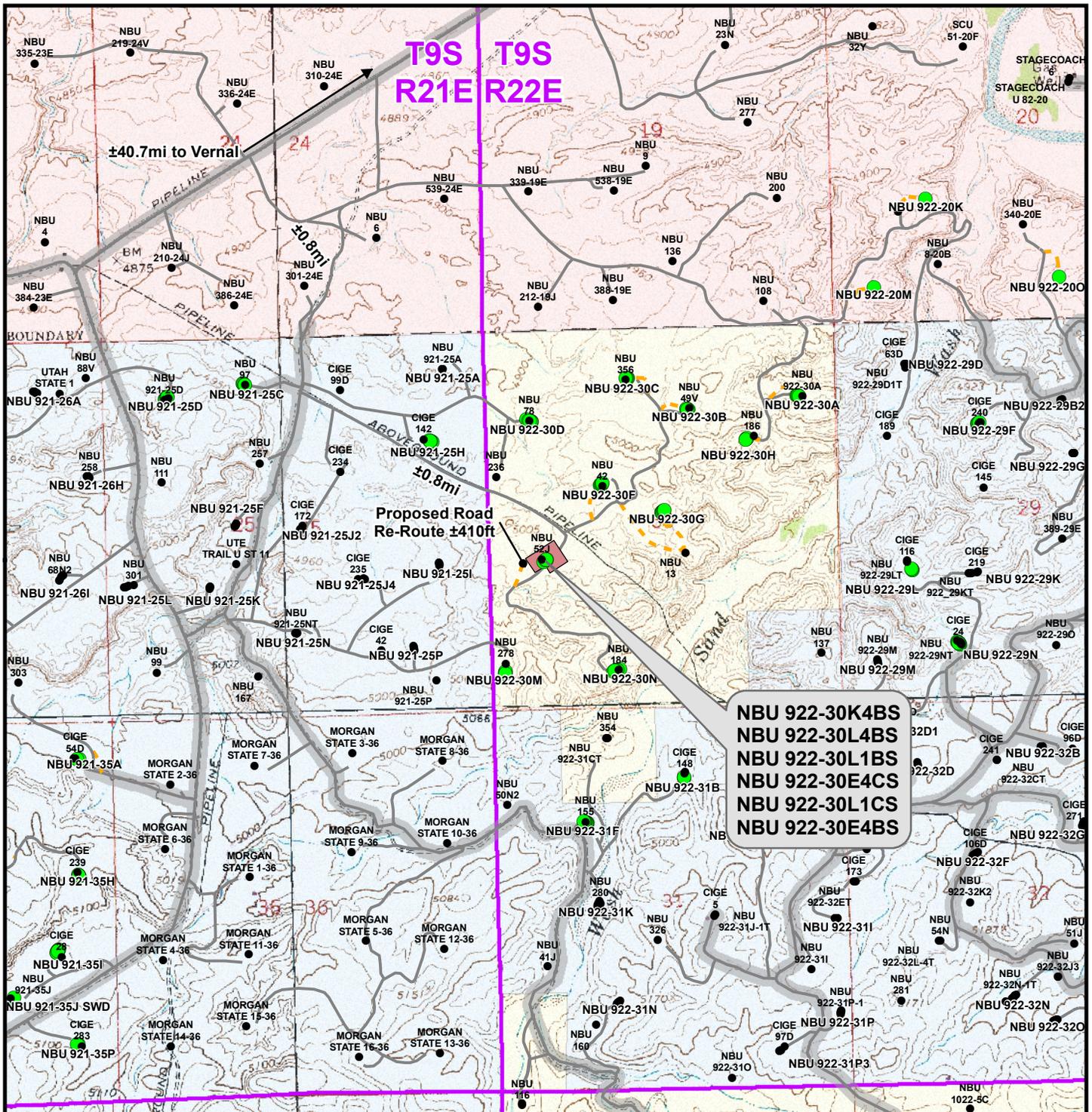


CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone (307) 674-0609
 Fax (307) 674-0182



Scale: 1:100,000	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 14 Jan 2011	12
Revised: TL	Date: 21 Feb 2011	

12 of 18



**NBU 922-30K4BS
 NBU 922-30L4BS
 NBU 922-30L1BS
 NBU 922-30E4CS
 NBU 922-30L1CS
 NBU 922-30E4BS**

Legend

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

Total Proposed Road Length: ±410ft

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

WELL PAD - NBU 922-30L

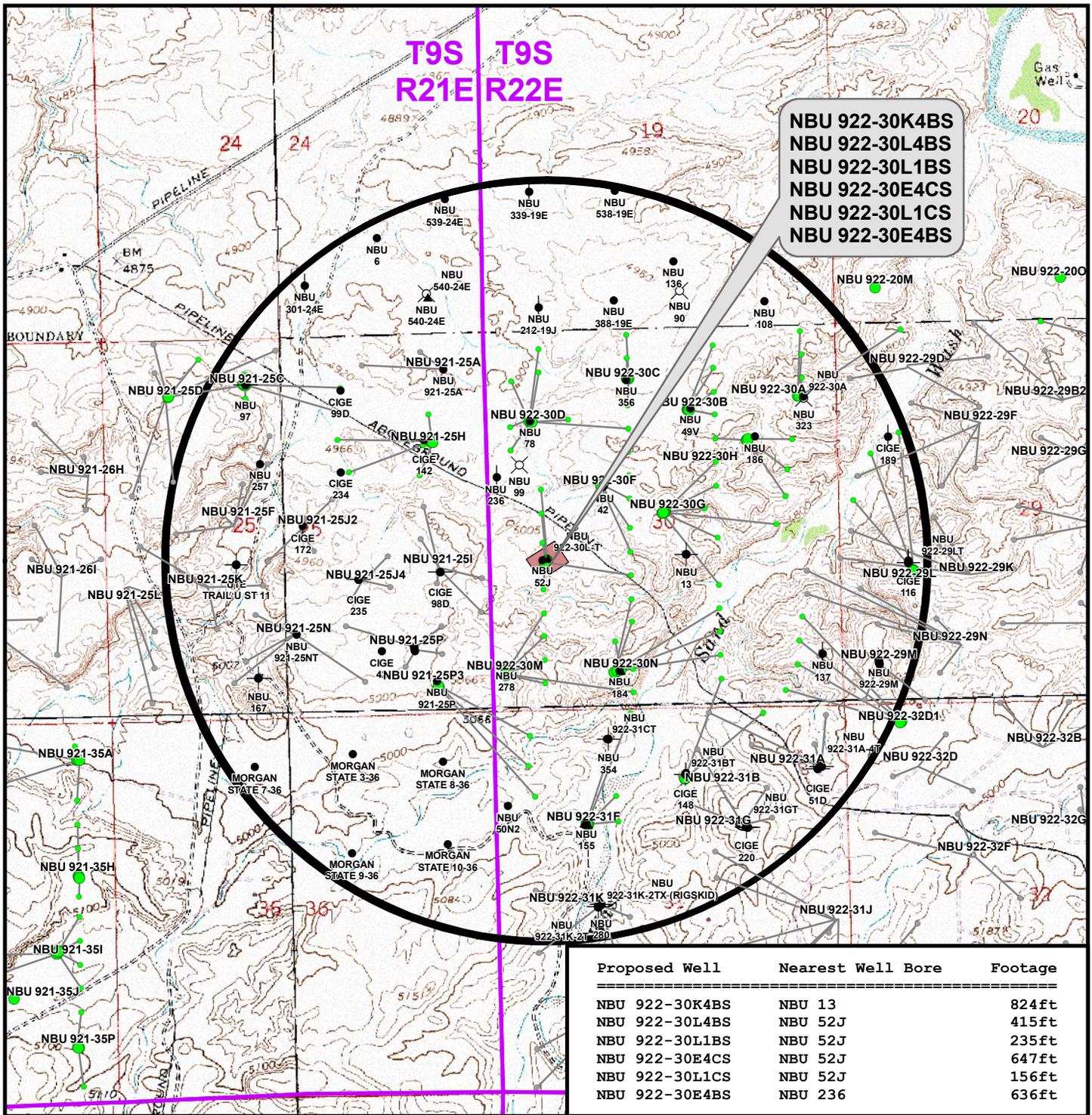
TOPO B

**NBU 922-30K4BS, NBU 922-30L4BS,
 NBU 922-30L1BS, NBU 922-30E4CS,
 NBU 922-30L1CS & NBU 922-30E4BS
 LOCATED IN SECTION 30, T9S, 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" = 2,000ft	NAD83 USP Central	Sheet No: 13
Drawn: TL	Date: 14 Jan 2011	13 of 18
Revised: TL	Date: 21 Feb 2011	



Proposed Well	Nearest Well Bore	Footage
NBU 922-30K4BS	NBU 13	824ft
NBU 922-30L4BS	NBU 52J	415ft
NBU 922-30L1BS	NBU 52J	235ft
NBU 922-30E4CS	NBU 52J	647ft
NBU 922-30L1CS	NBU 52J	156ft
NBU 922-30E4BS	NBU 236	636ft

Legend

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

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

WELL PAD - NBU 922-30L

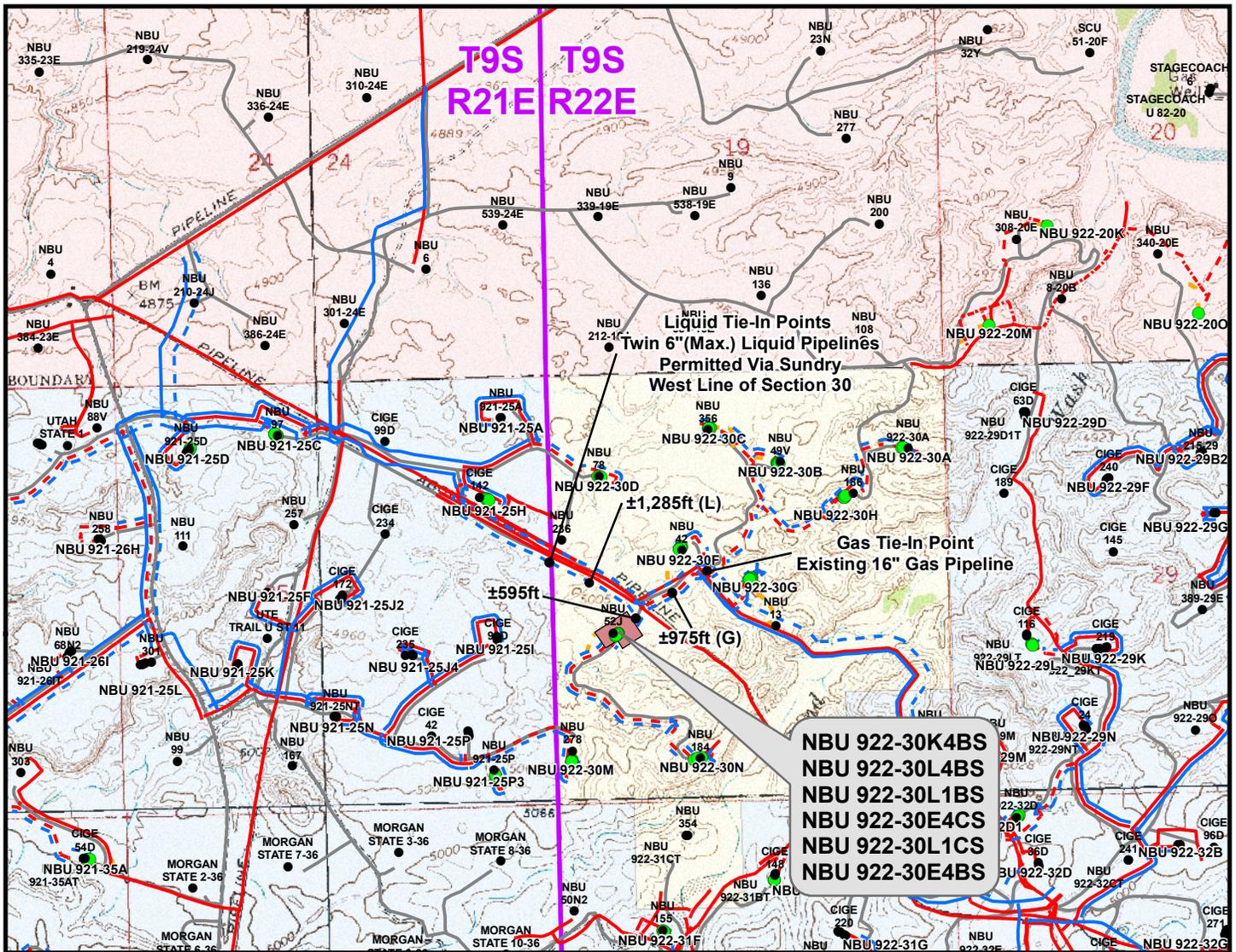
TOPO C

NBU 922-30K4BS, NBU 922-30L4BS,
NBU 922-30L1BS, NBU 922-30E4CS,
NBU 922-30L1CS & NBU 922-30E4BS
LOCATED IN SECTION 30, T9S, 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:
Drawn: TL	Date: 14 Jan 2011	14
Revised: TL	Date: 13 May 2011	



Proposed Gas Pipeline	Alignment Length	Materials Length
(1) Buried 6" (Meter House to 30N Intersection)	±90ft	±90ft
(1) Buried 10" (30N Intersection to Existing Buried 16" Gas Pipeline)	±1,570ft	±1,570ft
TOTAL PROPOSED GAS PIPELINE =	±1,660ft	±1,660ft

Proposed Liquid Pipeline	Alignment Length	Materials Length
(1) Buried 6" (Max.) (Meter House to 30N Intersection)	±90ft	±90ft
(1) Buried 6" (Max.) (30N Intersection to 30F Intersection)	±595ft	±595ft
(2) Buried 6" (Max.) (30F Liquid Intersection to West Line of Section 30)	±1,285ft	±2,570ft
TOTAL PROPOSED LIQUID PIPELINE =	±1,970ft	±3,255ft

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 - To Be Upgraded
- - - Road - Existing
- Indian Reservation
- - - Gas Pipeline - Existing
- - - Liquid Pipeline - Existing
- State
- Private

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

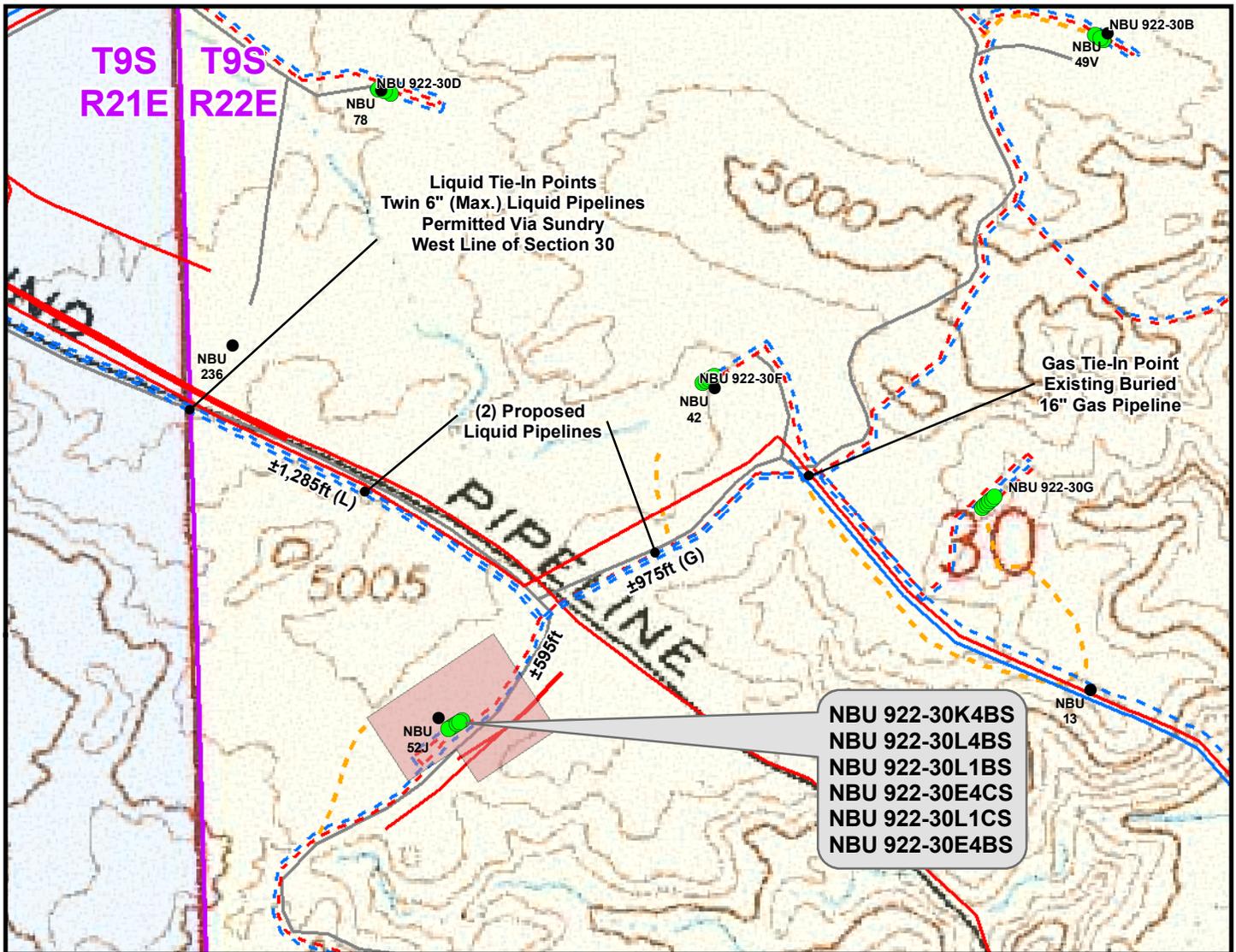
WELL PAD - NBU 922-30L

TOPO D

NBU 922-30K4BS, NBU 922-30L4BS,
NBU 922-30L1BS, NBU 922-30E4CS,
NBU 922-30L1CS & NBU 922-30E4BS
LOCATED IN SECTION 30, T9S, 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" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 14 Jan 2011	15 15 of 18
Revised: TL	Date: 13 May 2011	



NBU 922-30K4BS
 NBU 922-30L4BS
 NBU 922-30L1BS
 NBU 922-30E4CS
 NBU 922-30L1CS
 NBU 922-30E4BS

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TOTAL PROPOSED LIQUID PIPELINE =	±1,970ft	±3,255ft

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 - To Be Upgraded
- - - Road - Existing
- Indian Reservation
- - - Gas Pipeline - Existing
- - - Liquid Pipeline - Existing
- State
- Private

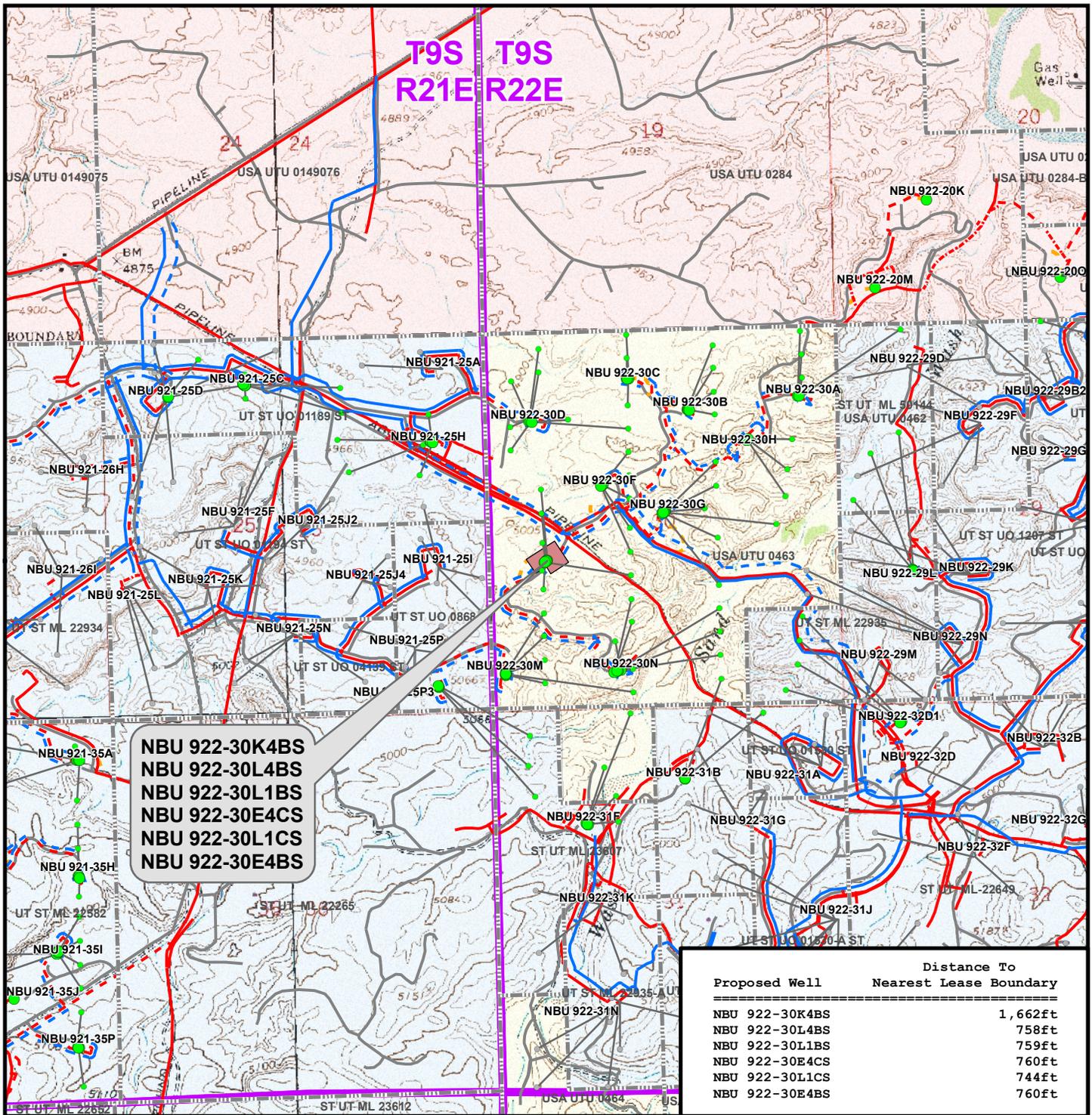
Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 922-30L
 TOPO D2 (PAD & PIPELINE DETAIL)
 NBU 922-30K4BS, NBU 922-30L4BS,
 NBU 922-30L1BS, NBU 922-30E4CS,
 NBU 922-30L1CS & NBU 922-30E4BS
 LOCATED IN SECTION 30, T9S, 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" = 500ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 14 Jan 2011	16
Revised: TL	Date: 13 May 2011	



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 - To Be Upgraded
- 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 922-30L

TOPO E

NBU 922-30K4BS, NBU 922-30L4BS,
NBU 922-30L1BS, NBU 922-30E4CS,
NBU 922-30L1CS & NBU 922-30E4BS
LOCATED IN SECTION 30, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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CONSULTING, LLC
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Fax (307) 674-0182

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 14 Jan 2011	17
Revised: TL	Date: 13 May 2011	

17 of 18

**Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 922-30L
WELLS – NBU 922-30K4BS, NBU 922-30L4BS,
NBU 922-30L1BS, NBU 922-30E4CS,
NBU 922-30L1CS & NBU 922-30E4BS
Section 30, T9S, 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 17.2 miles to a service road to the southeast. Exit left and proceed in a southeasterly, then southerly direction along the service road approximately 0.8 miles to a second service road to the southeast. Exit left and proceed in a southeasterly direction along the second service road approximately 0.8 miles to the proposed well pad.

Total distance from Vernal, Utah to the proposed well location is approximately 42.3 miles in a southerly direction.



WELL DETAILS: NBU 922-30E4BS

GL 4971' & KB 9' @ 4980.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14531670.05	2064112.37	40° 0' 20.059 N	109° 29' 13.286 W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL - plan hits target center	9594.00	979.72	-66.94	14532648.49	2064028.81	40° 0' 29.743 N	109° 29' 14.147 W	Circle (Radius: 25.00)

FORMATION TOP DETAILS	CASING DETAILS
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<table style="width: 100%;"> <thead> <tr> <th style="text-align: left;">TVDPATH</th> <th style="text-align: left;">MDPATH</th> <th style="text-align: left;">FORMATION</th> </tr> </thead> <tbody> <tr> <td>1457.00</td> <td>1488.56</td> <td>GREEN RIVER</td> </tr> <tr> <td>4717.00</td> <td>4869.60</td> <td>WASATCH</td> </tr> <tr> <td>7355.00</td> <td>7507.60</td> <td>MESAVERDE</td> </tr> </tbody> </table>	TVDPATH	MDPATH	FORMATION	1457.00	1488.56	GREEN RIVER	4717.00	4869.60	WASATCH	7355.00	7507.60	MESAVERDE	<table style="width: 100%;"> <thead> <tr> <th style="text-align: center;">TVD</th> <th style="text-align: center;">MD</th> <th style="text-align: center;">Name</th> <th style="text-align: center;">Size</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2576.00</td> <td style="text-align: center;">2679.37</td> <td style="text-align: center;">8 5/8"</td> <td style="text-align: center;">8.625</td> </tr> </tbody> </table>	TVD	MD	Name	Size	2576.00	2679.37	8 5/8"	8.625
TVDPATH	MDPATH	FORMATION																			
1457.00	1488.56	GREEN RIVER																			
4717.00	4869.60	WASATCH																			
7355.00	7507.60	MESAVERDE																			
TVD	MD	Name	Size																		
2576.00	2679.37	8 5/8"	8.625																		

SECTION DETAILS

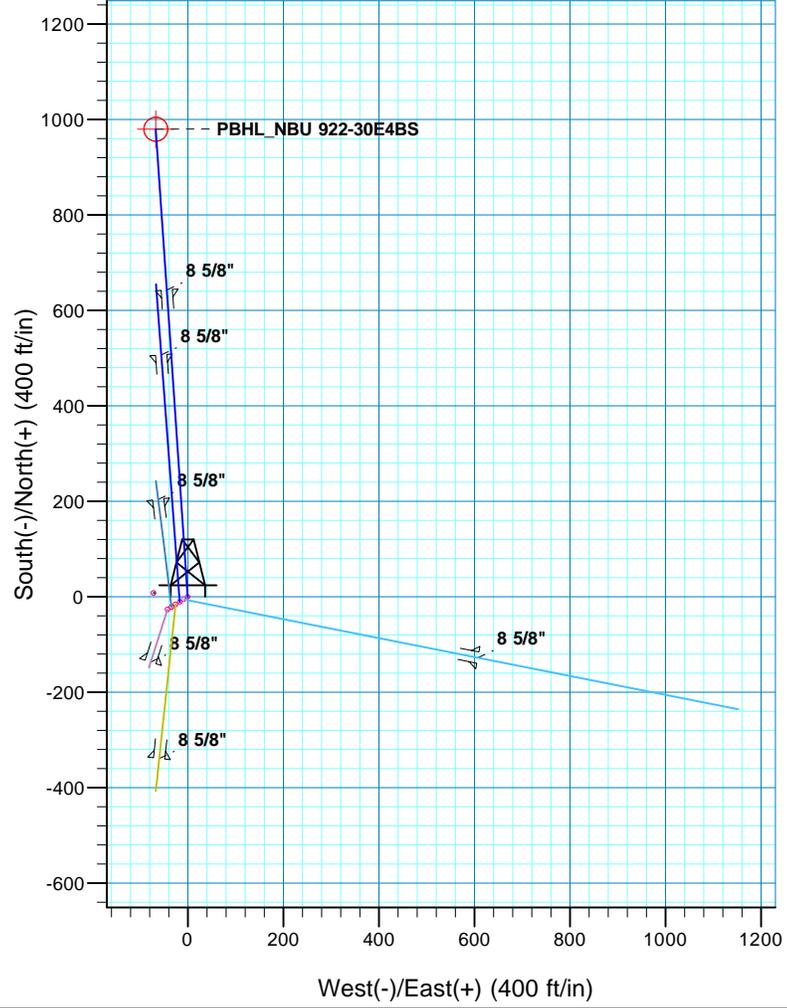
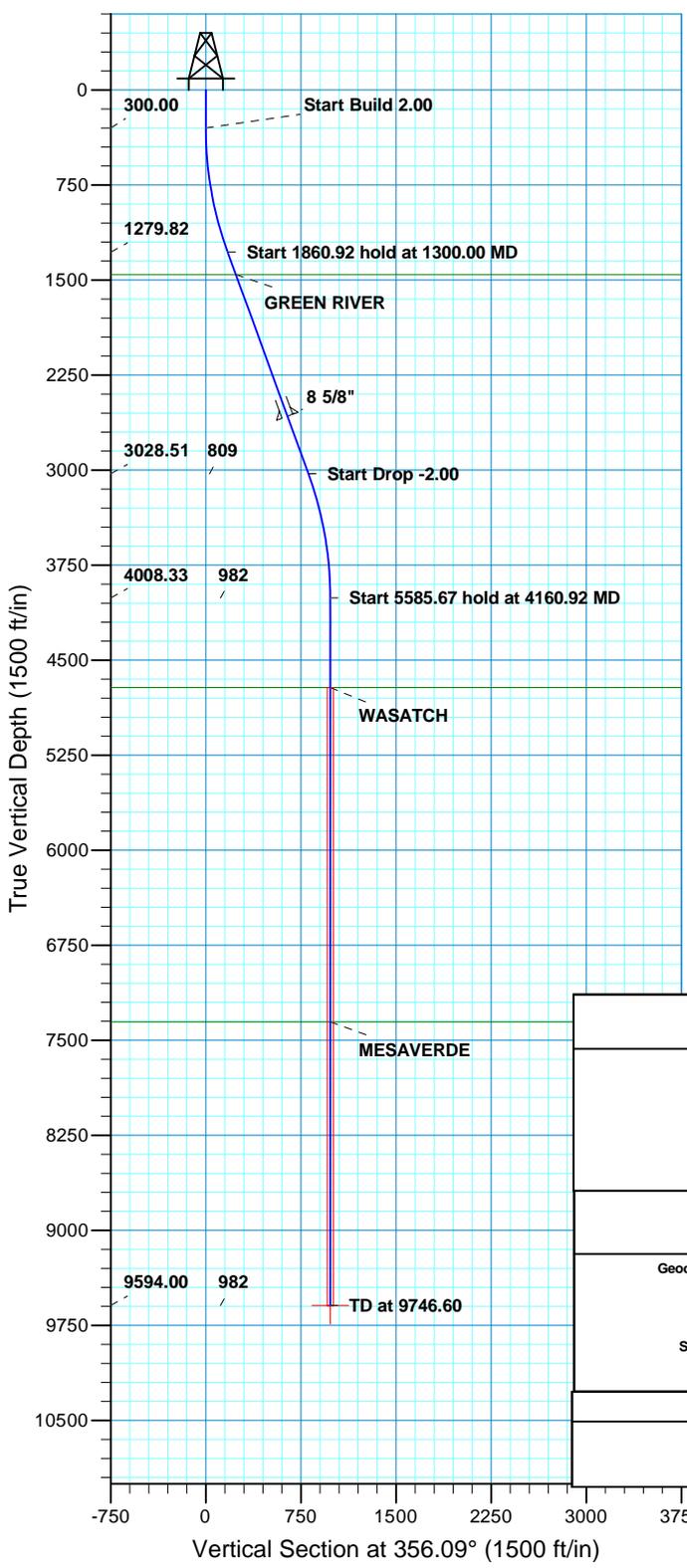
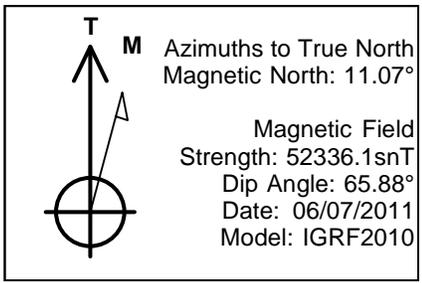
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1300.00	20.00	356.09	1279.82	172.37	-11.78	2.00	356.09	172.77	
3160.92	20.00	356.09	3028.51	807.36	-55.16	0.00	0.00	809.24	
4160.92	0.00	0.00	4008.33	979.72	-66.94	2.00	180.00	982.01	
9746.60	0.00	0.00	9594.00	979.72	-66.94	0.00	0.00	982.01	PBHL_NBU 922-30E4BS

PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD 1927 - Western US
 Ellipsoid: Clarke 1866
 Zone: Zone 12N (114 W to 108 W)
 Location: SECTION 30 T9S R22E
 System Datum: Mean Sea Level



WELL DETAILS: NBU 922-30E4BS							
GL 4971' & KB 9' @ 4980.00ft (ASSUMED)							
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude		
0.00	0.00	14531670.05	2064112.37	40° 0' 20.059 N	109° 29' 13.286 W		
DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL	9594.00	979.72	-66.94	14532648.49	2064028.81	40° 0' 29.743 N	109° 29' 14.147 W
- plan hits target center							
Shape							
Circle (Radius: 25.00)							



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	
1300.00	20.00	356.09	1279.82	172.37	-11.78	2.00	356.09	172.77	
3160.92	20.00	356.09	3028.51	807.36	-55.16	0.00	0.00	809.24	
4160.92	0.00	0.00	4008.33	979.72	-66.94	2.00	180.00	982.01	
9746.60	0.00	0.00	9594.00	979.72	-66.94	0.00	0.00	982.01	PBHL_NBU 922-30E4BS

PROJECT DETAILS: Uintah County, UT UTM12		
Geodetic System:	Universal Transverse Mercator (US Survey Feet)	
Datum:	NAD 1927 - Western US	
Ellipsoid:	Clarke 1866	
Zone:	Zone 12N (114 W to 108 W)	
Location:	SECTION 30 T9S R22E	
System Datum:	Mean Sea Level	

FORMATION TOP DETAILS		
TVDPPath	MDPath	Formation
1457.00	1488.56	GREEN RIVER
4717.00	4869.60	WASATCH
7355.00	7507.60	MESAVERDE

CASING DETAILS			
TVD	MD	Name	Size
2576.00	2679.37	8 5/8"	8.625

REC



Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT UTM12
NBU 922-30L PAD
NBU 922-30E4BS**

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

14 June, 2011





SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-30E4BS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 4971' & KB 9' @ 4980.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 4971' & KB 9' @ 4980.00ft (ASSUMED)
Site:	NBU 922-30L PAD	North Reference:	True
Well:	NBU 922-30E4BS	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 922-30L PAD, SECTION 30 T9S R22E				
Site Position:	Northing:	14,531,642.75 usft	Latitude:	40° 0' 19.796 N	
From: Lat/Long	Easting:	2,064,070.53 usft	Longitude:	109° 29' 13.830 W	
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.97 °

Well	NBU 922-30E4BS, 2112 FSL 826 FWL					
Well Position	+N/-S	26.59 ft	Northing:	14,531,670.05 usft	Latitude:	40° 0' 20.059 N
	+E/-W	42.29 ft	Easting:	2,064,112.37 usft	Longitude:	109° 29' 13.286 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,971.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	06/07/2011	11.07	65.88	52,336

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	356.09

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	
1,300.00	20.00	356.09	1,279.82	172.37	-11.78	2.00	2.00	0.00	356.09	
3,160.92	20.00	356.09	3,028.51	807.36	-55.16	0.00	0.00	0.00	0.00	
4,160.92	0.00	0.00	4,008.33	979.72	-66.94	2.00	-2.00	0.00	180.00	
9,746.60	0.00	0.00	9,594.00	979.72	-66.94	0.00	0.00	0.00	0.00	PBHL_NBU 922-30E4



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-30E4BS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 4971' & KB 9' @ 4980.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 4971' & KB 9' @ 4980.00ft (ASSUMED)
Site:	NBU 922-30L PAD	North Reference:	True
Well:	NBU 922-30E4BS	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	356.09	399.98	1.74	-0.12	1.75	2.00	2.00	2.00	0.00
500.00	4.00	356.09	499.84	6.96	-0.48	6.98	2.00	2.00	2.00	0.00
600.00	6.00	356.09	599.45	15.66	-1.07	15.69	2.00	2.00	2.00	0.00
700.00	8.00	356.09	698.70	27.82	-1.90	27.88	2.00	2.00	2.00	0.00
800.00	10.00	356.09	797.47	43.42	-2.97	43.52	2.00	2.00	2.00	0.00
900.00	12.00	356.09	895.62	62.46	-4.27	62.60	2.00	2.00	2.00	0.00
1,000.00	14.00	356.09	993.06	84.90	-5.80	85.10	2.00	2.00	2.00	0.00
1,100.00	16.00	356.09	1,089.64	110.72	-7.56	110.98	2.00	2.00	2.00	0.00
1,200.00	18.00	356.09	1,185.27	139.89	-9.56	140.21	2.00	2.00	2.00	0.00
1,300.00	20.00	356.09	1,279.82	172.37	-11.78	172.77	2.00	2.00	2.00	0.00
Start 1860.92 hold at 1300.00 MD										
1,400.00	20.00	356.09	1,373.78	206.49	-14.11	206.97	0.00	0.00	0.00	0.00
1,488.56	20.00	356.09	1,457.00	236.71	-16.17	237.26	0.00	0.00	0.00	0.00
GREEN RIVER										
1,500.00	20.00	356.09	1,467.75	240.61	-16.44	241.17	0.00	0.00	0.00	0.00
1,600.00	20.00	356.09	1,561.72	274.73	-18.77	275.37	0.00	0.00	0.00	0.00
1,700.00	20.00	356.09	1,655.69	308.86	-21.10	309.58	0.00	0.00	0.00	0.00
1,800.00	20.00	356.09	1,749.66	342.98	-23.43	343.78	0.00	0.00	0.00	0.00
1,900.00	20.00	356.09	1,843.63	377.10	-25.77	377.98	0.00	0.00	0.00	0.00
2,000.00	20.00	356.09	1,937.60	411.22	-28.10	412.18	0.00	0.00	0.00	0.00
2,100.00	20.00	356.09	2,031.57	445.35	-30.43	446.38	0.00	0.00	0.00	0.00
2,200.00	20.00	356.09	2,125.54	479.47	-32.76	480.59	0.00	0.00	0.00	0.00
2,300.00	20.00	356.09	2,219.51	513.59	-35.09	514.79	0.00	0.00	0.00	0.00
2,400.00	20.00	356.09	2,313.48	547.71	-37.42	548.99	0.00	0.00	0.00	0.00
2,500.00	20.00	356.09	2,407.45	581.84	-39.75	583.19	0.00	0.00	0.00	0.00
2,600.00	20.00	356.09	2,501.42	615.96	-42.09	617.39	0.00	0.00	0.00	0.00
2,679.37	20.00	356.09	2,576.00	643.04	-43.94	644.54	0.00	0.00	0.00	0.00
8 5/8"										
2,700.00	20.00	356.09	2,595.39	650.08	-44.42	651.60	0.00	0.00	0.00	0.00
2,800.00	20.00	356.09	2,689.35	684.20	-46.75	685.80	0.00	0.00	0.00	0.00
2,900.00	20.00	356.09	2,783.32	718.33	-49.08	720.00	0.00	0.00	0.00	0.00
3,000.00	20.00	356.09	2,877.29	752.45	-51.41	754.20	0.00	0.00	0.00	0.00
3,100.00	20.00	356.09	2,971.26	786.57	-53.74	788.40	0.00	0.00	0.00	0.00
3,160.92	20.00	356.09	3,028.51	807.36	-55.16	809.24	0.00	0.00	0.00	0.00
Start Drop -2.00										
3,200.00	19.22	356.09	3,065.32	820.44	-56.06	822.36	2.00	-2.00	0.00	0.00
3,300.00	17.22	356.09	3,160.30	851.63	-58.19	853.62	2.00	-2.00	0.00	0.00
3,400.00	15.22	356.09	3,256.32	879.50	-60.09	881.55	2.00	-2.00	0.00	0.00
3,500.00	13.22	356.09	3,353.25	904.00	-61.77	906.11	2.00	-2.00	0.00	0.00
3,600.00	11.22	356.09	3,450.98	925.11	-63.21	927.27	2.00	-2.00	0.00	0.00
3,700.00	9.22	356.09	3,549.39	942.81	-64.42	945.01	2.00	-2.00	0.00	0.00
3,800.00	7.22	356.09	3,648.36	957.07	-65.39	959.30	2.00	-2.00	0.00	0.00
3,900.00	5.22	356.09	3,747.76	967.88	-66.13	970.13	2.00	-2.00	0.00	0.00
4,000.00	3.22	356.09	3,847.49	975.22	-66.63	977.49	2.00	-2.00	0.00	0.00
4,100.00	1.22	356.09	3,947.41	979.08	-66.90	981.36	2.00	-2.00	0.00	0.00
4,160.92	0.00	0.00	4,008.33	979.72	-66.94	982.01	2.00	-2.00	0.00	0.00
Start 5585.67 hold at 4160.92 MD										
4,200.00	0.00	0.00	4,047.40	979.72	-66.94	982.01	0.00	0.00	0.00	0.00



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-30E4BS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 4971' & KB 9' @ 4980.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 4971' & KB 9' @ 4980.00ft (ASSUMED)
Site:	NBU 922-30L PAD	North Reference:	True
Well:	NBU 922-30E4BS	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)
4,300.00	0.00	0.00	4,147.40	979.72	-66.94	982.01	0.00	0.00	0.00
4,400.00	0.00	0.00	4,247.40	979.72	-66.94	982.01	0.00	0.00	0.00
4,500.00	0.00	0.00	4,347.40	979.72	-66.94	982.01	0.00	0.00	0.00
4,600.00	0.00	0.00	4,447.40	979.72	-66.94	982.01	0.00	0.00	0.00
4,700.00	0.00	0.00	4,547.40	979.72	-66.94	982.01	0.00	0.00	0.00
4,800.00	0.00	0.00	4,647.40	979.72	-66.94	982.01	0.00	0.00	0.00
4,869.60	0.00	0.00	4,717.00	979.72	-66.94	982.01	0.00	0.00	0.00
WASATCH									
4,900.00	0.00	0.00	4,747.40	979.72	-66.94	982.01	0.00	0.00	0.00
5,000.00	0.00	0.00	4,847.40	979.72	-66.94	982.01	0.00	0.00	0.00
5,100.00	0.00	0.00	4,947.40	979.72	-66.94	982.01	0.00	0.00	0.00
5,200.00	0.00	0.00	5,047.40	979.72	-66.94	982.01	0.00	0.00	0.00
5,300.00	0.00	0.00	5,147.40	979.72	-66.94	982.01	0.00	0.00	0.00
5,400.00	0.00	0.00	5,247.40	979.72	-66.94	982.01	0.00	0.00	0.00
5,500.00	0.00	0.00	5,347.40	979.72	-66.94	982.01	0.00	0.00	0.00
5,600.00	0.00	0.00	5,447.40	979.72	-66.94	982.01	0.00	0.00	0.00
5,700.00	0.00	0.00	5,547.40	979.72	-66.94	982.01	0.00	0.00	0.00
5,800.00	0.00	0.00	5,647.40	979.72	-66.94	982.01	0.00	0.00	0.00
5,900.00	0.00	0.00	5,747.40	979.72	-66.94	982.01	0.00	0.00	0.00
6,000.00	0.00	0.00	5,847.40	979.72	-66.94	982.01	0.00	0.00	0.00
6,100.00	0.00	0.00	5,947.40	979.72	-66.94	982.01	0.00	0.00	0.00
6,200.00	0.00	0.00	6,047.40	979.72	-66.94	982.01	0.00	0.00	0.00
6,300.00	0.00	0.00	6,147.40	979.72	-66.94	982.01	0.00	0.00	0.00
6,400.00	0.00	0.00	6,247.40	979.72	-66.94	982.01	0.00	0.00	0.00
6,500.00	0.00	0.00	6,347.40	979.72	-66.94	982.01	0.00	0.00	0.00
6,600.00	0.00	0.00	6,447.40	979.72	-66.94	982.01	0.00	0.00	0.00
6,700.00	0.00	0.00	6,547.40	979.72	-66.94	982.01	0.00	0.00	0.00
6,800.00	0.00	0.00	6,647.40	979.72	-66.94	982.01	0.00	0.00	0.00
6,900.00	0.00	0.00	6,747.40	979.72	-66.94	982.01	0.00	0.00	0.00
7,000.00	0.00	0.00	6,847.40	979.72	-66.94	982.01	0.00	0.00	0.00
7,100.00	0.00	0.00	6,947.40	979.72	-66.94	982.01	0.00	0.00	0.00
7,200.00	0.00	0.00	7,047.40	979.72	-66.94	982.01	0.00	0.00	0.00
7,300.00	0.00	0.00	7,147.40	979.72	-66.94	982.01	0.00	0.00	0.00
7,400.00	0.00	0.00	7,247.40	979.72	-66.94	982.01	0.00	0.00	0.00
7,500.00	0.00	0.00	7,347.40	979.72	-66.94	982.01	0.00	0.00	0.00
7,507.60	0.00	0.00	7,355.00	979.72	-66.94	982.01	0.00	0.00	0.00
MESAVERDE									
7,600.00	0.00	0.00	7,447.40	979.72	-66.94	982.01	0.00	0.00	0.00
7,700.00	0.00	0.00	7,547.40	979.72	-66.94	982.01	0.00	0.00	0.00
7,800.00	0.00	0.00	7,647.40	979.72	-66.94	982.01	0.00	0.00	0.00
7,900.00	0.00	0.00	7,747.40	979.72	-66.94	982.01	0.00	0.00	0.00
8,000.00	0.00	0.00	7,847.40	979.72	-66.94	982.01	0.00	0.00	0.00
8,100.00	0.00	0.00	7,947.40	979.72	-66.94	982.01	0.00	0.00	0.00
8,200.00	0.00	0.00	8,047.40	979.72	-66.94	982.01	0.00	0.00	0.00
8,300.00	0.00	0.00	8,147.40	979.72	-66.94	982.01	0.00	0.00	0.00
8,400.00	0.00	0.00	8,247.40	979.72	-66.94	982.01	0.00	0.00	0.00
8,500.00	0.00	0.00	8,347.40	979.72	-66.94	982.01	0.00	0.00	0.00
8,600.00	0.00	0.00	8,447.40	979.72	-66.94	982.01	0.00	0.00	0.00
8,700.00	0.00	0.00	8,547.40	979.72	-66.94	982.01	0.00	0.00	0.00
8,800.00	0.00	0.00	8,647.40	979.72	-66.94	982.01	0.00	0.00	0.00
8,900.00	0.00	0.00	8,747.40	979.72	-66.94	982.01	0.00	0.00	0.00
9,000.00	0.00	0.00	8,847.40	979.72	-66.94	982.01	0.00	0.00	0.00
9,100.00	0.00	0.00	8,947.40	979.72	-66.94	982.01	0.00	0.00	0.00
9,200.00	0.00	0.00	9,047.40	979.72	-66.94	982.01	0.00	0.00	0.00



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 922-30E4BS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 4971' & KB 9' @ 4980.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	MD Reference:	GL 4971' & KB 9' @ 4980.00ft (ASSUMED)
Site:	NBU 922-30L PAD	North Reference:	True
Well:	NBU 922-30E4BS	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)
9,300.00	0.00	0.00	9,147.40	979.72	-66.94	982.01	0.00	0.00	0.00
9,400.00	0.00	0.00	9,247.40	979.72	-66.94	982.01	0.00	0.00	0.00
9,500.00	0.00	0.00	9,347.40	979.72	-66.94	982.01	0.00	0.00	0.00
9,600.00	0.00	0.00	9,447.40	979.72	-66.94	982.01	0.00	0.00	0.00
9,700.00	0.00	0.00	9,547.40	979.72	-66.94	982.01	0.00	0.00	0.00
9,746.60	0.00	0.00	9,594.00	979.72	-66.94	982.01	0.00	0.00	0.00
TD at 9746.60 - PBHL_NBU 922-30E4BS									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 922-30E4BS - hit/miss target - Shape - Circle (radius 25.00)	0.00	0.00	9,594.00	979.72	-66.94	14,532,648.50	2,064,028.80	40° 0' 29.743 N	109° 29' 14.147 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,679.37	2,576.00	8 5/8"	8.625	11.000	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,488.56	1,457.00	GREEN RIVER				
4,869.60	4,717.00	WASATCH				
7,507.60	7,355.00	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	
1,300.00	1,279.82	172.37	-11.78	Start 1860.92 hold at 1300.00 MD	
3,160.92	3,028.51	807.36	-55.16	Start Drop -2.00	
4,160.92	4,008.33	979.72	-66.94	Start 5585.67 hold at 4160.92 MD	
9,746.60	9,594.00	979.72	-66.94	TD at 9746.60	

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 922-30L Pad**

<u>API #</u>	<u>NBU 922-30E4BS</u>			
	Surface:	2112 FSL / 826 FWL	NWSW	Lot 3
	BHL:	2194 FNL / 760 FWL	SWNW	Lot 2
<u>API #</u>	<u>NBU 922-30E4CS</u>			
	Surface:	2101 FSL / 809 FWL	NWSW	Lot 3
	BHL:	2519 FNL / 760 FWL	SWNW	Lot 2
<u>API #</u>	<u>NBU 922-30K4BS</u>			
	Surface:	2106 FSL / 817 FWL	NWSW	Lot 3
	BHL:	1872 FSL / 1978 FWL	NESW	Lot
<u>API #</u>	<u>NBU 922-30L1BS</u>			
	Surface:	2090 FSL / 792 FWL	NWSW	Lot 3
	BHL:	2355 FSL / 759 FWL	NWSW	Lot 3
<u>API #4304739540</u>	<u>NBU 922-30L1CS</u>			
	Surface:	2085 FSL / 783 FWL	NWSW	Lot 3
	BHL:	1964 FSL / 744 FWL	NWSW	Lot 3
<u>API #</u>	<u>NBU 922-30L4BS</u>			
	Surface:	2096 FSL / 800 FWL	NWSW	Lot 3
	BHL:	1705 FSL / 758 FWL	NWSW	Lot 3

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

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.

An on-site meeting was held on May 5, 2011. Present were:

- David Gordon, Melissa Wardle, Karl Wright and Dan Emmett - BLM; and
- John Slaugh and Mitch Batty - Timberline Engineering & Land Surveying, Inc.; and
- Jacob Dunham - 609 Consulting, LLC; and
- Andy Lytle, Charles Chase, Ken Gathings, Roger Parry, Grizz Oleen, and Sheila Wopsock - Kerr-McGee

A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will, in accordance with BMPs, improve or maintain existing roads in a condition that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing will be performed where excessive rutting or erosion may occur. Dust control will be performed as necessary to ensure safe operating conditions.

Roads, gathering lines and electrical distribution lines will occupy common disturbance corridors where possible. Where available, roadways will be used as the staging area and working space for installation of gathering lines. All disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining safe and sound construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Please refer to Topo B, for existing roads.

No segments require a ROW.

B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BLM. BMPs. Described in the BLM's Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition (Gold Book) (USDI and USDA, 2007) and/or BLM Manual Section 9113 (1985) will be considered in consultation with the BLM in the design, construction, improvement and maintenance of all new or reconstructed roads. If a new road would cross a water of the United States, Kerr-McGee will adhere to the requirements of applicable Nationwide Permits of the Department of Army Corps of Engineers.

Each new well pad or pad expansion may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts,

bridges, low water crossings, range infrastructure, and haul routes, as per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

Where safety objectives can be met. As applicable, Kerr-McGee may use unimproved and/or two-track roads for lease operations, to lessen total disturbance.

Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road-utility corridor width not to exceed 45 feet, except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%. Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities, such as V- or wing-ditches, will be constructed to divert surface water runoff. Drainage features, including culverts, will be constructed or installed prior to commencing other operations, including drilling or facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s) adjacent to the well pad, as necessary.

Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activity will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement, construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.

Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.

If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

The following segments are "on-lease"

±410' (0.08 miles) – Section 30 T09S R22E (NW/4 SW/4) – On-lease UTU0463, re-route from the SW corner of the pad to the existing access road. Please refer to Topo B.

C. Location of Existing Wells:

A) Refer to Topo Map C.

D. Location of Existing and/or Proposed Facilities:

This pad will expand the existing pad for the NBU 52J, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on June 2, 2011. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad. A berm will be constructed completely around production components that contain fluids (i.e. production tanks, produced liquids tanks, but typically excluding dehy's and/or separators). The berms will generally be constructed of compacted subsoil or corrugated metal, and will hold the capacity of the largest tank and have sufficient freeboard to accommodate a 25 year rainfall event, and be independent of the back cut. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with the BLM (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

structures constructed or installed onsite for 6 months or longer, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with the BLM (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

GAS GATHERING

Please refer to Exhibit A and Topo D- Pad and Pipeline Detail.

The gas gathering pipeline material: Steel line pipe. Surface = Bare pipe. Buried = Coated with fusion bonded epoxy coating (or equivalent). The total gas gathering pipeline distance from the meter to the tie in point is ±1,660' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

- ±90' (0.01 miles) – Section 30 T09S R22E (NW/4 SW/4) – On-lease UTU0463, BLM surface, New 6" buried gas gathering pipeline from the meter to the 30N intersection. Please refer to Topo D2 - Pad and Pipeline Detail.
- ±1,570' (0.3 miles) – Section 30 T09S R22E (NW/4 SW/4) – On-lease UTU0463, BLM surface, New 10" buried gas pipeline from the 30N intersection to the existing 16" gas pipeline (SE/4 NW/4). Please refer to Exhibit A, Line 13. This pipeline will be used concurrently with the 30N pad.

CATHODIC PROTECTION SITE

Section 30 T09S R22E (NE/4 SW/4)
2474' FSL & 1186' FWL

Deep well ground bed and Cathodic Protection equipment will be installed within the pipeline route to protect the integrity of the pipeline(s). A buried power line approximately 120 Volts +/- will be constructed from the existing overhead power line to a rectifier. The rectifier, which is approximately 3' X 4' +/-, will convert the AC power to DC power; it is then connected to the buried pipeline(s) to protect it from corrosion. Please see attached plat, location layout, typical set-up, and Topo B map.

LIQUID GATHERING

Please refer to Exhibit B and Topo D- Pad and Pipeline Detail.

Kerr-McGee proposes to install liquid gathering lines in a southwesterly direction to tie into a proposed southeasterly flowing buried pipeline. The total of this proposed liquid gathering from the meter to the Section lease line (SE/4 SE/4) is ±6,590' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

- ±90' (0.01 miles) – Section 30 T09S R22E (NW/4 SW/4) – On-lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the separator to the 30N intersection. Please refer to Topo D2 - Pad and Pipeline Detail.
- ±595' (0.12 miles) – Section 30 T09S R22E (NW/4 SW/4) – Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the 30N intersection to the proposed 30F intersection (NW/4 SW/4). Please refer to Exhibit B, Line 16. This pipeline will be used concurrently with the 30N pad.
- ±1,010' (0.19 miles) – Section 30 T09S R22E (SE/4 NW/4) – Lease UTU0463, BLM surface, Two (2) new 6" buried liquid gathering pipelines from the proposed 30G Intersection to the proposed 30L intersection (SE/4 NW/4). Please refer to Exhibit B, Line 2. This pipeline will be used concurrently with the 30H, 30C, 30B, 30F, 30G, 30A, and 30N pads. Two (2) lines for a total of 2,020'.
- ±495' (0.09 miles) – Section 30 T09S R22E (SE/4 NW/4) – Lease UTU0463, BLM surface, Two (2) new 6" buried liquid gathering pipelines from the proposed Transfer line to the tie-in point at the proposed 30G/30F intersection (SW/4 NE/4). Please refer Exhibit B, Line 13. This pipeline will be used concurrently with the 30H, 30C, 30B, 30F, 30G, 30A, and 30N pads. Two (2) Lines for a total of 990'.
- ±2,895' (0.55 miles) – Section 30 T09S R22E (SW/4 NE/4) – Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the proposed 30G/30F intersection going southeast to the edge of the lease boundary of SE/4 SE/4. Please refer to Exhibit B, Line 15. The remaining liquid pipeline segment will travel to the existing tank battery on State surface. Kerr-McGee will apply for the appropriate State easements under separate cover. This pipeline will be used concurrently with the 30H, 30C, 30B, 30F, 30G, 30A, and 30N pads.

Kerr-McGee, additionally will install a liquid gathering line in a southwesterly direction to tie-into a proposed northwesterly flowing buried pipeline. The total of this proposed liquid gathering from the meter to the tie in point is $\pm 3,255'$ and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

- $\pm 90'$ (0.01 miles) – Section 30 T09S R22E (NW/4 SW/4) – On-lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the separator to the 30N intersection. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 595'$ (0.12 miles) – Section 30 T09S R22E (NW/4 SW/4) – Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the 30N intersection to the proposed 30F intersection (NW/4 SW/4). Please refer to Exhibit B, Line 16. This pipeline will be used concurrently with the 30N pad.
- $\pm 1,285'$ (0.24 miles) – Section 30 T09S R22E (NW/4 SW/4) – Lease UTU0463, BLM surface, Two (2) new 6" buried liquid gathering pipelines from the proposed 30L Intersection to the West Line of Section 30 where it will tie-into an existing liquid gathering pipeline on State surface. Please refer to Exhibit B, Line 1. Two (2) lines for a total of 2,570'. This pipeline will be used concurrently with the 30H, 30C, 30B, 30F, 30G, 30A, and 30N pads.

Pipeline Gathering Construction

Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr-McGee. Gas gathering pipeline(s), gas lift, or liquids pipelines may be constructed to lie on the surface or be buried. 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. The area of disturbance during construction from the edge of road or well pad will typically be 30' in width. Where pipelines run cross country, the width of disturbance will typically be 45' for buried lines and 30' for surface lines. In addition, Kerr-McGee requests for a permanent 30' disturbance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent disturbance width is for maintenance and repairs. Cross country permanent disturbance width also are required to be 30'.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. In some surface pipeline installation instances pipe cannot be constructed where it will lay. In these cases where an above-ground pipeline is constructed parallel and adjacent to a road, it will be welded/fused on the road and then lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment.

Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in diameter, but 6-inch diameter pipes are generally used for gas lift. If all three lines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

Typically, to install a buried pipeline, topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radiographically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route's intersection with an access road.

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.

If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface. Please see site specific PODs and/or mapping materials for location of related facilities such as cathodic protection wells or pumping stations. Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves, lateral T's, and/or cathodic protection wells will be installed at various locations for production integrity and safety purposes.

Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.

When no longer deemed necessary by the operator, Kerr-McGee or its successor will consult with the BLM, Vernal Field Office before terminating of the use of the pipeline(s).

Deep well ground bed and Cathodic Protection equipment will be installed within the pipeline route to protect the integrity of the pipeline(s). A buried power line approximately 120 Volts +/- will be constructed from the existing overhead power line to a rectifier. The rectifier, which is approximately 3' X 4' +/-, will convert the AC power to DC power; it is then connected to the buried pipeline(s) to protect it from corrosion. Please see attached plat for location of Cathodic Protection.

The Anadarko Completions Transportation System (ACTS) information:

Please refer to Exhibit C for ACTs Lines

Upon completion of the wells on this pad, Kerr-McGee is also requesting to utilize the pit on this the proposed location as an Anadarko Completion Transport System (ACTS) staging pit which will be utilized for other completion operations in the area. The ACTS process will reduce the amount of truck traffic on a field-wide basis, also reducing vehicle emissions and fugitive dust generation.

Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of frac fluids by utilizing existing reserve pits and temporary, surface-laid aluminum pipe liquids transfer lines between frac locations. The pit will be refurbished as follows: mix and pile up drill cuttings with dry dirt, bury the original liner in the pit, walk bottom of pit with cat. Kerr-McGee will

reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurb will be done in a normal procedure and there will be no modification to the pit. Hog fence panels (5' X 16') will be built and painted shadow gray and will be put up on the work side of the pit. Polypropylene netting will be installed over all pits.

The collected hydrocarbons will be treated and sold at approved sales facilities. A loading rack with drip containment will also be installed where water trucks can unload and load to prevent damage caused from pulling hoses in and out of the pit .

ACTS will require temporarily laying multiple 6" aluminum pipe water transfer lines on the surface between either existing or refurbished reserve pits. Please see the attached ACTS exhibit C for placement of the proposed temporary lines. The temporary aluminum transfer lines will be utilized to transport frac fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors. Upon completion of the frac operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.

The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee requests to keep the netted pit open for one year from first production. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other frac jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. Kerr-McGee understands that due to the temporary nature of this system BLM considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BLM.

E. Location and Types of Water Supply:

Water for drilling and completion operations will be obtained from the following sources:

Permit # 49-2307	JD Field Services	Green River- Section 15, T2N, R22E
Permit # 49-2321	R.N. Industries	White River- Section 2, T10S, R24E
Permit # 49-2319	R.N. Industries	White River- Various Sources
Permit # 49-2320	R.N. Industries	Green River- Section 33, T8S, R23E

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.

F. Construction Materials:

Construction operations will typically be completed with native materials found on location. 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 (described in site-specific documents). No construction materials will be removed from federal lands without prior approval from the BLM. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BLM.

G. Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee also maintains a Spill Control and Countermeasure Plan, which includes notification requirements, including the BLM, for all reportable spills of oil, produced liquids, and hazardous materials.

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BLM, 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 precipitation runoff into the pit (via appropriate placement of subsoil/topsoil storage areas and/or construction of berms, ditches, etc). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons 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 the BLM. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. 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. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Where necessary and if conditions (freeboard, etc.) allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Otherwise, fluids disposal locations and associated haul routes, for ROW consideration, are typically depicted on Topo A of individual projects. Revisions to the water source or method of transportation will be subject to written approval from the BLM.

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.

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.

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 (trash and other solid waste including cans, paper, cable, etc.) 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. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42" 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'. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

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.

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.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance, or meet the quantities criteria per BLM Instruction Memorandum No. 93-344, will not be used.

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.

Fluids disposal and pipeline/haul routes are depicted on Topo Map A.

Any produced water separated from recoverable condensate from the proposed well will be contained in a water tank and will then be transported by pipeline and/or truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
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

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

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. 34 T9S R21E

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

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.

For the protection of livestock and wildlife, all open pits and cellars will be fenced 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.

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BLM.

Where produced liquids tanks are utilized, the tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids. The tanks will be fenced or capped to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without the prior approval of the BLM.

J. Plans for Surface Reclamation:

The 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. Interim 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 may include pit evaporation, fluid removal, pit solidification, re-contouring, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification will be provided to the BLM for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

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. Disposal of pit fluids and linings is discussed in Section G.

Final Reclamation

Final reclamation will be performed for unproductive wells and after 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 Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BLM will be notified prior to commencement of reclamation operations. 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 the site to the approximate contour that existed prior to pad construction, final grading will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24" on 18 to 24" centers, where practical. The surface soil material will be pitted with small depressions to form longitudinal depressions 12 to 18" deep, where practical. The entire area will be uniformly covered with the depressions constructed perpendicular to the natural flow of water.

Reclamation of roads will be performed at the discretion of the BLM. 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 in accordance with the seeding specifications of the BLM.

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

Measures Common to Interim and Final Reclamation

Soil preparation will be conducted using a disk for areas in need of more soil preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen compacted soils, promote water infiltration, and improve soil aeration and root penetration.

Seeding will occur year-round as conditions allow and will typically be accomplished through the use of a no-till rangeland style seed drill with a "picker box" in order to seed "fluffy" seed. Where drill seeding is not the preferred method, seed will be broadcast and then raked into the ground at double the rate of drill seeding. 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 seed mixes will be selected from a list provided by or approved by the BLM, or a specific seed mix will be proposed by Kerr-McGee to the BLM and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed".

Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Shadescale Mix	e Live Seed lbs/acre
Indian Ricegrass (Nezpar)	3
Sandberg bluegrass	0.75
Bottlebrush squirreltail	1
Great Basin Wildrye	0.5

Crested wheatgrass (Ephraim)	1.5
Winterfat	0.25
Shadscale	1.5
Four-wing saltbush	0.75
Forage Kochia	0.25
Total	9.5

Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes 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, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage. Soil amendments such as "Sustain" (an organic fertilizer that will be applied at the rate 1,800 – 2,100 lbs/acre with seed) may also be dry broadcast or applied with hydro-seeding equipment.

Weed Control

All weed management will be done in accordance with the Vernal BLM Surface Disturbance Weed Policy. Noxious weeds will be controlled, as applicable, on project areas. Monitoring and management of noxious and/or invasive weeds of concern will be completed annually until the project is deemed successfully reclaimed by the surface management agency and/or owner according to the Anadarko Integrated Weed Management Plan. Noxious weed infestations will be mapped using a GPS unit and submitted to the BLM with information required in the Vernal BLM Surface Disturbance Weed Policy. If herbicide is to be applied it will be done according to an approved Pesticide Use Permit (PUP), inclusive of applicable locations. All pesticide applications will be recorded using a Pesticide Application Record (PAR) and will be submitted along with a Pesticide Use Report (PUR) annually prior to Dec. 31.

Monitoring

Monitoring of reclaimed project areas will be completed annually during the growing season and actions to ensure reclamation success will be taken as needed. During the first two growing seasons an ocular methodology will be used to determine the success of the reclamation activities. During the 3rd growing season a 200 point line intercept (quantitative) methodology will be used to obtain basal cover. The goal is to have the reclaimed area reach 30% basal cover when compared to the reference site. If after three growing seasons the area has not reached 30% basal cover, additional reclamation activities may be necessary. Monitoring will continue until the reclaimed area reaches 75% basal cover of desirable vegetation when compared to the reference site. (Green River District Reclamation Guidelines)

All monitoring reports will be submitted electronically to the Vernal BLM in the form of a geo-database no later than March 31, of the calendar year following the data collection.

K. Surface/Mineral Ownership:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
(435)781-4400

L. Other Information:

Onsite Specifics:

- A 404 Stream Alteration Permit will be obtained to cross the Sand Wash in the SE/4 of the section - See Exhibit A or B.
- Facilities: Will be painted Shadow Grey
- Existing surface gas gathering pipeline will be removed from location if no longer in service

Cultural and Paleontological Resources

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BLM.

Resource Reports:

A Class I literature survey was completed on February 11, 2011, by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 10-243b.

A paleontological reconnaissance survey was completed on December 31, 2010, by Intermountain Paleo-Consulting. For additional details please refer to report IPC #10-33.

Biological field survey was completed on January 27, 2011, by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-405.

Biological field survey was completed for the Southeast Trunk Liquid Line on June 2, 2011, by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-457.

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

Laura Abrams
Regulatory Analyst II
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6356

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

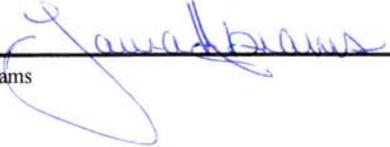
Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

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 pursuant to 43 CFR 3104 for lease activities is being provided 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.



Laura Abrams

June 2, 2011

Date



Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
DENVER, CO 80217-3779

April 4, 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 922-30E4BS
T9S-R22E
Section 30 NWSW (Surf), SWNW (Bottom)
Surface: 2112' FSL, 826' FWL
Bottom Hole: 2194' FNL, 760' 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 Directional Drilling.

- Kerr-McGee's NBU 922-30E4BS 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 roads 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 that reads 'Joe Matney'.

Joe Matney
Sr. Staff Landman

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)

June 27, 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 922-30M PAD

43-047-51691	NBU 922-30L4CS	Sec 30 T09S R22E 0576 FSL 0216 FWL
	BHL	Sec 30 T09S R22E 1380 FSL 0758 FWL

43-047-51692	NBU 922-30M1BS	Sec 30 T09S R22E 0566 FSL 0215 FWL
	BHL	Sec 30 T09S R22E 1055 FSL 0758 FWL

43-047-51693	NBU 922-30M1CS	Sec 30 T09S R22E 0556 FSL 0213 FWL
	BHL	Sec 30 T09S R22E 0730 FSL 0757 FWL

43-047-51694	NBU 922-30M4BS	Sec 30 T09S R22E 0536 FSL 0210 FWL
	BHL	Sec 30 T09S R22E 0405 FSL 0757 FWL

43-047-51695	NBU 922-30N4CS	Sec 30 T09S R22E 0546 FSL 0212 FWL
	BHL	Sec 30 T09S R22E 0252 FSL 1974 FWL

NBU 922-30G PAD

43-047-51696	NBU 922-30G3DS	Sec 30 T09S R22E 2550 FNL 2411 FEL
	BHL	Sec 30 T09S R22E 2517 FNL 1846 FEL

43-047-51697	NBU 922-30G4BS	Sec 30 T09S R22E 2544 FNL 2403 FEL
	BHL	Sec 30 T09S R22E 2199 FNL 1677 FEL

43-047-51698	NBU 922-30I2AS	Sec 30 T09S R22E 2557 FNL 2419 FEL
	BHL	Sec 30 T09S R22E 2527 FSL 0856 FEL

43-047-51699	NBU 922-30J1BS	Sec 30 T09S R22E 2563 FNL 2426 FEL
	BHL	Sec 30 T09S R22E 2360 FSL 1675 FEL

RECEIVED: June 27, 2011

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

NBU 922-30G PAD

43-047-51700	NBU 922-30G1CS	Sec 30 T09S R22E 2538 FNL 2395 FEL
	BHL	Sec 30 T09S R22E 1873 FNL 1678 FEL

43-047-51701	NBU 922-30J4BS	Sec 30 T09S R22E 2569 FNL 2434 FEL
	BHL	Sec 30 T09S R22E 1709 FSL 1674 FEL

NBU 922-30H PAD

43-047-51702	NBU 922-30G1BS	Sec 30 T09S R22E 1583 FNL 1247 FEL
	BHL	Sec 30 T09S R22E 1547 FNL 1679 FEL

43-047-51703	NBU 922-30H2AS	Sec 30 T09S R22E 1564 FNL 1224 FEL
	BHL	Sec 30 T09S R22E 1583 FNL 0612 FEL

43-047-51704	NBU 922-30H3AS	Sec 30 T09S R22E 1571 FNL 1232 FEL
	BHL	Sec 30 T09S R22E 2003 FNL 0685 FEL

43-047-51705	NBU 922-30H3DS	Sec 30 T09S R22E 1577 FNL 1240 FEL
	BHL	Sec 30 T09S R22E 2369 FNL 0723 FEL

NBU 922-30L PAD

43-047-51706	NBU 922-30E4BS	Sec 30 T09S R22E 2112 FSL 0826 FWL
	BHL	Sec 30 T09S R22E 2194 FNL 0760 FWL

43-047-51707	NBU 922-30E4CS	Sec 30 T09S R22E 2101 FSL 0809 FWL
	BHL	Sec 30 T09S R22E 2519 FNL 0760 FWL

43-047-51708	NBU 922-30K4BS	Sec 30 T09S R22E 2106 FSL 0817 FWL
	BHL	Sec 30 T09S R22E 1872 FSL 1978 FWL

43-047-51709	NBU 922-30L1BS	Sec 30 T09S R22E 2090 FSL 0792 FWL
	BHL	Sec 30 T09S R22E 2355 FSL 0759 FWL

43-047-51710	NBU 922-30L4BS	Sec 30 T09S R22E 2096 FSL 0800 FWL
	BHL	Sec 30 T09S R22E 1705 FSL 0758 FWL

922-30N PAD

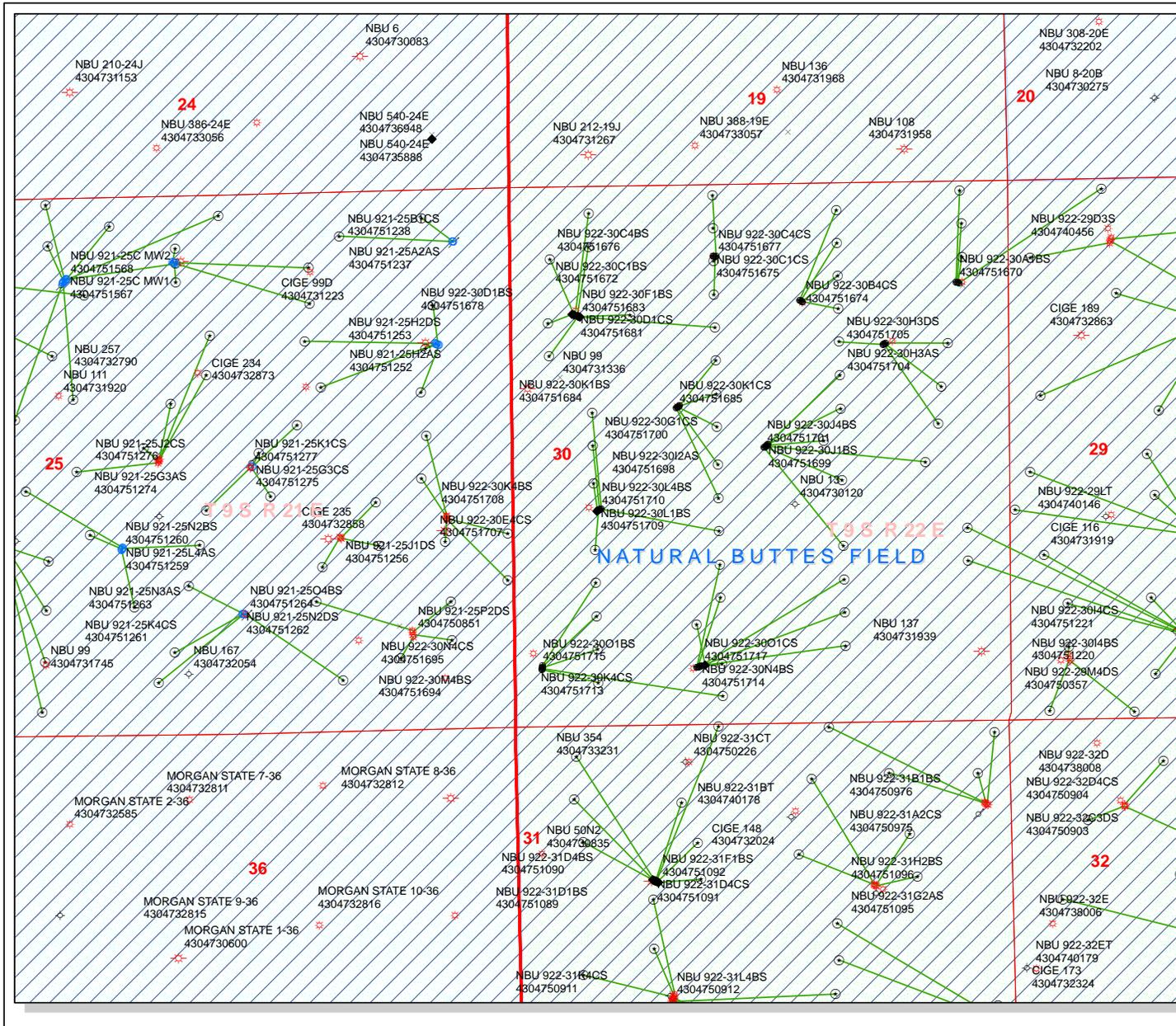
43-047-51711	NBU 922-30N1BS	Sec 30 T09S R22E 0542 FSL 1734 FWL
	BHL	Sec 30 T09S R22E 1222 FSL 1976 FWL

43-047-51712	NBU 922-30J4CS	Sec 30 T09S R22E 0547 FSL 1754 FWL
	BHL	Sec 30 T09S R22E 1384 FSL 1673 FEL

43-047-51713	NBU 922-30K4CS	Sec 30 T09S R22E 0539 FSL 1724 FWL
	BHL	Sec 30 T09S R22E 1547 FSL 1977 FWL

43-047-51714	NBU 922-30N4BS	Sec 30 T09S R22E 0544 FSL 1744 FWL
	BHL	Sec 30 T09S R22E 0571 FSL 1974 FWL

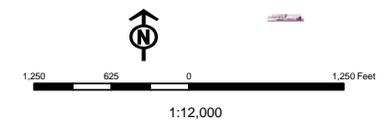
43-047-51715	NBU 922-30O1BS	Sec 30 T09S R22E 0550 FSL 1763 FWL
	BHL	Sec 30 T09S R22E 1058 FSL 1672 FEL



API Number: 4304751706
Well Name: NBU 922-30E4BS
 Township T0.9 . Range R2.2 . Section 30
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 GEOTHERML	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	SOW - 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	



WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 6/21/2011**API NO. ASSIGNED:** 43047517060000**WELL NAME:** NBU 922-30E4BS**OPERATOR:** KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)**PHONE NUMBER:** 720 929-6356**CONTACT:** Laura Abrams**PROPOSED LOCATION:** NWSW 30 090S 220E**Permit Tech Review:** **SURFACE:** 2112 FSL 0826 FWL**Engineering Review:** **BOTTOM:** 2194 FNL 0760 FWL**Geology Review:** **COUNTY:** UINTAH**LATITUDE:** 40.00567**LONGITUDE:** -109.48695**UTM SURF EASTINGS:** 629149.00**NORTHINGS:** 4429273.00**FIELD NAME:** NATURAL BUTTES**LEASE TYPE:** 1 - Federal**LEASE NUMBER:** UTU463**PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE**SURFACE OWNER:** 1 - Federal**COALBED METHANE:** NO**RECEIVED AND/OR REVIEWED:**

- PLAT**
- Bond:** FEDERAL - WYB000291
- 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**

Commingle 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:** Suspends General Siting
- R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:

- 3 - Commingle - ddoucet
- 4 - Federal Approval - dmason
- 15 - Directional - dmason
- 17 - Oil Shale 190-5(b) - dmason



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 922-30E4BS
API Well Number: 43047517060000
Lease Number: UTU463
Surface Owner: FEDERAL
Approval Date: 8/17/2011

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:

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

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

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.

Notification Requirements:

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

- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)
- OR
- submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <http://oilgas.ogm.utah.gov>

Reporting Requirements:

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

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

Approved By:



For John Rogers
Associate Director, Oil & Gas

RECEIVED

JUL 01 2011

Form 3160-3
(August 2007)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
BLM VERNAL, UTAH

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU463
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator KERR-MCGEE OIL&GAS ONSHORE, LP Contact: LAURA ABRAMS Laura.Abrams@anadarko.com		7. If Unit or CA Agreement, Name and No. UTU63047A
3a. Address PO BOX 173779 DENVER, CO 80202-3779		8. Lease Name and Well No. NBU 922-30E4BS
3b. Phone No. (include area code) Ph: 720-929-6356 Fx: 720-929-7356		9. API Well No. 43-047-51700
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWSW Lot 3 2112FSL 826FWL 40.005537 N Lat, 109.487710 W Lon At proposed prod. zone SWNW Lot 2 2194FNL 760FWL 40.008227 N Lat, 109.487949 W Lon		10. Field and Pool, or Exploratory NATURAL BUTTES
14. Distance in miles and direction from nearest town or post office* APPROXIMATELY 42.3 MILES SOUTH OF VERNAL, UT		11. Sec., T., R., M., or Blk. and Survey or Area Sec 30 T9S R22E Mer SLB
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 760	16. No. of Acres in Lease 551.00	12. County or Parish UINTAH COUNTY
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 636	19. Proposed Depth 9746 MD 9594 TVD	13. State UT
21. Elevations (Show whether DF, KB, RT, GL, etc.) 4972 GL	22. Approximate date work will start 12/01/2011	17. Spacing Unit dedicated to this well
		20. BLM/BIA Bond No. on file WYB000291
		23. Estimated duration 60-90 DAYS

24. Attachments

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

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

25. Signature (Electronic Submission)	Name (Printed/Typed) LAURA ABRAMS Ph: 720-929-6356	Date 06/21/2011
Title REGULATORY ANALYST II		
Approved by (Signature)	Name (Printed/Typed) Jerry Kenczka	Date JAN 09 2012
Title Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFICE	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

CONDITIONS OF APPROVAL ATTACHED

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

Additional Operator Remarks (see next page)

Electronic Submission #111118 verified by the BLM Well Information System
For KERR-MCGEE OIL&GAS ONSHORE, LP, sent to the Vernal

RECEIVED

JAN 13 2012

NOTICE OF APPROVAL

UDOGM

BUREAU OF OIL, GAS & MINING

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

11SX50490A9

NOS- 03/25/2011 3-31-11



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

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Kerr-McGee Oil & Gas Onshore, LP Location: LOT 3, Sec. 30, T9S, R22E
Well No: NBU 922-30E4BS Lease No: UTU-463
API No: 43-047-51706 Agreement: Natural Buttes Unit

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

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

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

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	- Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	- Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	- Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov .
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	- Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

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

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.
- Kerr McGee will adhere to all applicant committed conservation measures and conservation recommendations that are stated in the USFWS's "Final Biological Opinion for the Anadarko Petroleum Corporation Natural Buttes Unit and Bonanza Area Natural Gas Development Project.
- The operator will follow the Green River District Reclamation Guidelines for Reclamation.

Mitigation for Invasive Weeds

- All vehicles and equipment will be cleaned either through power-washing, or other approved method, if the vehicles or equipment were previously operated outside the Uinta Basin, to prevent weed seed introduction.
- All disturbance areas will be monitored for noxious weeds annually, for a minimum of three growing seasons following completion of project or until desirable vegetation is established
- Noxious and invasive weeds will be controlled throughout the area of project disturbance.
- Noxious weeds will be inventoried and reported to BLM in the annual reclamation report. Where an integrated pest management program is applicable, coordination has been undertaken with the state and local management program (if existing). A copy of the pest management plan will be submitted for each project.
- A pesticide use permit (PUP) will be obtained for the project, if applicable.

Mitigation for Paleontology

- A permitted paleontologist is to be present for monitor purposes during all surface disturbing activities: examples include the following building of the well pad, access road, and pipelines

Mitigation Measures for Colorado River Fish Species:

- The best method to avoid entrapment is to pump from an off-channel location – one that does not connect to the river during high spring flows. An infiltration gallery constructed in a BLM and Service approved location is best.

- If the pump head is located in the river channel where larval fish are known to occur, the following measures apply:
 - a. do not situate the pump in a low-flow or no-flow area as these habitats tend to concentrate larval fishes;
 - b. limit the amount of pumping, to the greatest extent possible, during that period of the year when larval fish may be present (see above); and
 - c. limit the amount of pumping, to the greatest extent possible, during the pre-dawn hours as larval drift studies indicate that this is a period of greatest daily activity.
- Screen all pump intakes with 3/32" mesh material.
- Report any fish impinged on the intake screen to the Service (801.975.3330) and the Utah Division of Wildlife Resources:
 - Northeastern Region
 - 152 East 100 North, Vernal, UT 84078
 - Phone: (435) 781-9453

Mitigation for Migratory birds.

- Construction and drilling is not allowed from January 1 – August 31 to minimize impacts during Golden Eagle and Red-tailed hawk nesting
- If it is anticipated that construction or drilling will occur during the given timing restriction, a BLM or qualified biologist shall be notified so surveys can be conducted. Depending upon the results of the surveys, permission to proceed may or may not be or granted by the BLM Authorized Officer.

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

SITE SPECIFIC DOWNHOLE COAs:

- Gamma ray Log shall be run from Total Depth to Surface.
- CBL will be run from TD to TOC.

Variations Granted: Air Drilling

- Properly lubricated and maintained rotating head. Variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore. Variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for truck/trailer mounted air compressors located 40' from the well bore.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for the kill medium and will utilize a skid pump near the reserve pit to supply the water to the well bore if necessary.
- Automatic igniter. Variance granted for igniter due to there being no productive formations encountered while air drilling.

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

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in LAS format to BLM_UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
 Submitted By J. Scharnowske Phone Number 720.929.6304
 Well Name/Number NBU 922-30E4BS
 Qtr/Qtr NWSW Section 30 Township 9S Range 22E
 Lease Serial Number UTU463
 API Number 4304751706

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

Date/Time 05/03/2012 09:00 HRS AM PM

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

- Surface Casing
- Intermediate Casing
- Production Casing
- Liner
- Other

Date/Time 05/15/2012 08:00 HRS AM PM

BOPE

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

RECEIVED
 MAY 02 2012
 DIV. OF OIL, GAS & MINING

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
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: UTU463
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 922-30E4BS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2112 FSL 0826 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 30 Township: 09.0S Range: 22.0E Meridian: S	9. API NUMBER: 43047517060000
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 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: 5/13/2012	<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 5/10/2012. DRILLED SURFACE HOLE TO 2860'. 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
 May 15, 2012**

NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 5/14/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU463
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 922-30E4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047517060000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6514
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2112 FSL 0826 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 30 Township: 09.0S Range: 22.0E Meridian: S	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: 5/15/2012 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input checked="" 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: 50px;" type="text"/>

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

The operator requests approval to deepen the well, the total depth of the well will remain within the same formation as currently permitted (Mesaverde). The Operator also requests approval for a FIT wavier, 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 21, 2012

By: 

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 5/15/2012	

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 922-30E4BS**

Surface:	2112 FSL / 826 FWL	NWSW
BHL:	2194 FNL / 760 FWL	SWNW

Section 30 T9S R22E

Unitah County, Utah
Mineral Lease: UTU 0463

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	1,416'	
Birds Nest	1,737'	Water
Mahogany	2,243'	Water
Wasatch	4,724'	Gas
Mesaverde	7,355'	Gas
Sego	9,559'	Gas
Castlegate	9,642'	Gas
Blackhawk	10,069'	Gas
TVD	10,669'	
TD	10,822'	

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 10669' TVD, approximately equals
 7,042 psi (0.66 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 4,743 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. Variations:

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.

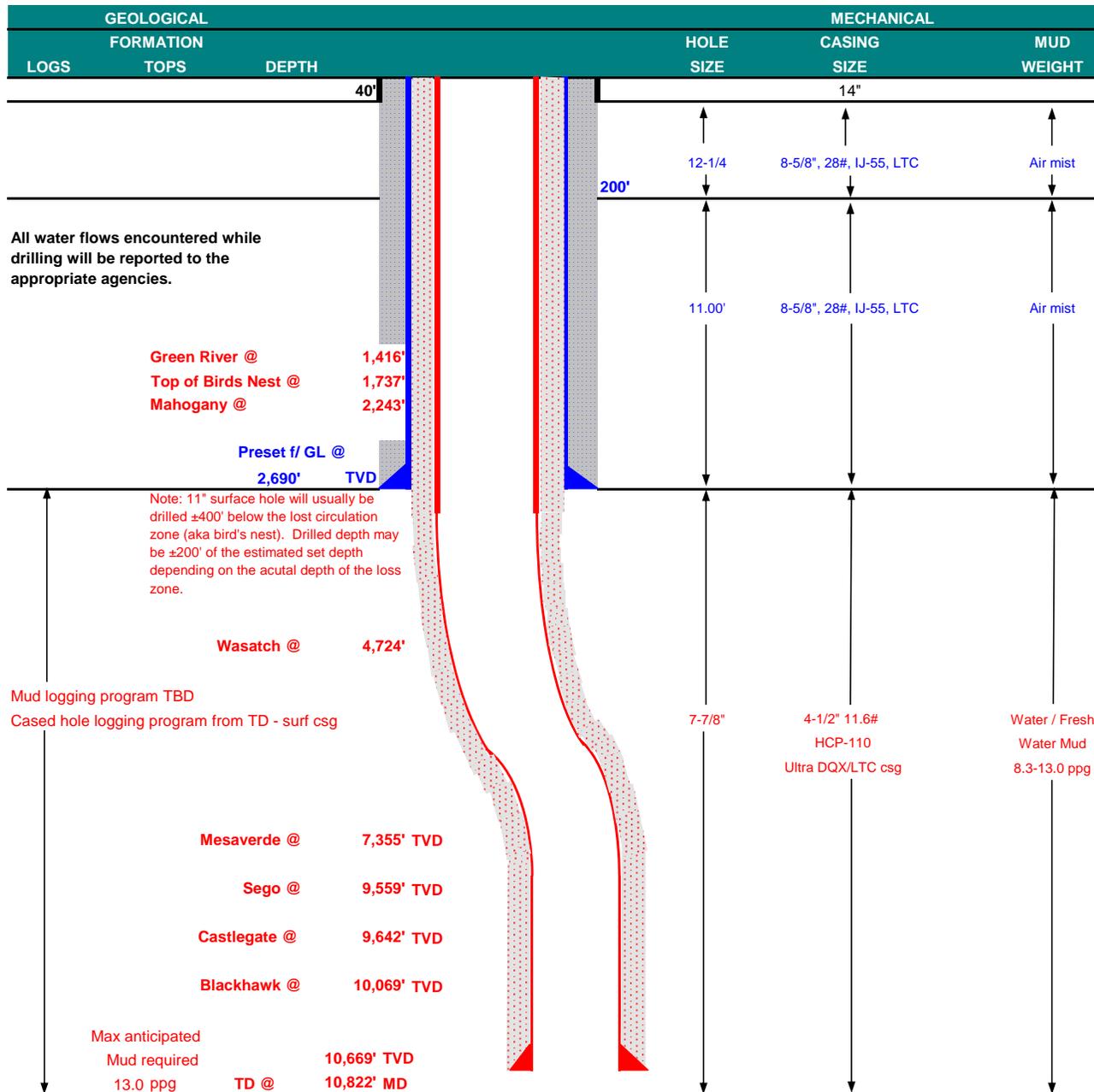
10. **Other Information:**

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	February 8, 2012	
WELL NAME	NBU 922-30E4BS		TD	10,669' TVD	10,822' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah
SURFACE LOCATION	NWSW	2112 FSL	826 FWL	Sec 30 T 9S R 22E	FINISHED ELEVATION 4,971'
	Latitude: 40.005537		Longitude: -109.487710		NAD 83
BTM HOLE LOCATION	SWNW	2194 FNL	760 FWL	Sec 30 T 9S R 22E	
	Latitude: 40.008227		Longitude: -109.487949		NAD 83
OBJECTIVE ZONE(S)	BLACKHAWK (Part of the Mesaverde Group)				
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), BLM (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	DQX
								TENSION	
CONDUCTOR	14"	0-40'							
SURFACE	8-5/8"	0 to 2,690	28.00	IJ-55	LTC	3,390	1,880	348,000	N/A
						2.00	1.49	5.28	N/A
PRODUCTION	4-1/2"	0 to 5,000	11.60	HCP-110	DQX	10,690	8,650	279,000	367,174
						1.19	1.20		3.65
	4-1/2"	5,000 to 10,822'	11.60	HCP-110	LTC	1.19	1.20	5.16	

Surface casing:

(Burst Assumptions: TD = 13.0 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 @ 9000 psi) 0.66 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	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
	Option 1		+ 0.25 pps flocele				
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
			+ 2% CaCl + 0.25 pps flocele				
NOTE: If well will circulate water to surface, option 2 will be utilized							
SURFACE	LEAD	2,190'	65/35 Poz + 6% Gel + 10 pps gilsonite	200	35%	11.00	3.82
	Option 2		+ 0.25 pps Flocele + 3% salt BWOW				
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,222'	Premium Lite II +0.25 pps	330	35%	12.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	6,600'	50/50 Poz/G + 10% salt + 2% gel	1,560	35%	14.30	1.31
			+ 0.1% R-3				

*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

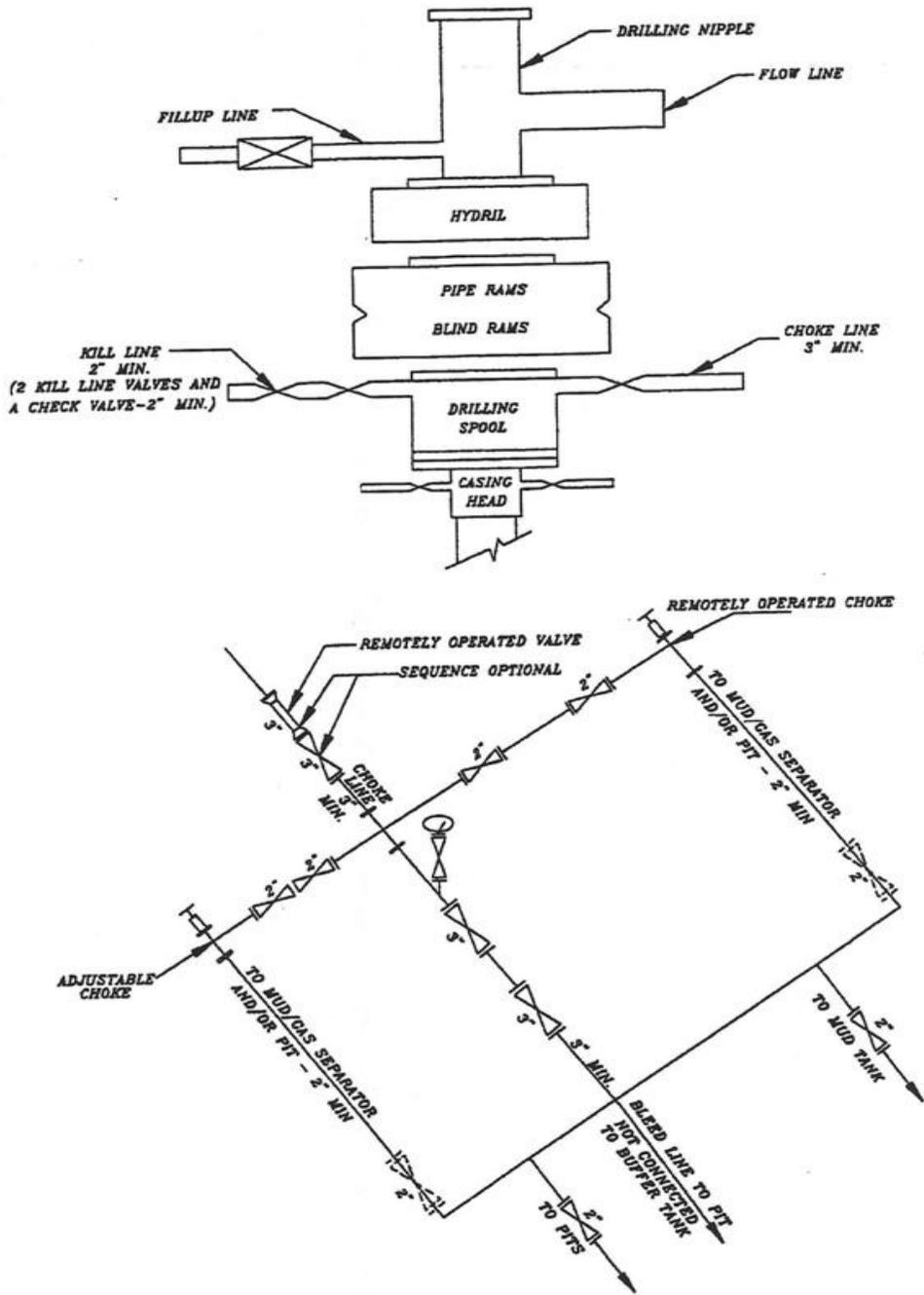
DATE:

DRILLING SUPERINTENDENT:

Kenny Gathings / Lovel Young

DATE:

EXHIBIT A NBU 922-30E4BS



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 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.	
1. TYPE OF WELL Gas Well	5. LEASE DESIGNATION AND SERIAL NUMBER: UTU463
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
PHONE NUMBER: 720 929-6511	8. WELL NAME and NUMBER: NBU 922-30E4BS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2112 FSL 0826 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 30 Township: 09.0S Range: 22.0E Meridian: S	9. API NUMBER: 43047517060000
	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"/> 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 checked="" type="checkbox"/> SPUD REPORT Date of Spud: 5/3/2012	<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.

MIRU TRIPLE A BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'.
 RAN 14" 36.7# SCHEDULE 10 CONDUCTOR PIPE. CEMENT WITH 28
 SACKS READY MIX. SPUD WELL LOCATION ON MAY 3, 2012 AT 10:00
 HRS.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 May 16, 2012

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regularatory Analyst
SIGNATURE N/A	DATE 5/14/2012	

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: P.O. BOX 173779
city DENVER
state CO zip 80217 Phone Number: (720) 929-6247

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751706	NBU 922-30E4BS		NWSW	30	09S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
B	99999	2900	5/3/2012			5/14/2012	
Comments: MIRU BUCKET RIG. <u>WSMVD</u> SPUD WELL ON 05/03/2012 AT 1000 HRS. <u>BHL:SWNW</u>							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304739540	NBU 922-30L1CS		NWSW	30	09S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
B	99999	2900	5/3/2012			5/14/2012	
Comments: MIRU BUCKET RIG. <u>WSMVD</u> SPUD WELL ON 05/03/2012 AT 1300 HR							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751707	NBU 922-30E4CS		NWSW	30	09S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
B	9999	2900	5/3/2012			5/14/2012	
Comments: MIRU BUCKET RIG. <u>WSMVD</u> SPUD WELL ON 05/03/2012 AT 1600 HRS. <u>BHL:SWNW</u>							

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)

JENN HAWKINS

Name (Please Print)

Jenn Hawkins

Signature

OPERATIONS SPECIALIST III 5/9/2012

Title

Date

(5/2000)

RECEIVED

MAY 11 2012

Div. of Oil, Gas & Mining

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UTU463	

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 922-30E4BS
------------------------------------	---

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047517060000
---	---

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6514	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
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4. LOCATION OF WELL FOOTAGES AT SURFACE: 2112 FSL 0826 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 30 Township: 09.0S 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: 6/18/2012	<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.

MIRU ROTARY RIG. FINISHED DRILLING FROM 2860' TO 10827' ON 6/16/2012. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED SST 54 RIG ON 6/18/2012 @ 1:00 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 DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU463
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 922-30E4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047517060000
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: 2112 FSL 0826 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 30 Township: 09.0S 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: 8/2/2012	<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 10,827'.

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

FOR RECORD ONLY

August 08, 2012

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regularatory Analyst
SIGNATURE N/A	DATE 8/2/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU463
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 922-30E4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047517060000
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: 2112 FSL 0826 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 30 Township: 09.0S Range: 22.0E Meridian: S	COUNTY: UINTAH STATE: UTAH

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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: 9/5/2012	<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
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	<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.

Started completing the well in August 2012. Well TD at 10,827

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

FOR RECORD ONLY

September 05, 2012

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regularatory Analyst
SIGNATURE N/A	DATE 9/5/2012	

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: UTU463			
		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 922-30E4BS			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		9. API NUMBER: 43047517060000			
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: 2112 FSL 0826 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 30 Township: 09.0S Range: 22.0E Meridian: S		PHONE NUMBER: 720 929-6511 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: 10/3/2012	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top;"> <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 </td> <td style="width: 33%; vertical-align: top;"> <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 </td> <td style="width: 33%; vertical-align: top;"> <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"/> </td> </tr> </table>		<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"/>
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12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. <p style="text-align: center;">Started completing the well. Well TD at 10,827.</p> <div style="text-align: right; margin-top: 20px;"> <p>Accepted by the Utah Division of Oil, Gas and Mining</p> <p>FOR RECORD ONLY</p> <p>October 04, 2012</p> </div>					
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regularatory Analyst			
SIGNATURE N/A	DATE 10/3/2012				

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UTU463	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES	
8. WELL NAME and NUMBER: NBU 922-30E4BS	
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9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA	
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: 2112 FSL 0826 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 30 Township: 09.0S Range: 22.0E Meridian: S	COUNTY: UINTAH STATE: UTAH

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: 10/31/2012	<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 checked="" type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input 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 subject well was placed on production on 10/31/2012. 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

November 01, 2012

NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMBER 720 929-6857	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 11/1/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UTU463	
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	
8. WELL NAME and NUMBER: NBU 922-30E4BS	
9. API NUMBER: 43047517060000	
9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA	
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: 2112 FSL 0826 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 30 Township: 09.0S Range: 22.0E Meridian: S	COUNTY: UINTAH STATE: UTAH

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: 11/2/2012	<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.

Well was completed, finishing well completion report. Well TD at 10,827.

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

FOR RECORD ONLY

November 02, 2012

NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMBER 720 929-6857	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 11/2/2012	

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.	
1. TYPE OF WELL Gas Well	5. LEASE DESIGNATION AND SERIAL NUMBER: UTU463
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
PHONE NUMBER: 720 929-6511	8. WELL NAME and NUMBER: NBU 922-30E4BS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2112 FSL 0826 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 30 Township: 09.0S Range: 22.0E Meridian: S	9. API NUMBER: 43047517060000
	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"/> 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: 10/31/2012	<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 checked="" type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input 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 subject well was placed on production on 10/31/2012. 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
 November 28, 2012

NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMBER 720 929-6857	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 11/26/2012	

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
UTU463

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

2. Name of Operator: KERR MCGEE OIL & GAS ONSHORE
 Contact: LINDSEY A FRAZIER
 Email: lindsey.frazier@anadarko.com

3. Address: PO BOX 173779
 DENVER, CO 80217
 3a. Phone No. (include area code)
 Ph: 720-929-6857

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
 At surface NWSW 2112FSL ⁸²⁶ 200F-WL 40.005537 N Lat, 109.487710 W Lon
 At top prod interval reported below SWNW 2182FNL 747FWL
 At total depth SWNW 2268FNL 794FWL *BHL by ASM*

10. Field and Pool, or Exploratory
 NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey
 or Area Sec 30 T9S R22E Mer SLB

12. County or Parish
 UINTAH
 13. State
 UT

14. Date Spudded
 05/03/2012
 15. Date T.D. Reached
 06/16/2012
 16. Date Completed
 D & A Ready to Prod.
 10/31/2012

17. Elevations (DF, KB, RT, GL)*
 4971 GL

18. Total Depth: MD 10827
 TVD 10675
 19. Plug Back T.D.: MD 10750
 TVD 10605
 20. Depth Bridge Plug Set: MD 10736
 TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
 CBL/GR/CCL/TEMP

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

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

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20.000	14.000 STL	36.7	0	40		28			
11.000	8.625 IJ-55	28.0	0	2852		530		0	
7.875	4.500 P-110	11.6	0	10802		1780		1738	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	10300							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) MESAVERDE	9165	10621	9165 TO 10621	0.360	93	OPEN
B)						
C)						
D)						

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) MESAVERDE	9165	10621	9165 TO 10621	0.360	93	OPEN

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

Depth Interval	Amount and Type of Material
9165 TO 10621	PUMP 6,685 BBLs SLICK H2O AND 114,831 LBS 30/50 OTTAWA SAND

RECEIVED
DEC 07 2012
DIV. OF OIL, GAS & MINING

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
10/31/2012	11/03/2012	24	→	0.0	1640.0	540.0			FLows FROM WELL
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
20/64	1235 SI	1806.0	→	0	1640	540		PGW	

28a. Production - Interval B

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

28b. Production - Interval C

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

28c. Production - Interval D

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

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

30. Summary of Porous Zones (Include Aquifers):

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

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
				GREEN RIVER BIRD'S NEST MAHOGANY WASATCH MESAVERDE	1544 1815 2347 4889 7505

32. Additional remarks (include plugging procedure):

The first 210 ft. of the surface hole was drilled with a 12 ? in. bit. The remainder of surface hole was drilled with an 11 in. bit. DQX P-110 csg was run from surface to 5331 ft; LTC csg was run from 5331 ft. to 10,802 ft. A CIBP was set @ 10,736 due to gas migration through the float collar; this plug will remain for the life of the well. Attached is the chronological well history, perforation report & final survey.

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7 Other: | |

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

**Electronic Submission #161776 Verified by the BLM Well Information System.
For KERR MCGEE OIL & GAS ONSHORE L, sent to the Vernal**

Name (please print) LINDSEY A FRAZIER Title REGUALTORY ANALYST

Signature _____ (Electronic Submission) Date 12/05/2012

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

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-30E4BS RED

Spud Date: 5/11/2012

Project: UTAH-UINTAH

Site: NBU 922-30L PAD

Rig Name No: SST 54/54, CAPSTAR 310/310

Event: DRILLING

Start Date: 4/30/2012

End Date: 6/18/2012

Active Datum: RKB @4,989.00usft (above Mean Sea Level)

UWI: NW/SW0/9/S/22/E/30/0/0/26/PM/S/2112/W/0/826/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
5/10/2012	16:00 - 18:00	2.00	DRLSUR	01	A	P		MOVE IN START RIG UP
	18:00 - 20:30	2.50	DRLSUR	01	B	P		RIG UP, SPOT IN, RAISE DERRICK, LEVEL RIG (HYDRAULIC PROBLEM, USE BED TRUCK TO HELP LEVEL RIG.)
	20:30 - 21:30	1.00	DRLSUR	01	B	P		WELD ON ROTATING HEAD
	21:30 - 0:00	2.50	DRLSUR	01	B	P		FINISH RIG UP, UNLOAD, RIG UP BLOWME LINE
5/11/2012	0:00 - 6:00	6.00	DRLSUR	08	A	Z		DOWN TIME. CHANGE OUT DIVERTER VALVE BLOCK
	6:00 - 7:00	1.00	DRLSUR	01	B	P		PICK UP 12.25" BIT AND BHA, AIR OUT PUMPS
	7:00 - 9:00	2.00	DRLSUR	02	D	P		DRILL 12.25" SURFACE HOLE F/ 49'- 210' ROP= 161' @ 80 FPH WOB= 14/22K RPM= 55/105 SPP=800/500 GPM= 595 TRQ= 2600/1900 PU/SO/ROT = 49/46/47
	9:00 - 12:00	3.00	DRLSUR	06	A	P		HOLE IN GOOD SHAPE PULL OUT OF HOLE. LAY DOWN 12.25" BIT. PICK UP 11.00" BIT AND DIRECTIONAL TOOLS, TRIP IN HOLE
5/12/2012	12:00 - 0:00	12.00	DRLSUR	02	D	P		DRILL 11.00" SURFACE HOLE F/210' T/1470' ROP= 105' @ FPH WOB= 22/28K RPM= 55/105 SPP=1050/820 GPM= 600 TRQ= 2900/1300 PU/SO/ROT = 80/65/70
	0:00 - 22:30	22.50	DRLSUR	02	D	P		HOLE IN GOOD SHAPE DRILL 11.00" SURFACE HOLE F/1470' T/2860' ROP= 61' @ FPH WOB= 22/28K RPM= 55/105 SPP=1220/1035 GPM= 600 TRQ= 3200/2500 PU/SO/ROT = 120/90/105
	22:30 - 23:30	1.00	DRLSUR	05	C	P		HOLE TIGHT CIRCULATE PRIOR TO TRIP
	23:30 - 0:00	0.50	DRLSUR	06	D	P		START PULLING OUT OF HOLE
5/13/2012	0:00 - 3:00	3.00	DRLSUR	06	D	P		PULL OUT OF HOLE, HOLE CONDITION TIGHT. WELL FLOWING EVERY 15 MIN, APPROX 50-100 BARREL FLOW, THEN SUBSIDES, AT BIT DEPTH 500'. AT 500', STOP TRIP, CHECK FLOW, FLOW STOPPED. LAY DOWN BIT AND DIRECTIONAL TOOLS
	3:00 - 7:00	4.00	DRLSUR	12	C	P		PJSM /// RUN 64 JT'S, 8-5/8", 28#, J-55, LT&C CSG /// SHOE SET @ 2833' /// BAFFLE @ 2788' HOLE CONDITION TIGHT

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-30E4BS RED

Spud Date: 5/11/2012

Project: UTAH-UINTAH

Site: NBU 922-30L PAD

Rig Name No: SST 54/54, CAPSTAR 310/310

Event: DRILLING

Start Date: 4/30/2012

End Date: 6/18/2012

Active Datum: RKB @4,989.00usft (above Mean Sea Level)

UWI: NW/SW09/S/22/E/30/0/0/26/PM/S/2112/N/0/826/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 12:00	5.00	DRLSUR	12	E	P		PJSM, RIG UP CEMENTERS, PRESSURE TEST LINES TO 1000 PSI. PUMP E0 BBLs OF WATER AHEAD. PUMP 20 BBLs OF 8.3# GEL WATER AHEAD. PUMP (250 SX) 170 BBLs OF 11.00 .8# 3.82 YD 23 GAL/SK PREMIUM CEMENT. PUMP (166 SX) 34 BBLs OF 15.8# 1.15 YD 5GALS/SK. DROP PLUG ON FLY. DISPLACE W/ 173 BBLs OF H2O. FINAL LIFT OF 500 PSI AT 4 BBL/MIN. BUMP PLUG W/900 PSI HELD FOR 1 MIN. FLOAT DID HOLD. PUMP (114 SX) 23.3 BBLs OF SAME TAIL CEMENT W/ 2% CALC. WAIT ONE HOUR PUMP 1 TOPOUT DOWN 1". SHUT DOWN AND CLEAN TRUCK. CEMENT TO SURFACE.
6/7/2012	0:00 - 7:00	7.00	RDMO	01	E	P		RIG RELEASED AT 1200PM
	7:00 - 0:00	17.00	MIRU	01	B	P		RIG DOWN PREP FOR TRUCKS
								MOVE WITH RW JONES TO NBU922-30E4BS,,7 TRUCKS 1-FORKLIFT 1 SWAMPER,1-PUSHER 80% MOVED AND 60 % RIGGED UP WITH DRAWTOOL ON FLOOR,BACKYARD RIGGED UP, MOVE 1 MILE
6/8/2012	0:00 - 20:00	20.00	MIRU	01	B	P		RIG UP BACK YARD & PITS,FINISH TRUCKING ,SET DERRICK ON FLOOR,RELEASE TRUCKS @15:00 ,RAISE DERRICK@13:00 INSTALL TOPDRIVE ,RIG UP FLOOR,FLOW LINES,MI SWACO,FLARE LINES,SET GAS BUSTER
	20:00 - 0:00	4.00	PRPSPD	14	A	P		NIPPLE UP BOP,CHANGE OUT SMITH DIVERTER HEAD,TO RIGHT SIZE,DIVERTER LINES FOR MPD,FLARE AND CHOKE LINES
6/9/2012	0:00 - 1:00	1.00	PRPSPD	14	A	P		EXTEND FLOW LINE WITH WELDER
	1:00 - 5:00	4.00	PRPSPD	15	A	P		TEST BOP WITH A-1 TESTER,ANNULAR 2500,FLOOR VALVES 5000,CHOKE & KILLLINE 5000,CHOKE MANIFOLD UPPER & LOWER KELLY VALVES 5000,SUPER CHOKE 500/250 LOWS
	5:00 - 7:00	2.00	PRPSPD	15	A	P		UNPLUG MI SWACO MANIFOLD,FLUSH & FILL WITH WATER,TEST ORBIT VALVES & MANIFOLD TO 1000 PSI FOR 10/MINUTES
	7:00 - 8:00	1.00	PRPSPD	06	A	P		LOAD AND STRAP BHA
	8:00 - 14:30	6.50	PRPSPD	06	A	P		SAFETY MEET WITH FRANKS,RIG UP MACHINE FOR BHA PICK-UP,PICK UP BHA#1 SCRIBE DIRECTIONAL TOOLS TIH TO 2700
	14:30 - 16:00	1.50	DRLPRO	02	F	P		DRILL CEMENT & SHOE TRACK,TAG CEMENT 2800 DRILL TO 2869'
	16:00 - 18:00	2.00	DRLPRO	02	D	P		SPUD NEW 7.875 HOLE 16:00 6/9/2012,DIRDRILL F/2869 TO 2895=26 AVG 13
	18:00 - 19:30	1.50	DRLPRO	22	L	Z		WEATHERFORD MWD TOOL WILL NOT SYNC,MAKE CALLS CHECK CONNECTION
	19:30 - 0:00	4.50	DRLPRO	06	H	Z		TRIP OUT FOR MWD FAILURE,REGAIN SIGNAL AT 1500 FT,TRIP IN,NO SIGNAL AGAIN ON BOTTOM AND MUD MTR WILL NOT BACKSPIN PIPE,DRILL 9' AT 18'/HR,TRIP OUT F/ MOTOR & BIT
6/10/2012	0:00 - 1:30	1.50	DRLPRO	06	A	Z		TOOH WITH BHA#1 ,LAYDOWN BIT & MTR
	1:30 - 3:00	1.50	DRLPRO	06	A	Z		PICK UP BIT & MUD MTR #2,SCRIBE DIRTOOLS,TIH WBHA #2 2896'

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-30E4BS RED

Spud Date: 5/11/2012

Project: UTAH-UINTAH

Site: NBU 922-30L PAD

Rig Name No: SST 54/54, CAPSTAR 310/310

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UWI: NW/SW/0/9/S/22/E/30/0/0/26/PM/S/2112/W/0/826/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	3:00 - 17:00	14.00	DRLPRO	02	D	P		DIR DRILL F/2895 TO 4819=1924' AVG 134 FPH - WOB 15/20 RPM 45/121 =166 - SPM 160 GPM 580 RPG .21 - TORQ 4/10 - PSI 1700/2000 SLIDE 277' 14% ROT 1647 86% 13'SOUTH - 10' WEST OF CENTER BOTH CENTRIFUGES DEWATERING THRU SINGLE CONE ENHANCER FOR DRYING DIRTY WATER DRLG@8.6/27 PUMPING VISCUS SWEEPS SWACO OFF LINE
	17:00 - 17:30	0.50	DRLPRO	07	A	P		RIG SERVICE
	17:30 - 0:00	6.50	DRLPRO	02	D	P		DIR DRILL F/4819 TO 5700=881' AVG 135 FPH - WOB 15/20 RPM 45/121 =166 - SPM 160 GPM 580 RPG .21 - TORQ 4/10 - PSI 1700/2100 SLIDE 75' 8% ROT 806 92% 9 NORTH - 16' WEST OF CENTER BOTH CENTRIFUGES DEWATERING THRU SINGLE CONE ENHANCER FOR DRYING DIRTY WATER DRLG@8.6/27 PUMPING VISCUS SWEEPS MISWACO OFF LINE
6/11/2012	0:00 - 10:00	10.00	DRLPRO	02	D	P		HOLE SEEPING 25 BBL HR/MIXING LCM SWEEPS DIR DRILL F/5700 TO 6500=800' AVG 80 FPH - WOB 15/20 RPM 45/121 =166 - SPM 160 GPM 580 RPG .21 - TORQ 4/10 - PSI 1700/2100 SLIDE 10' 1% ROT 790 99% 13 NORTH - 18' WEST OF CENTER BOTH CENTRIFUGES DEWATERING THRU SINGLE CONE ENHANCER FOR DRYING DIRTY WATER DRLG@8.6/27 PUMPING VISCUS SWEEPS MISWACO OFF LINE
	10:00 - 10:30	0.50	DRLPRO	05	C	P		HOLE SEEPING 25 BBL HR/MIXING LCM SWEEPS PUMP HIGH VIS SWEEP,CIRC BOTTOMS UP FOR REAMERTRIP
	10:30 - 16:00	5.50	DRLPRO	06	J	P		TRIP OUT TO 2054' INSTALL REAMER,TRIP IN HOLE TO 6347,,TIGHT SPOT AT 4528' COMING OUT
	16:00 - 17:30	1.50	DRLPRO	22	O	S		LOST RETURNS 6347' MIX LCM & BUILD VOLUME,TRANSFER STORED MUD & WATER IN FOR VOLUME,, 550 BBLS TOTAL LOST IN WASATCH
	17:30 - 0:00	6.50	DRLPRO	02	D	P		DIR DRILL F/6500 TO 6925 =425' AVG 65 FPH - WOB 15/22 RPM 45/103 =166 - SPM 140 GPM 500 RPG .21 - TORQ LOW 8K HIGH 13K - PSI 1700/2100 SLIDE 0% ROT 100% 11 NORTH -16 ' WEST OF CENTER BOTH CENTRIFUGES BY PASSED LT MUD UP WITH @9.2/36 10%LCM MISWACO OFF LINE

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-30E4BS RED

Spud Date: 5/11/2012

Project: UTAH-UINTAH

Site: NBU 922-30L PAD

Rig Name No: SST 54/54, CAPSTAR 310/310

Event: DRILLING

Start Date: 4/30/2012

End Date: 6/18/2012

Active Datum: RKB @4,989.00usft (above Mean Sea Level)

UWI: NW/SW/0/9/S/22/E/30/0/0/26/PM/S/2112/W/0/826/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/12/2012	0:00 - 15:00	15.00	DRLPRO	02	D	P		DIR DRILL F/6925 TO 7780=855' AVG 57 FPH - WOB 18/22 RPM 45/103 =166 - SPM 140 GPM 500 RPG .21 - TORQ LOW 9800 HIGH 14000 - PSI 2000/2350 SLIDE 55 6% ROT 802 93% 14 NORTH - 10' WEST OF CENTER BOTH CENTRIFUGES BY PASSED LT MUD UP WITH @9.2/36 10%LCM MISWACO OFF LINE SHACK OUT LCM TO 5% RIG SERVICE
	15:00 - 15:30	0.50	DRLPRO	07	A	P		
	15:30 - 0:00	8.50	DRLPRO	02	D	P		DIR DRILL F/7780 TO 8180=400 ' AVG 47 FPH - WOB 18/22 RPM 45/103 =166 - SPM 140 GPM 500 RPG .21 - TORQ LOW 9800 HIGH 14000 - PSI 2000/2350 SLIDE % ROT % 17 NORTH - 4' WEST OF CENTER BOTH CENTRIFUGES BY PASSED MW 10@/44 5%LCM MISWACO OFF LINE SHACK OUT LCM TO 5%
6/13/2012	0:00 - 14:00	14.00	DRLPRO	02	D	P		DIR DRILL F/8180' TO 8829' / 649' @ 46.3 FPH WOB 18/22 TD RPM 45 MM RPM 103 PUMPING 492 GPM / SPM 140 PSI ON/OFF 2400/1990 / DIFF 410 TORQUE HIGH/LOW 17,200/14250 MUD WT IN 10.2 / OUT 9.9 / VIS 43 NOV RAN 1 CENTRIFUGE 1 CIRCULATION SWACO ON LINE @8812' HOLDING 90 PSI BACK PRESSURE WHILE DRILLING. PU 245 / SO 155 / ROT 185 SLIDE 22' IN 65 MINUTES = 7.7% OF TIME & 3.4% OF FOOTAGE DRILLED ROTATE 627' IN 775 MINUTES = 92.5% OF TIME & 96.6% OF FOOTAGE DRILLED SHAKING LCM OUT OF MUD AS PER ORDERS 4 TO 6' FLARE STARTING @ 8575' / INCREASED TO 10' @ 8800' 11.6' NORTH & 8.5' WEST OF CENTER RIG SERVICE / FUNCTION BOP
	14:00 - 14:30	0.50	DRLPRO	07	A	P		

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-30E4BS RED

Spud Date: 5/11/2012

Project: UTAH-UINTAH

Site: NBU 922-30L PAD

Rig Name No: SST 54/54, CAPSTAR 310/310

Event: DRILLING

Start Date: 4/30/2012

End Date: 6/18/2012

Active Datum: RKB @4,989.00usft (above Mean Sea Level)

UWI: NW/SW/0/9/S/22/E/30/0/0/26/PM/S/2112/W/0/826/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	14:30 - 15:00	0.50	DRLPRO	02	D	P		DRLG ROTATE 8829' TO 8863' / 34' @ 68 FPH WOB 20 TO 24K TD RPM 43 MM RPM 103 PUMPING 492 GPM / 140 SPM PSI ON/OFF 2410/2000 / DIFF 410 TORQUE HIGH/LOW 17,540/14430 MUD WT IN 10.2 / OUT 9.9 / VIS 43 NOV OFF LINE SWACO HOLDING 100 PSI BACK PRESSURE WHILE DRILLING PU 245 / SO 155 / ROT 185 NO SLIDE ROTATE 34' IN 30 MINUTES = 100% ROTATE @ 68 FPH TOTAL MUD VOLUME OVER SHAKERS @ 8834' 10' FLARE 11.6' NORTH & 8.5' WEST OF CENTER
	15:00 - 16:30	1.50	DRLPRO	22	G	X		LOST COMPLETE RETURNS / TRIP OUT 10 STAND DP
	16:30 - 17:30	1.00	DRLPRO	22	G	X		BUILD VOLUME MIXING MUD & LCM PILL / SPOT 50 BBL 10% LCM PILL ON BOTTOM / REGAINED CIRCULATION AFTER 25 BBL / HOLE SEEPING 25 BBL/HR / 15' FLARE
	17:30 - 18:00	0.50	DRLPRO	22	G	X		TRIP IN HOLE / 25' FLARE BOTTOMS UP
	18:00 - 0:00	6.00	DRLPRO	02	D	P		DRLG ROTATE/SURVEY 8863' TO 9137' / 274' @ 45.7 FPH WOB 20 TO 24K TD RPM 41 TO 46 MM RPM 103 PUMPING 492 GPM / 140 SPM PSI ON/OFF 2580/2080 / DIFF 500 TORQUE HIGH/LOW 14,340/7600 MUD WT IN 10.4 / OUT 10.4 / VIS 38 / LCM 5% NOV OFF LINE SWACO HOLDING 160 PSI BACK PRESSURE WHILE DRILLING PU 230 / SO 155 / ROT 170 NO SLIDE ROTATE 274' IN 360 MINUTES = 100% ROTATE @ 45.7 FPH MUD VOLUME HOLDING STEADY WITH 5% LCM. 6 TO 8' FLARE WHILE DRILLING / 12 TO 15' CONNECTION FLARE 6.6' NORTH & 6.85' WEST OF CENTER

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-30E4BS RED

Spud Date: 5/11/2012

Project: UTAH-UINTAH

Site: NBU 922-30L PAD

Rig Name No: SST 54/54, CAPSTAR 310/310

Event: DRILLING

Start Date: 4/30/2012

End Date: 6/18/2012

Active Datum: RKB @4,989.00usft (above Mean Sea Level)

UWI: NW/SW/0/9/S/22/E/30/0/0/26/PM/S/2112/W/0/826/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/14/2012	0:00 - 15:30	15.50	DRLPRO	02	D	P		DRLG ROTATE/SURVEY 9137' TO 9783' / 646' @ 41.7 FPH WOB 21 TO 24K TD RPM 40 TO 45 MM RPM 103 PUMPING 492 GPM / 140 SPM PSI ON/OFF 2750/2250 / DIFF 500 TORQUE HIGH/LOW 12,910/8880 MUD WT IN 10.6 / OUT 10.5 / VIS 43 / LCM 8% NOV OFF LINE SWACO HOLDING 128 PSI BACK PRESSURE WHILE DRILLING / 230 PSI SHUT IN ON CONNECTIONS PU 250 / SO 170 / ROT 200 NO SLIDE ROTATE 646' IN 930 MINUTES = 100% ROTATE @ 41.7 FPH MUD VOLUME HOLDING STEADY WITH 8% LCM 4 TO 6' FLARE WHILE DRILLING / 10 TO 12' CONNECTION FLARE 17.4' SOUTH & 0.2' EAST OF CENTER RIG SERVICE / FUNCTION BOP
	15:30 - 16:00	0.50	DRLPRO	07	A	P		
	16:00 -		DRLPRO	02	D	P		DRLG ROTATE/SURVEY 9783' TO 10,015' / 232' @ 29 FPH WOB 23 TO 25K TD RPM 50 TO 60 MM RPM 103 PUMPING 492 GPM / 140 SPM PSI ON/OFF 2820/2560 / DIFF 260 TORQUE HIGH/LOW 17,920/7380 MUD WT IN 10.7 / OUT 10.7 / VIS 45 / LCM 5% NOV OFF LINE SWACO HOLDING 160 PSI BACK PRESSURE WHILE DRILLING / 320 PSI SHUT IN ON CONNECTIONS. PU 255 / SO 160 / ROT 190 NO SLIDE ROTATE 232' IN 510 MINUTES = 100% ROTATE @ 29 FPH 6 TO 8' FLARE WHILE DRILLING / 12 TO 15' CONNECTION FLARE 27.32' SOUTH & 6.24' EAST OF CENTER

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-30E4BS RED		Spud Date: 5/11/2012	
Project: UTAH-UINTAH		Site: NBU 922-30L PAD	Rig Name No: SST 54/54, CAPSTAR 310/310
Event: DRILLING		Start Date: 4/30/2012	End Date: 6/18/2012
Active Datum: RKB @4,989.00usft (above Mean Sea Level)		UWI: NW/SW/0/9/S/22/E/30/0/0/26/PM/S/2112/W/0/828/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/15/2012	0:00 - 13:00	13.00	DRLPRO	02	D	P		DRLG ROTATE/SURVEY 10,015' TO 10387' / 372' @ 28.6 FPH WOB 22 TO 24K TD RPM 65 MM RPM 103 PUMPING 492 GPM / 140 SPM PSI ON/OFF 3000/2750 / DIFF 250 TORQUE HIGH/LOW 16,920/13,690 MUD WT IN 10.8 / OUT 10.7 / VIS 43 / LCM 5% NOV OFF LINE SWACO HOLDING 165 PSI BACK PRESSURE WHILE DRILLING / AT 10,315' TO 10,330' HAD 25 BBL INCREASE IN PIT VOLUME / INCREASED BACK PRESSURE 164 TO 495 PSI / FLARE INCREASED 6' TO 50' / STARTED RAISING MUD WT TO 11.3 PPG AS PER LEVEL. PU 250 / SO 160 / ROT 200 NO SLIDE LOST COMMUNICATION WITH MWD @ 10,009' 32.4' SOUTH & 9.25 EAST OF CENTER
	13:00 - 15:00	2.00	DRLPRO	22	G	X		LOST CIRCULATION / MIX MUD & LCM / REGAINED RETURNS / LOST 110 BBL MUD / HOLE SEEPING 40 BBL/HR
	15:00 - 0:00	9.00	DRLPRO	02	D	P		DRLG ROTATE 10,387' TO 10659' / 272' @ 30.2 FPH WOB 22 TO 24K TD RPM 62 MM RPM 103 PUMPING 492 GPM / 140 SPM PSI ON/OFF 3160/2790 DIFF 370 TORQUE HIGH/LOW 16,280/ 11,980 MUD WT IN 11.9 / OUT 11.5 / VIS 43 / LCM 15% NOV OFF LINE SWACO HOLDING 105 PSI BACK PRESSURE WHILE DRILLING / 175 PSI SHUT IN ON CONNECTIONS. PU 255 / SO 180 / ROT 200 NO SLIDE NO COMMUNICATION WITH MWD HOLE SEEPING 7 BBL PER HOUR
6/16/2012	0:00 - 5:30	5.50	DRLPRO	02	D	P		DRLG ROTATE 10,659' TO 10,827' / 168' @ 30.5 FPH WOB 24K TD RPM 62 MM RPM 103 PUMPING 492 GPM / 140 SPM PSI ON/OFF 3215/2799 / DIFF 416 TORQUE HIGH/LOW 16565/8217 MUD WT IN 11.9 / OUT 11.7 / VIS 43 / LCM 18% NOV OFF LINE SWACO HOLDING 156 PSI BACK PRESSURE WHILE DRLG / OFF LINE @ TD NO SLIDE ROTATE 168' IN 330 MINUTES = 100% ROTATE @ 30.5 FPH HOLE SEEPING 7 BBL/HR NO COMMUNICATION WITH MWD
	5:30 - 7:30	2.00	DRLPRO	05	A	P		CIRCULATE & CONDITION HOLE

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-30E4BS RED

Spud Date: 5/11/2012

Project: UTAH-UINTAH

Site: NBU 922-30L PAD

Rig Name No: SST 54/54, CAPSTAR 310/310

Event: DRILLING

Start Date: 4/30/2012

End Date: 6/18/2012

Active Datum: RKB @4,989.00usft (above Mean Sea Level)

UWI: NWSW09/S/22/E/30/0/26/PM/S/2112/W/0/826/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/17/2012	7:30 - 16:00	8.50	DRLPRO	06	E	P		PUMP DRY JOB & MAKE WIPER TRIP TO 2065' / LAID DOWN GHOST REAMER.
	16:00 - 16:30	0.50	DRLPRO	07	A	P		RIG SERVICE / FUNCTION BOP
	16:30 - 19:30	3.00	DRLPRO	06	E	P		FINISH WIPER TRIP IN HOLE / WASH 90' TO BOTTOM / 20' FILL
	19:30 - 23:30	4.00	DRLPRO	05	A	P		CIRCULATE & CONDITION HOLE / 20' FLARE BOTTOMS UP / HOLE TOOK 120 BBL MUD ON TRIP / BUILD VOLUME
	23:30 - 0:00	0.50	DRLPRO	06	D	P		TRIP OUT OF HOLE
	0:00 - 5:30	5.50	DRLPRO	06	D	P		TRIP OUT OF HOLE / LAID DOWN MUD MOTOR
	5:30 - 6:00	0.50	DRLPRO	06	D	P		PULL WEAR BUSHING
	6:00 - 17:00	11.00	DRLPRO	12	C	P		PJSM / RIG UP FRANKS WESTATES AND RUN 10,807' OF 4.5" CASING / 123 JOINTS OF 4.5",11.6#,HCP110, LTC CASING AND 120 JOINTS OF 4.5",11.6#,HCP110, DQX CASING WITH HALLIBURTON GUIDE SHOE AND FLOAT COLLAR LOCATED 1 JOINT ABOVE SHOE / 25 CENTRALIZERS SPACED 10' ABOVE SHOE, 2ND & 3RD COLLARS AND EVERY THIRD COLLAR TO 7800'. 2 MARKER JOINTS @ 10,002' AND 7282' / 1 CROSS OVER JOINT @ 5330'. LANDED CASING WITH CAMERON CASING HANGER @ 10,802' KB. TOP OF FLOAT COLLAR @ 10,756' / STRING WEIGHT = 102K.
	17:00 - 19:00	2.00	DRLPRO	05	D	P		CIRCULATE CASING WITH RIG PUMP
	19:00 - 22:00	3.00	DRLPRO	12	E	P		PJSM / RIG UP BJ AND CEMENT 4.5" PRODUCTION CASING WITH 526 SX PREMIUM LITE II LEAD CEMENT WITH 6% GEL, 0.4% R-3, 0.25 #/SX CELLOFLAKE, 5 #/SX KOL SEAL, 0.4% FL-52, 0.2% SODIUM METASILICATE, & 5 #/SX STATIC FREE / TAILED IN WITH 1254 SX OF 50:50 POZ MIX WITH 2% GEL, 10% SALT, 0.2% R-3, & 5 #/SX STATIC FREE / TESTED LINES TO 5000 PSI / DROPPED BOTTOM PLUG & PUMPED 5 BBL DYE WATER & 25 BBL SPACER FLUSH AHEAD OF CEMENT / MIXED LEAD CEMENT @ 12.5 PPG WITH YIELD OF 1.98 CF/SX / MIXED TAIL CEMENT @ 14.3 PPG WITH YIELD OF 1.31 CF/SX / HOLE CIRCULATED GOOD THROUGH OUT JOB / DROPPED TOP PLUG & DISPLACED WITH 167.2 BBL FRESH WATER WITH 0.1 GAL/BBL CLAYCARE & 0.01 GAL/BBL MAGNACIDE / CIRCULATED 20 BBL FLUSH WATER TO SURFACE / NO CEMENT TO SURFACE / FINAL LIFT PRESSURE = 3100 PSI / BUMPED PLUG TO 3760 PSI / FLOATS HELD / PLUG DOWN @ 21:32, 6/17/2012
22:00 - 0:00	2.00	DRLPRO	12	C	P		PULL LANDING JOINT & SET PACK OFF.	
6/18/2012	0:00 - 1:00	1.00	DRLPRO	14	A	P		NIPPLE DOWN BOP & CLEAN MUD TANKS / RELEASE RIG @ 01:00, 6/18/2012

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 922-30E4BS RED	Wellbore No.	OH
Well Name	NBU 922-30E4BS	Wellbore Name	NBU 922-30E4BS
Report No.	1	Report Date	8/16/2012
Project	UTAH-UINTAH	Site	NBU 922-30L PAD
Rig Name/No.		Event	COMPLETION
Start Date	9/25/2012	End Date	10/31/2012
Spud Date	5/11/2012	Active Datum	RKB @4,989.00usft (above Mean Sea Level)
UWI	NW/SW/0/9/S/22/E/30/0/0/26/PM/S/2112/W/0/826/0/0		

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	9,165.0 (usft)-10,621.0 (usft)	Start Date/Time	9/24/2012 12:00AM
No. of Intervals	22	End Date/Time	9/24/2012 12:00AM
Total Shots	93	Net Perforation Interval	31.00 (usft)
Avg Shot Density	3.00 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

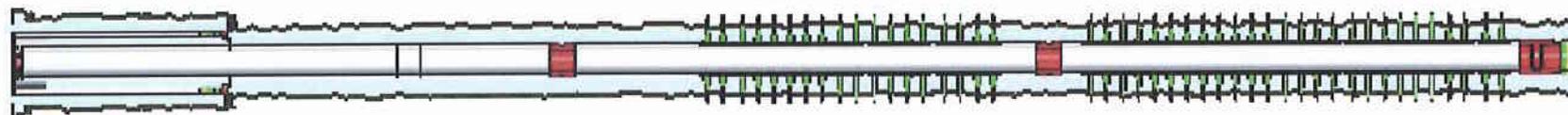
Date	Formation/Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/24/2012 12:00AM	MESAVERDE/			9,165.0	9,167.0	3.00		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
9/24/2012 12:00AM	MESAVERDE/			9,219.0	9,220.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			9,234.0	9,235.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			9,244.0	9,246.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			9,276.0	9,278.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			9,319.0	9,321.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			9,345.0	9,346.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			9,422.0	9,424.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			9,454.0	9,456.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			10,321.0	10,322.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			10,339.0	10,341.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			10,352.0	10,353.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			10,366.0	10,368.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			10,383.0	10,384.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			10,390.0	10,391.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			10,416.0	10,417.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			10,429.0	10,431.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			10,487.0	10,488.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			10,504.0	10,505.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			10,517.0	10,518.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			10,535.0	10,536.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/			10,620.0	10,621.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-30E4BS RED

Spud Date: 5/11/2012

Project: UTAH-UINTAH

Site: NBU 922-30L PAD

Rig Name No: ROCKY MOUNTAIN WELL SERVICE
3/3

Event: COMPLETION

Start Date: 9/25/2012

End Date: 10/31/2012

Active Datum: RKB @4,989.00usft (above Mean Sea Level)

UWI: NWSW/0/9/S/22/E/30/0/0/26/PM/S/2112/W/0/826/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/16/2012	9:00 - 11:30	2.50		37		P		WELL HAD 300 PSI ON CSG, BLED WELL DOWN, REMOVED TREE RU WL RIH W/ GUAGE RING TAGGED @ 10,739 POOH PU 4 1/2" CIBP RIH SET @ 10,736, POOH RD WL NU TREE
8/17/2012	-							
9/25/2012	8:15 - 8:30	0.25	FRAC	48		P		HELD SAFETY MEETING: WHIP CHECKS
	8:30 - 10:30	2.00	FRAC	33	C	P		FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 18 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 25 PSI. 1ST PSI TEST T/ 9000 PSI. HELD FOR 30 MIN LOST 65 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. MOVE T/ NEXT WELL. SWFW
9/28/2012	7:00 - 7:15	0.25	FRAC	48		P		HELD SAFETY MEETING: SHEAVES AND CRAINS
	7:15 - 11:00	3.75	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
10/1/2012	6:30 - 6:45	0.25	FRAC	48		P		REVIEW FRAC DESIGN
	6:45 - 17:30	10.75	FRAC	36	B	P		PERF & FRAC FOLLOWING WELL AS PER DESIGN W/ 30/50 MESH SAND & SLK WTR. ALL CBP'S ARE HALIBURTON 8K CBP'S. REFER TO STIM PJR FOR FLUID, SAND AND CHEMICAL VOLUME PUM'D
								FRAC STG #1] WHP=559#, BRK DN PERFS=4,351#, @=4.7 BPM, INJ RT=52.7, INJ PSI=6,135#, INITIAL ISIP=3,645#, INITIAL FG=.79, FINAL ISIP=3,669#, FINAL FG=.79, AVERAGE RATE=51.6, AVERAGE PRESSURE=6,473#, MAX RATE=52.8, MAX PRESSURE=8,183#, NET PRESSURE INCREASE=24#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE.
								PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=10,406', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW, [SET PLUG GOT STUCK PULLED OUT OF ROPE SOCKET. TOP OF FISH TOP @=10,375' W/ 31' UNSHOT GUNS TO FISH
								TOTAL WTR=2,621 BBLS] TOTAL SAND=7,7132# HSM-JSA
10/8/2012	7:00 - 7:15	0.25	FRAC	48		P		

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-30E4BS RED

Spud Date: 5/11/2012

Project: UTAH-UINTAH

Site: NBU 922-30L PAD

Rig Name No: ROCKY MOUNTAIN WELL SERVICE
3/3

Event: COMPLETION

Start Date: 9/25/2012

End Date: 10/31/2012

Active Datum: RKB @4,989.00usft (above Mean Sea Level)

UWI: NWSW/0/9/S/22/E/30/0/0/26/PM/S/2112/W/0/826/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 17:00	9.75	FRAC	31	B	P		MOVE RIG & EQUIP FROM NBU 1022-12F PAD, MIRU SPOT EQUIP, NDWH, NUBOP, PU WASHOVER PIPE RIH W/ 243 JTS 2 3/8" P-110 OFF FLOAT TO 7,909', SWMFN.
10/9/2012	7:00 - 7:15	0.25	FRAC	48		P		HSM-JSA
	7:15 - 17:00	9.75	FRAC	31	B	P		CONT TO PU TBG RIH TAG FILL @ 10,350', RU PWR SWWL BRK CIRC, PRESS TEST BOP TO 3,000 PSI LOST 0 PSI IN 15 MIN, C/O SAND & WASHOVER FISH, CIRC CLEAN, POOH STD BACK TBG, LD WASH PIPE, PU OVERSHOT RIH W/ 201 JTS TBG TO 6,537', SWMFN
10/10/2012	7:00 - 7:15	0.25	FRAC	48		P		HSM-JSA
	7:15 - 19:00	11.75	FRAC	31	B	P		CONT TO PU TBG RIH LATCH FISH @ 10,375', PULL 12K OVER STIRNG WEIGHT & JAR FREE, POOH STD BACK 320 JTS TBG, LD PERF GUNS & FISHING EQUIP, SETTING SLEEVE STILL STUCK IN HOLE, MIRU CUTTERS RIH W/ SPEAR, POOH W/ NO FISH, WILL MAKE NEW PLAN IN AM, SWMFN.
10/11/2012	7:00 - 7:15	0.25	FRAC	48		P		HSM-JSA
	7:15 - 17:00	9.75	FRAC	34	B	P		PU BAILER RIH W/ WIRELINE, CAME BACK WITH SMALL AMOUNT OF SAND & METAL SHAVINGS, LD BAILER PU SPEAR RIH LATCH FISH & JAR FREE POOH HAD SETTING TOOL SLEEVE, RD CUTTERS, RIH W/ 220 JTS TBG IN DERRICK, POOH LD 120 JTS ON FLOAT, SWMFN
10/12/2012	7:00 - 7:15	0.25	FRAC	48		P		HSM-JSA
	7:15 - 12:00	4.75	FRAC	31	I	P		POOH LD 200 JTS TBG ON FLOAT, RD FLOOR & TBG EQUIP, NDBOP, NU FRAC VALVES, RDMO
10/15/2012	7:30 - 8:30	1.00	FRAC	52	B	P		MIRU B & C QUICKTEST, PRESS TEST FRAC VALVES TO 9,000 PSI
10/16/2012	7:00 - 7:15	0.25	FRAC	48		P		HSM-JSA
	7:15 - 10:00	2.75	FRAC	37		P		MIRU WIRELINE,
								PERF STG #2]PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE, RIH PERF AS OUTLINED IN PROCEDURE, POOH, SWMFN
10/17/2012	14:00 - 18:30	4.50	FRAC	36	B	P		FRAC STG #2] BRK DN PERFS=3,842#, @=6.7 BPM, INJ RT=51.6 BPM, INJ PSI=4,827#, INITIAL ISIP=3,133#, INITIAL FG=.74, FINAL ISIP=2,529#, FINAL FG=.68, AVERAGE RATE=51.1 BPM, AVERAGE PRESSURE=4,831#, MAX RATE=52.1 BPM, MAX PRESSURE=7,123#, NET PRESSURE INCREASE=-604#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE.
								PERF STG #3] P/U RIH W/ HAL 8K CBP & PERF GUN, RIH STACK OUT @ 8,400' (1,050' HIGH), POOH & REFLUSH, RIH SET CBP @=9,486', PERF USING 3-1/8 EXP, 23 GRM, 0.36" HOLE AS OUTLINED IN PROCEDURE, SWMFN
10/18/2012	6:30 - 6:45	0.25	FRAC	48		P		HSM-JSA

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-30E4BS RED

Spud Date: 5/11/2012

Project: UTAH-UINTAH

Site: NBU 922-30L PAD

Rig Name No: ROCKY MOUNTAIN WELL SERVICE
3/3

Event: COMPLETION

Start Date: 9/25/2012

End Date: 10/31/2012

Active Datum: RKB @4,989.00usft (above Mean Sea Level)

UWI: NW/SW/0/9/S/22/E/30/0/0/26/PM/S/2112/W/0/826/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:45 - 6:45	0.00	FRAC	36	B	P		<p>FRAC STG #3] BRK DN PERFS=2,290#, @=7.0 BPM, INJ RT=51.8 BPM, INJ PSI=5,458#, INITIAL ISIP=2,135#, INITIAL FG=.67, FINAL ISIP=5,855#, FINAL FG=.73, AVERAGE RATE=51.8 BPM, AVERAGE PRESSURE=4,898#, MAX RATE=53.4 BPM, MAX PRESSURE=5,855#, NET PRESSURE INCREASE=584#, 20/21 95% CALC PERFS OPEN. X OVER TO WIRE LINE.</p> <p>PERF STG #4] P/U RIH W/ HAL 8K CBP & PERF GUN, SET CBP @=9,308', PERF USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS OUTLINED IN PROCEDURE, X OVER TO FRAC CREW.</p> <p>FRAC STG #4] BRK DN PERFS=2,340#, @=2.4 BPM, INJ RT=46.6 BPM, INJ PSI=4,719#, INITIAL ISIP=2,178#, INITIAL FG=.67, FINAL ISIP=2,700#, FINAL FG=.73, AVERAGE RATE=48.9 BPM, AVERAGE PRESSURE=4,542#, MAX RATE=50.4 BPM, MAX PRESSURE=5,004#, NET PRESSURE INCREASE=522#, 22/24 92% CALC PERFS OPEN. X OVER TO WIRE LINE.</p> <p>PERF STG #5] P/U RIH W/ HAL 8K CBP & PERF GUN, STACK OUT @ 8,622', WORK PLUG UP & DWN NO LUCK, FLUSH PAST PLUG W/ 30 BBLs TRY TO RIH W/ PLUG, UNABLE TO GET PAST 8,622', PU & SET HAL 8K CBP @ 8,620', POOH LD GUN, RDMO CHS WIRELINE, MIRU CUTTERS PU SPEAR W/ MUD PUMP RIH BEAT ON PLUG 4 HRS, POOH NOTHING IN BAILER, RIH W/ SPEAR BEAT ON PLUG FOR 1 MORE HR WITH NO SUCCESS, POOH RD CUTTERS, SWIFN.</p> <p>TOTAL FLUID PUMPED-6,685 BBLs TOTAL SAND PUMPED-114,831 # HSM-JSA</p>
10/30/2012	7:00 - 7:15	0.25	DRLOUT	48		P		<p>RDMO 922-30K4BS, MIRU, SICP 1,900 PSI, FLOWED WELL FOR 6 HRS 10/29/12 FCP DID NOT DROP BELOW 200 PSI, FLUSH W/ 100 BBLs WTR, MIRU CHS RIH SET 8K CBP @ 8,000', RDMO CHS, NDFV, NUBOP, PU 3 7/8" BIT & POBS W/ XN SN, RIH W/ 251 JTS 2 3/8" P-110 OFF FLOAT TAG PLUG @ 8,000', LD 2 JTS, SWIFN.</p> <p>HSM-JSA</p>
	7:15 - 17:00	9.75	DRLOUT	31	I	P		
10/31/2012	7:00 - 7:15	0.25	DRLOUT	48		P		

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-30E4BS RED Spud Date: 5/11/2012
 Project: UTAH-UINTAH Site: NBU 922-30L PAD Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
 Event: COMPLETION Start Date: 9/25/2012 End Date: 10/31/2012
 Active Datum: RKB @4,989.00usft (above Mean Sea Level) UWI: NWSW/0/9/S/22/E/30/0/0/26/PM/S/2112/W/0/826/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 15:30	8.25	DRLOUT	44	C	P		<p>RU PWR SWWL, BRK CIRC PRESS TEST BOP TO 3,000 PSI, LOST 0 PSI IN 15 MIN.</p> <p>TAG PLUG #1 @ 8,000', DRL HAL 8K CBP IN 7 MIN, 700 PSI INC, FCP 100 PSI, RIH TAG FILL @ 8,555'.</p> <p>SUSPECT CSG PROBLEM BETWEEN 8,000' & 8,600', ABLE TO PUMP 100 BBL FLUSH ON 10/30/12 & WELL FLOWING AFTER DRLG PLUG @ 8,000' WITH 65' OF SAND ON PLUG @ 8,620, NO PERFS ABOVE PLUG.</p> <p>C/O 65' SAND TAG PLUG #2 @ 8,620', DRL HAL 8K CBP IN 4 MIN, 100 PSI INC, FCP 100 PSI, RIH TAG FILL @ 9,263'.</p> <p>C/O 45' SAND TAG PLUG #3 @ 9,308', DRL HAL 8K CBP IN 7 MIN, 100 PSI INC, FCP 150 PSI, RIH TAG FILL @ 9,466'.</p> <p>C/O 20' SAND TAG PLUG #4 @ 9,486', DRL HAL 8K CBP IN 8 MIN, 300 PSI INC, FCP 200 PSI, RIH TAG FILL @ 9,682'.</p> <p>C/O 724' SAND TAG PLUG #5 @ 10,406', DRL HAL 8K CBP IN 7 MIN, 200 PSI INC, FCP 200 PSI, RIH TAG FILL @ 10,570'.</p> <p>C/O 166' SAND TO CIBP @ 10,736', CIRC CLEAN, RD PWR SWMVEL, POOH LD 14 JTS TBG, LAND TBG W/ 324 JTS 2 3/8" P-110, EOT @ 10,300.06', RD FLOOR & TBG EQUIP, NDBOP, NUWH, DROP BALL POBS @ 2,500 PSI, PRESS TEST FLOWLINE BETWEEN WELLHEAD & HAL 9,000 TO 3,000 PSI, LET BIT FALL 20 MIN TURN OVER TO FBC, RDMO.</p> <p>KB-18' HANGER-.83' 324 JTS 2 3/8" P-110-10,279.03' POBS W/ XN SN-2.20' EOT @ 10,300.06'</p> <p>346 JTS DEL 324 JTS USED 22 JTS RET</p> <p>TWTR=9,836 BBLS TWR=1,947 BBLS TWLTR=7,889 BBLS</p>
	15:30 - 15:30	0.00	DRLOUT	50				<p>WELL TURNED TO SALES @ 1415 HR ON 10/31/2012. 1900 MCFD, 1920 BWPD, FCP 1750#, FTP 2100#, 20/64" CK.</p>
11/3/2012	7:00 -			50				<p>WELL IP'D ON 11/3/12 - 1640 MCFD, 540 BWPD, 0 BOPD, CP 1806#, FTP 1235#, LP 92#, 24 HRS, CK 20/64</p>

Site: UINTAH NBU 922-30L PAD
 Well: NBU 922-30E4BS
 Wellbore: NBU 922-30E4BS
 Section:
 SHL:
 Design: NBU 922-30E4BS (wp01)
 Latitude: 40.005572
 Longitude: -109.487024
 GL: 4971.00
 KB: 4971' GL + 18' RKB @ 4989.00ft (SST 54)

TVDPATH	MDPATH	FORMATION
4724.00	4881.95	WASATCH
5324.00	5481.95	top of cylinder
7355.00	7512.96	MESAVERDE
9559.00	9716.98	SEGO
9642.00	9799.98	CASTLEGATE
10069.00	10226.98	BLACKHAWK

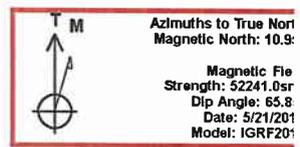


WELL DETAILS: NBU 922-30E4BS

+N/-S	+E/-W	Northing	Ground Level: Easting	4971.00 Latitude	40.005572	Longitude	Slot
0.00	0.00	14531670.05	2064112.37			-109.487024	

CASING DETAILS

TVD	MD	Name	Size
2728.45	2842.96	8-5/8"	8-5/8"

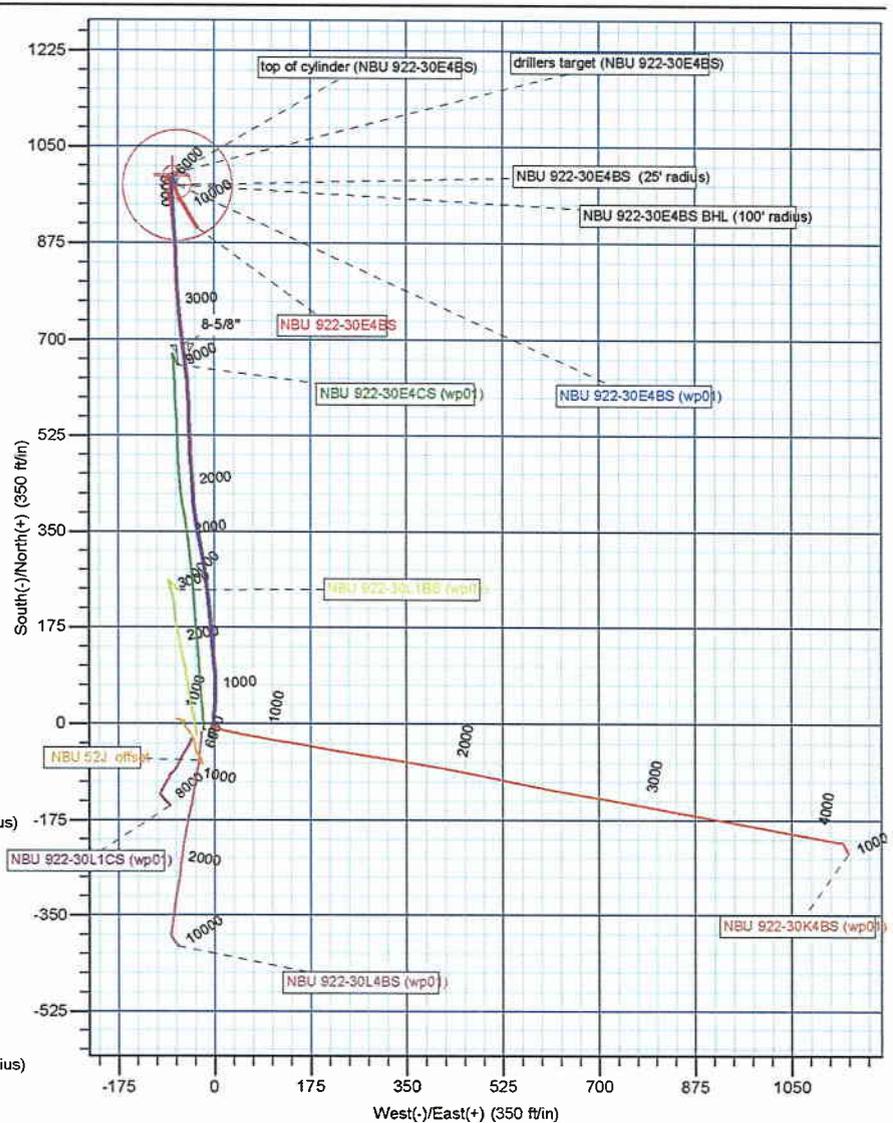
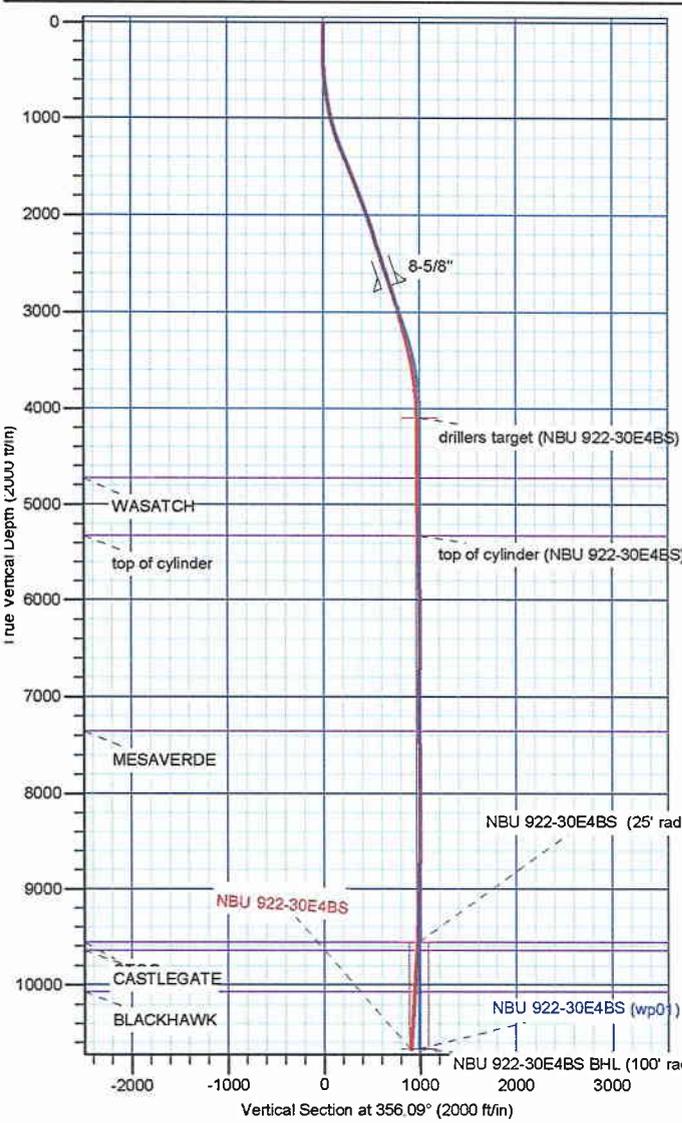


DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
drillers target (NBU 922-30E4BS)	4097.60	999.72	-76.94	14532668.32	2064018.47	40.008317	-109.487299	Circle (Radius: 15.00)
top of cylinder (NBU 922-30E4BS)	5324.00	896.07	-75.11	14532664.70	2064020.36	40.008307	-109.487292	Point
BU 922-30E4BS (25' radius)	9559.00	979.72	-66.94	14532648.49	2064028.81	40.008262	-109.487263	Circle (Radius: 25.00)
BU 922-30E4BS BHL (100' radius)	10669.00	979.72	-66.94	14532648.49	2064028.81	40.008262	-109.487263	Circle (Radius: 100.00)

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
2817.00	19.35	353.38	2703.95	682.58	-56.18	0.00	0.00	684.82
2967.00	19.35	353.38	2845.48	731.95	-61.91	0.00	0.00	734.46
3025.58	19.35	356.92	2900.75	751.28	-63.56	2.00	91.54	753.86
3287.91	19.35	356.92	3148.26	838.09	-68.23	0.00	0.00	840.79
4255.54	0.00	0.00	4097.60	999.72	-76.94	2.00	180.00	1002.64
4320.84	0.20	153.43	4162.90	999.62	-76.89	0.30	153.43	1002.54
10826.98	0.20	153.43	10669.00	979.72	-66.94	0.00	0.00	982.01





Weatherford®

US ROCKIES REGION PLANNING

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

UINTAH_NBU 922-30L PAD

NBU 922-30E4BS

NBU 922-30E4BS

Design: NBU 922-30E4BS

Standard Survey Report

05 December, 2012

Anadarko 
Petroleum Corporation



Anadarko Petroleum Corp
Survey Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 922-30E4BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	4971' GL + 18' RKB @ 4989.00ft (SST 54)
Site:	UINTAH_NBU 922-30L PAD	MD Reference:	4971' GL + 18' RKB @ 4989.00ft (SST 54)
Well:	NBU 922-30E4BS	North Reference:	True
Wellbore:	NBU 922-30E4BS	Survey Calculation Method:	Minimum Curvature
Design:	NBU 922-30E4BS	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 922-30L PAD				
Site Position:		Northing:	14,531,670.05 usft	Latitude:	40.005572
From:	Lat/Long	Easting:	2,064,112.37 usft	Longitude:	-109.487024
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.97 °

Well	NBU 922-30E4BS					
Well Position	+N/-S	0.00 ft	Northing:	14,531,670.05 usft	Latitude:	40.005572
	+E/-W	0.00 ft	Easting:	2,064,112.37 usft	Longitude:	-109.487024
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,971.00 ft

Wellbore	NBU 922-30E4BS				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	5/21/2012	(°)	(°)	(nT)
			10.95	65.85	52,241

Design	NBU 922-30E4BS				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	9.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	9.00	0.00	0.00	358.00	

Survey Program	Date	12/4/2012			
From	To	Survey (Wellbore)	Tool Name	Description	
(ft)	(ft)				
238.00	2,817.00	Survey #1 (NBU 922-30E4BS)	MWD	MWD - STANDARD	
2,886.00	10,827.00	Survey #2 (NBU 922-30E4BS)	MWD	MWD - STANDARD	

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(ft)	(ft)	Section	Rate	Rate	Rate	
(ft)			(ft)			(ft)	(°/100usft)	(°/100usft)	(°/100usft)	
9.00	0.00	0.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	
238.00	0.09	171.62	238.00	-0.18	0.03	-0.18	0.04	0.04	0.00	
329.00	0.36	343.39	329.00	0.03	-0.05	0.03	0.49	0.30	188.76	
420.00	1.32	349.51	419.99	1.33	-0.32	1.34	1.06	1.05	6.73	
516.00	2.73	354.26	515.93	4.69	-0.75	4.72	1.48	1.47	4.95	
611.00	4.92	4.80	610.71	11.00	-0.63	11.02	2.41	2.31	11.09	
705.00	7.30	0.76	704.17	20.99	-0.22	20.99	2.57	2.53	-4.30	
801.00	9.65	4.27	799.12	35.12	0.46	35.08	2.51	2.45	3.66	
895.00	11.61	5.07	891.50	52.40	1.89	52.30	2.09	2.09	0.85	
989.00	13.45	357.51	983.26	72.74	2.25	72.62	2.62	1.96	-8.04	



Anadarko Petroleum Corp
Survey Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 922-30E4BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	4971' GL + 18' RKB @ 4989.00ft (SST 54)
Site:	UJINTAH_NBU 922-30L PAD	MD Reference:	4971' GL + 18' RKB @ 4989.00ft (SST 54)
Well:	NBU 922-30E4BS	North Reference:	True
Wellbore:	NBU 922-30E4BS	Survey Calculation Method:	Minimum Curvature
Design:	NBU 922-30E4BS	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)
1,083.00	16.00	354.87	1,074.17	96.57	0.61	96.49	2.80	2.71	-2.81
1,177.00	18.64	353.55	1,163.90	124.41	-2.23	124.41	2.84	2.81	-1.40
1,272.00	21.19	355.49	1,253.21	156.62	-5.29	156.71	2.77	2.68	2.04
1,365.00	21.81	354.96	1,339.74	190.58	-8.13	190.75	0.70	0.67	-0.57
1,460.00	22.33	354.81	1,427.78	226.14	-11.31	226.39	0.55	0.55	-0.16
1,556.00	23.29	352.75	1,516.27	263.13	-15.36	263.50	1.30	1.00	-2.15
1,649.00	22.07	349.86	1,602.08	298.57	-20.75	299.11	1.78	-1.31	-3.11
1,745.00	21.63	348.98	1,691.18	333.69	-27.31	334.44	0.57	-0.46	-0.92
1,839.00	20.77	350.74	1,778.82	367.14	-33.30	368.08	1.14	-0.91	1.87
1,932.00	20.75	355.22	1,865.79	399.84	-37.33	400.90	1.71	-0.02	4.82
2,026.00	19.87	356.28	1,953.94	432.37	-39.75	433.50	1.01	-0.94	1.13
2,119.00	20.40	355.57	2,041.26	464.30	-42.03	465.49	0.63	0.57	-0.76
2,210.00	17.73	355.68	2,127.26	493.94	-44.30	495.19	2.93	-2.93	0.12
2,302.00	17.04	359.82	2,215.06	521.39	-45.40	522.66	1.54	-0.75	4.50
2,396.00	16.97	359.18	2,304.95	548.88	-45.64	550.14	0.21	-0.07	-0.68
2,488.00	17.94	357.68	2,392.71	576.46	-46.40	577.73	1.16	1.05	-1.63
2,581.00	18.82	356.45	2,480.97	605.74	-47.91	607.05	1.03	0.95	-1.32
2,675.00	18.91	353.20	2,569.92	636.00	-50.66	637.39	1.12	0.10	-3.46
2,771.00	19.52	353.20	2,660.57	667.38	-54.40	668.87	0.64	0.64	0.00
2,817.00	19.35	353.38	2,703.95	682.58	-56.18	684.12	0.39	-0.37	0.39
tie on survey									
2,886.00	18.52	352.57	2,769.22	704.80	-58.92	706.43	1.26	-1.20	-1.17
2,949.00	18.06	352.11	2,829.04	724.39	-61.55	726.10	0.77	-0.73	-0.73
3,045.00	17.63	355.61	2,920.42	753.63	-64.71	755.43	1.20	-0.45	3.65
3,140.00	15.19	357.11	3,011.54	780.41	-66.44	782.25	2.61	-2.57	1.58
3,236.00	15.46	356.12	3,104.13	805.73	-67.94	807.62	0.39	0.28	-1.03
3,331.00	15.38	358.48	3,195.71	830.96	-69.13	832.87	0.67	-0.08	2.48
3,427.00	15.06	358.48	3,288.34	856.15	-69.80	858.07	0.33	-0.33	0.00
3,522.00	13.63	356.36	3,380.38	879.66	-70.84	881.60	1.60	-1.51	-2.23
3,618.00	10.63	352.23	3,474.23	899.73	-72.75	901.73	3.25	-3.13	-4.30
3,712.00	10.00	355.48	3,566.71	916.46	-74.57	918.50	0.91	-0.67	3.46
3,807.00	8.81	352.48	3,660.43	931.89	-76.17	933.99	1.35	-1.25	-3.16
3,903.00	6.75	349.98	3,755.54	944.74	-78.11	946.89	2.17	-2.15	-2.60
3,998.00	4.69	342.86	3,850.07	953.95	-80.23	956.17	2.29	-2.17	-7.49
4,094.00	2.63	336.23	3,945.87	959.72	-82.27	962.01	2.19	-2.15	-6.91
4,188.00	0.75	344.86	4,039.82	962.28	-83.30	964.61	2.01	-2.00	9.18
4,284.00	1.19	35.11	4,135.81	963.71	-82.89	966.02	0.95	0.46	52.34
4,379.00	0.88	26.86	4,230.79	965.16	-82.00	967.44	0.36	-0.33	-8.68
4,474.00	0.44	86.98	4,325.79	965.83	-81.30	968.09	0.80	-0.46	63.28
4,568.00	0.94	114.36	4,419.78	965.53	-80.24	967.75	0.62	0.53	29.13
4,664.00	1.13	68.48	4,515.77	965.56	-78.64	967.72	0.86	0.20	-47.79
4,759.00	0.50	55.36	4,610.76	966.14	-77.43	968.25	0.69	-0.66	-13.81
4,853.00	0.25	332.23	4,704.75	966.55	-77.19	968.66	0.57	-0.27	-88.44



Anadarko Petroleum Corp
Survey Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 922-30E4BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	4971' GL + 18' RKB @ 4989.00ft (SST 54)
Site:	UINTAH_NBU 922-30L PAD	MD Reference:	4971' GL + 18' RKB @ 4989.00ft (SST 54)
Well:	NBU 922-30E4BS	North Reference:	True
Wellbore:	NBU 922-30E4BS	Survey Calculation Method:	Minimum Curvature
Design:	NBU 922-30E4BS	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)	
4,949.00	1.54	338.36	4,800.74	967.94	-77.76	970.06	1.35	1.34	6.39	
5,044.00	1.06	335.61	4,895.72	969.92	-78.60	972.08	0.51	-0.51	-2.89	
5,138.00	1.00	331.96	4,989.70	971.44	-79.34	973.62	0.09	-0.06	-3.88	
5,234.00	0.63	358.58	5,085.69	972.71	-79.75	974.90	0.54	-0.39	27.73	
5,329.00	1.31	357.36	5,180.68	974.31	-79.81	976.51	0.72	0.72	-1.28	
5,425.00	1.06	13.36	5,276.66	976.27	-79.66	978.46	0.43	-0.26	16.67	
5,520.00	0.81	9.36	5,371.64	977.79	-79.34	979.97	0.27	-0.26	-4.21	
5,616.00	0.50	11.73	5,467.64	978.87	-79.15	981.04	0.32	-0.32	2.47	
5,711.00	1.50	340.11	5,562.62	980.44	-79.49	982.62	1.16	1.05	-33.28	
5,806.00	1.63	339.86	5,657.59	982.88	-80.37	985.09	0.14	0.14	-0.26	
5,902.00	1.63	337.61	5,753.55	985.43	-81.37	987.67	0.07	0.00	-2.34	
5,997.00	1.44	334.98	5,848.51	987.76	-82.38	990.03	0.21	-0.20	-2.77	
6,092.00	1.06	329.23	5,943.49	989.59	-83.34	991.90	0.42	-0.40	-6.05	
6,187.00	0.75	299.73	6,038.48	990.66	-84.33	993.00	0.58	-0.33	-31.05	
6,283.00	0.94	341.98	6,134.47	991.72	-85.12	994.09	0.66	0.20	44.01	
6,378.00	0.63	352.61	6,229.46	992.98	-85.43	995.36	0.36	-0.33	11.19	
6,482.00	0.50	21.23	6,333.46	993.97	-85.34	996.34	0.29	-0.13	27.52	
6,577.00	0.06	75.11	6,428.45	994.37	-85.14	996.74	0.49	-0.46	56.72	
6,672.00	0.25	153.98	6,523.45	994.19	-85.00	996.56	0.26	0.20	83.02	
6,767.00	0.44	123.61	6,618.45	993.80	-84.60	996.16	0.27	0.20	-31.97	
6,863.00	0.63	145.11	6,714.45	993.17	-83.99	995.50	0.28	0.20	22.40	
6,958.00	0.88	157.98	6,809.44	992.06	-83.42	994.37	0.32	0.26	13.55	
7,053.00	0.63	162.86	6,904.43	990.89	-82.99	993.18	0.27	-0.26	5.14	
7,148.00	1.12	163.04	6,999.42	989.50	-82.57	991.78	0.52	0.52	0.19	
7,243.00	1.13	155.61	7,094.40	987.76	-81.91	990.02	0.15	0.01	-7.82	
7,339.00	0.38	40.48	7,190.40	987.14	-81.31	989.38	1.39	-0.78	-119.93	
7,434.00	0.88	67.61	7,285.39	987.66	-80.44	989.87	0.60	0.53	28.56	
7,529.00	1.75	25.98	7,380.37	989.24	-79.13	991.40	1.30	0.92	-43.82	
7,625.00	1.56	21.86	7,476.33	991.77	-78.00	993.89	0.23	-0.20	-4.29	
7,720.00	1.19	46.98	7,571.30	993.64	-76.79	995.72	0.74	-0.39	26.44	
7,815.00	1.06	40.86	7,666.28	994.98	-75.50	997.01	0.19	-0.14	-6.44	
7,911.00	0.88	53.98	7,762.27	996.08	-74.32	998.07	0.30	-0.19	13.67	
8,006.00	1.06	67.98	7,857.25	996.84	-72.92	998.78	0.31	0.19	14.74	
8,101.00	0.56	82.98	7,952.24	997.23	-71.64	999.13	0.57	-0.53	15.79	
8,196.00	0.31	91.48	8,047.24	997.28	-70.92	999.15	0.27	-0.26	8.95	
8,292.00	1.13	241.86	8,143.24	996.83	-71.50	998.72	1.47	0.85	156.65	
8,387.00	1.38	231.61	8,238.21	995.67	-73.22	997.63	0.35	0.26	-10.79	
8,483.00	0.75	223.48	8,334.20	994.50	-74.56	996.50	0.67	-0.66	-8.47	
8,578.00	0.56	212.73	8,429.19	993.66	-75.24	995.68	0.24	-0.20	-11.32	
8,674.00	0.81	183.73	8,525.18	992.59	-75.54	994.62	0.44	0.26	-30.21	
8,769.00	0.69	169.23	8,620.18	991.35	-75.47	993.39	0.24	-0.13	-15.26	
8,864.00	0.88	168.23	8,715.17	990.08	-75.22	992.10	0.20	0.20	-1.05	
8,959.00	1.19	151.61	8,810.15	988.50	-74.60	990.50	0.45	0.33	-17.49	



Anadarko Petroleum Corp
Survey Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 922-30E4BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	4971' GL + 18' RKB @ 4989.00ft (SST 54)
Site:	UINTAH_NBU 922-30L PAD	MD Reference:	4971' GL + 18' RKB @ 4989.00ft (SST 54)
Well:	NBU 922-30E4BS	North Reference:	True
Wellbore:	NBU 922-30E4BS	Survey Calculation Method:	Minimum Curvature
Design:	NBU 922-30E4BS	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)	
9,054.00	1.63	165.61	8,905.12	986.32	-73.79	988.30	0.58	0.46	14.74	
9,150.00	1.50	176.48	9,001.09	983.74	-73.38	985.71	0.34	-0.14	11.32	
9,246.00	1.81	166.86	9,097.05	981.01	-72.96	982.96	0.43	0.32	-10.02	
9,341.00	2.00	164.23	9,191.99	977.96	-72.16	979.88	0.22	0.20	-2.77	
9,436.00	2.00	163.23	9,286.94	974.77	-71.24	976.67	0.04	0.00	-1.05	
9,532.00	2.56	164.73	9,382.86	971.10	-70.19	972.96	0.59	0.58	1.56	
9,627.00	2.69	157.48	9,477.76	967.00	-68.78	968.81	0.38	0.14	-7.63	
9,723.00	3.38	155.73	9,573.63	962.34	-66.75	964.08	0.73	0.72	-1.82	
9,818.00	3.63	145.23	9,668.45	957.31	-63.88	958.96	0.72	0.26	-11.05	
9,913.00	3.44	149.11	9,763.27	952.40	-60.70	953.94	0.32	-0.20	4.08	
10,009.00	3.63	149.73	9,859.09	947.30	-57.69	948.74	0.20	0.20	0.65	
last mwd survey										
10,827.00	3.63	149.73	10,675.44	902.57	-31.59	903.12	0.00	0.00	0.00	
projection to td										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
2,817.00	2,703.95	682.58	-56.18	tie on survey	
10,009.00	9,859.09	947.30	-57.69	last mwd survey	
10,827.00	10,675.44	902.57	-31.59	projection to td	

Checked By: _____ Approved By: _____ Date: _____