

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

FORM 3

AMENDED REPORT

<b>APPLICATION FOR PERMIT TO DRILL</b>		<b>1. WELL NAME and NUMBER</b> NBU 922-30B4BS
<b>2. TYPE OF WORK</b> DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>		<b>3. FIELD OR WILDCAT</b> NATURAL BUTTES
<b>4. TYPE OF WELL</b> Gas Well      Coalbed Methane Well: NO		<b>5. UNIT or COMMUNITIZATION AGREEMENT NAME</b> NATURAL BUTTES
<b>6. NAME OF OPERATOR</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>7. OPERATOR PHONE</b> 720 929-6515
<b>8. ADDRESS OF OPERATOR</b> P.O. Box 173779, Denver, CO, 80217		<b>9. OPERATOR E-MAIL</b> julie.jacobson@anadarko.com
<b>10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b> UTU463	<b>11. MINERAL OWNERSHIP</b> FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>	
<b>12. SURFACE OWNERSHIP</b> FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>		<b>13. NAME OF SURFACE OWNER (if box 12 = 'fee')</b>
<b>14. SURFACE OWNER PHONE (if box 12 = 'fee')</b>		<b>15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')</b>
<b>16. SURFACE OWNER E-MAIL (if box 12 = 'fee')</b>		<b>17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')</b>
<b>18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS</b> YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>		<b>19. SLANT</b> VERTICAL <input 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	1141 FNL 2039 FEL	NWNE	30	9.0 S	22.0 E	S
Top of Uppermost Producing Zone	896 FNL 1681 FEL	NWNE	30	9.0 S	22.0 E	S
At Total Depth	896 FNL 1681 FEL	NWNE	30	9.0 S	22.0 E	S

<b>21. COUNTY</b> UINTAH	<b>22. DISTANCE TO NEAREST LEASE LINE (Feet)</b> 896	<b>23. NUMBER OF ACRES IN DRILLING UNIT</b> 551
<b>24. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)</b> 406	<b>25. PROPOSED DEPTH</b> MD: 10713    TVD: 10678	
<b>26. ELEVATION - GROUND LEVEL</b> 4966	<b>27. BOND NUMBER</b> WYB00291	<b>28. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b> 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 - 2620	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 - 10713	11.6	HCP-110 LT&C	13.0	Premium Lite High Strength	320	3.38	11.0
							50/50 Poz	1530	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

<b>NAME</b> Laura Abrams	<b>TITLE</b> Regulatory Analyst II	<b>PHONE</b> 720 929-6356
<b>SIGNATURE</b>	<b>DATE</b> 06/15/2011	<b>EMAIL</b> Laura.Abrams@anadarko.com

<b>API NUMBER ASSIGNED</b> 43047516730000	<b>APPROVAL</b>	 Permit Manager
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**Kerr-McGee Oil & Gas Onshore. L.P.****NBU 922-30B4BS**

Surface: 1141 FNL / 2039 FEL      NWNE  
 BHL: 896 FNL / 1681 FEL      NWNE

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	1478	
Birds Nest	1801	Water
Mahogany	2173	Water
Wasatch	4757	Gas
Mesaverde	7368	Gas
MVU2	8343	Gas
MVL1	8773	Gas
Sego	9591	Gas
Castlegate	9641	Gas
MN5	10078	Gas
TVD	10678	
TD	10713	

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 10678' TVD, approximately equals  
7,096 psi (0.66 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 4,747 psi (bottom hole pressure  
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

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

**8. Anticipated Starting Dates:**

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

**9. Variances:**

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

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

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

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

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

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

**Background**

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

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

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

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

***Variance for BOPE Requirements***

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

***Variance for Mud Material Requirements***

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

***Variance for Special Drilling Operation (surface equipment placement) Requirements***

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

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

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

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

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

***Conclusion***

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

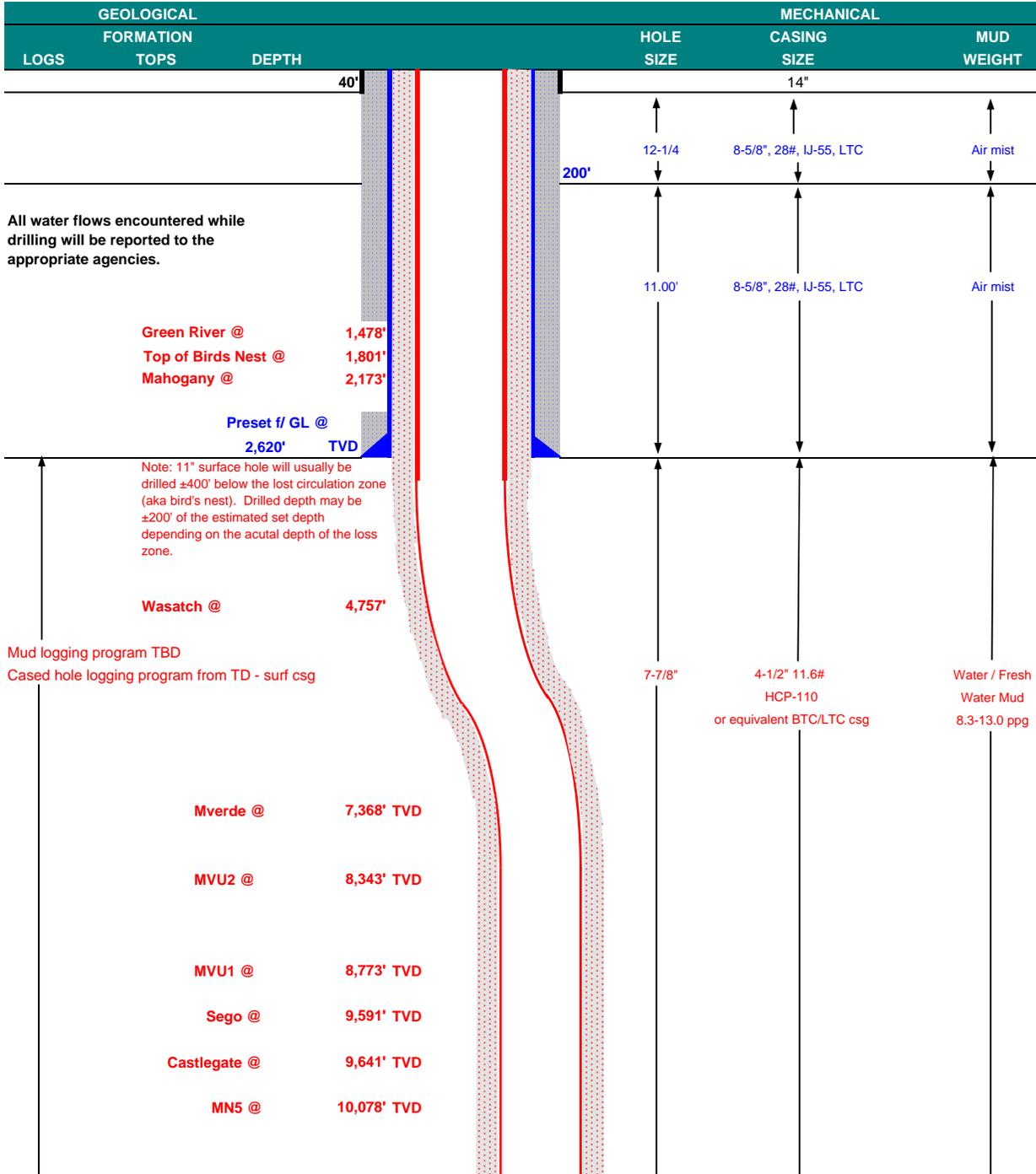
10. **Other Information:**

*Please refer to the attached Drilling Program.*



**KERR-McGEE OIL & GAS ONSHORE LP  
DRILLING PROGRAM**

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	June 9, 2011			
WELL NAME	<b>NBU 922-30B4BS</b>		TD	10,678'	TVD	10,713' MD	
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	FINISHED ELEVATION	4966'
SURFACE LOCATION	NWNE	1141 FNL	2039 FEL	Sec 30	T 9S	R 22E	
	Latitude: 40.011144		Longitude: -109.480570				NAD 83
BTM HOLE LOCATION	NWNE	896 FNL	1681 FEL	Sec 30	T 9S	R 22E	
	Latitude: 40.011850		Longitude: -109.479294				NAD 83
OBJECTIVE ZONE(S)	Wasatch/Mesaverde						
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept.						



NBU 922-30B PAD

Max anticipated  
Mud required  
13.0 ppg

TD @

10,678' TVD  
10,713' MD



Drilling Program  
6 of 8



**KERR-McGEE OIL & GAS ONSHORE LP**  
**DRILLING PROGRAM**

**CASING PROGRAM**

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	COLLAPSE	LTC	BTC
								TENSION	
CONDUCTOR	14"	0-40'							
SURFACE	8-5/8"	0 to 2,620	28.00	IJ-55	LTC	3,390	1,880	348,000	N/A
						10,690	8,650	279,000	367,000
PRODUCTION	4-1/2"	0 to 10,713	11.60	HCP-110	LTC or BTC	1.19	1.20	2.80	3.69

**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
<b>Option 1</b>			+ 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				
<b>NOTE: If well will circulate water to surface, option 2 will be utilized</b>							
SURFACE	LEAD	2,120'	65/35 Poz + 6% Gel + 10 pps gilsonite	200	35%	11.00	3.82
			+ 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	4,253'	Premium Lite II +0.25 pps	320	20%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	6,460'	50/50 Poz/G + 10% salt + 2% gel	1,530	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. 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 / Emile Goodwin

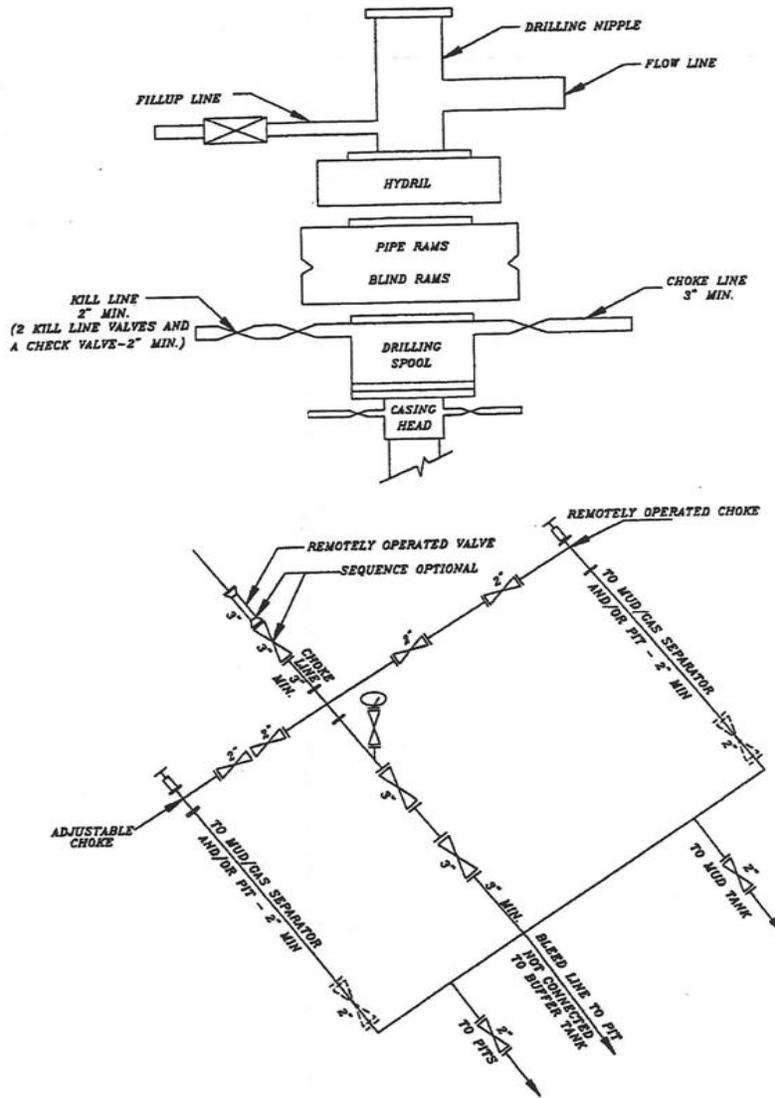
DATE: \_\_\_\_\_

**DRILLING SUPERINTENDENT:**

Kenny Gathings / Lovel Young

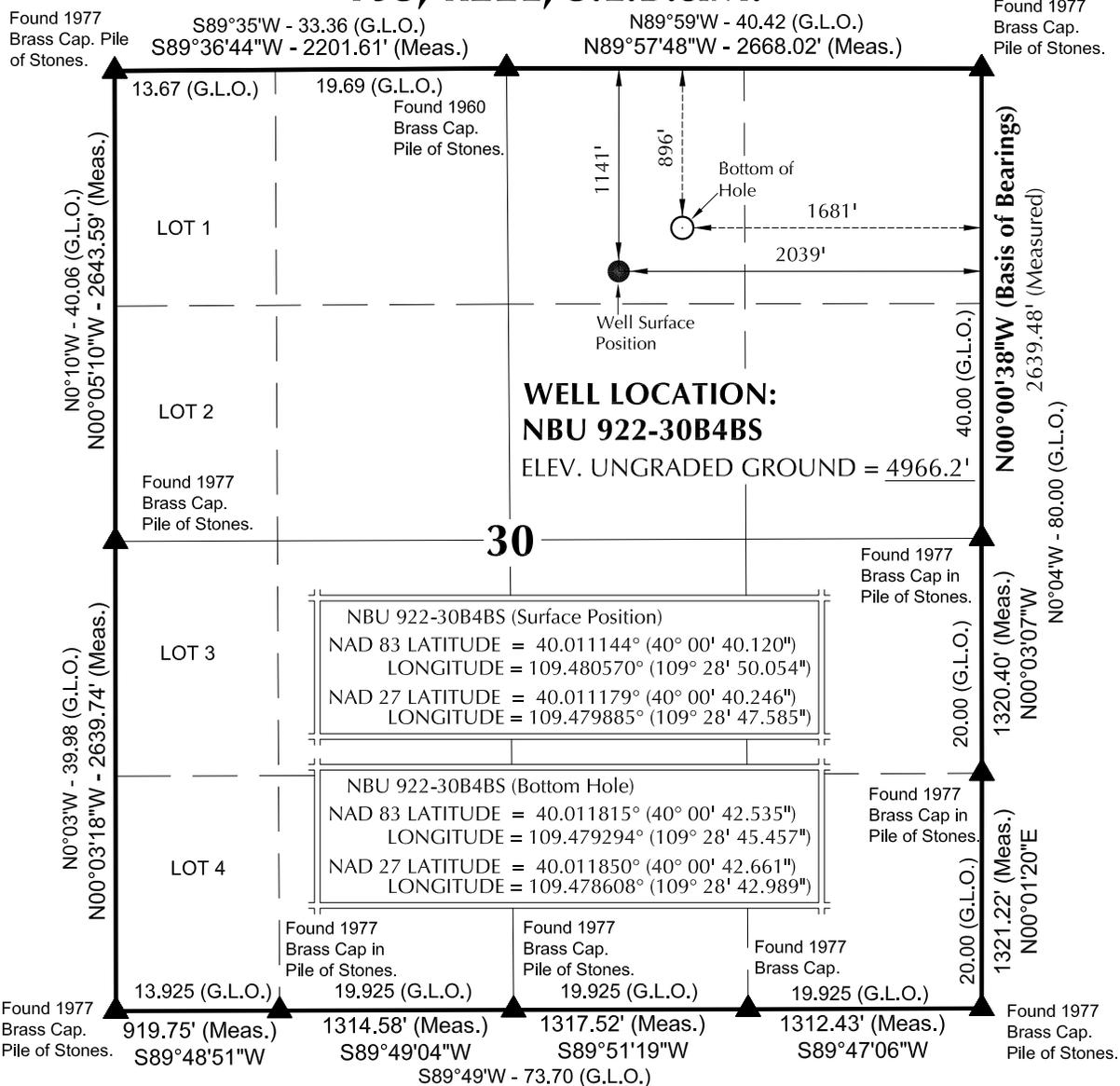
DATE: \_\_\_\_\_

**EXHIBIT A**  
**NBU 922-30B4BS**



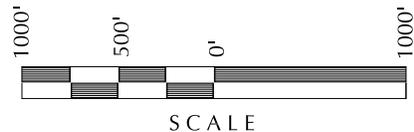
**SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK**

# 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 N55°39'40"E 433.31' 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.

*John R. Laugh*  
 No. 6028691  
 JOHN R. LAUGH  
 PROFESSIONAL LAND SURVEYOR  
 REGISTRATION No. 6028691  
 STATE OF UTAH 1-10-11

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

**WELL PAD: NBU 922-30B**

**NBU 922-30B4BS**  
**WELL PLAT**

**896' FNL, 1681' FEL (Bottom Hole)**  
**NW ¼ NE ¼ OF SECTION 30, T9S, R22E,**  
**S.L.B.&M., UINTAH COUNTY, UTAH.**

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

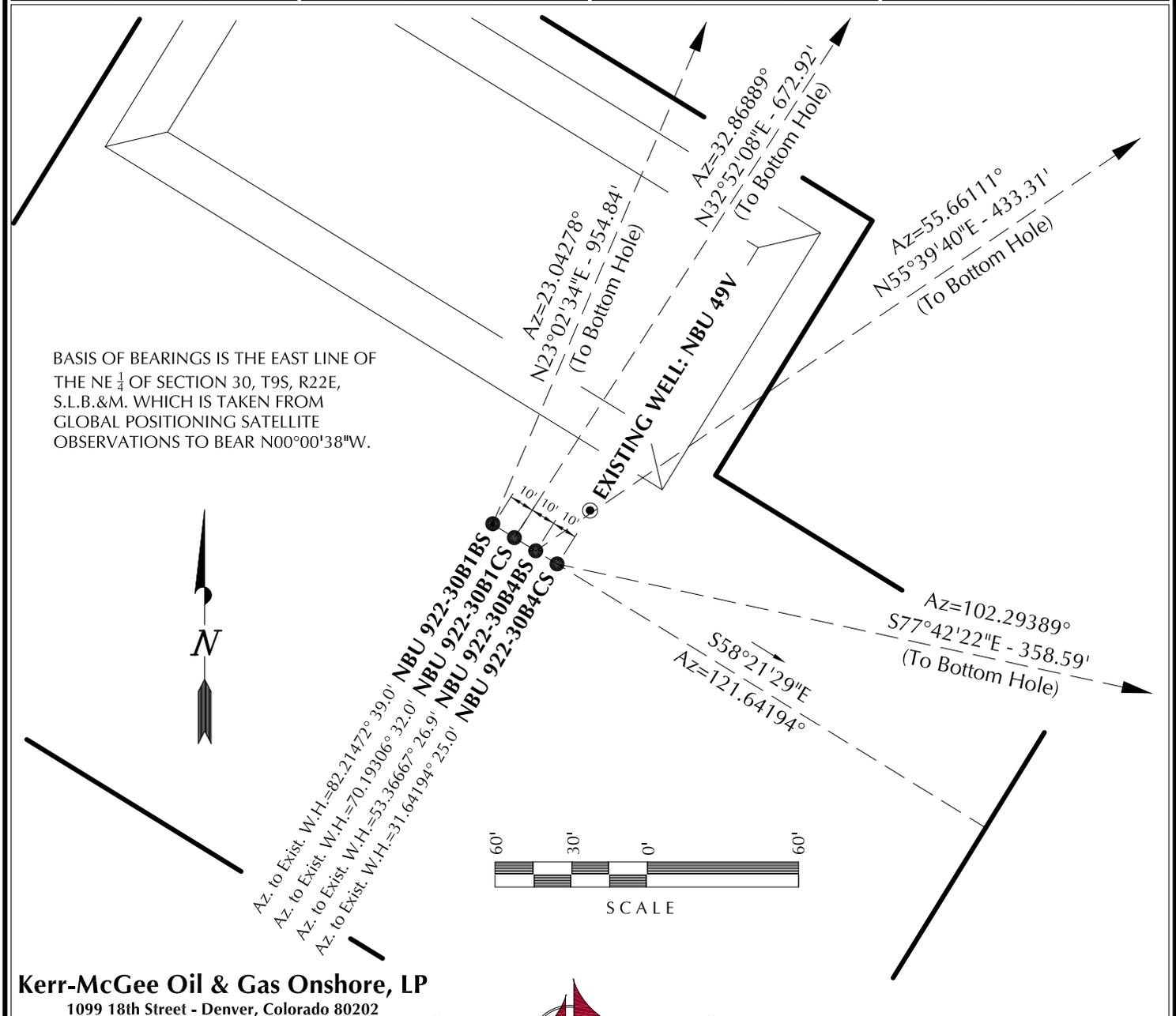
**TIMBERLINE** (435) 789-1365  
**ENGINEERING & LAND SURVEYING, INC.**  
 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 07-13-10	SURVEYED BY: M.S.B.	SHEET NO: <b>2</b>
DATE DRAWN: 07-15-10	DRAWN BY: B.M.	
SCALE: 1" = 1000'		2 OF 16

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
NBU 922-30B4CS	40°00'40.068"	109°28'49.945"	40°00'40.194"	109°28'47.476"	1146' FNL 2030' FEL	40°00'39.315"	109°28'45.443"	40°00'39.441"	109°28'42.974"	1222' FNL 1680' FEL
NBU 922-30B4BS	40°00'40.120"	109°28'50.054"	40°00'40.246"	109°28'47.585"	1141' FNL 2039' FEL	40°00'42.535"	109°28'45.457"	40°00'42.661"	109°28'42.989"	896' FNL 1681' FEL
NBU 922-30B1CS	40°00'40.171"	109°28'50.163"	40°00'40.298"	109°28'47.694"	1135' FNL 2047' FEL	40°00'45.756"	109°28'45.471"	40°00'45.882"	109°28'43.003"	570' FNL 1682' FEL
NBU 922-30B1BS	40°00'40.226"	109°28'50.273"	40°00'40.352"	109°28'47.804"	1130' FNL 2056' FEL	40°00'48.908"	109°28'45.473"	40°00'49.034"	109°28'43.004"	251' FNL 1682' FEL
NBU 49V	40°00'40.279"	109°28'49.776"	40°00'40.405"	109°28'47.308"	1125' FNL 2017' FEL	40°013586"	109.479298°	40.013621°	109.478612°	

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST									
NBU 922-30B4CS	-76.4'	350.4'	NBU 922-30B4BS	244.4'	357.8'	NBU 922-30B1CS	565.2'	365.2'	NBU 922-30B1BS	878.7'	373.7'



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

**WELL PAD - NBU 922-30B**

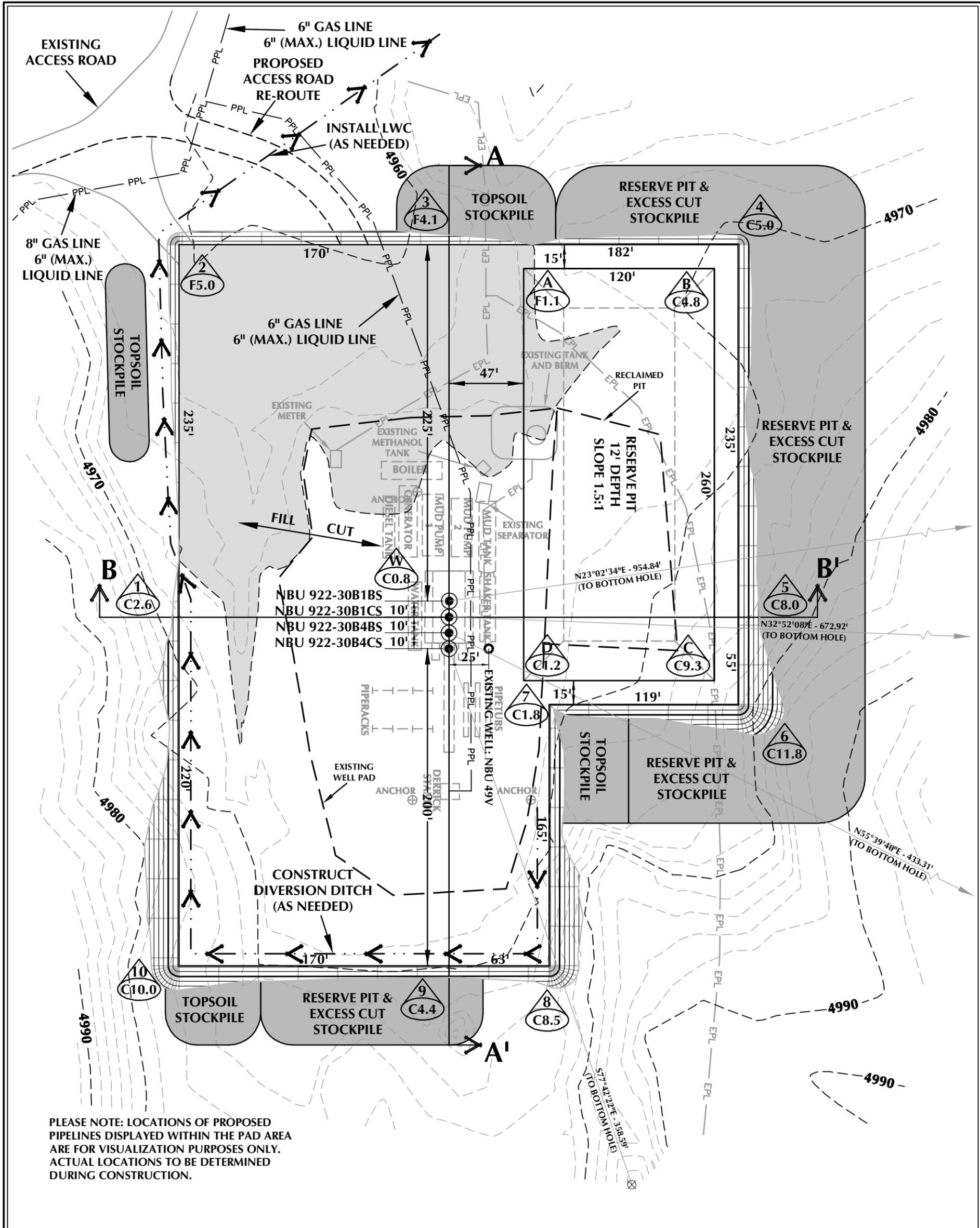
**WELL PAD INTERFERENCE PLAT**  
 WELLS - NBU 922-30B4CS, NBU 922-30B4BS,  
 NBU 922-30B1CS & NBU 922-30B1BS  
 LOCATED IN SECTION 30, T9S, R22E,  
 S.L.B.&M., UINTAH COUNTY, UTAH.



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

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

DATE SURVEYED: 07-13-10	SURVEYED BY: M.S.B.	SHEET NO: <b>5</b>
DATE DRAWN: 07-16-10	DRAWN BY: B.M.	
SCALE: 1" = 60'		5 OF 16



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 922-30B DESIGN SUMMARY**

EXISTING GRADE @ CENTER OF WELL PAD = 4966.3'  
 FINISHED GRADE ELEVATION = 4965.5'  
 CUT SLOPES = 1.5:1  
 FILL SLOPES = 1.5:1  
 TOTAL WELL PAD AREA = 3.59 ACRES  
 TOTAL DISTURBANCE AREA = 4.92 ACRES  
 SHRINKAGE FACTOR = 1.10  
 SWELL FACTOR = 1.00

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

**WELL PAD - NBU 922-30B**

**WELL PAD - LOCATION LAYOUT**  
 NBU 922-30B4CS, NBU 922-30B4BS,  
 NBU 922-30B1CS & NBU 922-30B1BS  
 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 QUANTITIES**  
 TOTAL CUT FOR WELL PAD = 8,788 C.Y.  
 TOTAL FILL FOR WELL PAD = 5,452 C.Y.  
 TOPSOIL @ 6" DEPTH = 2,091 C.Y.  
 EXCESS MATERIAL = 3,336 C.Y.

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

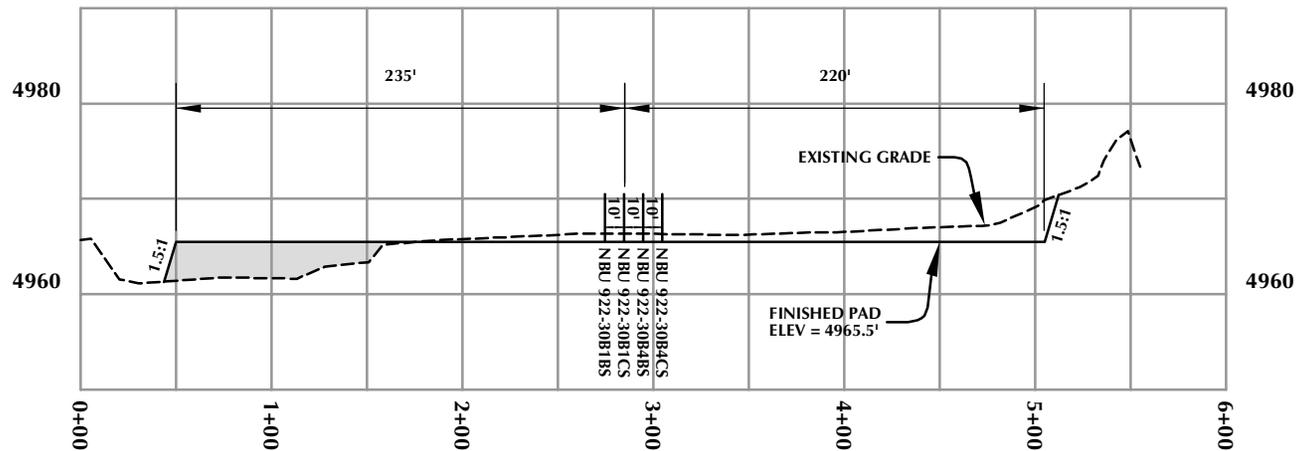
- WELL PAD LEGEND**
- EXISTING WELL LOCATION
  - PROPOSED WELL LOCATION
  - PROPOSED BOTTOM HOLE LOCATION
  - EXISTING CONTOURS (2' INTERVAL)
  - PROPOSED CONTOURS (2' INTERVAL)
  - PPL — PROPOSED PIPELINE
  - EPL — EXISTING PIPELINE



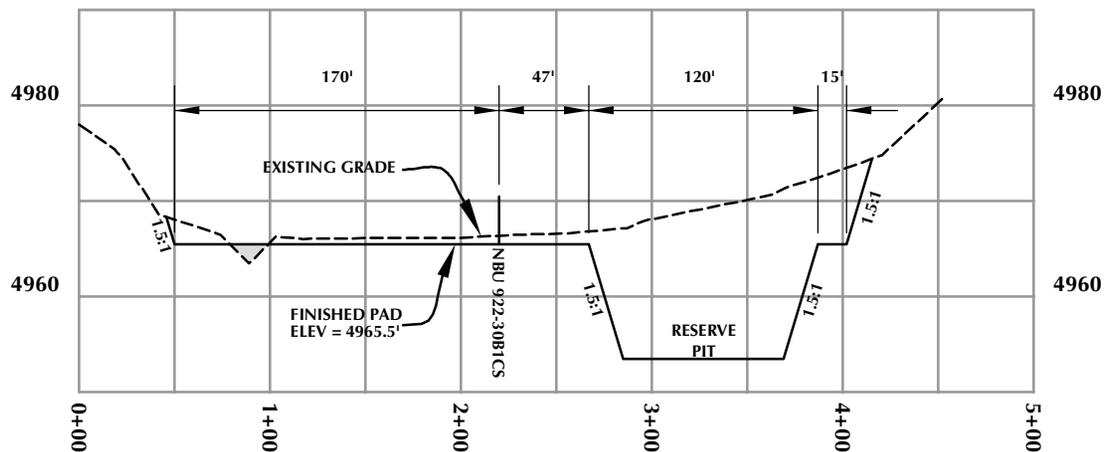
HORIZONTAL 0 30 60 1" = 60'  
 2' CONTOURS

Scale: 1"=60' Date: 1/14/11 SHEET NO:  
 REVISED: SEA 5/18/11 **6** 6 OF 16

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



**CROSS SECTION A-A'**



**CROSS SECTION B-B'**

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

**WELL PAD - NBU 922-30B**

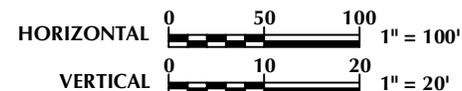
**WELL PAD - CROSS SECTIONS**  
NBU 922-30B4CS, NBU 922-30B4BS,  
NBU 922-30B1CS & NBU 922-30B1BS  
LOCATED IN SECTION 30, T9S, R22E,  
S.L.B.&M., UINTAH COUNTY, UTAH



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

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

(435) 789-1365



Scale: 1"=100'

Date: 1/14/11

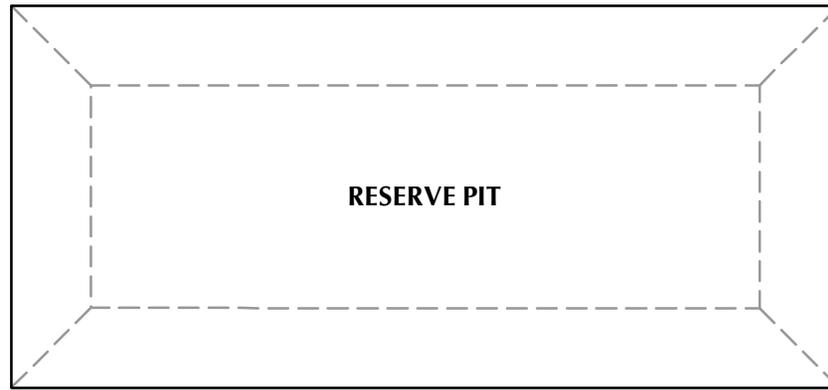
SHEET NO:

REVISED:

**7**

7 OF 16

**RECEIVED: June 15, 2011**

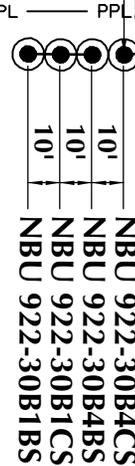


PLEASE NOTE: LOCATIONS OF FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.

PROPOSED WELL PAD

6" GAS LINE  
6" (MAX.) LIQUID LINE

EXISTING WELL: NBU 49V



SEPARATOR/  
METER HOUSE

TANKS  
(TYPICAL)

METAL  
CONTAINMENT

8" GAS LINE  
6" (MAX.) LIQUID LINE

PROPOSED  
ACCESS ROAD  
RE-ROUTE

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

WELL PAD - NBU 922-30B

WELL PAD - FACILITIES DIAGRAM  
NBU 922-30B4CS, NBU 922-30B4BS,  
NBU 922-30B1CS & NBU 922-30B1BS  
LOCATED IN SECTION 30, T9S, R22E,  
S.L.B.&M., UINTAH COUNTY, UTAH



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Phone 307-674-0609  
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WELL PAD LEGEND

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



HORIZONTAL 0 30' 60' 1" = 60'

**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:

TAR  
5/13/11

**8**

8 OF 16

K:\MADRNO\2010\2010\_36\_NBU\_FOODS\_SEC\_302-30\DWGS\NBU\_922-30B\NBU\_922-30B\_REV\_20100515.dwg, 5/13/2011 11:34:50 AM, gbt

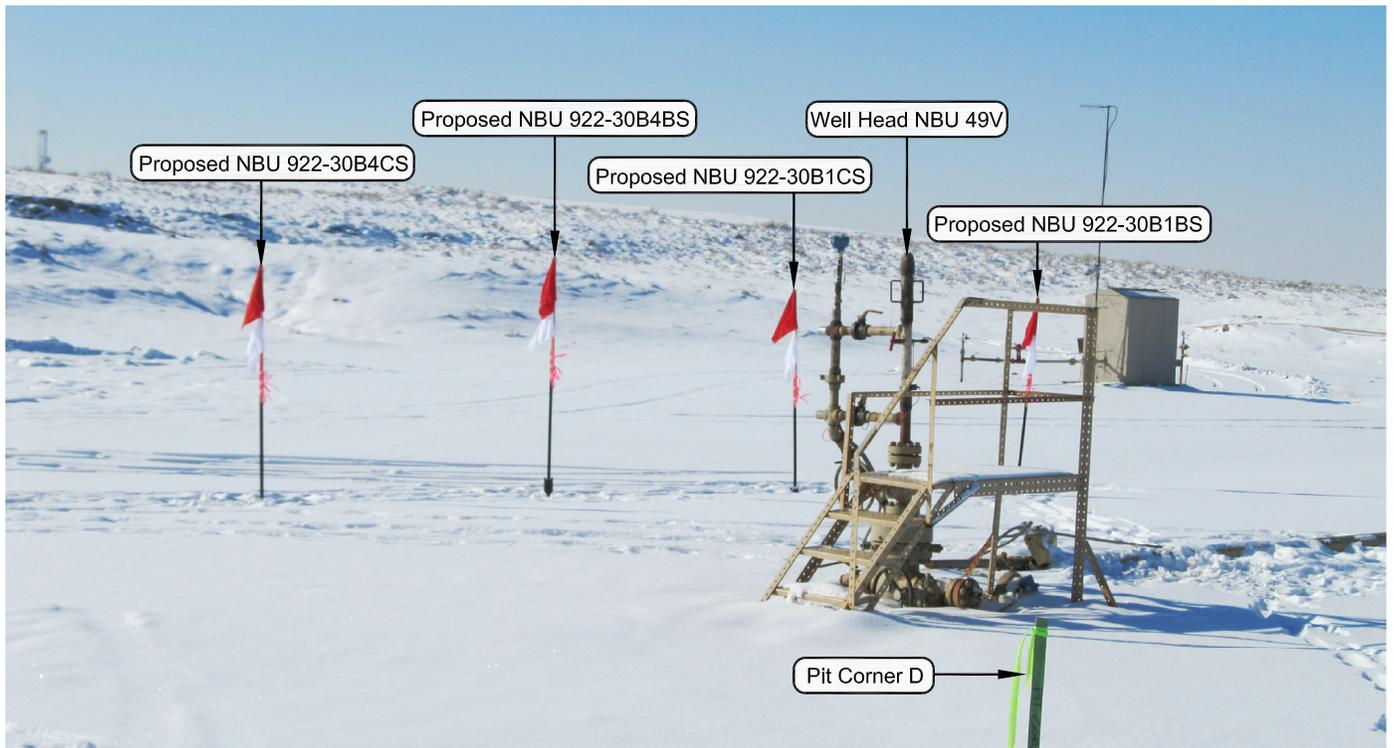


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: SOUTHWESTERLY



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: NORTHEASTERLY

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

**WELL PAD - NBU 922-30B**

**LOCATION PHOTOS**

**NBU 922-30B4CS, NBU 922-30B4BS,  
 NBU 922-30B1CS & NBU 922-30B1BS  
 LOCATED IN SECTION 30, T9S, R22E,  
 S.L.B.&M., UINTAH COUNTY, UTAH.**



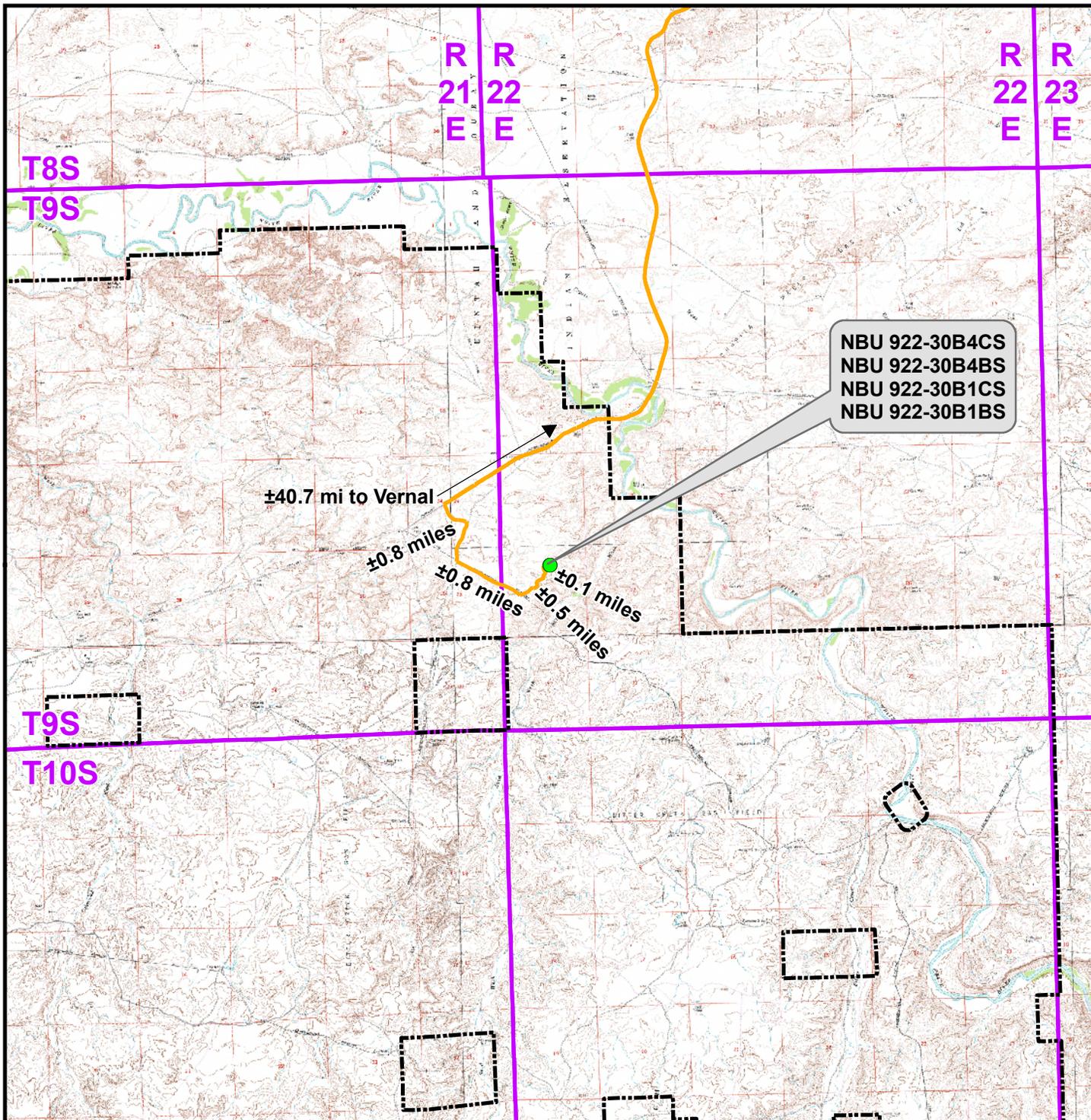
**CONSULTING, LLC**  
 2155 North Main Street  
 Sheridan WY 82801  
 Phone 307-674-0609  
 Fax 307-674-0182

**TIMBERLINE**

(435) 789-1365

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

DATE PHOTOS TAKEN: 01-06-11	PHOTOS TAKEN BY: M.S.B.	SHEET NO: <b>9</b> 9 OF 16
DATE DRAWN: 07-16-10	DRAWN BY: B.M.	
Date Last Revised: 01-06-11 E.M.S.		



NBU 922-30B4CS  
 NBU 922-30B4BS  
 NBU 922-30B1CS  
 NBU 922-30B1BS

±40.7 mi to Vernal  
 ±0.8 miles  
 ±0.8 miles  
 ±0.1 miles  
 ±0.5 miles

**Legend**

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

Distance From Well Pad - NBU 922-30B To Unit Boundary: ±5,025ft

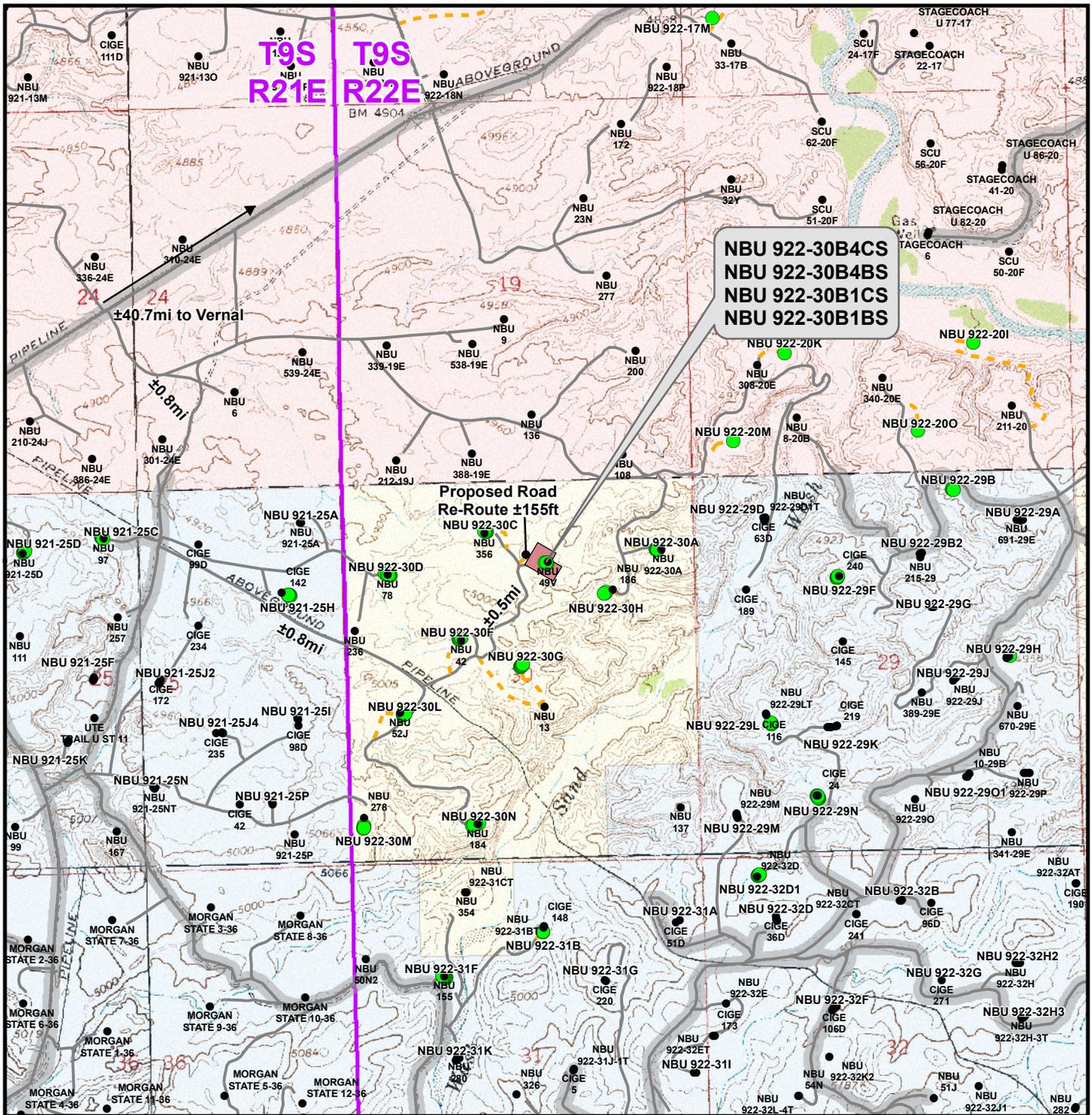
**Kerr-McGee Oil & Gas Onshore, LP**  
 1099 18th Street, Denver, Colorado 80202

**WELL PAD - NBU 922-30B**

**TOPO A**  
 NBU 922-30B4CS, NBU 922-30B4BS,  
 NBU 922-30B1CS & NBU 922-30B1BS  
 LOCATED IN SECTION 30, T9S, R22E,  
 S.L.B.&M., UINTAH COUNTY, UTAH



Scale: 1:100,000	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 14 Jan 2011	10
Revised:	Date:	



**NBU 922-30B4CS  
NBU 922-30B4BS  
NBU 922-30B1CS  
NBU 922-30B1BS**

**Proposed Road  
Re-Route ±155ft**

**Legend**

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

Total Proposed Road Re-Route Length: ±155ft

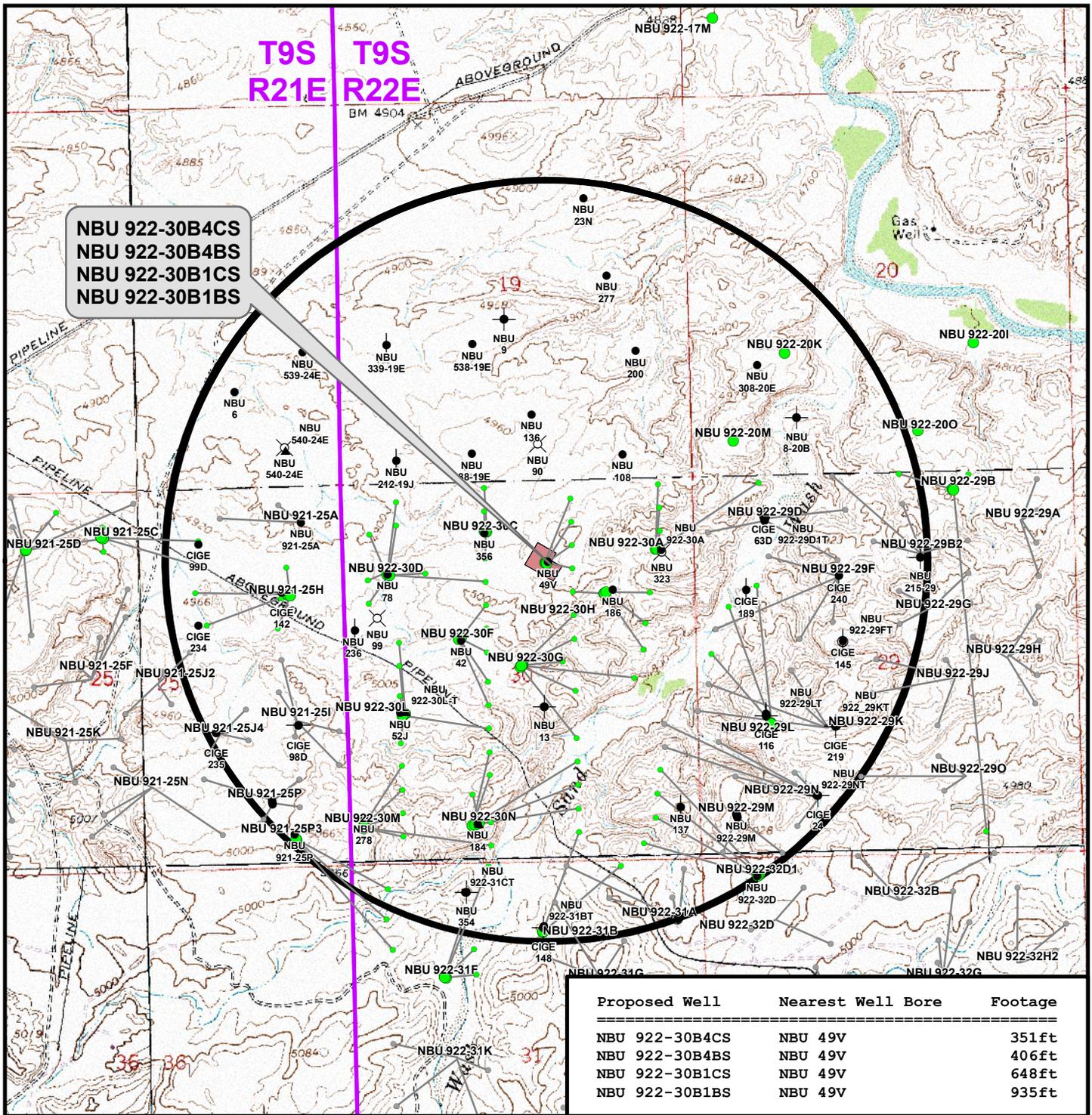
**Kerr-McGee Oil & Gas Onshore, LP**  
1099 18th Street, Denver, Colorado 80202

**WELL PAD - NBU 922-30B**

**TOPO B**  
NBU 922-30B4CS, NBU 922-30B4BS,  
NBU 922-30B1CS & NBU 922-30B1BS  
LOCATED IN SECTION 30, T9S, R22E,  
S.L.B.&M., UINTAH 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: <b>11</b> 11 of 16
Drawn: TL	Date: 14 Jan 2011	
Revised:	Date:	



Proposed Well	Nearest Well Bore	Footage
NBU 922-30B4CS	NBU 49V	351ft
NBU 922-30B4BS	NBU 49V	406ft
NBU 922-30B1CS	NBU 49V	648ft
NBU 922-30B1BS	NBU 49V	935ft

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

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

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

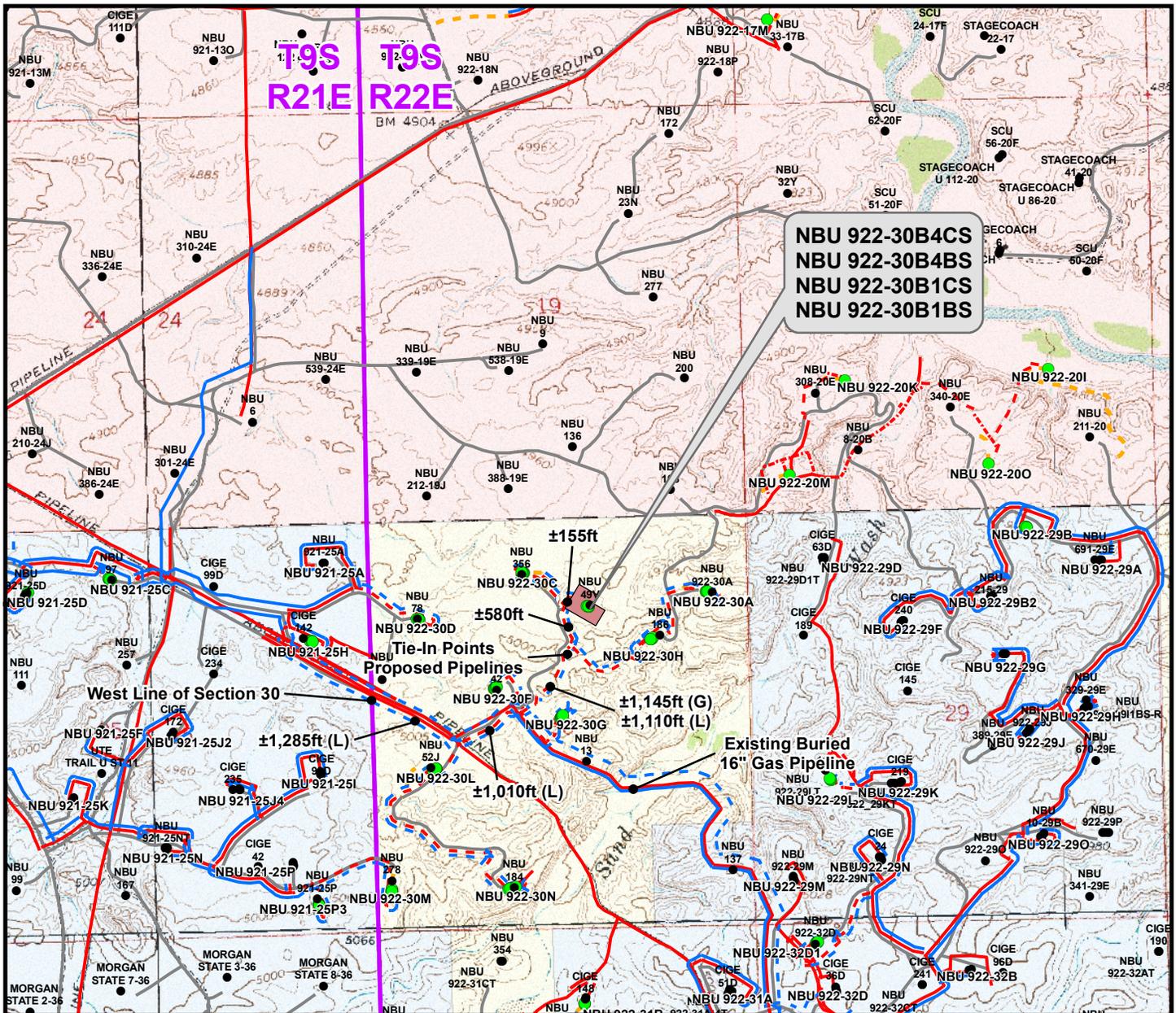
**WELL PAD - NBU 922-30B**

**TOPO C**  
 NBU 922-30B4CS, NBU 922-30B4BS,  
 NBU 922-30B1CS & NBU 922-30B1BS  
 LOCATED IN SECTION 30, T9S, R22E,  
 S.L.B.&M., UINTAH COUNTY, UTAH

**609**  
 CONSULTING, LLC  
 2155 North Main Street  
 Sheridan, WY 82801  
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Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 14 Jan 2011	12
Revised: TL	Date: 17 May 2011	



**NBU 922-30B4CS  
NBU 922-30B4BS  
NBU 922-30B1CS  
NBU 922-30B1BS**

Proposed Liquid Pipeline		Length	Proposed Gas Pipeline		Length
Buried 6" (Max.) (Meter House to Edge of Pad)		±370ft	Buried 6" (Meter House to Edge of Pad)		±370ft
Buried 6" (Max.) (Edge of Pad to 30C Intersection)		±155ft	Buried 6" (Edge of Pad to 30C Intersection)		±155ft
Buried 6" (Max.) (30C Intersection to 30H Intersection)		±580ft	Buried 8" (30C Intersection to 30H Intersection)		±580ft
<b>TOTAL PROPOSED BURIED LIQUID PIPELINE =</b>		<b>±1,105ft</b>	<b>TOTAL PROPOSED BURIED GAS PIPELINE =</b>		<b>±1,105ft</b>

**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 922-30B**

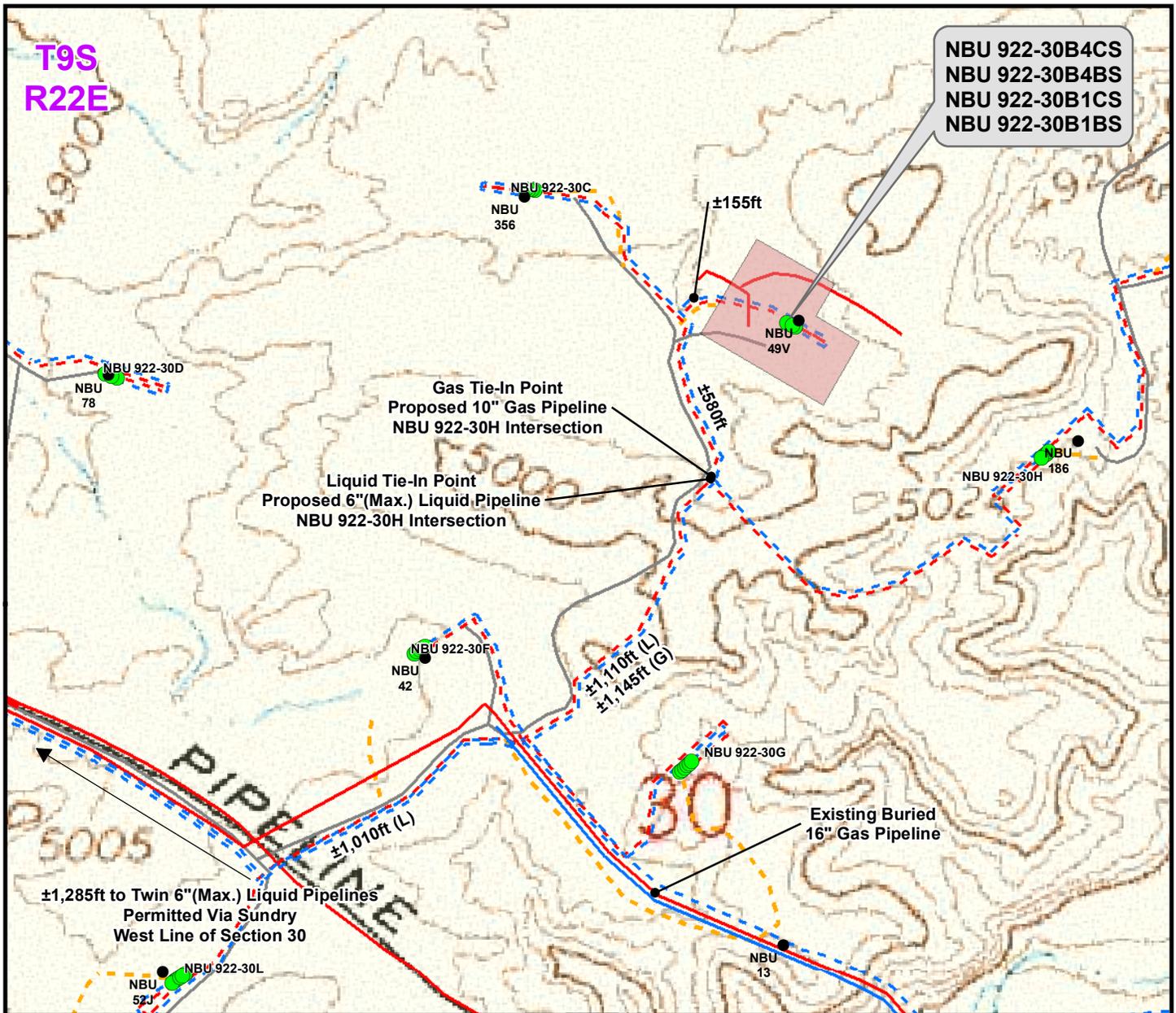
**TOPO D**  
NBU 922-30B4CS, NBU 922-30B4BS,  
NBU 922-30B1CS & NBU 922-30B1BS  
LOCATED IN SECTION 30, T9S, R22E,  
S.L.B.&M., UINTAH COUNTY, UTAH

**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	<b>13</b>
Revised: TL	Date: 13 May 2011	



NBU 922-30B4CS  
 NBU 922-30B4BS  
 NBU 922-30B1CS  
 NBU 922-30B1BS

Proposed Liquid Pipeline		Length	Proposed Gas Pipeline		Length
Buried 6" (Max.) (Meter House to Edge of Pad)		±370ft	Buried 6" (Meter House to Edge of Pad)		±370ft
Buried 6" (Max.) (Edge of Pad to 30C Intersection)		±155ft	Buried 6" (Edge of Pad to 30C Intersection)		±155ft
Buried 6" (Max.) (30C Intersection to 30H Intersection)		±580ft	Buried 8" (30C Intersection to 30H Intersection)		±580ft
<b>TOTAL PROPOSED BURIED LIQUID PIPELINE =</b>		<b>±1,105ft</b>	<b>TOTAL PROPOSED BURIED GAS PIPELINE =</b>		<b>±1,105ft</b>

**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 922-30B**

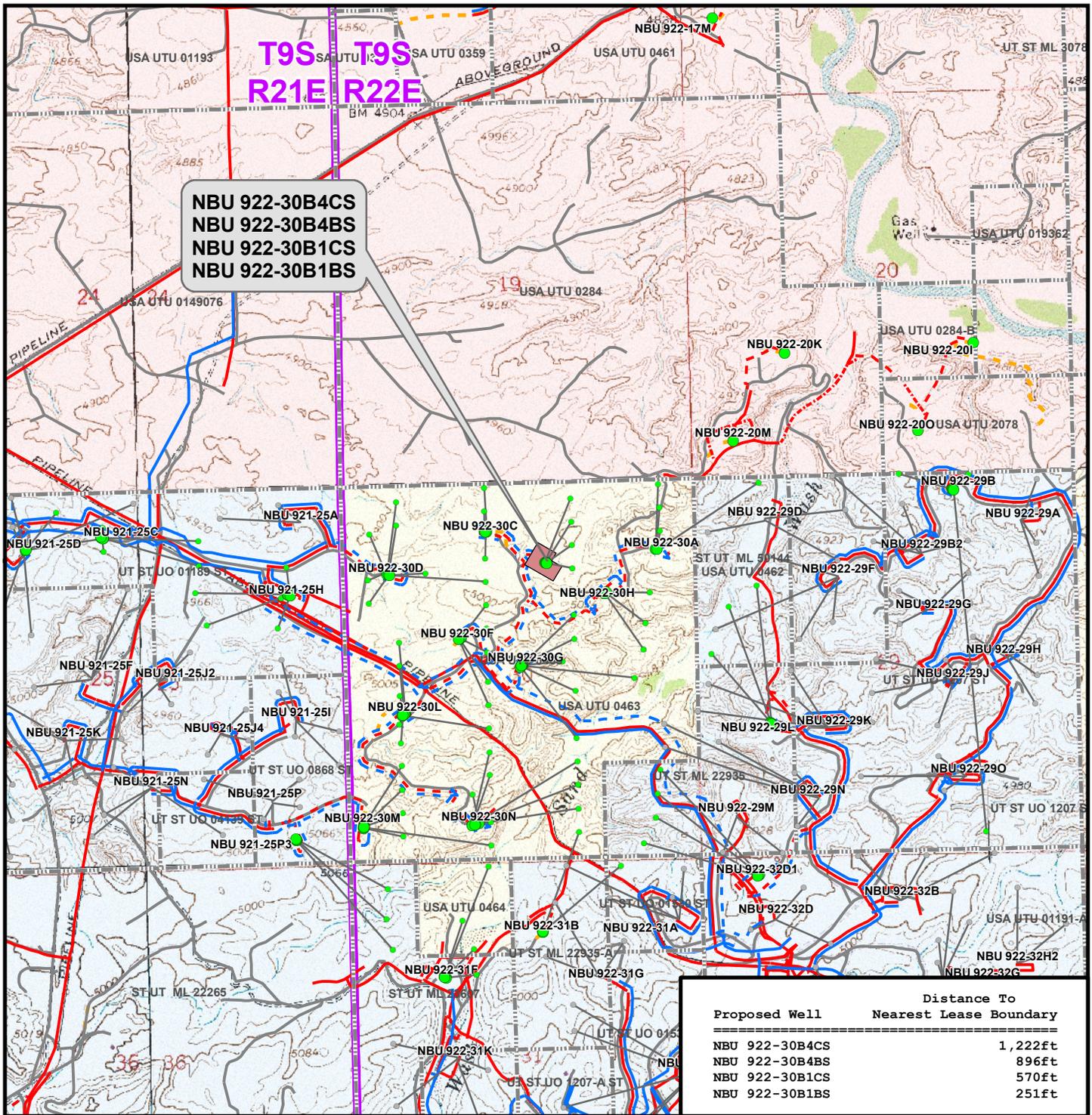
**TOPO D2 (PAD & PIPELINE DETAIL)**  
 NBU 922-30B4CS, NBU 922-30B4BS,  
 NBU 922-30B1CS & NBU 922-30B1BS  
 LOCATED IN SECTION 30, T9S, R22E,  
 S.L.B.&M., UINTAH COUNTY, UTAH

**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	<b>14</b>
Revised: TL	Date: 13 May 2011	

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**NBU 922-30B4CS  
NBU 922-30B4BS  
NBU 922-30B1CS  
NBU 922-30B1BS**

Proposed Well	Distance To Nearest Lease Boundary
NBU 922-30B4CS	1,222ft
NBU 922-30B4BS	896ft
NBU 922-30B1CS	570ft
NBU 922-30B1BS	251ft

**Legend**

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

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

**WELL PAD - NBU 922-30B**

**TOPO E**  
NBU 922-30B4CS, NBU 922-30B4BS,  
NBU 922-30B1CS & NBU 922-30B1BS  
LOCATED IN SECTION 30, T9S, R22E,  
S.L.B.&M., UINTAH COUNTY, UTAH

**609**  
**CONSULTING, LLC**  
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Sheridan, WY 82801  
Phone (307) 674-0609  
Fax (307) 674-0182



Scale: 1" = 2,000ft | NAD83 USP Central | Sheet No: **15** of 16

Drawn: TL | Date: 14 Jan 2011  
Revised: TL | Date: 13 May 2011

**Kerr-McGee Oil & Gas Onshore, LP**  
**WELL PAD – NBU 922-30B**  
**WELLS – NBU 922-30B4CS, NBU 922-30B4BS,**  
**NBU 922-30B1CS & NBU 922-30B1BS**  
**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 a third service road to the northeast. Exit left and proceed in a northeasterly direction along the third service road approximately 0.5 miles to the proposed access road. Follow the road flags in a northeasterly direction approximately 155 feet to the proposed well pad.

Total distance from Vernal, Utah to the proposed well location is approximately 42.8 miles in a southerly direction.



Project: Uintah County, UT UTM12  
 Site: NBU 922-30B PAD  
 Well: NBU 922-30B4BS  
 Wellbore: OH  
 Design: PLAN #1 PRELIMINARY



WELL DETAILS: NBU 922-30B4BS					
GL 4966' & KB 9' @ 4975.00ft (ASSUMED)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14533745.90	2066076.83	40° 0' 40.244 N	109° 28' 47.586 W

DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	10678.00	244.39	357.65	14533996.36	2066430.26	40° 0' 42.660 N	109° 28' 42.989 W	Circle (Radius: 25.0)
- plan hits target center								

FORMATION TOP DETAILS			CASING DETAILS			
TVDPATH	MDPATH	FORMATION	TVD	MD	NAME	SIZE
1478.00	1490.97	GREEN RIVER	2623.00	2653.52	8 5/8"	8.625
4757.00	4792.07	WASATCH				
7368.00	7403.07	MESAVERDE				

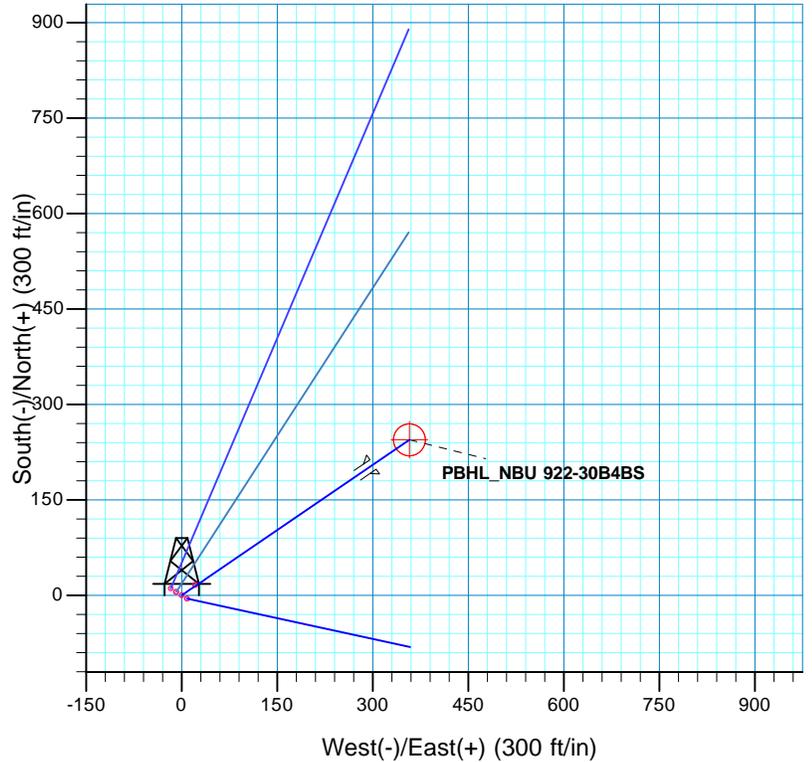
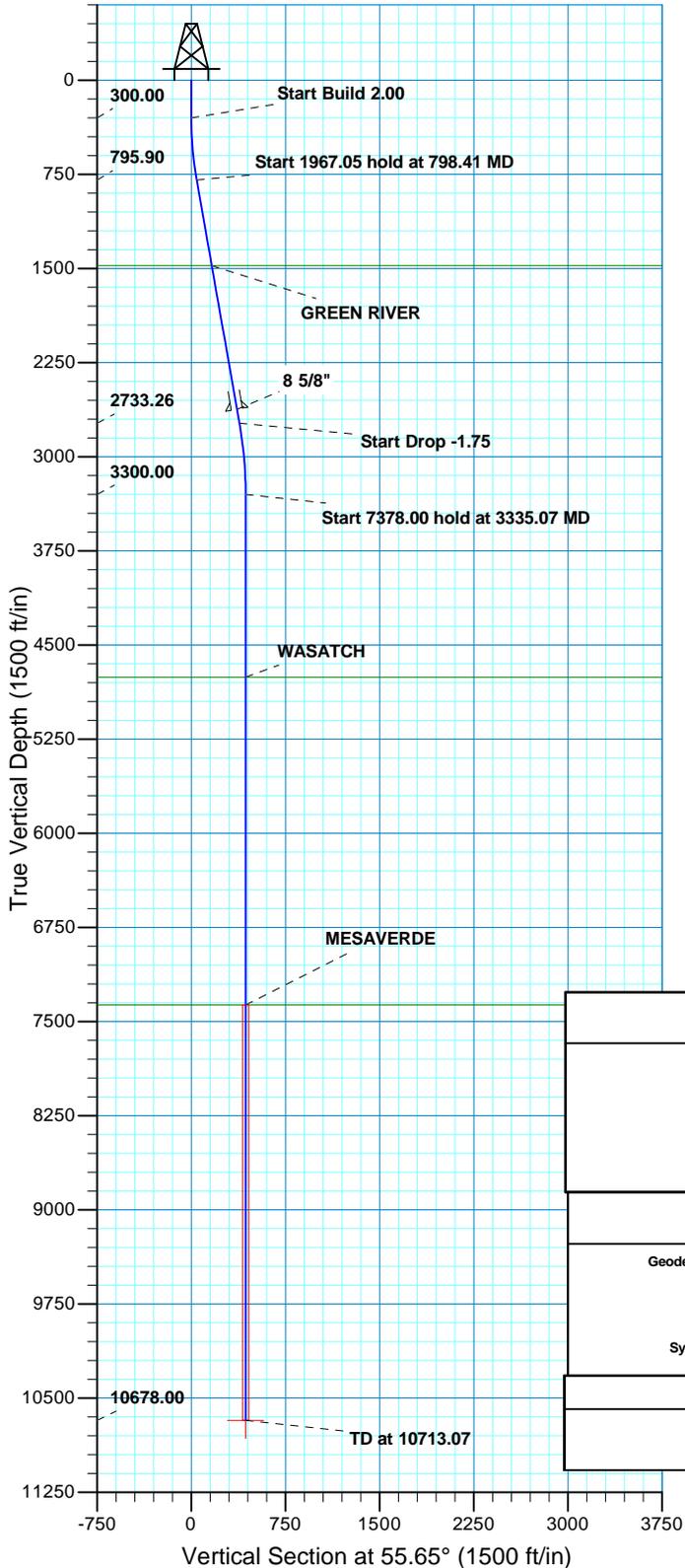
SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
798.41	9.97	55.65	795.90	24.40	35.71	2.00	55.65	43.25	
2765.46	9.97	55.65	2733.26	216.50	316.84	0.00	0.00	383.75	
3335.07	0.00	0.00	3300.00	244.39	357.65	1.75	180.00	433.17	
10713.07	0.00	0.00	10678.00	244.39	357.65	0.00	0.00	433.17	PBHL_NBU 922-30B4BS

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

Azimuths to True North  
 Magnetic North: 11.07°

Magnetic Field  
 Strength: 52341.5snT  
 Dip Angle: 65.88°  
 Date: 06/02/2011  
 Model: IGRF2010

WELL DETAILS: NBU 922-30B4BS						
GL 4966' & KB 9' @ 4975.00ft (ASSUMED)						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	14533745.90	2066076.83	40° 0' 40.244 N	109° 28' 47.586 W	
DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude Longitude Shape
PBHL	10678.00	244.39	357.65	14533996.36	2066430.26	40° 0' 42.660 N 109° 28' 42.989 W Circle (Radius: 25.00)
- plan hits target center						



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
798.41	9.97	55.65	795.90	24.40	35.71	2.00	55.65	43.25	
2765.46	9.97	55.65	2733.26	216.50	316.84	0.00	0.00	383.75	
3335.07	0.00	0.00	3300.00	244.39	357.65	1.75	180.00	433.17	
10713.07	0.00	0.00	10678.00	244.39	357.65	0.00	0.00	433.17	PBHL_NBU 922-30B4BS

PROJECT DETAILS: Uintah County, UT UTM12			FORMATION TOP DETAILS		
Geodetic System: Universal Transverse Mercator (US Survey Feet)			TVDPath	MDPath	Formation
Datum: NAD 1927 - Western US			1478.00	1490.97	GREEN RIVER
Ellipsoid: Clarke 1866			4757.00	4792.07	WASATCH
Zone: Zone 12N (114 W to 108 W)			7368.00	7403.07	MESAVERDE
Location: SECTION 30 T9S R22E					
System Datum: Mean Sea Level					

CASING DETAILS			
TVD	MD	Name	Size
2623.00	2653.52	8 5/8"	8.625



# **Kerr McGee Oil and Gas Onshore LP**

**Uintah County, UT UTM12  
NBU 922-30B PAD  
NBU 922-30B4BS**

**OH**

**Plan: PLAN #1 PRELIMINARY**

## **Standard Planning Report**

**06 June, 2011**





SDI  
Planning Report



<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well NBU 922-30B4BS
<b>Company:</b>	Kerr McGee Oil and Gas Onshore LP	<b>TVD Reference:</b>	GL 4966' & KB 9' @ 4975.00ft (ASSUMED)
<b>Project:</b>	Uintah County, UT UTM12	<b>MD Reference:</b>	GL 4966' & KB 9' @ 4975.00ft (ASSUMED)
<b>Site:</b>	NBU 922-30B PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-30B4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

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

<b>Site</b>	NBU 922-30B PAD, SECTION 30 T9S R22E				
<b>Site Position:</b>	<b>Northing:</b>	14,533,756.54 usft	<b>Latitude:</b>	40° 0' 40.352 N	
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,066,059.56 usft	<b>Longitude:</b>	109° 28' 47.806 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	0.98 °

<b>Well</b>	NBU 922-30B4BS, 1141 FNL 2039 FEL					
<b>Well Position</b>	<b>+N/-S</b>	-10.93 ft	<b>Northing:</b>	14,533,745.91 usft	<b>Latitude:</b>	40° 0' 40.244 N
	<b>+E/-W</b>	17.08 ft	<b>Easting:</b>	2,066,076.83 usft	<b>Longitude:</b>	109° 28' 47.586 W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	4,966.00 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	06/02/2011	11.07	65.88	52,341

<b>Design</b>	PLAN #1 PRELIMINARY			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	55.65

<b>Plan Sections</b>										
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	
798.41	9.97	55.65	795.90	24.40	35.71	2.00	2.00	0.00	55.65	
2,765.46	9.97	55.65	2,733.26	216.50	316.84	0.00	0.00	0.00	0.00	
3,335.07	0.00	0.00	3,300.00	244.39	357.65	1.75	-1.75	0.00	180.00	
10,713.07	0.00	0.00	10,678.00	244.39	357.65	0.00	0.00	0.00	0.00	PBHL_NBU 922-30B4



<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well NBU 922-30B4BS
<b>Company:</b>	Kerr McGee Oil and Gas Onshore LP	<b>TVD Reference:</b>	GL 4966' & KB 9' @ 4975.00ft (ASSUMED)
<b>Project:</b>	Uintah County, UT UTM12	<b>MD Reference:</b>	GL 4966' & KB 9' @ 4975.00ft (ASSUMED)
<b>Site:</b>	NBU 922-30B PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-30B4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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
<b>Start Build 2.00</b>										
400.00	2.00	55.65	399.98	0.98	1.44	1.75	2.00	2.00	2.00	0.00
500.00	4.00	55.65	499.84	3.94	5.76	6.98	2.00	2.00	2.00	0.00
600.00	6.00	55.65	599.45	8.85	12.96	15.69	2.00	2.00	2.00	0.00
700.00	8.00	55.65	698.70	15.73	23.02	27.88	2.00	2.00	2.00	0.00
798.41	9.97	55.65	795.90	24.40	35.71	43.25	2.00	2.00	2.00	0.00
<b>Start 1967.05 hold at 798.41 MD</b>										
800.00	9.97	55.65	797.47	24.55	35.93	43.52	0.00	0.00	0.00	0.00
900.00	9.97	55.65	895.96	34.32	50.23	60.83	0.00	0.00	0.00	0.00
1,000.00	9.97	55.65	994.45	44.09	64.52	78.14	0.00	0.00	0.00	0.00
1,100.00	9.97	55.65	1,092.94	53.85	78.81	95.45	0.00	0.00	0.00	0.00
1,200.00	9.97	55.65	1,191.43	63.62	93.10	112.76	0.00	0.00	0.00	0.00
1,300.00	9.97	55.65	1,289.92	73.38	107.39	130.07	0.00	0.00	0.00	0.00
1,400.00	9.97	55.65	1,388.41	83.15	121.69	147.38	0.00	0.00	0.00	0.00
1,490.97	9.97	55.65	1,478.00	92.03	134.69	163.13	0.00	0.00	0.00	0.00
<b>GREEN RIVER</b>										
1,500.00	9.97	55.65	1,486.90	92.92	135.98	164.69	0.00	0.00	0.00	0.00
1,600.00	9.97	55.65	1,585.39	102.68	150.27	182.00	0.00	0.00	0.00	0.00
1,700.00	9.97	55.65	1,683.88	112.45	164.56	199.31	0.00	0.00	0.00	0.00
1,800.00	9.97	55.65	1,782.37	122.22	178.86	216.62	0.00	0.00	0.00	0.00
1,900.00	9.97	55.65	1,880.86	131.98	193.15	233.93	0.00	0.00	0.00	0.00
2,000.00	9.97	55.65	1,979.35	141.75	207.44	251.24	0.00	0.00	0.00	0.00
2,100.00	9.97	55.65	2,077.84	151.51	221.73	268.55	0.00	0.00	0.00	0.00
2,200.00	9.97	55.65	2,176.33	161.28	236.02	285.86	0.00	0.00	0.00	0.00
2,300.00	9.97	55.65	2,274.82	171.05	250.32	303.17	0.00	0.00	0.00	0.00
2,400.00	9.97	55.65	2,373.31	180.81	264.61	320.48	0.00	0.00	0.00	0.00
2,500.00	9.97	55.65	2,471.80	190.58	278.90	337.79	0.00	0.00	0.00	0.00
2,600.00	9.97	55.65	2,570.29	200.34	293.19	355.10	0.00	0.00	0.00	0.00
2,653.52	9.97	55.65	2,623.00	205.57	300.84	364.37	0.00	0.00	0.00	0.00
<b>8 5/8"</b>										
2,700.00	9.97	55.65	2,668.78	210.11	307.48	372.41	0.00	0.00	0.00	0.00
2,765.46	9.97	55.65	2,733.26	216.50	316.84	383.75	0.00	0.00	0.00	0.00
<b>Start Drop -1.75</b>										
2,800.00	9.36	55.65	2,767.30	219.77	321.63	389.55	1.75	-1.75	0.00	0.00
2,900.00	7.61	55.65	2,866.21	228.10	333.82	404.31	1.75	-1.75	0.00	0.00
3,000.00	5.86	55.65	2,965.51	234.72	343.50	416.04	1.75	-1.75	0.00	0.00
3,100.00	4.11	55.65	3,065.13	239.63	350.68	424.74	1.75	-1.75	0.00	0.00
3,200.00	2.36	55.65	3,164.96	242.82	355.35	430.39	1.75	-1.75	0.00	0.00
3,300.00	0.61	55.65	3,264.93	244.28	357.49	432.98	1.75	-1.75	0.00	0.00
3,335.07	0.00	0.00	3,300.00	244.39	357.65	433.17	1.75	-1.75	-158.68	0.00
<b>Start 7378.00 hold at 3335.07 MD</b>										
3,400.00	0.00	0.00	3,364.93	244.39	357.65	433.17	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,464.93	244.39	357.65	433.17	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,564.93	244.39	357.65	433.17	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,664.93	244.39	357.65	433.17	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,764.93	244.39	357.65	433.17	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,864.93	244.39	357.65	433.17	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	3,964.93	244.39	357.65	433.17	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,064.93	244.39	357.65	433.17	0.00	0.00	0.00	0.00



<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well NBU 922-30B4BS
<b>Company:</b>	Kerr McGee Oil and Gas Onshore LP	<b>TVD Reference:</b>	GL 4966' & KB 9' @ 4975.00ft (ASSUMED)
<b>Project:</b>	Uintah County, UT UTM12	<b>MD Reference:</b>	GL 4966' & KB 9' @ 4975.00ft (ASSUMED)
<b>Site:</b>	NBU 922-30B PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-30B4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
4,200.00	0.00	0.00	4,164.93	244.39	357.65	433.17	0.00	0.00	0.00
4,300.00	0.00	0.00	4,264.93	244.39	357.65	433.17	0.00	0.00	0.00
4,400.00	0.00	0.00	4,364.93	244.39	357.65	433.17	0.00	0.00	0.00
4,500.00	0.00	0.00	4,464.93	244.39	357.65	433.17	0.00	0.00	0.00
4,600.00	0.00	0.00	4,564.93	244.39	357.65	433.17	0.00	0.00	0.00
4,700.00	0.00	0.00	4,664.93	244.39	357.65	433.17	0.00	0.00	0.00
4,792.07	0.00	0.00	4,757.00	244.39	357.65	433.17	0.00	0.00	0.00
<b>WASATCH</b>									
4,800.00	0.00	0.00	4,764.93	244.39	357.65	433.17	0.00	0.00	0.00
4,900.00	0.00	0.00	4,864.93	244.39	357.65	433.17	0.00	0.00	0.00
5,000.00	0.00	0.00	4,964.93	244.39	357.65	433.17	0.00	0.00	0.00
5,100.00	0.00	0.00	5,064.93	244.39	357.65	433.17	0.00	0.00	0.00
5,200.00	0.00	0.00	5,164.93	244.39	357.65	433.17	0.00	0.00	0.00
5,300.00	0.00	0.00	5,264.93	244.39	357.65	433.17	0.00	0.00	0.00
5,400.00	0.00	0.00	5,364.93	244.39	357.65	433.17	0.00	0.00	0.00
5,500.00	0.00	0.00	5,464.93	244.39	357.65	433.17	0.00	0.00	0.00
5,600.00	0.00	0.00	5,564.93	244.39	357.65	433.17	0.00	0.00	0.00
5,700.00	0.00	0.00	5,664.93	244.39	357.65	433.17	0.00	0.00	0.00
5,800.00	0.00	0.00	5,764.93	244.39	357.65	433.17	0.00	0.00	0.00
5,900.00	0.00	0.00	5,864.93	244.39	357.65	433.17	0.00	0.00	0.00
6,000.00	0.00	0.00	5,964.93	244.39	357.65	433.17	0.00	0.00	0.00
6,100.00	0.00	0.00	6,064.93	244.39	357.65	433.17	0.00	0.00	0.00
6,200.00	0.00	0.00	6,164.93	244.39	357.65	433.17	0.00	0.00	0.00
6,300.00	0.00	0.00	6,264.93	244.39	357.65	433.17	0.00	0.00	0.00
6,400.00	0.00	0.00	6,364.93	244.39	357.65	433.17	0.00	0.00	0.00
6,500.00	0.00	0.00	6,464.93	244.39	357.65	433.17	0.00	0.00	0.00
6,600.00	0.00	0.00	6,564.93	244.39	357.65	433.17	0.00	0.00	0.00
6,700.00	0.00	0.00	6,664.93	244.39	357.65	433.17	0.00	0.00	0.00
6,800.00	0.00	0.00	6,764.93	244.39	357.65	433.17	0.00	0.00	0.00
6,900.00	0.00	0.00	6,864.93	244.39	357.65	433.17	0.00	0.00	0.00
7,000.00	0.00	0.00	6,964.93	244.39	357.65	433.17	0.00	0.00	0.00
7,100.00	0.00	0.00	7,064.93	244.39	357.65	433.17	0.00	0.00	0.00
7,200.00	0.00	0.00	7,164.93	244.39	357.65	433.17	0.00	0.00	0.00
7,300.00	0.00	0.00	7,264.93	244.39	357.65	433.17	0.00	0.00	0.00
7,400.00	0.00	0.00	7,364.93	244.39	357.65	433.17	0.00	0.00	0.00
7,403.07	0.00	0.00	7,368.00	244.39	357.65	433.17	0.00	0.00	0.00
<b>MESAVERDE</b>									
7,500.00	0.00	0.00	7,464.93	244.39	357.65	433.17	0.00	0.00	0.00
7,600.00	0.00	0.00	7,564.93	244.39	357.65	433.17	0.00	0.00	0.00
7,700.00	0.00	0.00	7,664.93	244.39	357.65	433.17	0.00	0.00	0.00
7,800.00	0.00	0.00	7,764.93	244.39	357.65	433.17	0.00	0.00	0.00
7,900.00	0.00	0.00	7,864.93	244.39	357.65	433.17	0.00	0.00	0.00
8,000.00	0.00	0.00	7,964.93	244.39	357.65	433.17	0.00	0.00	0.00
8,100.00	0.00	0.00	8,064.93	244.39	357.65	433.17	0.00	0.00	0.00
8,200.00	0.00	0.00	8,164.93	244.39	357.65	433.17	0.00	0.00	0.00
8,300.00	0.00	0.00	8,264.93	244.39	357.65	433.17	0.00	0.00	0.00
8,400.00	0.00	0.00	8,364.93	244.39	357.65	433.17	0.00	0.00	0.00
8,500.00	0.00	0.00	8,464.93	244.39	357.65	433.17	0.00	0.00	0.00
8,600.00	0.00	0.00	8,564.93	244.39	357.65	433.17	0.00	0.00	0.00
8,700.00	0.00	0.00	8,664.93	244.39	357.65	433.17	0.00	0.00	0.00
8,800.00	0.00	0.00	8,764.93	244.39	357.65	433.17	0.00	0.00	0.00
8,900.00	0.00	0.00	8,864.93	244.39	357.65	433.17	0.00	0.00	0.00
9,000.00	0.00	0.00	8,964.93	244.39	357.65	433.17	0.00	0.00	0.00
9,100.00	0.00	0.00	9,064.93	244.39	357.65	433.17	0.00	0.00	0.00



<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well NBU 922-30B4BS
<b>Company:</b>	Kerr McGee Oil and Gas Onshore LP	<b>TVD Reference:</b>	GL 4966' & KB 9' @ 4975.00ft (ASSUMED)
<b>Project:</b>	Uintah County, UT UTM12	<b>MD Reference:</b>	GL 4966' & KB 9' @ 4975.00ft (ASSUMED)
<b>Site:</b>	NBU 922-30B PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-30B4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
9,200.00	0.00	0.00	9,164.93	244.39	357.65	433.17	0.00	0.00	0.00
9,300.00	0.00	0.00	9,264.93	244.39	357.65	433.17	0.00	0.00	0.00
9,400.00	0.00	0.00	9,364.93	244.39	357.65	433.17	0.00	0.00	0.00
9,500.00	0.00	0.00	9,464.93	244.39	357.65	433.17	0.00	0.00	0.00
9,600.00	0.00	0.00	9,564.93	244.39	357.65	433.17	0.00	0.00	0.00
9,700.00	0.00	0.00	9,664.93	244.39	357.65	433.17	0.00	0.00	0.00
9,800.00	0.00	0.00	9,764.93	244.39	357.65	433.17	0.00	0.00	0.00
9,900.00	0.00	0.00	9,864.93	244.39	357.65	433.17	0.00	0.00	0.00
10,000.00	0.00	0.00	9,964.93	244.39	357.65	433.17	0.00	0.00	0.00
10,100.00	0.00	0.00	10,064.93	244.39	357.65	433.17	0.00	0.00	0.00
10,200.00	0.00	0.00	10,164.93	244.39	357.65	433.17	0.00	0.00	0.00
10,300.00	0.00	0.00	10,264.93	244.39	357.65	433.17	0.00	0.00	0.00
10,400.00	0.00	0.00	10,364.93	244.39	357.65	433.17	0.00	0.00	0.00
10,500.00	0.00	0.00	10,464.93	244.39	357.65	433.17	0.00	0.00	0.00
10,600.00	0.00	0.00	10,564.93	244.39	357.65	433.17	0.00	0.00	0.00
10,700.00	0.00	0.00	10,664.93	244.39	357.65	433.17	0.00	0.00	0.00
10,713.07	0.00	0.00	10,678.00	244.39	357.65	433.17	0.00	0.00	0.00
<b>PBHL_NBU 922-30B4BS</b>									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 922-30B4B: - hit/miss target - Shape - plan hits target center - Circle (radius 25.00)	0.00	0.00	10,678.00	244.39	357.65	14,533,996.36	2,066,430.25	40° 0' 42.660 N	109° 28' 42.989 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,653.52	2,623.00	8 5/8"	8.625	11.000	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,490.97	1,478.00	GREEN RIVER			
4,792.07	4,757.00	WASATCH			
7,403.07	7,368.00	MESAVERDE			



<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well NBU 922-30B4BS
<b>Company:</b>	Kerr McGee Oil and Gas Onshore LP	<b>TVD Reference:</b>	GL 4966' & KB 9' @ 4975.00ft (ASSUMED)
<b>Project:</b>	Uintah County, UT UTM12	<b>MD Reference:</b>	GL 4966' & KB 9' @ 4975.00ft (ASSUMED)
<b>Site:</b>	NBU 922-30B PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-30B4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
300.00	300.00	0.00	0.00	Start Build 2.00
798.41	795.90	24.40	35.71	Start 1967.05 hold at 798.41 MD
2,765.46	2,733.26	216.50	316.84	Start Drop -1.75
3,335.07	3,300.00	244.39	357.65	Start 7378.00 hold at 3335.07 MD
10,713.07	10,678.00	244.39	357.65	TD at 10713.07

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

<u>API #</u>	<u>NBU 922-30B1BS</u>			
	Surface:	1130 FNL / 2056 FEL	NWNE	Lot
	BHL:	251 FNL / 1682 FEL	NWNE	Lot
<u>API #</u>	<u>NBU 922-30B1CS</u>			
	Surface:	1135 FNL / 2047 FEL	NWNE	Lot
	BHL:	570 FNL / 1682 FEL	NWNE	Lot
<u>API #</u>	<u>NBU 922-30B4BS</u>			
	Surface:	1141 FNL / 2039 FEL	NWNE	Lot
	BHL:	896 FNL / 1681 FEL	NWNE	Lot
<u>API #</u>	<u>NBU 922-30B4CS</u>			
	Surface:	1146 FNL / 2030 FEL	NWNE	Lot
	BHL:	1222 FNL / 1680 FEL	NWNE	Lot

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;
- John Slaugh and Mitch Batty - Timberline Engineering & Land Surveying, Inc.;
- Jacob Dunham - 609 Consulting, LLC; and
- Andy Lytle, Charles Chase, Ken Gathings, Roger Parry, Sheila Wopsock, and Grizz Oleen - 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:**

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.

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.

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"**

±155' (0.03 miles) – Section 30 T09S R22E (NW/4 NE/4) – On-lease UTU0463, re-route from the center of the NW edge of 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 49V, 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.

**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 ±2,255' and the individual segments are broken up as follows:

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

- ±370' (0.07 miles) – Section 30 T09S R22E (NW/4 NE/4) – On-lease UTU0463, BLM surface, New 6" buried gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- ±155' (0.03 miles) – Section 30 T09S R22E (NW/4 NE/4) – On-lease UTU0463, BLM surface, New 6" buried gas gathering pipeline from the edge of the pad to the tie-in at the proposed 30C Intersection 8" (NW/4 NE/4). Please refer to Exhibit A, Line 7.
- ±580' (0.1 miles) – Section 30 T09S R22E (NW/4 NE/4) – On-lease UTU0463, BLM surface, New 8" buried gas gathering pipeline from the 30B intersection to the 30H cross country intersection (SW/4 NE/4). Please refer to Exhibit A, Line 5. This pipeline will be used concurrently with the 30C pad.
- ±320' (0.06 miles) – Section 30 T09S R22E (SW/4 NE/4) – On-lease UTU0463, BLM surface, New 10" buried gas gathering pipeline from the 30H 8" cross country intersection to the proposed 10" cross country gas gathering pipeline intersection (SE/4 NW/4). This pipeline will be used concurrently with the 30H, 30C, and 30A pads. Please refer to Exhibit A, Line 4.
- ±510' (0.09 miles) – Section 30 T09S R22E (SE/4 NW/4) – On-lease UTU0463, BLM surface, New 10" cross country buried gas gathering pipeline from the proposed 10" gas gathering intersection to the proposed 10" gas pipeline (SE/4 NW/4). This pipeline will be used concurrently with the 30H, 30C, and 30A pads. Please refer to Exhibit A, Line 3.
- ±320' (0.06 miles) – Section 30 T09S R22E (SE/4 NW/4) – On-lease UTU0463, BLM surface, New 10" buried gas gathering pipeline from the proposed cross country gas gathering pipeline segment to the existing 16" gas gathering pipeline tie-in point (SE/4 NW/4). Please refer to This pipeline will be used concurrently with the 30H, 30C, 30A, 30G, and 30F pads. Exhibit A, Lines 1 and 2.

**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  $\pm 6,105'$  and the individual segments are broken up as follows:

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

- $\pm 370'$  (0.07 miles) – Section 30 T09S R22E (NW/4 NE/4) – On-lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 155'$  (0.03 miles) – Section 30 T09S R22E (NW/4 NE/4) – Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the edge of the pad to the tie-in at the proposed 30C Intersection 6" (NW/4 NE/4). Please refer to Exhibit B, Line 8.
- $\pm 580'$  (0.1 miles) – Section 30 T09S R22E (NW/4 NE/4) – Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the proposed 30B Intersection to the proposed 30H cross country intersection (SW/4 NE/4). Please refer to Exhibit B, Line 6. This pipeline will be used concurrently with the 30C pad.
- $\pm 320'$  (0.06 miles) – Section 30 T09S R22E (SW/4 NE/4) – Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the proposed 30B/30H 6" buried liquid gathering pipeline intersection to the proposed 6" cross country liquid gathering pipeline (SE/4 NW/4). Please refer to Exhibit B, Line 5. This pipeline will be used concurrently with the 30H, 30C, and 30A pads.
- $\pm 510'$  (0.09 miles) – Section 30 T09S R22E (SE/4 NW/4) – Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the proposed 6" 30B pipeline segment to the proposed 6" liquid gathering pipeline segment (SW/4 NE/4). Please refer to Exhibit B, Line 4. This pipeline will be used concurrently with the 30H, 30C, and 30A pads.
- $\pm 285'$  (0.05 miles) – Section 30 T09S R22E (SW/4 NE/4) – Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the proposed 30B cross country 6" liquid line to the (2) proposed twin 6" liquid gathering pipelines at the 30F intersection (SE/4 NW/4). Please refer to Exhibit B, Line 3. This pipeline will be used concurrently with the 30H, 30C, and 30A pads.
- $\pm 495'$  (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 to Exhibit B, Line 13. This pipeline will be used concurrently with the 30H, 30C, 30A, 30F, 30G, 30N, and 30L pads. Two (2) Lines for a total of 990'.
- $\pm 2,895'$  (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, 30A, 30F, 30G, 30N, and 30L 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  $\pm 6,810'$  and the individual segments are broken up as follows:

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

- $\pm 370'$  (0.07 miles) – Section 30 T09S R22E (NW/4 NE/4) – On-lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 155'$  (0.03 miles) – Section 30 T09S R22E (NW/4 NE/4) – Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the edge of the pad to the tie-in at the proposed 30C Intersection 6" (NW/4 NE/4). Please refer to Exhibit B, Line 8.

- ±580' (0.1 miles) – Section 30 T09S R22E (NW/4 NE/4) – Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the proposed 30B Intersection to the proposed 30H cross country intersection (SW/4 NE/4). Please refer to Exhibit B, Line 6. This pipeline will run concurrently with the 30C pad.
- ±320' (0.06 miles) – Section 30 T09S R22E (SW/4 NE/4) – Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the proposed 30B/30H 6" buried liquid gathering pipeline intersection to the proposed 6" cross country liquid gathering pipeline (SE/4 NW/4). Please refer to Exhibit A, Line 5. This pipeline will be used concurrently with the 30H, 30C, and 30A pads.
- ±510' (0.09 miles) – Section 30 T09S R22E (SE/4 NW/4) – Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the proposed 6" 30B pipeline segment to the proposed 6" liquid gathering pipeline segment (SW/4 NE/4). Please refer to Exhibit B, Line 4. This pipeline will be used concurrently with the 30H, 30C, and 30A pads.
- ±285' (0.05 miles) – Section 30 T09S R22E (SW/4 NE/4) – Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the proposed 30B cross country 6" liquid line to the (2) proposed twin 6" liquid gathering pipelines at the 30F intersection (SE/4 NW/4). Please refer to Exhibit B, Line 3. This pipeline will be used concurrently with the 30H, 30C, and 30A pads.
- ±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, 30A, 30F, 30G, 30N, and 30L pads. Two (2) lines for a total of 2,020'.
- ±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, 30A, 30F, 30G, 30N, and 30L 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).

**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 to 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 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. 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
<b>Total</b>	<b>9.5</b>

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
- The operator will obtain the necessary 404 Stream Alteration Permit for the associated pipeline corridor for this pad.
- Facilities: Will be painted Shadow Grey
- Existing surface gas gathering pipeline will be removed from location if no longer in service
- Diversion ditch will be constructed around the pad during drilling. Original drainage will be approximated during interim reclamation

**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 27, 2010, by Intermountain Paleo-Consulting. For additional details please refer to report IPC #10-32.

Biological field survey was completed on January 27, 2011, by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-398.

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 922-30B4BS  
T9S-R22E  
Section 30 NWNE (Surf), NWNE (Bottom)  
Surface: 1141' FNL, 2039' FEL  
Bottom Hole: 896' FNL, 1681' FEL  
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 922-30B4BS 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

**RECEIVED: June 15, 2011**



# 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 20, 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 922-30A PAD**

43-047-51666	NBU 922-29D1BS	Sec 30 T09S R22E 0990 FNL 0492 FEL
	BHL	Sec 29 T09S R22E 0088 FNL 0925 FWL

43-047-51667	NBU 922-30A4BS	Sec 30 T09S R22E 0987 FNL 0502 FEL
	BHL	Sec 30 T09S R22E 0732 FNL 0457 FEL

43-047-51668	NBU 922-30A1CS	Sec 30 T09S R22E 0985 FNL 0512 FEL
	BHL	Sec 30 T09S R22E 0406 FNL 0457 FEL

43-047-51670	NBU 922-30A1BS	Sec 30 T09S R22E 0982 FNL 0521 FEL
	BHL	Sec 30 T09S R22E 0083 FNL 0469 FEL

**NBU 922-30B PAD**

43-047-51669	NBU 922-30B1CS	Sec 30 T09S R22E 1135 FNL 2047 FEL
	BHL	Sec 30 T09S R22E 0570 FNL 1682 FEL

43-047-51671	NBU 922-30B1BS	Sec 30 T09S R22E 1130 FNL 2056 FEL
	BHL	Sec 30 T09S R22E 0251 FNL 1682 FEL

43-047-51673	NBU 922-30B4BS	Sec 30 T09S R22E 1141 FNL 2039 FEL
	BHL	Sec 30 T09S R22E 0896 FNL 1681 FEL

43-047-51674	NBU 922-30B4CS	Sec 30 T09S R22E 1146 FNL 2030 FEL
	BHL	Sec 30 T09S R22E 1222 FNL 1680 FEL

**NBU 922-30C PAD**

43-047-51672	NBU 922-30C1BS	Sec 30 T09S R22E 0684 FNL 2012 FWL
	BHL	Sec 30 T09S R22E 0083 FNL 1991 FWL

**RECEIVED: June 21, 2011**

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

**NBU 922-30C PAD**

43-047-51675	NBU 922-30C1CS	Sec 30 T09S R22E 0680 FNL 1982 FWL
	BHL	Sec 30 T09S R22E 0405 FNL 1988 FWL

43-047-51676	NBU 922-30C4BS	Sec 30 T09S R22E 0681 FNL 1992 FWL
	BHL	Sec 30 T09S R22E 0730 FNL 1987 FWL

43-047-51677	NBU 922-30C4CS	Sec 30 T09S R22E 0683 FNL 2002 FWL
	BHL	Sec 30 T09S R22E 1056 FNL 1986 FWL

**NBU 922-30D PAD**

43-047-51678	NBU 922-30D1BS	Sec 30 T09S R22E 1236 FNL 0616 FWL
	BHL	Sec 30 T09S R22E 0240 FNL 0771 FWL

43-047-51681	NBU 922-30D1CS	Sec 30 T09S R22E 1243 FNL 0635 FWL
	BHL	Sec 30 T09S R22E 0569 FNL 0762 FWL

43-047-51683	NBU 922-30F1BS	Sec 30 T09S R22E 1249 FNL 0654 FWL
	BHL	Sec 30 T09S R22E 1238 FNL 1154 FWL

**NBU 922-30F PAD**

43-047-51679	NBU 922-30F1CS	Sec 30 T09S R22E 2144 FNL 1622 FWL
	BHL	Sec 30 T09S R22E 1706 FNL 1984 FWL

43-047-51680	NBU 922-30F4BS	Sec 30 T09S R22E 2149 FNL 1614 FWL
	BHL	Sec 30 T09S R22E 2032 FNL 1983 FWL

43-047-51682	NBU 922-30F4CS	Sec 30 T09S R22E 2154 FNL 1605 FWL
	BHL	Sec 30 T09S R22E 2357 FNL 1982 FWL

43-047-51684	NBU 922-30K1BS	Sec 30 T09S R22E 2159 FNL 1596 FWL
	BHL	Sec 30 T09S R22E 2523 FSL 1980 FWL

43-047-51685	NBU 922-30K1CS	Sec 30 T09S R22E 2164 FNL 1588 FWL
	BHL	Sec 30 T09S R22E 2198 FSL 1979 FWL

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

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

MCoulthard:mc:6-20-11

## WORKSHEET APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 6/15/2011**API NO. ASSIGNED:** 43047516730000**WELL NAME:** NBU 922-30B4BS**OPERATOR:** KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)**PHONE NUMBER:** 720 929-6356**CONTACT:** Laura Abrams**PROPOSED LOCATION:** NWNE 30 090S 220E**Permit Tech Review:** **SURFACE:** 1141 FNL 2039 FEL**Engineering Review:** **BOTTOM:** 0896 FNL 1681 FEL**Geology Review:** **COUNTY:** UINTAH**LATITUDE:** 40.01116**LONGITUDE:** -109.47981**UTM SURF EASTINGS:** 629748.00**NORTHINGS:** 4429892.00**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 - WYB00291
- Potash**
- Oil Shale 190-5**
- Oil Shale 190-3**
- Oil Shale 190-13**
- Water Permit:** 43-8496
- RDCC Review:**
- Fee Surface Agreement**
- Intent to Commingle**

**Commingling Approved****LOCATION AND SITING:**

- R649-2-3.**
- Unit:** NATURAL BUTTES
- R649-3-2. General**
- R649-3-3. Exception**
- Drilling Unit**
- Board Cause No:** Cause 173-14
- Effective Date:** 12/2/1999
- Siting:** Suspends General Siting
- R649-3-11. Directional Drill**

**Comments:** Presite Completed

**Stipulations:** 3 - Commingling - 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 922-30B4BS  
**API Well Number:** 43047516730000  
**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

JUN 16 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 VERNAL, UTAH

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. UTU463
6. If Indian, Allottee or Tribe Name
7. If Unit or CA Agreement, Name and No. UTU63047A
8. Lease Name and Well No. NBU 922-30B4BS
9. API Well No. 43-047-51673
10. Field and Pool, or Exploratory NATURAL BUTTES
11. Sec., T., R., M., or Blk. and Survey or Area Sec 30 T9S R22E Mer SLB
12. County or Parish UINTAH COUNTY
13. State UT
17. Spacing Unit dedicated to this well
20. BLM/BIA Bond No. on file WYB000291
23. Estimated duration 60-90 DAYS

1a. Type of Work: [X] DRILL [ ] REENTER
1b. Type of Well: [ ] Oil Well [X] Gas Well [ ] Other [X] Single Zone [ ] Multiple Zone
2. Name of Operator KERR MCGEE OIL&GAS ONSHORE Contact: LAURA ABRAMS Laura.Abrams@anadarko.com
3a. Address PO BOX 173779 DENVER, CO 80202-3779
3b. Phone No. (include area code) Ph: 720-929-6356 Fx: 720-929-7356
4. Location of Well (Report location clearly and in accordance with any State requirements.\*) At surface NWNE 1141FNL 2039FEL 40.011144 N Lat, 109.480570 W Lon At proposed prod. zone NWNE 896FNL 1681FEL 40.011815 N Lat, 109.479294 W Lon
14. Distance in miles and direction from nearest town or post office\* APPROXIMATELY 42.8 MILES SOUTH OF VERNAL, UT
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 896'
16. No. of Acres in Lease 551.00
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 406'
19. Proposed Depth 10713 MD 10678 TVD
21. Elevations (Show whether DF, KB, RT, GL, etc. 4966 GL
22. Approximate date work will start 12/01/2011

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 06/09/2011
Title REGULATORY ANALYST II
Approved by (Signature) Name (Printed/Typed) Jerry Kenczka Date DEC 15 20
Title Assistant Field Manager 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 #110254 verified by the BLM Well Information System For KERR MCGEE OIL&GAS ONSHORE, LP, sent to the Vernal

NOTICE OF APPROVAL

RECEIVED

DEC 27 2011

UDOGM

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

11SXSD0470A E

NOS-03/25/2011



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	Location:	NWNE, SEC. 30, T9S, R22E SLM
Well No:	NBU 922-30B4BS	Lease No:	UTU-463
API No:	43-047-51673	Agreement:	NATURAL BUTTES UNIT

**BLM OFFICE NUMBER: (435) 781-4400**  
**Forest Service Number: (435) 790-3924**

**BLM OFFICE FAX NO.: (435) 781-3420**  
**Forest Service Fax No.: (435) 781-5215**

**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 Forest Service Environmental Scientist Sherry Fountain)	- Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Forest Service Environmental Scientist Sherry Fountain)	- 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: <a href="mailto:ut_vn_opreport@blm.gov">ut_vn_opreport@blm.gov</a> .
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)***

### **General Conditions of Approval**

- 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 would 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 would 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 would be controlled throughout the area of project disturbance.
- Noxious weeds would 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 would be submitted for each project.
- A pesticide use permit (PUP) would 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 should be notified so surveys can be conducted. Depending upon the results of the surveys, permission to proceed may or may not be ~~recommended~~ ~~or~~ granted by the BLM biologist. *Authorized Officer.*

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

#### **SITE SPECIFIC DOWNHOLE COAs:**

Site Specific Drilling Plan COA's:

- Gamma ray Log shall be run from Total Depth to Surface.

Variances 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.
- FIT Test. Variance granted due to well known geology and the problems that can occur with the FIT test.

**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 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](http://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.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9																														
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU463																														
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<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6514	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES																														
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1141 FNL 2039 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNE Section: 30 Township: 09.0S Range: 22.0E Meridian: S	<b>COUNTY:</b> UINTAH																															
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12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.																																
MIRU AIR RIG ON MARCH 13, 2012. DRILLED SURFACE HOLE TO 2,696'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.																																
<b>Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY March 16, 2012</b>																																
<b>NAME (PLEASE PRINT)</b> Jaime Scharnowske	<b>PHONE NUMBER</b> 720 929-6304	<b>TITLE</b> Regulatory Analyst																														
<b>SIGNATURE</b> N/A	<b>DATE</b> 3/16/2012																															

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>	
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.	
<b>1. TYPE OF WELL</b> Gas Well	<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU463
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>PHONE NUMBER:</b> 720 929-6511	<b>8. WELL NAME and NUMBER:</b> NBU 922-30B4BS
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1141 FNL 2039 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNE Section: 30 Township: 09.0S Range: 22.0E Meridian: S	<b>9. API NUMBER:</b> 43047516730000
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	<b>COUNTY:</b> UINTAH
	<b>STATE:</b> 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
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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.

MIRU TRIPPLE A BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'.  
 RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD  
 WELL ON 03/05/2012 AT 1500 HRS.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 March 09, 2012

<b>NAME (PLEASE PRINT)</b> Sheila Wopsock	<b>PHONE NUMBER</b> 435 781-7024	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 3/7/2012	

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9  5. LEASE DESIGNATION AND SERIAL NUMBER: UTU463
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2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047516730000
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
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1141 FNL 2039 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNE 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 checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 3/16/2012  <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: 100px;" 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 to the Blackhawk formation (part of the Mesaverde Group). The Operator also requests approval for a FIT waiver, a closed loop drilling option and a production casing change. All other aspects of the previously approved drilling plan will not change. Please see the attachment. Thank you.

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

Date: March 26, 2012

By: 

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 3/16/2012	

**Kerr-McGee Oil & Gas Onshore. L.P.****NBU 922-30B4BS**

Surface:	1141 FNL / 2039 FEL	NWNE
BHL:	896 FNL / 1681 FEL	NWNE

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	1,478'	
Birds Nest	1,801'	Water
Mahogany	2,173'	Water
Wasatch	4,757'	Gas
Mesaverde	7,368'	Gas
Sego	9,591'	Gas
Castlegate	9,641'	Gas
Blackhawk	10,078'	Gas
TVD	10,678'	
TD	10,713'	

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 10678' TVD, approximately equals  
7,047 psi (0.66 psi/ft = actual bottomhole gradient)

---

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

Maximum anticipated surface pressure equals approximately 4,747 psi (bottom hole pressure  
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

---

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

**8. Anticipated Starting Dates:**

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

**9. Variances:**

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

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

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

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

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

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

**Background**

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

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may

be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

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

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

#### **Variance for BOPE Requirements**

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

#### **Variance for Mud Material Requirements**

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

#### **Variance for Special Drilling Operation (surface equipment placement) Requirements**

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

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

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does not put the booster and standby compressor opposite from the blooie line.

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

**Variance for FIT Requirements**

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

**Conclusion**

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

**10. Other Information:**

Please refer to the attached Drilling Program.





**KERR-McGEE OIL & GAS ONSHORE LP**  
**DRILLING PROGRAM**

**CASING PROGRAM**

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	COLLAPSE	LTC	DQX
								TENSION	
CONDUCTOR	14"	0-40'							
SURFACE	8-5/8"	0 to 2,620	28.00	IJ-55	LTC	3,390	1,880	348,000	N/A
						2.05	1.53	5.42	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		3.69
						1.19	1.20	5.25	
	4-1/2"	5,000 to 10,713'	11.60	HCP-110	LTC				

**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\*Buoys.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\*Buoys.Fact. of water)

**CEMENT PROGRAM**

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE Option 1	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
<b>NOTE: If well will circulate water to surface, option 2 will be utilized</b>							
SURFACE Option 2	LEAD	2,120'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	200	35%	11.00	3.82
	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,253'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	330	35%	12.00	3.38
	TAIL	6,460'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,530	35%	14.30	1.31

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

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

**FLOAT EQUIPMENT & CENTRALIZERS**

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

**ADDITIONAL INFORMATION**

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

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

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

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

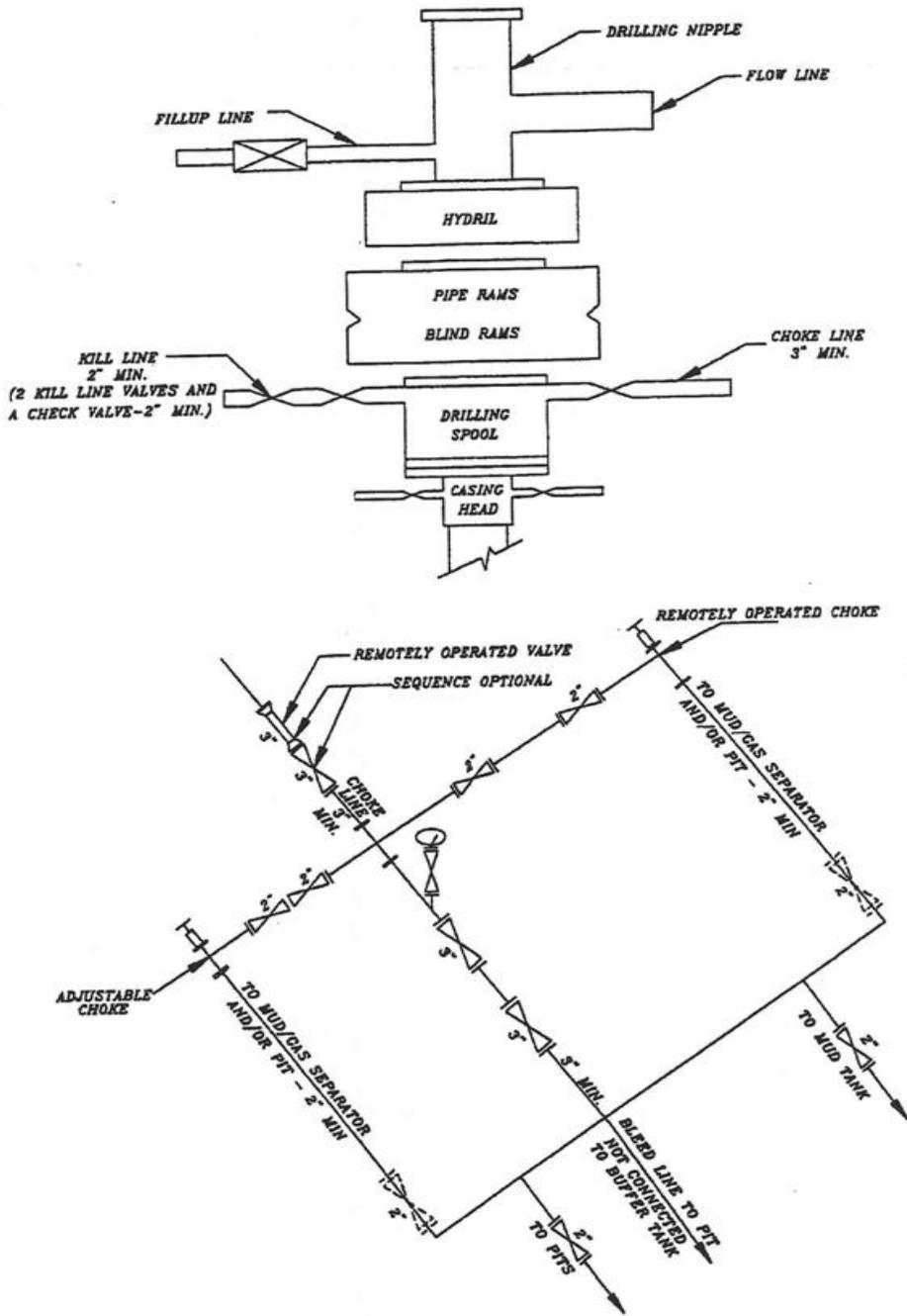
DRILLING ENGINEER: \_\_\_\_\_  
Nick Spence / Danny Showers / Chad Loesel

DATE: \_\_\_\_\_

DRILLING SUPERINTENDENT: \_\_\_\_\_  
Kenny Gathings / Lovel Young

DATE: \_\_\_\_\_

### EXHIBIT A NBU 922-30B4BS



**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 6

**ENTITY ACTION FORM**

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

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751671	NBU 922-30B1BS		NWNE	30	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	99999	2900	3/5/2012		3/20/2012		
<b>Comments:</b> MIRU TRIPPLE A BUCKET RIG. WSMVD SPUD WELL ON 03/05/2012 AT 0900 HRS. BHL NWNE							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751669	NBU 922-30B1CS		NWNE	30	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	99999	2900	3/5/2012		3/20/2012		
<b>Comments:</b> MIRU TRIPPLE A BUCKET RIG. WSMVD SPUD WELL ON 03/05/2012 AT 1200 HRS. BHL NWNE							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751673	NBU 922-30B4BS		NWNE	30	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	99999	2900	3/5/2012		3/20/2012		
<b>Comments:</b> MIRU TRIPPLE A BUCKET RIG. WSMVD SPUD WELL ON 03/05/2012 AT 1500 HRS. BHL NWNE							

**ACTION CODES:**

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

SHEILA WOPSOCK

Name (Please Print)

Signature  
REGULATORY ANALYST

Title

3/7/2012

Date

RECEIVED

MAR 07 2012

Div. of Oil, Gas & Mining

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: 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 922-30B4BS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1141 FNL 2039 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWNE Section: 30 Township: 09.0S Range: 22.0E Meridian: S	9. API NUMBER: 43047516730000
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
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: 5/23/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

MIRU ROTARY RIG. FINISHED DRILLING FROM 2696' TO 10725' ON 5/18/2012. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED ENSIGN 139 RIG ON 5/22/2012 @ 22:30 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**  
 May 23, 2012

NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 5/23/2012	

BLM - Vernal Field Office - Notification Form

Operator ANADARKO Rig Name/# ENSIGN 139  
Submitted By KENNY MORRIS Phone Number 435- 828-0984  
Well Name/Number NBU 922 - 30B4BS  
Qtr/Qtr NWNE Section 30 Township 9S Range 22E  
Lease Serial Number UTU463  
API Number 4304751673

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

Date/Time \_\_\_\_\_ AM  PM

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

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

Date/Time 5/19/2012 18:00 AM  PM

BOPE

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

Date/Time \_\_\_\_\_ AM  PM

RECEIVED

MAY 18 2012

DIV. OF OIL, GAS & MINING

Remarks RUN 4.5 PROD CSG & CEMENT BLACKHAWK WELL LATE  
FRIDAY EVENING

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BLM - Vernal Field Office - Notification Form

Operator ANADARKO Rig Name/# ENSIGN 139  
Submitted By SID ARMSTRONG Phone Number 435- 828-0984  
Well Name/Number NBU 922 - 30B4BS  
Qtr/Qtr NWNE Section 30 Township 9S Range 22E  
Lease Serial Number UTU463  
API Number 4304751673

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

Date/Time \_\_\_\_\_ AM  PM

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

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

RECEIVED

MAY 11 2012

DIV. OF OIL, GAS & MINING

Date/Time \_\_\_\_\_ AM  PM

BOPE

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

Date/Time 5/11/2012 23:00 AM  PM

Remarks SKID TO NBU 922-30B4BS & TESTING B.O.P'S

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<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU463	
<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>	
<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES	
<b>8. WELL NAME and NUMBER:</b> NBU 922-30B4BS	
<b>9. API NUMBER:</b> 43047516730000	
<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES	
<b>COUNTY:</b> UINTAH	
<b>STATE:</b> UTAH	

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

<b>1. TYPE OF WELL</b> Gas Well	<b>11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA</b>
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6511
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1141 FNL 2039 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNE Section: 30 Township: 09.0S Range: 22.0E Meridian: S	

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: 7/6/2012	<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 June 2012. Well TD at 10,725'.

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

**FOR RECORD ONLY**

July 09, 2012

<b>NAME (PLEASE PRINT)</b> Jaime Scharnowske	<b>PHONE NUMBER</b> 720 929-6304	<b>TITLE</b> Regularatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 7/6/2012	

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU463	
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>	
<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES	
<b>8. WELL NAME and NUMBER:</b> NBU 922-30B4BS	
<b>9. API NUMBER:</b> 43047516730000	
<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES	
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 <span style="float: right;"><b>PHONE NUMBER:</b> 720 929-6511</span>	
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1141 FNL 2039 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNE Section: 30 Township: 09.0S Range: 22.0E Meridian: S	
<b>COUNTY:</b> UINTAH	
<b>STATE:</b> 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: 7/18/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input 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 DATE 7/18/2012.  
 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**  
 July 19, 2012

<b>NAME (PLEASE PRINT)</b> Cara Mahler	<b>PHONE NUMBER</b> 720 929-6029	<b>TITLE</b> Regulatory Analyst I
<b>SIGNATURE</b> N/A	<b>DATE</b> 7/19/2012	

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 \_\_\_\_\_

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.  
UTU63047A

2. Name of Operator  
KERR MCGEE OIL & GAS ONSHORE  
Contact: CARA MAHLER  
Mail: cara.mahler@anadarko.com

8. Lease Name and Well No.  
NBU 922-30B4BS

3. Address 1099 18TH STREET, SUITE 1800  
DENVER, CO 80202

3a. Phone No. (include area code)  
Ph: 720-929-6029

9. API Well No.  
43-047-51673

4. Location of Well (Report location clearly and in accordance with Federal requirements)\*

10. Field and Pool, or Exploratory  
NATURAL BUTTES

At surface NWNE 1141FNL 2039FEL

At top prod interval reported below NWNE 885FNL 1688FEL

At total depth NWNE 748FNL 1672FEL **BHL by HSM**

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  
03/05/2012

15. Date T.D. Reached  
05/18/2012

16. Date Completed  
 D & A  Ready to Prod.  
07/18/2012

17. Elevations (DF, KB, RT, GL)\*  
4966 GL

18. Total Depth: MD 10725  
TVD 10677

19. Plug Back T.D.: MD 10676  
TVD 10629

20. Depth Bridge Plug Set: MD  
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)  
TRIPLE COMBO, BHV, 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	2675		1085		0	
7.875	4.500 P-110	11.6	0	10721		1883		1626	

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	10195							

25. Producing Intervals

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) WASATCH	7458	7461	7458 TO 7461	0.360	9	OPEN
B) MESAVERDE	7494	10449	7494 TO 10449	0.360	189	OPEN
C)						
D)						

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

Depth Interval	Amount and Type of Material
7458 TO 10449	PUMP 11,516 SLICK H2O & 268,983 LBS 30/50 OTTAWA SAND

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
04/18/2012	07/19/2012	24	→	0.0	4127.0	715.0			FLOWS FROM WELL
Choke Size	Tbg. Press. Flwg. Press.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
20/64	SI 2826	3555.0	→	0	4127	715		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. Press.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
	SI		→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #147652 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* SEP 05 2012

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	1391
				BIRD'S NEST	1820
				MAHOGANY	2314
				WASATCH	4824
				MESAVERDE	7492

32. Additional remarks (include plugging procedure):

The first 210 ft of the surface hole was drilled with a 12 1/4 in. bit. The remainder of surface hole was drilled with an 11 in bit. DQX P-110 csg was run from surface to 5025 ft; LTCP-110 csg was run from 5025 ft to 10721ft. 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 #147652 Verified by the BLM Well Information System.  
For KERR MCGEE OIL & GAS ONSHORE L, sent to the Vernal**

Name (please print) CARA MAHLER Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission) Date 08/28/2012

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.

**\*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\***

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 922-30B4BS (YELLOW)		Spud Date: 3/13/2012	
Project: UTAH-UINTAH		Site: NBU 922-30B PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION		Start Date: 7/9/2012	End Date: 7/18/2012
Active Datum: RKB @4,980.00usft (above Mean Sea Level)		UWI: NW/NE/0/9/S/22/E/30/0/0/26/PM/N/1141/E/0/2039/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
3/13/2012	-							
7/5/2012	7:00 - 15:00	8.00	COMP	33	C	P		<p>ND WH. NU 4" 10K FRAC VALVES. FILL SURFACE AND CSG W/ TMAC. RU B&amp;C QUICK TEST. PRES TEST CSG AND FRAC VALVES.</p> <p>TEST TO 1050# FOR 15 MIN, END AT 1041#. LOST 9#.</p> <p>TEST TO 3661# FOR 15 MIN, END AT 3640#. LOST 21#.</p> <p>TEST TO 9011# FOR 30 MIN, END AT 8877#. LOST 134#.</p> <p>RD B&amp;C.</p>
7/6/2012	7:00 - 12:00	5.00	COMP	37	B	P		<p>MIRU CUTTERS. RIH W/ 3-1/8" EXP GUN (23 GR, 40" PENT, .36" EOD) AND PERF LOWER MESA VERDE 10,348'-10,449' AS PER PROCEEDURE. SWIFWE. MIRU SUPERIOR.</p>
7/9/2012	7:00 - 18:00	11.00	COMP	36	B	P		<p>HSM. PRES TEST LINES TO 9500#. GOOD. POP OFF SET AT 9000#, KILLS SET AT 8800# AND 8900#. NO N2 POP OFF AVAILABLE.</p> <p>STAGE #1- PERFS 10,348'-10,449' (21 HOLES) OPEN WELL- SICP 726 PSI. BRK 4378 PSI AT 4.1 BPM, ISIP 3920, FG .82. PMP 100 BBLS SLK WTR, 49 BPM @ 7837 PSI = 17/21 81% PERFS OPEN. MP 8205, MR 52.0, AP 7368, AR 50.2, FG .82, ISIP 3964, NPI 44. PMP 30/50 TLC</p> <hr/> <p>STAGE #2- PU 4-1/2" HALCO 8K CBP AND 3-3/8" EXP GUNS, 23 GM, .36 HOLES.SET CBP AT 10,327'. PULL UP AND PERF 10,231'-10,297' AS PER PROCEEDURE. (21 HOLES)</p> <p>OPEN WELL- SICP 3243 PSI. BRK 4700 PSI AT 4.1 BPM, ISIP 4010, FG .83. PMP 100 BBLS SLK WTR, 50.5 BPM @ 8036 PSI = 17/21, 81% PERFS OPEN. MP 8958, MR 50.9, AP 7611, AR 45.5, FG .82, ISIP 3939, NPI -71. PMP 30/50 TLC. (LOST 2 PMPS ON THIS STAGE)</p> <hr/> <p>STAGE #3- PU 4-1/2" HALCO 8K CBP AND 3-3/8" EXP GUNS, 23 GM, .36 HOLES. SET CBP AT 9180'. PULL UP AND PERF 8945'-9150' (21 HOLES) AS PER PROCEEDURE. SWIFN.</p>

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 922-30B4BS (YELLOW)		Spud Date: 3/13/2012	
Project: UTAH-UINTAH		Site: NBU 922-30B PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION		Start Date: 7/9/2012	End Date: 7/18/2012
Active Datum: RKB @4,980.00usft (above Mean Sea Level)		UWI: NW/NE/0/9/S/22/E/30/0/0/26/PM/N/1141/E/0/2039/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
7/10/2012	7:00 - 18:00	11.00	COMP	36	B	P		<p>HSM. PRES TEST LINES TO 7500#. GOOD. POP OFF SET AT 7000#, KILLS SET AT 6800# AND 6900#. NO N2 POP OFF AVAILABLE.</p> <p>STAGE #3- PERFS 8945'-9150' (21 HOLES) OPEN WELL- SICP 1490 PSI. BRK 2673 PSI AT 4.3 BPM, ISIP 2280, FG .69. PMP 71 BBLS SLK WTR, 41.8 BPM @ 6143 PSI = 13/21 62% PERFS OPEN. MP 6791, MR 45.5, AP 6048, AR 39.8, FG .75, ISIP 2776, NPI 496. PMP 30/50 WHITE</p> <hr/> <p>STAGE #4- PU 4-1/2" HALCO 8K CBP AND 3-3/8" EXP GUNS, 23 GM, .36 HOLES.SET CBP AT 8874. PULL UP AND PERF 8683'-8844' AS PER PROCEEDURE. (24 HOLES)</p> <p>OPEN WELL- SICP 1867 PSI. BRK 3253 PSI AT 4.1 BPM, ISIP 2281, FG .70. PMP 100 BBLS SLK WTR, 53.2 BPM @ 5255 PSI = 23/24, 96% PERFS OPEN. MP 6406, MR 53.4, AP 5329, AR 52.6, FG .72, ISIP 2452, NPI 171. PMP 30/50 WHITE</p> <hr/> <p>STAGE #5- PU 4-1/2" HALCO 8K CBP AND 3-3/8" EXP GUNS, 23 GM, .36 HOLES. SET CBP AT 8554'. PULL UP AND PERF 8315'-8524' AS PER PROCEEDURE. (24 HOLES)</p> <p>OPEN WELL - SICP 1948 PSI. BRK 2719 PSI AT 4.2 BPM. ISIP 2258, FG .71. PMP 70 BBLS SLK WTR, 50.2 BPM @ 5612 PSI = 18/24 75% PERFS OPEN. MP 6361, MR 52.3, AP 5527, AR 49.2, FG .75, ISIP 2607, NPI 349. PMP 30/50 WHITE</p> <hr/> <p>STAGE #6- PU 4-1/2" HALCO 8K CBP AND 3-3/8" EXP GUNS, 23 GM, .36 HOLES.SET CBP AT 8268'. PULL UP AND PERF 8123'-8238' AS PER PROCEEDURE. (21 HOLES)</p> <p>OPEN WELL- SICP 2088 PSI. BRK 2305 PSI AT 4.1 BPM, ISIP 2113, FG .70. PMP 82 BBLS SLK WTR, 50.1 BPM @ 5560 PSI = 18/21, 86% PERFS OPEN. MP 6450, MR 50.6, AP 5877, AR 49.0, FG .77, ISIP 2738, NPI 625. PMP 30/50 WHITE.</p>

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 922-30B4BS (YELLOW)

Spud Date: 3/13/2012

Project: UTAH-UJINTAH

Site: NBU 922-30B PAD

Rig Name No: ROCKY MOUNTAIN WELL SERVICE  
3/3

Event: COMPLETION

Start Date: 7/9/2012

End Date: 7/18/2012

Active Datum: RKB @4,980.00usft (above Mean Sea Level)

UWI: NWN/E/0/9/S/22/E/30/0/0/26/PM/N/1141/E/0/2039/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
7/11/2012	7:00 - 17:00	10.00	COMP	36	B	P		<p>STAGE #7- PU 4-1/2" HALCO 8K CBP AND 3-3/8" EXP GUNS, 23 GM, .36 HOLES.SET CBP AT 8042'. PULL UP AND PERF 7861'-8012' AS PER PROCEDURE. (24 HOLES) SWIFN. HSM. PRES TEST LINES TO 7500#. GOOD. POP OFF SET AT 7000#, KILLS SET AT 6800# AND 6900#. NO N2 POP OFF AVAILABLE.</p> <p>STAGE #7- PERFS 7861'-8012' (24 HOLES) OPEN WELL- SICP 1269 PSI. BRK 2138 PSI AT 4.1 BPM, ISIP 1726, FG .66. PMP 71 BBLs SLK WTR, 49.8 BPM @ 6398 PSI = 15/24 63% PERFS OPEN. MP 6427, MR 51.1, AP 5404, AR 49.4, FG .75, ISIP 2435, NPI 709. PMP 30/50 WHITE</p> <p>STAGE #8- PU 4-1/2" HALCO 8K CBP AND 3-3/8" EXP GUNS, 23 GM, .36 HOLES.SET CBP AT 7861'. PULL UP AND PERF 7658'-7814' AS PER PROCEDURE. (21 HOLES)</p> <p>OPEN WELL- SICP 1895 PSI. BRK 2435 PSI AT 4.1 BPM, ISIP 2007, FG .70. PMP 84 BBLs SLK WTR, 50.4 BPM @ 5274 PSI = 20/21, 95% PERFS OPEN. MP 5380, MR 50.7, AP 4964, AR 50.1, FG .75, ISIP 2387, NPI 380. PMP 30/50 WHITE</p> <p>STAGE #9- PU 4-1/2" HALCO 8K CBP AND 3-3/8" EXP GUNS, 23 GM, .36 HOLES. SET CBP AT 7544'. PULL UP AND PERF 7458'-7514' AS PER PROCEDURE. (21 HOLES)</p> <p>OPEN WELL - SICP 458 PSI. BRK 1661 PSI AT 4.3 BPM. ISIP 1176, FG .60. PMP 72 BBLs SLK WTR, 50.3 BPM @ 5316 PSI = 15/21 71% PERFS OPEN. MP 6292, MR 50.2, AP 5331, AR 49.4, FG .74, ISIP 2238, NPI 1062. PMP 30/50 WHITE</p> <p>SET KILL PLUG AT 7408'. RDMO CUTTERS AND SUPERIOR.</p> <p>TOTAL 30/50 SAND 268,983# TOTAL CLEAN FLUID 11,516 BBLs 197 GAL SCALE INHIB 154 GAL BIOCID</p>

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 922-30B4BS (YELLOW) Spud Date: 3/13/2012

Project: UTAH-UINTAH Site: NBU 922-30B PAD Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3

Event: COMPLETION Start Date: 7/9/2012 End Date: 7/18/2012

Active Datum: RKB @4,980.00usft (above Mean Sea Level) UWI: NW/NE/0/9/S/22/E/30/0/0/26/PM/N/1141/E/0/2039/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
7/17/2012	12:00 - 17:00	5.00	DRLOUT	44	C	P		MIRU, NDWH, NUBOP, P/U 3 7/8" BIT, POBS & XN SN RIH W/ 230 JTS TBG OFF FLOAT EOT @ 7,310', SWIFN
7/18/2012	7:00 - 7:15	0.25	DRLOUT	48		P		HSM-JSA

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 922-30B4BS (YELLOW)

Spud Date: 3/13/2012

Project: UTAH-UINTAH

Site: NBU 922-30B PAD

Rig Name No: ROCKY MOUNTAIN WELL SERVICE  
3/3

Event: COMPLETION

Start Date: 7/9/2012

End Date: 7/18/2012

Active Datum: RKB @4,980.00usft (above Mean Sea Level)

UWI: NW/NE/0/9/S/22/E/30/0/0/26/PM/N/1141/E/0/2039/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 17:00	9.75	DRLOUT	44	C	P		<p>CONT TO P/U TBG RIH TAG FILL @ 7,403', R/U PWR SWIVEL, BREAK CIRC, PRESS TEST BOP TO 3,000 PSI, LOST 0 PSI IN 15 MIN.</p> <p>C/O 5' SAND TAG PLUG #1 @ 7,408' DRL HAL 8K CBP IN 6 MIN, 50 PSI INC, FCP 25 PSI, RIH TAG FILL @ 7,534'.</p> <p>C/O 10' SAND TAG PLUG #2 @ 7,544' DRL HAL 8K CBP IN 7 MIN, 100 PSI INC, FCP 50 PSI, RIH TAG FILL @ 7,829'.</p> <p>C/O 15' SAND TAG PLUG #3 @ 7861' DRL HAL 8K CBP IN 5 MIN, 100 PSI INC, FCP 150 PSI, RIH TAG FILL @ 8,032'.</p> <p>C/O 10' SAND TAG PLUG #4 @ 8,042' DRL HAL 8K CBP IN 5 MIN, 200 PSI INC, FCP 350 PSI, RIH TAG FILL @ 8,245'.</p> <p>C/O 25' SAND TAG PLUG #5 @ 8,268' DRL HAL 8K CBP IN 8 MIN, 200 PSI INC, FCP 450 PSI, RIH TAG FILL @ 8,539'.</p> <p>C/O 15' SAND TAG PLUG #6 @ 8,554' DRL HAL 8K CBP IN 6 MIN, 100 PSI INC, FCP 500 PSI, RIH TAG FILL @ 8,849'.</p> <p>C/O 25' SAND TAG PLUG #7 @ 8,874' DRL HAL 8K CBP IN 7 MIN, 100 PSI INC, FCP 550 PSI, RIH TAG FILL @ 9,165'.</p> <p>C/O 15' SAND TAG PLUG #8 @ 9,180' DRL HAL 8K CBP IN 5 MIN, 100 PSI INC, FCP 600 PSI, RIH TAG FILL @ 10,287'.</p> <p>C/O 40' SAND TAG PLUG #9 @ 10,327' DRL HAL 8K CBP IN 8 MIN, 100 PSI INC, FCP 700 PSI, RIH TAG FILL @ 10,450'.</p> <p>C/O 125' SAND, PBTD 10,575' (126' BELOW BTM PERF) R/D PWR SWIVEL, POOH L/D 12 JTS TBG, LAND TBG W/ 321 JTS 2 3/8" P-110, R/D FLOOR &amp; TBG EQUIP, NDBOP, NUWH, DROP BALL POBS @ 2,400 PSI, LET BIT FALL 30 MIN TURN OVER TO FBC, SITP 800 PSI, SICP 2,800 PSI. RDMO, SDFN</p> <p>KB-14' HANGER-.83' 321 JTS 2 3/8" P-110-10,177.74' POBS-2.20' EOT @ 10,194.77'</p> <p>315 JTS DEL + 23 JTS ON LOC.</p>

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 922-30B4BS (YELLOW) Spud Date: 3/13/2012

Project: UTAH-UINTAH Site: NBU 922-30B PAD Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3

Event: COMPLETION Start Date: 7/9/2012 End Date: 7/18/2012

Active Datum: RKB @4,980.00usft (above Mean Sea Level) UWI: NW/NE/0/9/S/22/E/30/0/0/26/PM/N/1141/E/0/2039/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
7/19/2012	17:00 - 17:00	0.00	DRLOUT	50				USED 321 JTS RET 17 JTS  TWTR=11,876 BBLS TWR=2,864 BBLS TWLTR=9,012 BBLS WELL TURNED TO SALES @ 17:00 HR ON 7/18/2012. 1955 MCFD, 1680 BWPD, FCP 2950#, FTP 2650#, 20/64".

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 922-30B4BS (YELLOW)		Spud Date: 3/13/2012	
Project: UTAH-UINTAH		Site: NBU 922-30B PAD	Rig Name No: ENSIGN 139/139, PROPETRO 11/11
Event: DRILLING		Start Date: 2/29/2012	End Date: 5/22/2012
Active Datum: RKB @4,980.00usft (above Mean Sea Level)		UWI: NW/NE/0/9/S/22/E/30/0/0/26/PM/N/1141/E/0/2039/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
3/13/2012	18:00 - 21:30	3.50	MIRU	01	B	P		MOVE TO NBU 922-30B4BS (WELL 3/4)  INSTALL DIVERTOR HEAD AND BLUEY LINE.  BUILD DITCH. SPOT IN RIG.  SPOT IN CATWALK AND PIPE RACKS.  RIG UP PIT PUMP.  RIG UP PUMP. PRIME PUMP. INSPECT RIG.  HELD PRE-SPUD SAFETY MEETING.
	21:30 - 22:30	1.00	DRLSUR	02	D	P		PU BHA & SPUD @ 21:30 DRL F/ 44' T/210' (166'@ 110.66' PER HR)  WOB, 5-15 kRPM, 45  UP/DWN/ROT WEIGHTS 20/20/20  PSI ON BTTM, 600 OFF BTTM, 400
	22:30 - 23:00	0.50	DRLSUR	05	C	P		M.W. 8.34, VIS 27 CIRC. FOR TRIP
	23:00 - 0:00	1.00	DRLSUR	06	A	P		POOH
3/14/2012	0:00 - 1:00	1.00	DRLSUR	06	A	P		PU 11" BIT & DIR. TOOLS TRIP IN HOLE WITH 11" BIT & BHA
	1:00 - 4:30	3.50	DRLSUR	22	L	Z		MWD TOOL FAILURE  POOH FOR NEW TOOL
	4:30 - 10:30	6.00	DRLSUR	02	D	P		TIH WITH NEW TOOL DRL F/210' T/950' (740'@ 105.7' PER HR)  WOB, 20RPM, 45  UP/DWN/ROT WEIGHTS 50/40/45  PSI ON BTTM/1000 OFF BTTM/800  M.W. 8.34, VIS 27
	10:30 - 11:00	0.50	DRLSUR	21	D	Z		.65' LEFT & 1' HIGH OF TARGET CLEARED LOCATION BECAUSE OF BLASTING ON LOCATION NEAR NBU 922-30B4BS

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Operation Summary Report**

Well: NBU 922-30B4BS (YELLOW)		Spud Date: 3/13/2012	
Project: UTAH-UINTAH		Site: NBU 922-30B PAD	Rig Name No: ENSIGN 139/139, PROPETRO 11/11
Event: DRILLING		Start Date: 2/29/2012	End Date: 5/22/2012
Active Datum: RKB @4,980.00usft (above Mean Sea Level)		UWI: NW/NE/O/S/22/E/30/O/0/26/PM/N/1141/E/O/2039/O/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	11:00 - 18:00	7.00	DRLSUR	02	D	P		DRL F/950' T/1540' (590'@84.2' PER HR) WOB, 20 RPM 45 UP/DWN/ROT 68/59/62 PSI ON BTM/ 1500 OFF BTM/ 1250 M.W. 8.34 VIS. 27
	18:00 - 18:30	0.50	DRLSUR	21	D	Z		RIG PUMP FAILURE, LCM MATERIAL FROM H&P 298 PLUGGED SUCTION
	18:30 - 0:00	5.50	DRLSUR	02	D	P		DRL F/1540' T/1990' (1040'@81.8' PER HR) WOB, 19 RPM 45 UP/DWN/ROT 73/62/67 PSI ON BTM 1650 / OFF BTM 1450 M.W. 8.34 VIS. 27 3.82 RIGHT 1.17' BELOW TARGET
3/15/2012	0:00 - 10:30	10.50	DRLSUR	02	D	P		DRL F/1990' T/2698' ( 706'@ 69.42' PER HR) WOB 20K RPM 45 UP/DWN/ROT 85/65/80 PSI ON/OFF 1800/1600 M.W. 8.34# VIS 27 9.6' LOW .69' RIGHT OF TARGET
	10:30 - 12:00	1.50	DRLSUR	05	C	P		CIRCULATE FOR CASING
	12:00 - 15:30	3.50	DRLSUR	06	D	P		LDDS, BHA & DIRECTIONAL TOOLS
	15:30 - 16:30	1.00	DRLSUR	12	A	P		MOVE PIPE RACKS AND CATWALK. PULL DIVERTER HEAD. RIG UP TO RUN CSG. MOVE CSG INTO POSITION TO P/U.
	16:30 - 19:00	2.50	DRLSUR	12	C	P		RUN 60 JTS 8 5/8, 28# J55 CASING SET SHOE @ 2661' SET BAFFLE @ 2616.5' LAND CASING @ 13:30
	19:00 - 20:00	1.00	DRLSUR	12	B	P		PUMP ON CASING RUN 200' OF 1". RIG DOWN RIG MOVE OFF WELL, REBUILD DITCH. RIG UP CEMENT TRUCK, 2" HARD LINES.,
	20:00 - 21:00	1.00	DRLSUR	12	E	P		HOLD SAFETY MEETING. PRO PETRO CMTERS MAKE UP HEAD & LOAD PLUG TEST LINES TO 2000 PSI. PUMP 40 BBLS OF 8.4# H2O AHEAD, FULL RETURNS PUMP 20 BBLS OF 8.4# GEL WATER AHEAD. PUMP 230 SX(156 BBLS) 11# 3.82 YIELD LEAD CEMENT. PUMP 200 SX (40 BBLS) OF 15.8# 1.15 YIELD TAIL(2% CALC, 1/4# /SK OF FLOCELE). DROP PLUG ON FLY AND DISPLACE W/ 163 BBLS OF 8.4# H2O. LIFT PRESSURE 670 PSI. BUMP PLUG AND HOLD 900 PSI FOR 5 MIN. FLOAT HELD RETURNS THRU OUT JOB. CEMENT FELL AWAY
	21:00 - 22:30	1.50	DRLSUR	13	A	P		WOC, 1.5 HOURS PUMP 75 SKS CMT TO SURFACE CMT HELD CLEAN TRUCKS & RIG DWN CMTERS RELEASE RIG @ 22:30
5/11/2012	12:00 - 13:00	1.00	DRLPRO	01	C	P		SKID RIG TO NBU 922-30B4BS
	13:00 - 14:00	1.00	DRLPRO	14	A	P		NIPPLE UP B.O.P'S & FLARE LINES
	14:00 - 15:00	1.00	DRLPRO	09	A	P		SLIP & CUT DRILL LINE
	15:00 - 18:00	3.00	DRLPRO	15	A	P		TEST B.O.P'S
	18:00 - 18:30	0.50	DRLPRO	14	B	P		SET WEAR BUSHING
	18:30 - 22:30	4.00	DRLPRO	06	A	P		PICK UP MOTOR - BIT - DIR TOOLS & TRIP IN THE HOLE & TAG CEMENT @ 2586
	22:30 - 23:00	0.50	DRLPRO	07	B	P		LEVEL DERRICK OVER HOLE
	23:00 - 0:00	1.00	DRLPRO	02	F	P		DRILL SHOE TRACK

**US ROCKIES REGION  
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Well: NBU 922-30B4BS (YELLOW)

Spud Date: 3/13/2012

Project: UTAH-UINTAH

Site: NBU 922-30B PAD

Rig Name No: ENSIGN 139/139, PROPETRO 11/11

Event: DRILLING

Start Date: 2/29/2012

End Date: 5/22/2012

Active Datum: RKB @4,980.00usft (above Mean Sea Level)

UWI: NW/NE/0/9/S/22/E/30/0/0/26/PM/N/1141/E/0/2039/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
5/12/2012	0:00 - 12:00	12.00	DRLPRO	02	D	P		SPUD 7 7/8 HOLE & DIR DRILL 2706 TO 4475 = 1769' AVG 147.4 WOB 16/18 RPM 40/ 133 = 173 SPM 140 GPM 582 RPG .23 TORQ 5/9 PSI 1800/2150 DIFF 350 SLIDE 118' - 6.5% ROT 1651' 93.5% 28' NORTH 15' WEST OF LINE MUD WT 8.4 VIS 26 NOV CONVENTIONAL WITH BOTH CENTRIFUGES, SER RIG
	12:00 - 12:30	0.50	DRLPRO	07	A	P		
	12:30 - 0:00	11.50	DRLPRO	02	D	P		DIR DRILL/ 4475 TO 5957 = 1482' AVG 128.86 WOB 16/18 RPM 40/ 133 = 173 SPM 140 GPM 582 RPG .23 TORQ 5/9 PSI 1800/2150 DIFF 350 SLIDE 20' - 1% ROT 1462' 99% 11' NORTH 13' WEST OF LINE MUD WT 8.4 VIS 26 NOV CONVENTIONAL WITH BOTH CENTRIFUGES,
5/13/2012	0:00 - 12:30	12.50	DRLPRO	02	D	P		DIR DRILL/ 5957 TO 6904 = 947' AVG 75.76 WOB 16/18 RPM 40/ 133 = 173 SPM 140 GPM 582 RPG .23 TORQ 5/9 PSI 1800/2150 DIFF 350 SLIDE 47' - 4% ROT 900' 96% 7.5' NORTH 9.5' WEST OF LINE MUD WT 8.4 VIS 26 NOV CONVENTIONAL WITH BOTH CENTRIFUGES, SER RIG
	12:30 - 13:00	0.50	DRLPRO	07	A	P		
	13:00 - 19:00	6.00	DRLPRO	02	D	P		DIR DRILL/ 6904 TO 7245 = 341' AVG 56.8 WOB 16/18 RPM 40/ 133 = 173 SPM 140 GPM 582 RPG .23 TORQ 5/9 PSI 1800/2150 DIFF 350 SLIDE 0' - 0% ROT 341' 100% 8' NORTH 9' WEST OF LINE MUD WT 8.4 VIS 26 NOV CONVENTIONAL WITH BOTH CENTRIFUGES, MUD & VIS UP SYSTEM
	19:00 - 20:30	1.50	DRLPRO	05	A	P		
	20:30 - 0:00	3.50	DRLPRO	02	D	P		DIR DRILL/ 7245 TO 7388 = 143' AVG 40.8 WOB 16/18 RPM 40/ 133 = 173 SPM 140 GPM 582 RPG .23 TORQ 5/9 PSI 1800/2150 DIFF 350 SLIDE 16' - 5% ROT 127' 95% 9' NORTH 8' WEST OF LINE MUD WT 9.6 VIS 39 NOV CONVENTIONAL WITH BOTH CENTRIFUGES,

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 922-30B4BS (YELLOW)

Spud Date: 3/13/2012

Project: UTAH-UINTAH

Site: NBU 922-30B PAD

Rig Name No: ENSIGN 139/139, PROPETRO 11/11

Event: DRILLING

Start Date: 2/29/2012

End Date: 5/22/2012

Active Datum: RKB @4,980.00usft (above Mean Sea Level)

UWI: NW/NE/0/9/S/22/E/30/0/0/26/PM/N/1141/E/0/2039/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
5/14/2012	0:00 - 13:30	13.50	DRLPRO	02	D	P		DIR DRILL/ 7388 TO 7994 = 606' AVG 44.88 WOB 16/18 RPM 40/ 124 = 173164 SPM 130 GPM 540 RPG .23 TORQ 5/9 PSI 2000/2400 DIFF 350 SLIDE 4' - 6% ROT 602' 94% 13' NORTH 1.5' WEST OF LINE MUD WT 10.5 VIS 38 LCM 5% BY PASSED BOTH CENTRIFUGES, BY PASSED SHAKERS @ 7800 WELL SEEPING FUILD @ 10.1 PPG RAISE LCM TO 5% SER RIG
	13:30 - 14:00	0.50	DRLPRO	07	A	P		
	14:00 - 0:00	10.00	DRLPRO	02	D	P		DIR DRILL/ 7994 TO 8375 = 381' AVG 38.1 WOB 16/18 RPM 40/ 124 = 173164 SPM 130 GPM 540 RPG .23 TORQ 5/9 PSI 2000/2400 DIFF 350 SLIDE 32' - 8.5% ROT 349' 91.5% 13.5' NORTH 1' WEST OF LINE MUD WT 11.3 VIS 38 LCM 15% LOST 80 @ 8300 BBLS MUD RAISE LCM 15% BY PASSED BOTH CENTRIFUGES, BY PASSED SHAKERS
5/15/2012	0:00 - 12:30	12.50	DRLPRO	02	D	P		DIR DRILL/ 8375 TO 8820 = 445' AVG 37.0 WOB 16/18 RPM 40/ 124 = 140 SPM 105 GPM 440 RPG .23 TORQ 7/9 PSI 2000/2400 DIFF 350 SLIDE 6' - 1% ROT 439' 99% 17' NORTH 4' WEST OF LINE MUD WT 11.4 VIS 38 LCM 15% BY PASSED BOTH CENTRIFUGES, BY PASSED SHAKERS
	12:30 - 13:00	0.50	DRLPRO	07	A	P		SER RIG
	13:00 - 23:00	10.00	DRLPRO	02	D	P		DIR DRILL/ 8820 TO 9092 = 272' AVG 27 WOB 18/20 RPM 40/ 124 = 140 SPM 105 GPM 440 RPG .23 TORQ LOW 5500 HIGH 10500 PSI 2000/2400 DIFF 350 SLIDE 0% ROT 272' 100% 13' NORTH 7 WEST OF CENTER MUD WT 11.8 VIS 42 LCM 15% BY PASSED BOTH CENTRIFUGES, BY PASSED SHAKERS
	23:00 - 23:30	0.50	DRLPRO	08	K	Z		SWITCH GENERATORS #1 GEN SET HAD WARNING LIGHT ON AND SURGING

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Well: NBU 922-30B4BS (YELLOW)

Spud Date: 3/13/2012

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Site: NBU 922-30B PAD

Rig Name No: ENSIGN 139/139, PROPETRO 11/11

Event: DRILLING

Start Date: 2/29/2012

End Date: 5/22/2012

Active Datum: RKB @4,980.00usft (above Mean Sea Level)

UWI: N/W/E/0/9/S/22/E/30/0/0/26/P/M/N/1141/E/0/2039/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	23:30 - 0:00	0.50	DRLPRO	02	D	P		DIR DRILL/ 9092 TO 9105 =13 AVG 26 WOB 18/20 RPM 40/ 124 = 140 SPM 105 GPM 440 RPG .23 TORQ LOW 5500 HIGH 10500 PSI 2000/2400 DIFF 350 SLIDE 0% ROT 272' 100% 13' NORTH 7 WEST OF CENTER MUD WT 11.8 VIS 42 LCM 15% BY PASSED BOTH CENTRIFUGES, BY PASSED SHAKERS
5/16/2012	0:00 - 13:30	13.50	DRLPRO	02	D	P		DIR DRILL/ 9105 TO 9429=324 AVG 24 WOB 18/20 RPM 40/ 124 = 140 SPM 105 GPM 440 RPG .23 TORQ LOW 5500 HIGH 10500 PSI 2000/2400 DIFF 350 SLIDE 0% ROT 324 100% 13' NORTH 7 WEST OF CENTER MUD WT 11.8 VIS 42 LCM 15% BY PASSED BOTH CENTRIFUGES, BY PASSED SHAKERS
	13:30 - 23:00	9.50	DRLPRO	06	A	P		FLOW CHECK /NO FLOW,PULL 6 STANDS AT 265K,PUMPPILL,POOH LD/BIT & MTR #1
5/17/2012	23:00 - 0:00	1.00	DRLPRO	06	A	P		PICK UP BHA #2 SCRIBE DIRECTIONAL TOOLS, TIH
	0:00 - 1:00	1.00	DRLPRO	06	A	P		TRIP IN HOLE WITH BHA#2,CHECK CIRCULATION WITH BHA IN
	1:00 - 1:30	0.50	DRLPRO	07	A	P		RIG SERVICE
	1:30 - 8:00	6.50	DRLPRO	06	A	P		CONTINUE TIH WASH BRIDGES@4274 & 6736
	8:00 - 9:30	1.50	DRLPRO	03	E	S		WASH & REAM FROM 9278 TO 9429,CIRC OUT GAS WITH 15' FLARE FOR 30 MIN
	9:30 - 12:00	2.50	DRLPRO	02	D	P		TORG 11K TO 15.5K DIR DRILL/9429 TO 9550=121 AVG 48 WOB 20 RPM 40/62 =102 SPM 100 GPM 422 RPG .14 TORQ LOW 5500 HIGH 10500 PSI OFF BTM 1960 ON BTM 2250 DIFF 250 SLIDE 0% ROT 100% 10' NORTH 9 WEST OF CENTER MUD WT 12.0 VIS 44 LCM 15% BY PASSED BOTH CENTRIFUGES, BY PASSED SHAKERS
	12:00 - 12:30	0.50	DRLPRO	08	A	P		RIG SERVICE
	12:30 - 0:00	11.50	DRLPRO	02	D	P		DIR DRILL/9550 TO 9998=448 AVG 39 WOB 20 RPM 40/62 =102 SPM 100 GPM 422 RPG .14 TORQ LOW 5500 HIGH 10500 PSI OFF BTM 1960 ON BTM 2250 DIFF 250 SLIDE 0% ROT 100% 4'SOUTH 2' WEST OF CENTER MUD WT 12.3 VIS 46 LCM 15% BY PASSED BOTH CENTRIFUGES, BY PASSED SHAKERS

**US ROCKIES REGION**  
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Event: DRILLING		Start Date: 2/29/2012	End Date: 5/22/2012
Active Datum: RKB @4,980.00usft (above Mean Sea Level)		UWI: NW/NE/O/S/22/E/30/O/26/PM/N/1141/E/O/2039/O/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
5/18/2012	0:00 - 11:00	11.00	DRLPRO	02	D	P		DIR DRILL/9998 TO 10364 =366 AVG 33 WOB 20 RPM 40/62 =102 SPM 100 GPM 422 RPG .14 TORQ LOW 7800 HIGH 12500 PSI OFF BTM 2050 ON BTM 2400 DIFF 350 SLIDE 0% ROT 100% 9.5 SOUTH 1.5 EAST OF CENTER MUD WT 12.3 VIS 46 LCM 15% BY PASSED BOTH CENTRIFUGES, BY PASSED SHAKERS RIG SERVICE, FUNCTION BOP
	11:00 - 11:30	0.50	DRLPRO	08	A	P		
	11:30 - 22:30	11.00	DRLPRO	02	D	P		DIR DRILL/10364 TO TD 10725 =361 AVG 33 WOB 20 RPM 40/62 =102 SPM 100 GPM 422 RPG .14 TORQ LOW 7800 HIGH 12500 PSI OFF BTM 2050 ON BTM 2400 DIFF 350 SLIDE 0% ROT 100% 22 SOUTH 10 EAST OF CENTER MUD WT 12.6 VIS 48 LCM 15% BY PASSED BOTH CENTRIFUGES, BY PASSED SHAKERS
5/19/2012	22:30 - 0:00	1.50	DRLPRO	05	C	P		FINAL SURVEY@10667' = 2.4 DEG 148 AZI,FLOW CHECK/NO FLOW,CIRC & CONDITION FOR SHORTTRIP TO SHOE
	0:00 - 7:30	7.50	DRLPRO	06	E	P		WIPER TRIP OUT TO SHOE,PUMP 17 STNDS OFF BOTTOM,TO 9100'
	7:30 - 11:00	3.50	DRLPRO	06	E	P		CHECK CIRCULATION,TRIP IN FROM SHOE,FILL @6765,
	11:00 - 12:30	1.50	DRLPRO	03	A	S		REAM F/7546 TO 8108
	12:30 - 14:00	1.50	DRLPRO	06	E	P		TRIP IN TO 9969
	14:00 - 14:30	0.50	DRLPRO	03	A	S		REAM F/9969 TO 10225
	14:30 - 15:00	0.50	DRLPRO	06	E	P		TRIP IN TO 10635
	15:00 - 15:30	0.50	DRLPRO	07	A	P		RIG SERVICE
15:30 - 17:00	1.50	DRLPRO	05	C	P		CIRCULATE AND CONDITION F/LOGS, NO FLARE	
5/20/2012	17:00 - 0:00	7.00	DRLPRO	06	B	P		TRIP OUT FOR LOGS,PUMP OUT TO 9454',CHECK FLOW/NO FLOW,PUMP PILL,CONTINUE TRIP OUT NO TIGHT HOLE
	0:00 - 3:00	3.00	DRLPRO	06	B	P		TRIP OUT FOR LOGS
	3:00 - 3:30	0.50	DRLPRO	14	B	P		PULL WEARRING
	3:30 - 9:00	5.50	DRLPRO	11	D	P		PJSM ,RIG UP & RUN TRIPLE COMBO W/ HALLIBURTON LOGS BRIDGED OUT AT 7330',LOG OUT,PREP FOR WIPER TRIP,RIG DOWN HALLIBURTON
	9:00 - 19:00	10.00	DRLPRO	06	E	S		PICK UP BIT,BITSUB, SHWDP, TIH WASH THRU BRIDGES@7861 AND 8348, WASH 120' TO BTM 5' FILL
	19:00 - 21:00	2.00	DRLPRO	05	C	P		PUMP HIGH VIS SWEEP,CIRCULATE & CONDITION FOR LOGS
	21:00 - 0:00	3.00	DRLPRO	06	E	S		PUMP OUT TO 9886,FLOW CHECK/NO FLOW PUMPPILL POOH FOR LOGS,NO TIGHT SPOTS
5/21/2012	0:00 - 6:00	6.00	DRLPRO	06	E	S		TRIP OUT FOR SECOND LOG ATTEMPT

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**Operation Summary Report**

Well: NBU 922-30B4BS (YELLOW)		Spud Date: 3/13/2012	
Project: UTAH-UJINTAH		Site: NBU 922-30B PAD	Rig Name No: ENSIGN 139/139, PROPETRO 11/11
Event: DRILLING		Start Date: 2/29/2012	End Date: 5/22/2012
Active Datum: RKB @4,980.00usft (above Mean Sea Level)		UWI: NW/NE/0/9/S/22/E/30/0/0/26/PM/N/1141/E/0/2039/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00 - 6:30	0.50	DRLPRO	14	B	P		PULL WEARRING
	6:30 - 11:00	4.50	DRLPRO	11	D	P		PJSM ,RIG UP AND RUN TRIPLE COMBO WITH HALLIBURTON TO LOGGERS DEPTH 10719', LOG OUT TO 7275
	11:00 - 21:30	10.50	DRLPRO	12	C	P		SAFETY MEET WITH FRANKS RUN 250 JTS 4.5 11.6# LTC AND DQX TO SHOE DEPTH OF 10690',FC@10646,
	21:30 - 23:30	2.00	DRLPRO	05	D	P		ATTEMPT TO WASH CASING DOWN LAST 17' WILL NOT GO,CIRC BOTTOMS UP,78 STROKES 1350 PSI,SHOE DEPTH 10690',NO FLARE
	23:30 - 0:00	0.50	DRLPRO	12	B	P		RIG DOWN CIRCULATION SWEDGE,RIG UP CEMENT HEAD
5/22/2012	0:00 - 4:00	4.00	DRLPRO	12	E	P		PUMP CEMENT W/ HALLIBURTON ,583 SX LEAD 13# 1.77 YLD,1300SX TAIL 14.3# 1.32 YLD,DISPLACE 166 BBLS FINALLIFT 2900 PSI,LOST RETURNS 110 BBL INTO DISPLACEMENT,NO CEMENT BACK,RIG DOWN HALLIBURTON
	4:00 - 5:00	1.00	DRLPRO	14	A	P		FLUSH STACK,SET CSG SLIPS 105K,NIPPLE DOWN ROUGH CUT CSG,
	5:00 - 10:00	5.00	DRLPRO	01	E	P		CLEAN PITS,PREP FOR SKID ,RIG RELEASE AT 10:00 AM 5/22/2012 TO NBU922-30B4CS

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 922-30B4BS (YELLOW)	Wellbore No.	OH
Well Name	NBU 922-30B4BS	Wellbore Name	NBU 922-30B4BS
Report No.	1	Report Date	7/9/2012
Project	UTAH-UINTAH	Site	NBU 922-30B PAD
Rig Name/No.		Event	COMPLETION
Start Date	7/9/2012	End Date	7/18/2012
Spud Date	3/13/2012	Active Datum	RKB @4,980.00usft (above Mean Sea Level)
UWI	NW/NE/0/9/S/22/E/30/0/0/26/PM/N/1141/E/0/2039/0/0		

1.3 General

Contractor		Job Method	PERFORATE	Supervisor	
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.4 Initial Conditions

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

1.5 Summary

Gross Interval	7,458.0 (usft)-10,449.0 (us)	Start Date/Time	7/9/2012 12:00AM
No. of Intervals	37	End Date/Time	7/9/2012 12:00AM
Total Shots	198	Net Perforation Interval	66.00 (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
7/9/2012 12:00AM	WASATCH/			7,458.0	7,461.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	N

2.1 Perforated Interval (Continued)

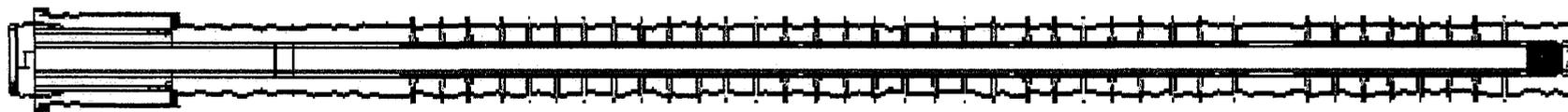
Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ff)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
7/9/2012 12:00AM	MESAVERDE/			7,494.0	7,496.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			7,512.0	7,514.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			7,658.0	7,659.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			7,672.0	7,673.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			7,688.0	7,689.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			7,709.0	7,710.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			7,774.0	7,775.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			7,788.0	7,789.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			7,813.0	7,814.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			7,861.0	7,863.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			7,888.0	7,890.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			7,963.0	7,965.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			8,010.0	8,012.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			8,123.0	8,125.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			8,190.0	8,193.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			8,236.0	8,238.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			8,315.0	8,317.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			8,400.0	8,402.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			8,458.0	8,460.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			8,522.0	8,524.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			8,683.0	8,684.0	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
7/9/2012 12:00AM	MESAVERDE/			8,699.0	8,700.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			8,739.0	8,741.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			8,781.0	8,783.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			8,842.0	8,844.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			8,945.0	8,947.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			8,962.0	8,965.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			9,148.0	9,150.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			10,231.0	10,232.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			10,248.0	10,250.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			10,275.0	10,277.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			10,295.0	10,297.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			10,348.0	10,350.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			10,397.0	10,399.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			10,412.0	10,414.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
7/9/2012 12:00AM	MESAVERDE/			10,448.0	10,449.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic





# **Kerr McGee Oil and Gas Onshore LP**

**Uintah County, UT UTM12  
NBU 922-30B PAD  
NBU 922-30B4BS**

**OH**

**Survey: Survey #2 SDI MWD PRODUCTION**

## **Standard Survey Report**

**25 June, 2012**



**Company:** Kerr McGee Oil and Gas Onshore LP  
**Project:** Uintah County, UT UTM12  
**Site:** NBU 922-30B PAD  
**Well:** NBU 922-30B4BS  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well NBU 922-30B4BS  
**TVD Reference:** GL 4966 & KB 14 @ 4980.00ft (ENSIGN 139)  
**MD Reference:** GL 4966 & KB 14 @ 4980.00ft (ENSIGN 139)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000.1 Single User Db

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

<b>Site</b>	NBU 922-30B PAD, SECTION 30 T9S R22E				
<b>Site Position:</b>		<b>Northing:</b>	14,533,756.54 usft	<b>Latitude:</b>	40.011209
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,066,059.56 usft	<b>Longitude:</b>	-109.479946
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	0.98 °

<b>Well</b>	NBU 922-30B4BS, 1141 FNL 2039 FEL					
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	14,533,745.91 usft	<b>Latitude:</b>	40.011179
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	2,066,076.83 usft	<b>Longitude:</b>	-109.479885
<b>Position Uncertainty</b>	0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	4,966.00 ft	

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	06/02/11	11.07	65.88	52,341

<b>Design</b>	OH				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	125.48	

<b>Survey Program</b>	<b>Date</b>	06/25/12			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
10.00	2,641.00	Survey #1 SDI MWD SURFACE (OH)	MWD SDI	MWD - Standard ver 1.0.1	
2,793.00	10,725.00	Survey #2 SDI MWD PRODUCTION (OH)	MWD SDI	MWD - Standard ver 1.0.1	

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)	
2,641.00	16.36	49.04	2,620.23	115.76	150.56	55.41	0.00	0.00	0.00	
2,793.00	14.05	43.56	2,766.91	143.17	179.44	63.02	1.79	-1.52	-3.61	
<b>FIRST SDI MWD PRODUCTION SURVEY</b>										
2,883.00	14.32	47.41	2,854.17	158.62	195.16	68.86	1.09	0.30	4.28	
2,974.00	13.65	49.27	2,942.47	173.24	211.59	71.74	0.89	-0.74	2.04	
3,064.00	13.05	50.53	3,030.04	186.63	227.48	76.91	0.74	-0.67	1.40	
3,155.00	12.85	54.58	3,118.73	199.03	243.66	82.89	1.02	-0.22	4.45	
3,245.00	13.33	55.50	3,206.39	210.70	260.36	89.72	0.58	0.53	1.02	
3,336.00	12.51	56.60	3,295.08	222.07	277.24	96.86	0.94	-0.90	1.21	
3,426.00	10.49	52.64	3,383.27	232.41	291.89	102.79	2.41	-2.24	-4.40	

**Company:** Kerr McGee Oil and Gas Onshore LP  
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**Design:** OH

**Local Co-ordinate Reference:** Well NBU 922-30B4BS  
**TVD Reference:** GL 4966 & KB 14 @ 4980.00ft (ENSIGN 139)  
**MD Reference:** GL 4966 & KB 14 @ 4980.00ft (ENSIGN 139)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000.1 Single User Db

**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)
3,520.00	8.81	54.09	3,475.94	241.83	304.52	107.61	1.81	-1.79	1.54
3,607.00	7.55	50.13	3,562.05	249.40	314.30	111.19	1.59	-1.45	-4.55
3,698.00	6.29	48.16	3,652.39	256.56	322.61	113.79	1.41	-1.38	-2.16
3,788.00	5.21	49.85	3,741.93	262.48	329.40	115.89	1.21	-1.20	1.88
3,879.00	4.87	50.06	3,832.58	267.62	335.52	117.89	0.37	-0.37	0.23
3,969.00	3.57	63.61	3,922.34	271.32	340.96	120.17	1.81	-1.44	15.06
4,060.00	1.51	38.94	4,013.25	273.51	344.25	121.58	2.51	-2.26	-27.11
4,150.00	0.36	230.59	4,103.24	274.26	344.78	121.58	2.07	-1.28	-187.06
4,241.00	0.44	219.51	4,194.24	273.81	344.34	121.48	0.12	0.09	-12.18
4,332.00	0.57	231.71	4,285.23	273.26	343.76	121.33	0.18	0.14	13.41
4,422.00	0.53	244.91	4,375.23	272.80	343.03	121.00	0.15	-0.04	14.67
4,513.00	0.47	216.30	4,466.23	272.32	342.43	120.78	0.28	-0.07	-31.44
4,603.00	0.95	195.86	4,556.22	271.31	342.01	121.03	0.59	0.53	-22.71
4,694.00	1.16	191.46	4,647.20	269.68	341.62	121.66	0.25	0.23	-4.84
4,784.00	1.41	174.52	4,737.18	267.68	341.54	122.75	0.50	0.28	-18.82
4,875.00	0.97	164.76	4,828.16	265.83	341.85	124.08	0.53	-0.48	-10.73
4,965.00	1.14	163.09	4,918.15	264.23	342.31	125.38	0.19	0.19	-1.86
5,056.00	1.14	183.22	5,009.13	262.46	342.52	126.58	0.44	0.00	22.12
5,146.00	1.06	166.60	5,099.11	260.76	342.67	127.69	0.36	-0.09	-18.47
5,237.00	1.92	156.46	5,190.08	258.54	343.47	129.63	0.98	0.95	-11.14
5,327.00	0.57	68.22	5,280.06	257.33	344.49	131.16	2.21	-1.50	-98.04
5,418.00	0.29	50.41	5,371.06	257.64	345.09	131.47	0.34	-0.31	-19.57
5,509.00	0.34	253.43	5,462.06	257.71	345.01	131.36	0.68	0.05	-172.51
5,599.00	0.28	205.66	5,552.06	257.44	344.65	131.23	0.29	-0.07	-53.08
5,689.00	0.42	162.29	5,642.06	256.93	344.66	131.54	0.32	0.16	-48.19
5,780.00	0.62	185.68	5,733.05	256.12	344.71	132.05	0.32	0.22	25.70
5,871.00	1.01	181.23	5,824.04	254.83	344.65	132.74	0.43	0.43	-4.89
5,961.00	1.09	167.75	5,914.03	253.20	344.81	133.82	0.29	0.09	-14.98
6,052.00	1.14	175.97	6,005.01	251.45	345.06	135.04	0.18	0.05	9.03
6,142.00	0.80	157.97	6,095.00	249.97	345.36	136.14	0.50	-0.38	-20.00
6,233.00	0.68	158.72	6,185.99	248.88	345.79	137.13	0.13	-0.13	0.82
6,323.00	1.05	166.73	6,275.98	247.58	346.17	138.19	0.43	0.41	8.90
6,414.00	1.32	149.60	6,366.96	245.86	346.90	139.78	0.49	0.30	-18.82
6,504.00	0.97	179.88	6,456.94	244.21	347.42	141.17	0.76	-0.39	33.64
6,595.00	0.13	211.05	6,547.94	243.35	347.37	141.62	0.95	-0.92	34.25
6,685.00	1.76	1.37	6,637.92	244.64	347.35	140.86	2.08	1.81	167.02
6,776.00	1.15	0.20	6,728.90	246.95	347.39	139.55	0.67	-0.67	-1.29
6,866.00	1.06	6.38	6,818.88	248.69	347.48	138.62	0.17	-0.10	6.87
6,957.00	0.88	24.31	6,909.87	250.16	347.86	138.07	0.39	-0.20	19.70
7,047.00	0.89	10.00	6,999.85	251.48	348.27	137.64	0.25	0.01	-15.90
7,138.00	0.74	14.79	7,090.85	252.74	348.54	137.13	0.18	-0.16	5.26
7,228.00	0.27	76.97	7,180.84	253.35	348.90	137.06	0.73	-0.52	69.09
7,319.00	0.23	131.32	7,271.84	253.28	349.24	137.39	0.25	-0.04	59.73

**Company:** Kerr McGee Oil and Gas Onshore LP  
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**Well:** NBU 922-30B4BS  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well NBU 922-30B4BS  
**VTD Reference:** GL 4966 & KB 14 @ 4980.00ft (ENSIGN 139)  
**MD Reference:** GL 4966 & KB 14 @ 4980.00ft (ENSIGN 139)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000.1 Single User Db

**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)
7,409.00	1.60	33.28	7,361.83	254.21	350.07	137.52	1.83	1.52	-108.93
7,500.00	1.14	33.27	7,452.80	256.03	351.26	137.43	0.51	-0.51	-0.01
7,590.00	1.11	55.43	7,542.79	257.27	352.47	137.70	0.48	-0.03	24.62
7,681.00	0.62	62.63	7,633.78	258.00	353.63	138.22	0.55	-0.54	7.91
7,772.00	0.67	113.57	7,724.77	258.01	354.56	138.97	0.61	0.05	55.98
7,862.00	0.68	119.54	7,814.76	257.54	355.51	140.01	0.08	0.01	6.63
7,952.00	0.57	121.08	7,904.76	257.04	356.35	140.99	0.12	-0.12	1.71
8,043.00	0.53	197.10	7,995.76	256.41	356.62	141.58	0.75	-0.04	83.54
8,134.00	0.79	2.25	8,086.75	256.63	356.52	141.36	1.44	0.29	181.48
8,224.00	0.62	359.52	8,176.75	257.74	356.54	140.74	0.19	-0.19	-3.03
8,315.00	0.18	181.11	8,267.75	258.09	356.53	140.53	0.88	-0.48	-196.05
8,405.00	0.79	304.77	8,357.74	258.30	356.02	139.99	1.00	0.68	137.40
8,496.00	0.99	325.03	8,448.73	259.30	355.05	138.62	0.41	0.22	22.26
8,586.00	0.79	298.88	8,538.72	260.24	354.07	137.27	0.50	-0.22	-29.06
8,677.00	0.53	329.64	8,629.72	260.91	353.30	136.27	0.47	-0.29	33.80
8,767.00	0.17	324.53	8,719.71	261.37	353.02	135.76	0.40	-0.40	-5.68
8,858.00	0.88	233.49	8,810.71	261.07	352.38	135.42	0.99	0.78	-100.04
8,948.00	0.97	211.52	8,900.70	260.01	351.42	135.25	0.40	0.10	-24.41
9,039.00	1.23	212.75	8,991.68	258.53	350.49	135.35	0.29	0.29	1.35
9,129.00	0.99	198.51	9,081.67	256.98	349.72	135.63	0.40	-0.27	-15.82
9,220.00	1.06	186.82	9,172.65	255.40	349.37	136.26	0.24	0.08	-12.85
9,310.00	1.23	186.56	9,262.63	253.61	349.16	137.13	0.19	0.19	-0.29
9,401.00	1.58	174.95	9,353.61	251.39	349.16	138.41	0.49	0.38	-12.76
9,491.00	1.49	161.07	9,443.57	249.05	349.65	140.17	0.42	-0.10	-15.42
9,582.00	1.06	177.24	9,534.55	247.09	350.07	141.66	0.61	-0.47	17.77
9,672.00	0.69	146.16	9,624.54	245.81	350.42	142.68	0.65	-0.41	-34.53
9,763.00	1.14	132.06	9,715.53	244.75	351.39	144.09	0.55	0.49	-15.49
9,853.00	1.04	128.14	9,805.51	243.64	352.70	145.80	0.14	-0.11	-4.36
9,944.00	1.25	133.00	9,896.49	242.46	354.08	147.60	0.25	0.23	5.34
10,035.00	1.36	136.93	9,987.47	240.99	355.54	149.65	0.16	0.12	4.32
10,126.00	1.49	152.01	10,078.44	239.16	356.83	151.76	0.43	0.14	16.57
10,216.00	1.80	151.61	10,168.41	236.88	358.05	154.08	0.34	0.34	-0.44
10,306.00	1.66	144.25	10,258.37	234.58	359.49	156.58	0.29	-0.16	-8.18
10,397.00	1.89	138.60	10,349.32	232.38	361.25	159.29	0.32	0.25	-6.21
10,487.00	1.84	149.25	10,439.27	230.03	362.97	162.06	0.39	-0.06	11.83
10,577.00	1.88	153.28	10,529.23	227.47	364.37	164.69	0.15	0.04	4.48
10,667.00	2.37	148.94	10,619.16	224.55	366.00	167.70	0.57	0.54	-4.82
<b>LAST SDI MWD PRODUCTION SURVEY</b>									
10,725.00	2.37	148.94	10,677.12	222.50	367.23	169.90	0.00	0.00	0.00
<b>SDI PROJECTION TO BIT</b>									

**Company:** Kerr McGee Oil and Gas Onshore LP  
**Project:** Uintah County, UT UTM12  
**Site:** NBU 922-30B PAD  
**Well:** NBU 922-30B4BS  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well NBU 922-30B4BS  
**TVD Reference:** GL 4966 & KB 14 @ 4980.00ft (ENSIGN 139)  
**MD Reference:** GL 4966 & KB 14 @ 4980.00ft (ENSIGN 139)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 5000.1 Single User Db

**Survey Annotations**

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,793.00	2,766.91	143.17	179.44	FIRST SDI MWD PRODUCTION SURVEY
10,667.00	10,619.16	224.55	366.00	LAST SDI MWD PRODUCTION SURVEY
10,725.00	10,677.12	222.50	367.23	SDI PROJECTION TO BIT

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU463
<b>1. TYPE OF WELL</b> Gas Well		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		<b>8. WELL NAME and NUMBER:</b> NBU 922-30B4BS
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1141 FNL 2039 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNE Section: 30 Township: 09.0S Range: 22.0E Meridian: S		<b>9. API NUMBER:</b> 43047516730000
<b>PHONE NUMBER:</b> 720 929-6582		<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
<b>COUNTY:</b> UINTAH		<b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<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"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PLUG BACK <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input checked="" type="checkbox"/> OTHER	
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <b>10/7/2013</b>	<input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text" value="Production Enhancement"/>	
<input type="checkbox"/> SPUD REPORT Date of Spud:		
<input type="checkbox"/> DRILLING REPORT Report Date:		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. The operator conducted the following workover/wellbore cleanout on the subject well on 10/07/2013. Please see the attached chronological well history for details. Thank you.		
<b>NAME (PLEASE PRINT)</b> Kay E. Kelly	<b>PHONE NUMBER</b> 720 929 6582	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 12/4/2013	

**US ROCKIES REGION**  
**Operation Summary Report**

US ROCKIES REGION								
Operation Summary Report								
Well: NBU 922-30B4BS (YELLOW)					Spud Date: 3/13/2012			
Project: UTAH-UINTAH			Site: NBU 922-30B PAD			Rig Name No: SWABBCO 8/8		
Event: WELL WORK EXPENSE			Start Date: 9/30/2013		End Date: 10/7/2013			
Active Datum: RKB @4,980.00usft (above Mean Sea Level)				UWI: NW/NE/0/9/S/22/E/30/0/0/26/PM/N/1141/E/0/2039/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/30/2013	6:45 - 7:00	0.25	MAINT	48		P		HSM, JSA
	7:00 - 9:00	2.00	MAINT	30	A	P		MIRU, 115# FCP, CONTROL WELL W/ 20 BBLS T-MAC, ND WH, NU BOP'S, RU FLOOR & TBG EQUIP UNLAND TBG, TBG IS STUCK, WORK STUCK TBG
	9:00 - 10:00	1.00	MAINT	31	I	P		MIRU DELSCO, RIH W/ JDC, LATCH BUMPER SPRING @ 10,195', POOH W/ BUMPER SPRING, RD DELSCO
	10:00 - 11:00	1.00	MAINT	35	D	P		DROP STANDING VALVE & FILL TBG W/ , WORK STUCK TBG
	11:00 - 12:30	1.50	MAINT	31		P		MIRU CUTTERS WIRELINE, RIH W/ STUCK PIPE LOG, FIND TBG BONDED FROM 9136' TO 9200', POOH W/ LOG, RIH W/ CHEMICAL CUTTER, CUT TBG @ 9125', POOH RD CUTTERS
	12:30 - 15:30	3.00	MAINT	34	A	P		MIRU SCAN TECH, TOO H & SCAN 136 JTS 2-3/8" TBG, SDFN
10/1/2013	6:45 - 7:00	0.25	MAINT	48		P		HSM, JSA
	7:00 - 9:00	2.00	MAINT	31	I	P		115# FCP, CONTROL WELL W/ 15 BBLS T-MAC, TOO H & SCAN 2-3/8" TBG, SCAN SHOWED 282 GOOD JTS & 5 JTS WERE REJECTED DUE TO EXTERNAL PITTING, RD SCAN TECH
	9:00 - 12:00	3.00	MAINT	31	I	P		P/U 3-7/8" SHOE, 5 JTS OF WASH PIPE, TOP SUB, & JARS, TIH W/ 2-3/8" TBG TO FISH TOP @ 9125'
	12:00 - 17:45	5.75	MAINT	31	B	P		MIRU PWR SWVL, MIRU WEATHERFORD FOAM, ESTB CIRC IN 1HR 45MINS, WASH OVER FROM 9125' TO 9170' & SHOE GAVE UP COULDNTY MAKE ANY MORE HOLE
	17:45 - 18:30	0.75	MAINT	31	I	P		TOOH W/ 31 STANDS TO GET ABOVE TOP PERF, SDFN
10/2/2013	6:45 - 7:00	0.25	MAINT	48		P		HSM, JSA
	7:00 - 11:30	4.50	MAINT	31	I	P		400# SICP, CONTROL WELL W/ 20 BBLS T-MAC, TOO H W/ 2-3/8" TBG, CHANGE SHOE, TIH TO 9170'
	11:30 - 15:30	4.00	MAINT	31	B	P		P/U PWR SWVL, ESTB CIRC IN 1HR 30MINS, WASH OVER 1-1/2' & SHOE QUIT MAKING HOLE
	15:30 - 18:30	3.00	MAINT	31	I	P		TOOH W/ 2-3/8" TBG, LD WORN OUT SHOE, SDFN
10/3/2013	6:45 - 7:00	0.25	MAINT	48		P		HSM, JSA
	7:00 - 9:30	2.50	MAINT	31	I	P		400# SICP CONTROL WELL W/ 20 BBLS T-MAC, P/U NEW SHOE, TIH W/ 2-3/8" TBG
	9:30 - 14:00	4.50	MAINT	31	B	P		P/U PWR SWVL, ESTB CIRC IN 1HR 30MINS, WASH OVER FROM 9171' TO 9200' & TBG FELL FREE, TIH TAG FISH TOP @ 9489', WASH OVER FROM 9489' TO 9625'
10/4/2013	14:00 - 17:00	3.00	MAINT	31	I	P		TOOH W/ 2-3/8" TBG, LD WASH PIPE & SHOE, SDFN
	6:45 - 7:00	0.25	MAINT	48		P		HSM, JSA
	7:00 - 16:00	9.00	MAINT	31	B	P		800# SICP, CONTROL WELL W/ 30 BBLS T-MAC, P/U OVERSHOT & JARS, TIH W/ 2-3/8" TBG, TAG FISH TOP @ 9489', COULEDNT GET OVERSHOT TO GO OVER FISH TOP, TOO H W/ TBG LD OVERSHOT, P/U 3-3/4" OVERSHOT, 1 JNT OF WASH PIPE & JARS, TIH TO TOP PERF, SDFWE
10/7/2013	6:45 - 7:00	0.25	MAINT	48		P		HSM,JSA

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 922-30B4BS (YELLOW)		Spud Date: 3/13/2012	
Project: UTAH-UINTAH		Site: NBU 922-30B PAD	Rig Name No: SWABBCO 8/8
Event: WELL WORK EXPENSE		Start Date: 9/30/2013	End Date: 10/7/2013
Active Datum: RKB @4,980.00usft (above Mean Sea Level)		UWI: NW/NE/0/9/S/22/E/30/0/0/26/PM/N/1141/E/0/2039/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 12:30	5.50	MAINT	31	B	P		200# FCP, CONTROL WELL W/ 20 BBLS T-MAC, TIH W/ 1 JNT OF WASH PIPE & OVERSHOT, LATCH FISH, TOOH W/ 2-3/8" TBG, LD JARS, 1 JNT OF WASH PIPE & OVERSHOT, LD 34 JTS OF 2-3/8" TBG
	12:30 - 16:30	4.00	MAINT	31	I	P		M/U LSN, TIH W/ 2-3/8" TBG, BROACH TBG W/ 1.910 BROACH TO LSN, LAND TBG ON HANGER W/ 321 JTS 2-3/8" P-110
	16:30 - 18:00	1.50	MAINT	30	C	P		ND BOP'S, NU WH, SWI, RD
								KB 14'
								HANGER .83'
								321 JTS 2-3/8" P-110 10163.50'
								LSN 1.50'
								EOT @ 10179.83'

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5.LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU463
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7.UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 922-30B4BS
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047516730000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6100  <b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1141 FNL 2039 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNE Section: 30 Township: 09.0S Range: 22.0E Meridian: S	<b>COUNTY:</b> Uintah  <b>STATE:</b> 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"/> 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 checked="" 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: WELLBORE CLEANOUT
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 5/15/2014			
<input type="checkbox"/> SPUD REPORT Date of Spud:			
<input type="checkbox"/> DRILLING REPORT Report Date:			

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

THE OPERATOR HAS COMPLETED THE FOLLOWING  
 WORKOVER/WELLBORE CLEANOUT ON THE SUBJECT WELL ON  
 05/15/2014. SEE ATTACHED OPERATIONS SUMMARY REPORT.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 May 20, 2014

<b>NAME (PLEASE PRINT)</b> Doreen Green	<b>PHONE NUMBER</b> 435 781-9758	<b>TITLE</b> Regulatory Analyst II
<b>SIGNATURE</b> N/A	<b>DATE</b> 5/19/2014	

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 922-30B4BS (YELLOW)		Spud Date: 3/13/2012	
Project: UTAH-UINTAH		Site: NBU 922-30B PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: WELL WORK EXPENSE		Start Date: 5/13/2014	End Date: 5/15/2014
Active Datum: RKB @4,980.00usft (above Mean Sea Level)		UWI: NW/NE/0/9/S/22/E/30/0/0/26/PM/N/1141/E/0/2039/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
5/14/2014	10:00 - 13:00	3.00	MAINT	30	A	P		ROAD RIG FROM NBU 922-31D4BS TO NBU 922-30B4BS, MIRU 90# FCP, CONTROL WELL W/ 10 BBLs T-MAC, ND WH, NU BOP'S, RU FLOOR & TBG EQUIP
	13:00 - 18:00	5.00	MAINT	31	I	P		UNLAND TBG, PULL UP TO 75K & TBG CAME FREE, MIRU SCAN TECH, TOO H & SCAN 2-3/8" TBG, SCAN SHOWED 321 GOOD JTS & 0 BAD, RD SCAN TECH, SWI, SDFN
5/15/2014	7:00 - 7:15	0.25	MAINT	48		P		HSM, JSA
	7:15 - 12:00	4.75	MAINT	31	I	P		800# SICP, CONTROL WELL W/ 20 BBLs T-MAC, MU 3-7/8" MILL & POBS, TIH W/ 2-3/8" TBG, TAG OLD POBS @ 10575' (126' BELOW BTM PERF), TOO H & LD 12 JTS TBG ON TRAILER, BROACH TBG TO XN W/ 1.910 BROCH, LAND TBG ON HANGER W/ 321 JTS P-110, DROP BALL & PUMP BIT OFF
	12:00 - 15:00	3.00	MAINT	30	C	P		ND BOP'S, NU WH, SWI, RDMO
								KB 14'
								HANGER .83'
								321 JTS 2-3/8" P-110 10163.50'
								POBS W/ 1.87 XN 2.20'
								EOT @ 10179.83'
								TWLTR 190 BBLs