API Well Number: 43047516670000

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

FORM 3

AMENDED REPORT ☑

APPLICATION FOR PERMIT TO DRILL

1. WELL NAME and NUMBER
NBU 922-30A4BS

2. TYPE OF WORK
DRILL NEW WELL ◉ REENTER P&A WELL ○ DEEPEN WELL ○

3. FIELD OR WILDCAT
NATURAL BUTTES

4. TYPE OF WELL
Gas Well Coalbed Methane Well: NO

5. UNIT or COMMUNITIZATION AGREEMENT NAME
NATURAL BUTTES

6. NAME OF OPERATOR
KERR-MCGEE OIL & GAS ONSHORE, L.P.

7. OPERATOR PHONE
720 929-6515

8. ADDRESS OF OPERATOR
P.O. Box 173779, Denver, CO, 80217

9. OPERATOR E-MAIL
julie.jacobson@anadarko.com

10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)
UTU463

11. MINERAL OWNERSHIP
FEDERAL ◉ INDIAN ○ STATE ○ FEE ○

12. SURFACE OWNERSHIP
FEDERAL ◉ INDIAN ○ STATE ○ FEE ○

13. NAME OF SURFACE OWNER (if box 12 = 'fee')

14. SURFACE OWNER PHONE (if box 12 = 'fee')

15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')

16. SURFACE OWNER E-MAIL (if box 12 = 'fee')

17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')

18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS
YES ○ (Submit Commingling Application) NO ◉

19. SLANT
VERTICAL ○ DIRECTIONAL ◉ HORIZONTAL ○

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	987 FNL 502 FEL	NENE	30	9.0 S	22.0 E	S
Top of Uppermost Producing Zone	732 FNL 457 FEL	NENE	30	9.0 S	22.0 E	S
At Total Depth	732 FNL 457 FEL	NENE	30	9.0 S	22.0 E	S

21. COUNTY
UINTAH

22. DISTANCE TO NEAREST LEASE LINE (Feet)
457

23. NUMBER OF ACRES IN DRILLING UNIT
551

25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)
259

26. PROPOSED DEPTH
MD: 9542 TVD: 9529

27. ELEVATION - GROUND LEVEL
4925

28. BOND NUMBER
WYB000291

29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE
43-8496

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
SURF	11	8.625	0 - 2580	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8
							Class G	270	1.15	15.8
PROD	7.875	4.5	0 - 9542	11.6	I-80 LT&C	12.5	Premium Lite High Strength	310	3.38	11.0
							50/50 Poz	1260	1.31	14.3

ATTACHMENTS

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

- ☑ **WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER**
- ☑ **COMPLETE DRILLING PLAN**
- ☐ **AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)**
- ☐ **FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER**
- ☑ **DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)**
- ☑ **TOPOGRAPHICAL MAP**

NAME Laura Abrams	**TITLE** Regulatory Analyst II	**PHONE** 720 929-6356
SIGNATURE	**DATE** 06/14/2011	**EMAIL** Laura.Abrams@anadarko.com

API NUMBER ASSIGNED
43047516670000

APPROVAL

Permit Manager

RECEIVED: August 17, 2011

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 922-30A4BS

Surface:	987 FNL / 502 FEL	NENE
BHL:	732 FNL / 457 FEL	NENE

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:

Formation	Depth	Resource
Uinta	0 - Surface	
Green River	1426	
Birds Nest	1755	Water
Mahogany	2134	Water
Wasatch	4709	Gas
Mesaverde	7320	Gas
MVU2	8292	Gas
MVL1	8668	Gas
TVD	9529	
TD	9542	

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

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7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 9529' TVD, approximately equals 6,289 psi 0.64 psi/ft = actual bottomhole gradient

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

Maximum anticipated surface pressure equals approximately 3,989 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.

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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

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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.

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API Well Number: 43047516670000

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	June 13, 2011
WELL NAME	**NBU 922-30A4BS**	TD	9,529' TVD 9,542' MD
FIELD	Natural Buttes	COUNTY Uintah STATE Utah	FINISHED ELEVATION 4925'
SURFACE LOCATION	NENE 987 FNL 502 FEL Sec 30 T 9S R 22E		
	Latitude: 40.011564 Longitude: -109.475086		NAD 83
BTM HOLE LOCATION	NENE 732 FNL 457 FEL Sec 30 T 9S R 22E		
	Latitude: 40.012264 Longitude: -109.474925		NAD 83
OBJECTIVE ZONE(S)	Wasatch/Mesaverde		
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept.		

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
			12-1/4	8-5/8", 28#, IJ-55, LTC	Air mist
		200'			
			11'	8-5/8", 28#, IJ-55, LTC	Air mist
			7-7/8"	4-1/2" 11.6# I-80 or equivalent BTC/LTC csg	Water / Fresh Water Mud 8.3-12.5 ppg

All water flows encountered while drilling will be reported to the appropriate agencies.

Green River @ 1,426'

Top of Birds Nest @ 1,755'

Mahogany @ 2,134'

Preset f/ GL @ 2,580' TVD

Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.

Wasatch @ 4,709'

Mud logging program TBD

Cased hole logging program from TD - surf csg

Mverde @ 7,320' TVD

MVU2 @ 8,292' TVD

MVU1 @ 8,668' TVD

Max anticipated Mud required 12.5 ppg

TD @ 9,529' TVD 9,542' MD

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API Well Number: 43047516670000

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'									
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,580	28.00	IJ-55	LTC	2.10	1.56	5.50	N/A
								7,780	6,350	279,000	367,000
PRODUCTION	4-1/2"	0	to	9,542	11.60	I-80	LTC/BTC	1.11	1.03	3.12	4.10

Surface Casing:

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

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

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

Production casing:

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

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

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT		YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1			+ 0.25 pps flocele					
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
			+ 2% CaCl + 0.25 pps flocele					
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**					
Option 2	LEAD	2,080'	65/35 Poz + 6% Gel + 10 pps gilsonite	190	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	4,202'	Premium Lite II +0.25 pps	310	20%	11.00		3.38
			celloflake + 5 pps gilsonite + 10% gel					
			+ 0.5% extender					
	TAIL	5,340'	50/50 Poz/G + 10% salt + 2% gel	1,260	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: _____ **DATE:** _____

Nick Spence / Danny Showers

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Kenny Gathings / Lovel Young

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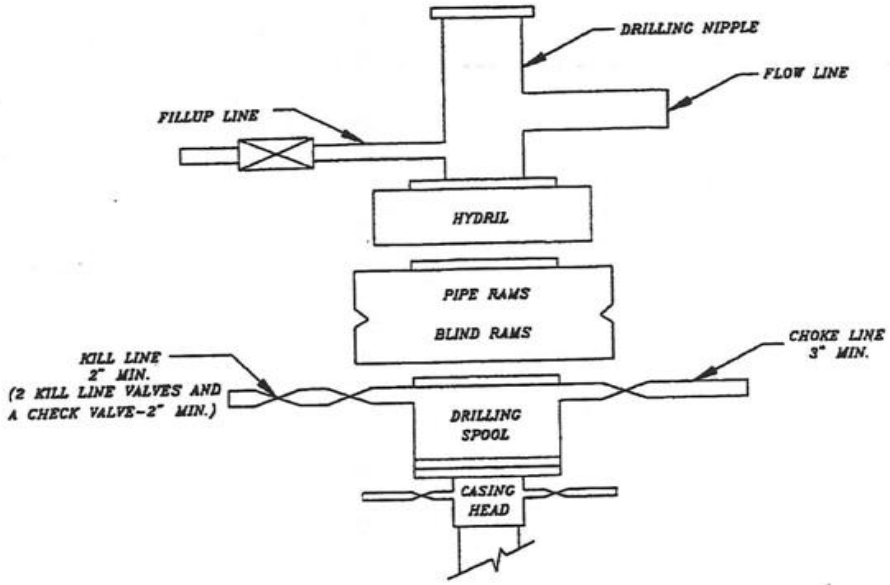
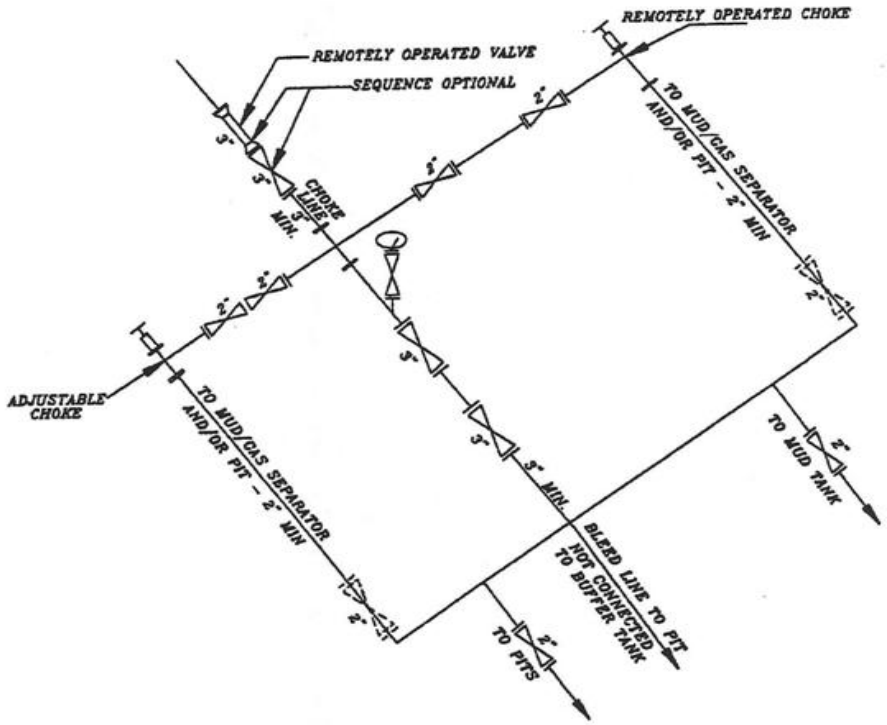
EXHIBIT A
NBU 922-30A4BS





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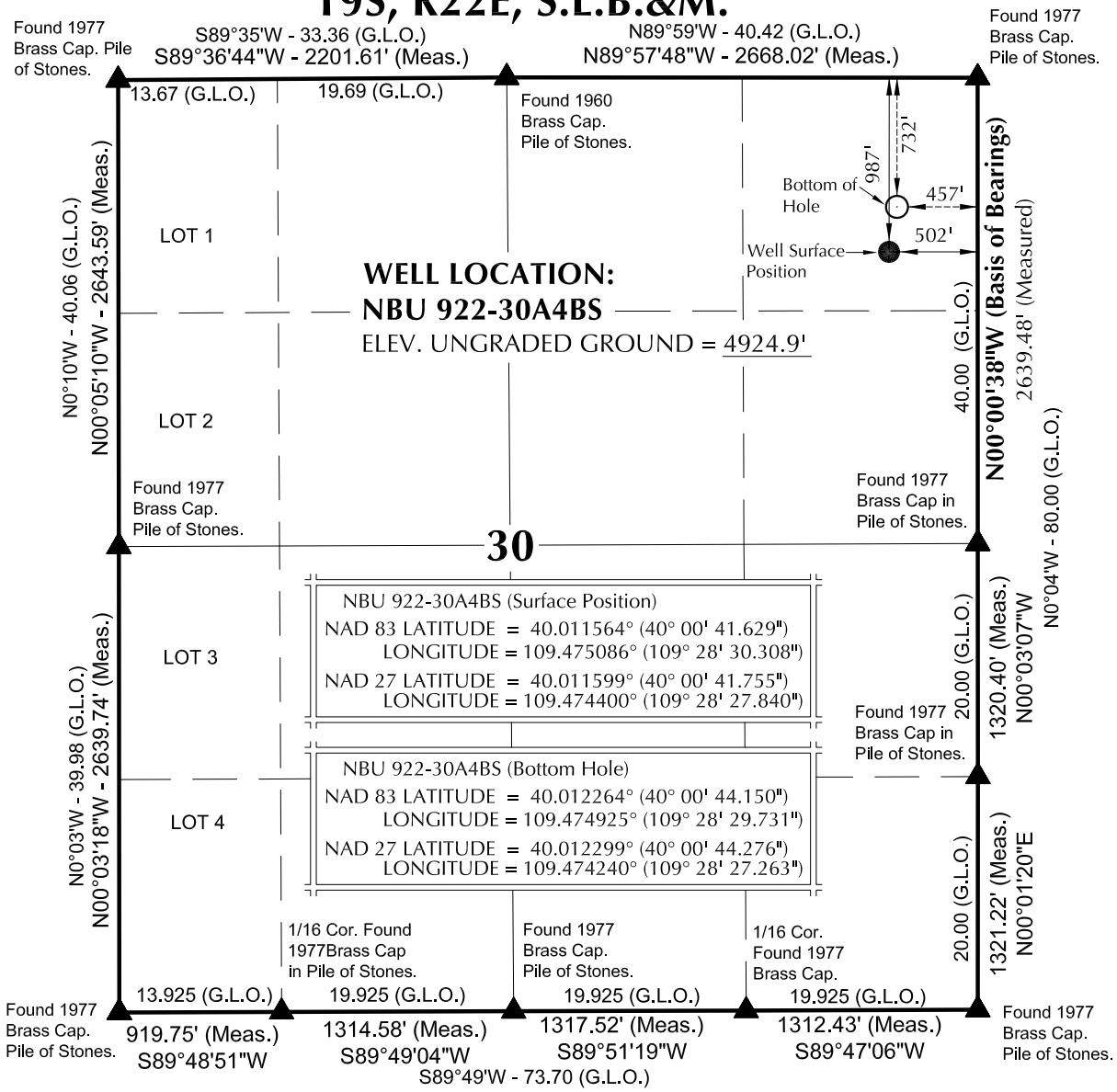
T9S, R22E, S.L.B.&M.



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 N09°59'14"E 259.09' 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 $\frac{1}{4}$ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

N

1000' 500' 0' 1000'

SCALE

SURVEYOR'S CERTIFICATE

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

PROFESSIONAL LAND SURVEYOR No.6028691 JOHN R BAUGH STATE OF UTAH

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

1-6-11

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

WELL PAD: NBU 922-30A

NBU 922-30A4BS
WELL PLAT
732' FNL, 457' FEL (Bottom Hole)
NE $\frac{1}{4}$ NE $\frac{1}{4}$ 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: 10-14-10	SURVEYED BY: M.S.B.	SHEET NO:
DATE DRAWN: 10-22-10	DRAWN BY: B.M.	3
SCALE: 1" = 1000'	Date Last Revised: 01-04-11 E.M.S.	3 OF 16

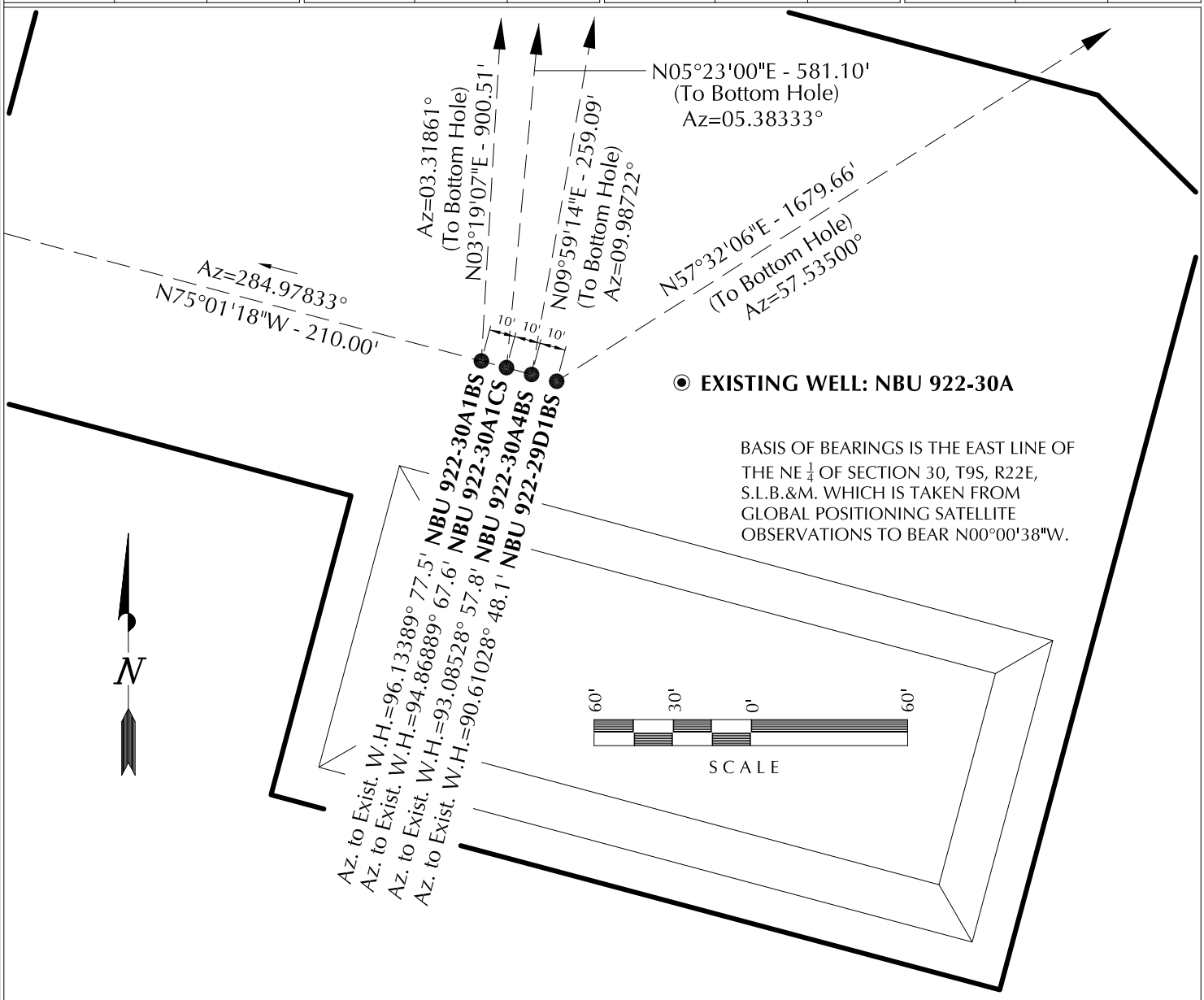
RECEIVED: June 14, 2011

API Well Number: 43047516670000

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 922-30A1BS	40°00'41.680" 40.011578°	109°28'30.556" 109.475154°	40°00'41.806" 40.011613°	109°28'28.088" 109.474469°	982' FNL 521' FEL	40°00'50.562" 40.014045°	109°28'29.888" 109.474969°	40°00'50.688" 40.014080°	109°28'27.420" 109.474283°	83' FNL 469' FEL
NBU 922-30A1CS	40°00'41.655" 40.011571°	109°28'30.432" 109.475120°	40°00'41.781" 40.011606°	109°28'27.964" 109.474434°	985' FNL 512' FEL	40°00'47.371" 40.013158°	109°28'29.732" 109.474926°	40°00'47.497" 40.013194°	109°28'27.265" 109.474240°	406' FNL 457' FEL
NBU 922-30A4BS	40°00'41.629" 40.011564°	109°28'30.308" 109.475086°	40°00'41.755" 40.011599°	109°28'27.840" 109.474400°	987' FNL 502' FEL	40°00'44.150" 40.012264°	109°28'29.731" 109.474925°	40°00'44.276" 40.012299°	109°28'27.263" 109.474240°	732' FNL 457' FEL
NBU 922-29D1BS	40°00'41.603" 40.011556°	109°28'30.184" 109.475051°	40°00'41.729" 40.011591°	109°28'27.716" 109.474366°	990' FNL 492' FEL	40°00'50.512" 40.014031°	109°28'11.976" 109.469993°	40°00'50.638" 40.014066°	109°28'09.509" 109.469308°	88' FNL 925' FWL
NBU 922-30A	40°00'41.598" 40.011555°	109°28'29.566" 109.474880°	40°00'41.724" 40.011590°	109°28'27.099" 109.474194°	990' FNL 444' FEL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 922-30A1BS	899.0'	52.1'	NBU 922-30A1CS	578.5'	54.5'	NBU 922-30A4BS	255.2'	44.9'	NBU 922-29D1BS	901.6'	1,417.2'



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

WELL PAD - NBU 922-30A

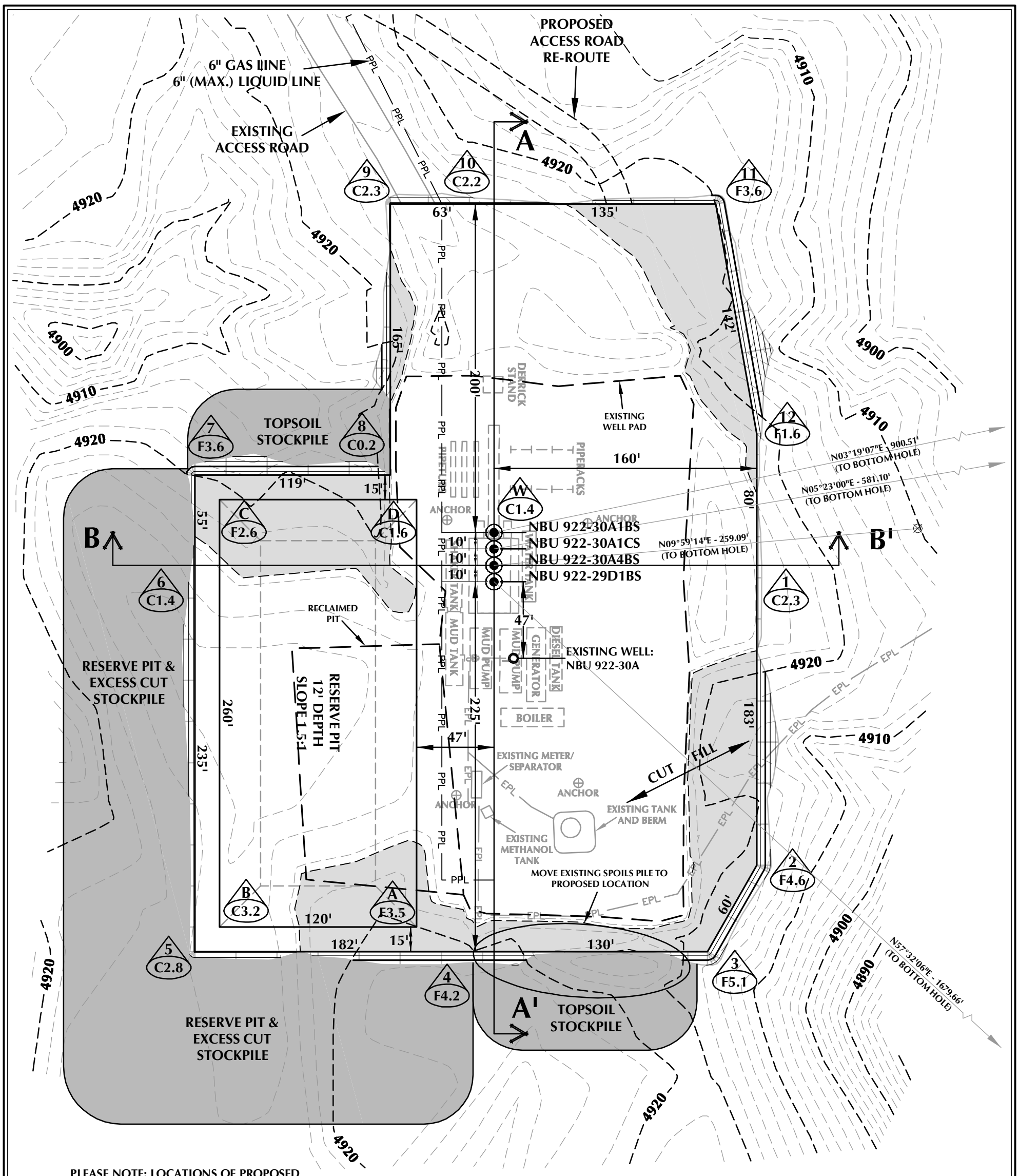
WELL PAD INTERFERENCE PLAT
WELLS - NBU 922-30A1BS, NBU 922-30A1CS, NBU 922-30A4BS & NBU 922-29D1BS
LOCATED IN SECTION 30, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

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: 10-14-10	SURVEYED BY: M.S.B.	SHEET NO:
DATE DRAWN: 10-22-10	DRAWN BY: B.M.	5
SCALE: 1" = 60'	Date Last Revised: 05-17-11 E.M.S.	5 OF 16

RECEIVED: June 14, 2011



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 922-30A DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 4924.9'
FINISHED GRADE ELEVATION = 4923.5'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.25 ACRES
TOTAL DISTURBANCE AREA = 4.61 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 8,036 C.Y.
TOTAL FILL FOR WELL PAD = 3,994 C.Y.
TOPSOIL @ 6" DEPTH = 1,685 C.Y.
EXCESS MATERIAL = 4,042 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

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

WELL PAD - NBU 922-30A

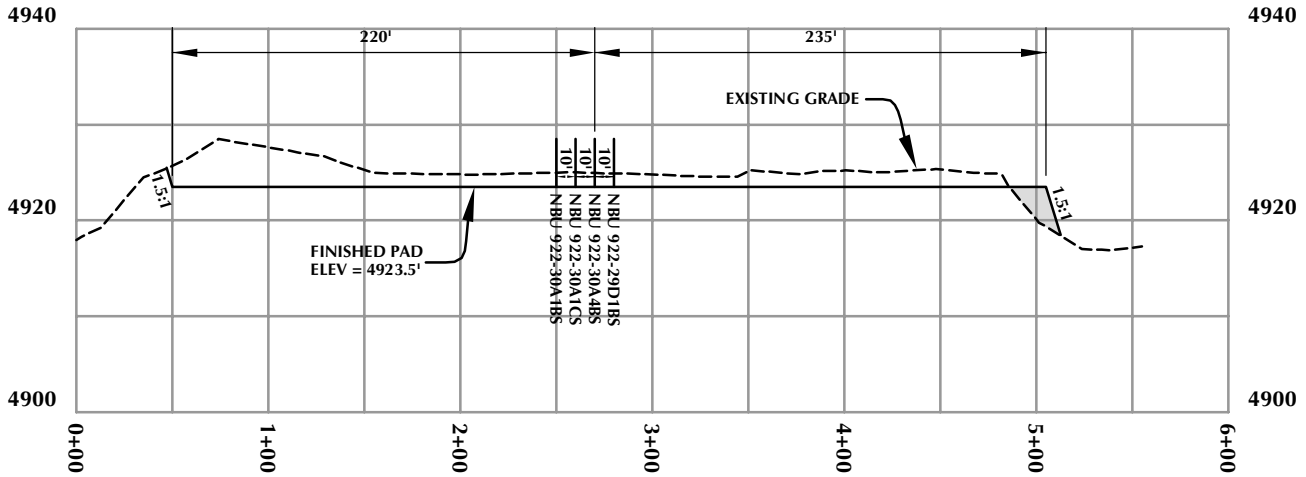
WELL PAD - LOCATION LAYOUT
NBU 922-30A1BS, NBU 922-30A1CS,
NBU 922-30A4BS & NBU 922-29D1BS
LOCATED IN SECTION 30, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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

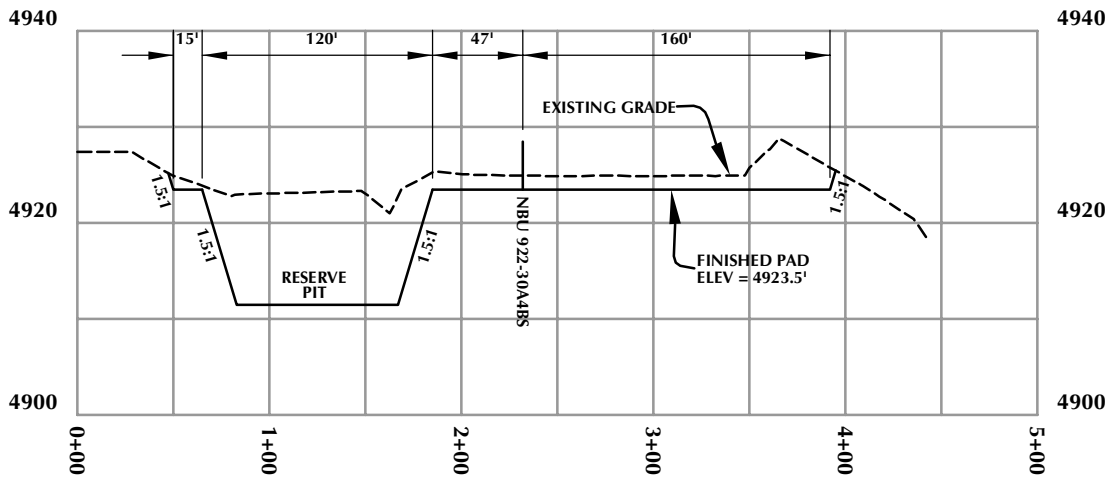
TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=60'	Date: 1/14/11	SHEET NO:
REVISED:	TAR 5/13/11	6 OF 16

RECEIVED: June 14, 2011



CROSS SECTION A-A'



CROSS SECTION B-B'

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

WELL PAD - NBU 922-30A

WELL PAD - CROSS SECTIONS
NBU 922-30A1BS, NBU 922-30A1CS,
NBU 922-30A4BS & NBU 922-29D1BS
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

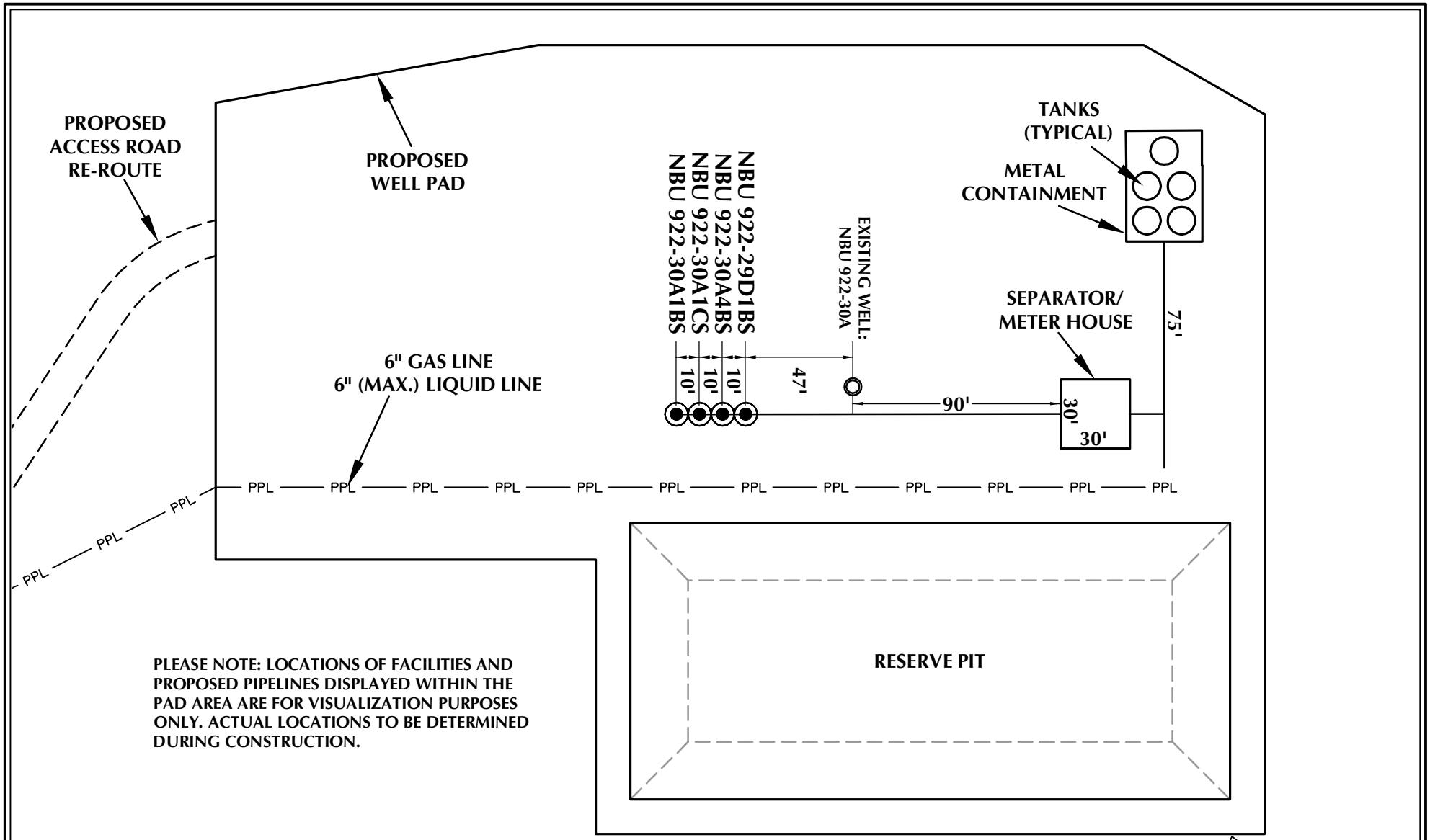
HORIZONTAL 0 50 100 1" = 100'
VERTICAL 0 10 20 1" = 20'

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

Scale: 1"=100' | Date: 1/14/11 | SHEET NO: 7
REVISED: TAR 5/13/11 | 7 OF 16

K:\ANADARKO\2010\2010_36_NBU_FOCUS_SEC_922-30\DWGS\NBU 922-30A\NBU_922-30A_PAD_REV_20110513.dwg, 5/12/2011 11:51:22 AM, tiffany

RECEIVED: June 14, 2011



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

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

WELL PAD - NBU 922-30A

WELL PAD - FACILITIES DIAGRAM
NBU 922-30A1BS, NBU 922-30A1CS, NBU 922-30A4BS & NBU 922-29D1BS
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

WELL PAD LEGEND

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

HORIZONTAL 0 30' 60' 1" = 60'

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

Scale: 1"=60'	Date: 1/14/11	SHEET NO:
REVISED:	TAR 5/13/11	8 8 OF 16

K:\ANADARKO\2010\2010_36_NBU_FOCUS_SEC_922-30\DWGS\NBU 922-30A\NBU_922-30A_PAD_REV_20110513.dwg, 5/12/2011 11:50:25 AM, tiffany

RECEIVED: June 14, 2011

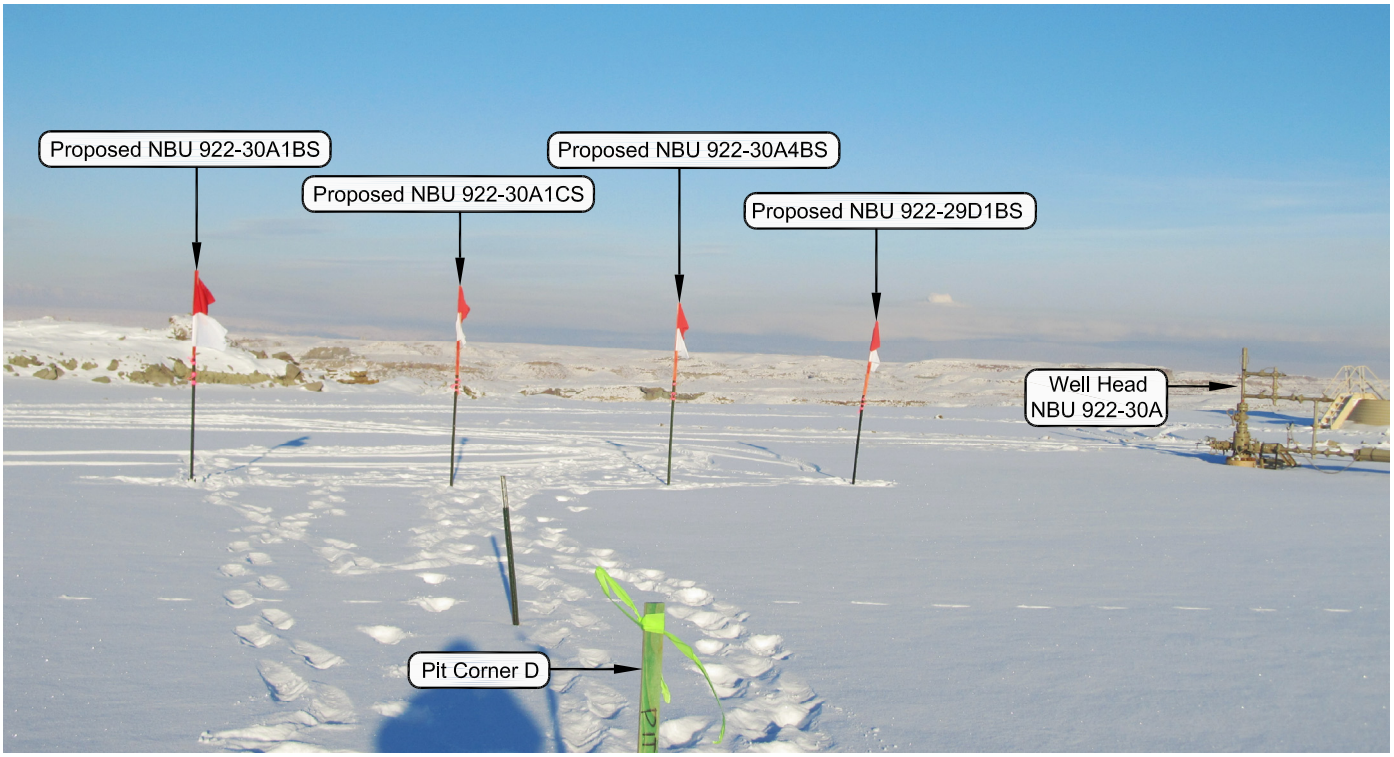


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE CAMERA ANGLE: NORTHEASTERLY

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 922-30A

LOCATION PHOTOS
NBU 922-30A1BS, NBU 922-30A1CS, NBU 922-30A4BS & NBU 922-29D1BS LOCATED IN SECTION 30, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

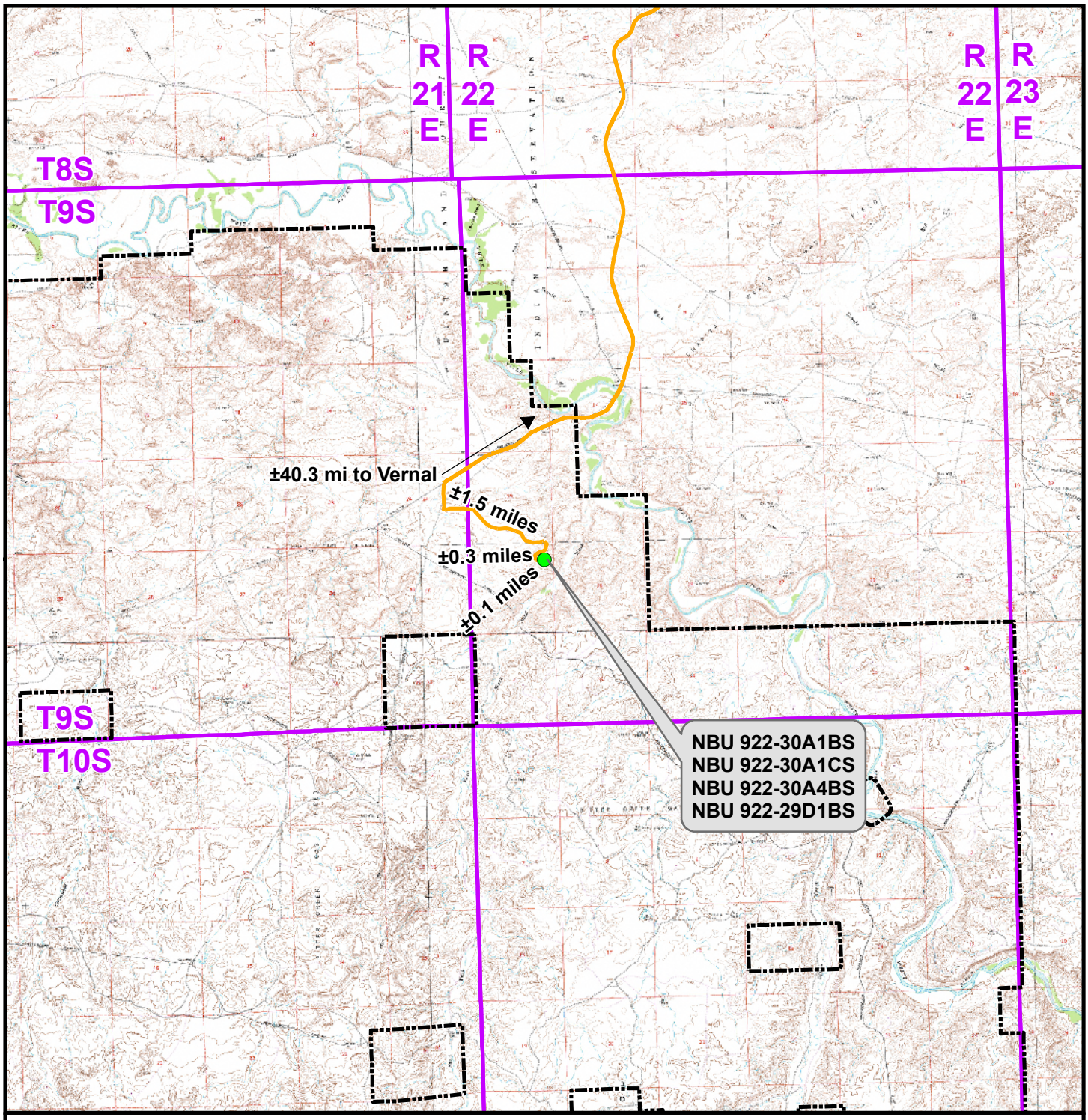
609
CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

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

DATE PHOTOS TAKEN: 01-04-11	PHOTOS TAKEN BY: M.S.B.	SHEET NO:
DATE DRAWN: 01-05-11	DRAWN BY: E.M.S.	9
Date Last Revised:		9 OF 16

RECEIVED: June 14, 2011

API Well Number: 43047516670000



Legend

Distance From Well Pad - NBU 922-30A To Unit Boundary: ±4,040ft

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

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

WELL PAD - NBU 922-30A

TOPO A
NBU 922-30A1BS, NBU 922-30A1CS, NBU 922-30A4BS & NBU 922-29D1BS
LOCATED IN SECTION 30, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

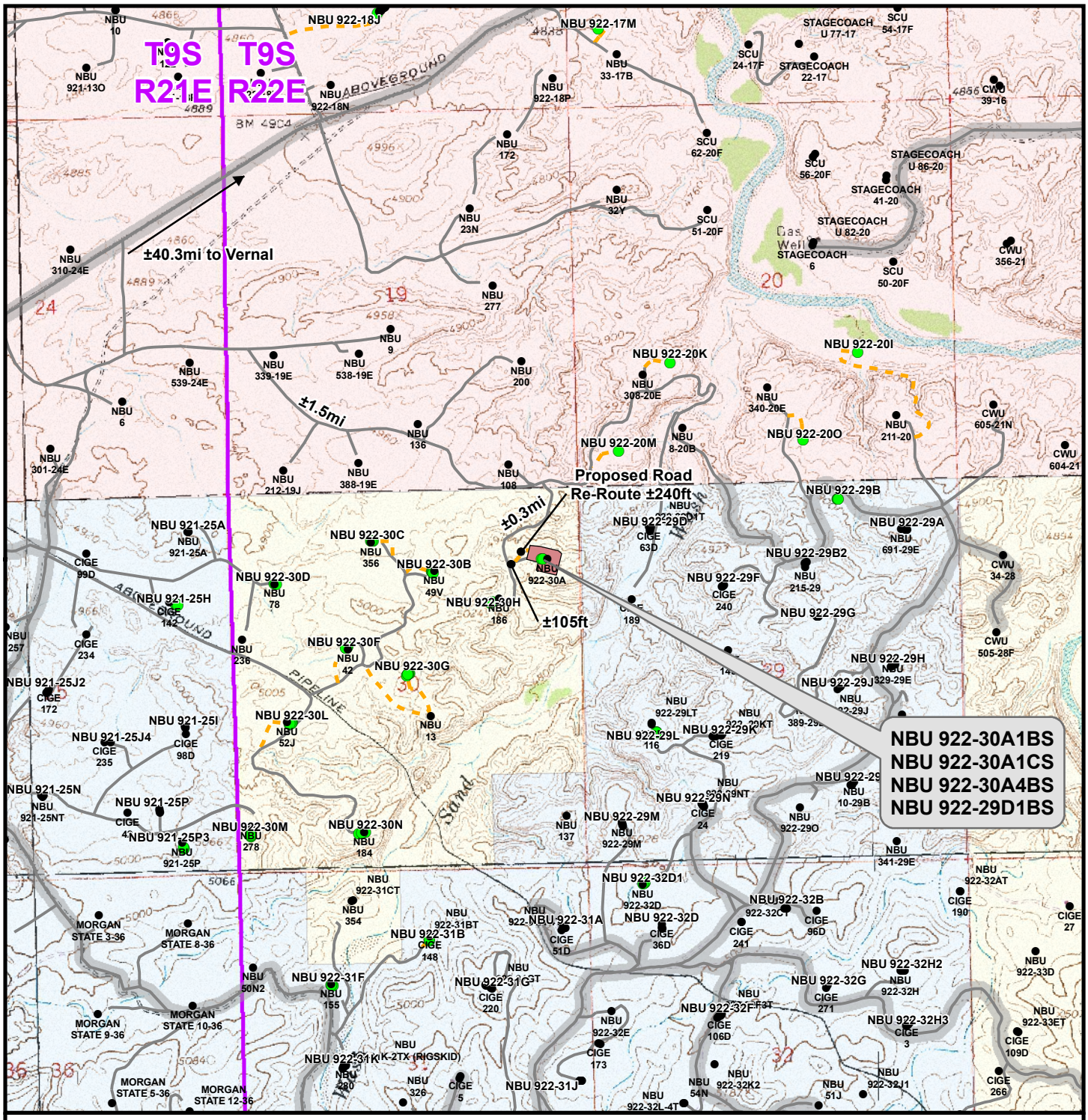
609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1:100,000	NAD83 USP Central		Sheet No: 10 10 of 16
Drawn: KGS	Date: 14 Jan 2011		
Revised:	Date:		

RECEIVED: June 14, 2011

API Well Number: 43047516670000



Legend

Total Proposed Road Re-Route Length: ±240ft

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

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

WELL PAD - NBU 922-30A

TOPO B
NBU 922-30A1BS, NBU 922-30A1CS, NBU 922-30A4BS & NBU 922-29D1BS
LOCATED IN SECTION 30, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

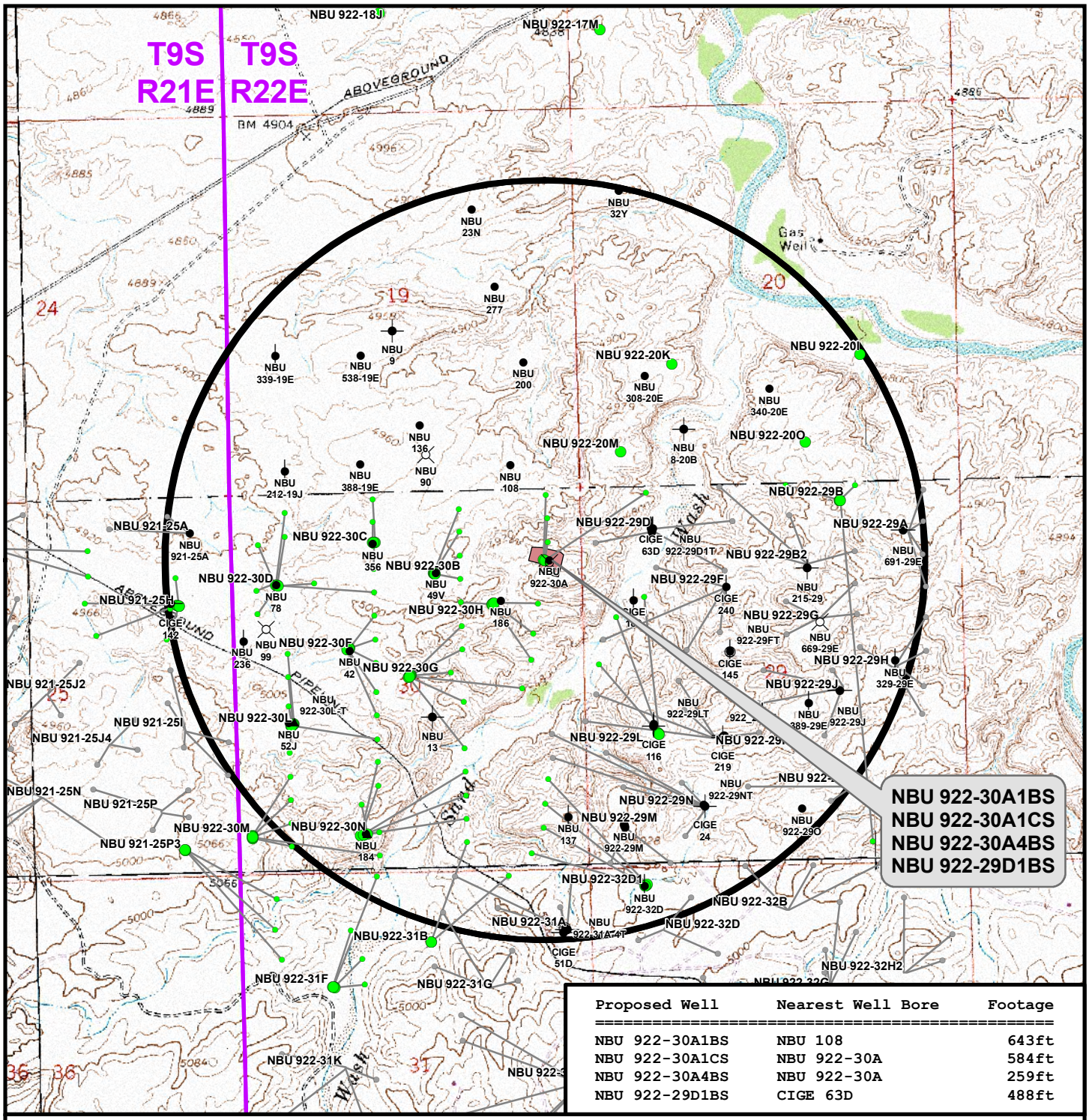
609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central		Sheet No: 11
Drawn: KGS	Date: 14 Jan 2011		11 of 16
Revised: KGS	Date: 13 May 2011		

RECEIVED: June 14, 2011

API Well Number: 43047516670000



Proposed Well	Nearest Well Bore	Footage
NBU 922-30A1BS	NBU 108	643ft
NBU 922-30A1CS	NBU 922-30A	584ft
NBU 922-30A4BS	NBU 922-30A	259ft
NBU 922-29D1BS	CIGE 63D	488ft

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

Legend

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

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

WELL PAD - NBU 922-30A

TOPO C
NBU 922-30A1BS, NBU 922-30A1CS, NBU 922-30A4BS & NBU 922-29D1BS
LOCATED IN SECTION 30, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

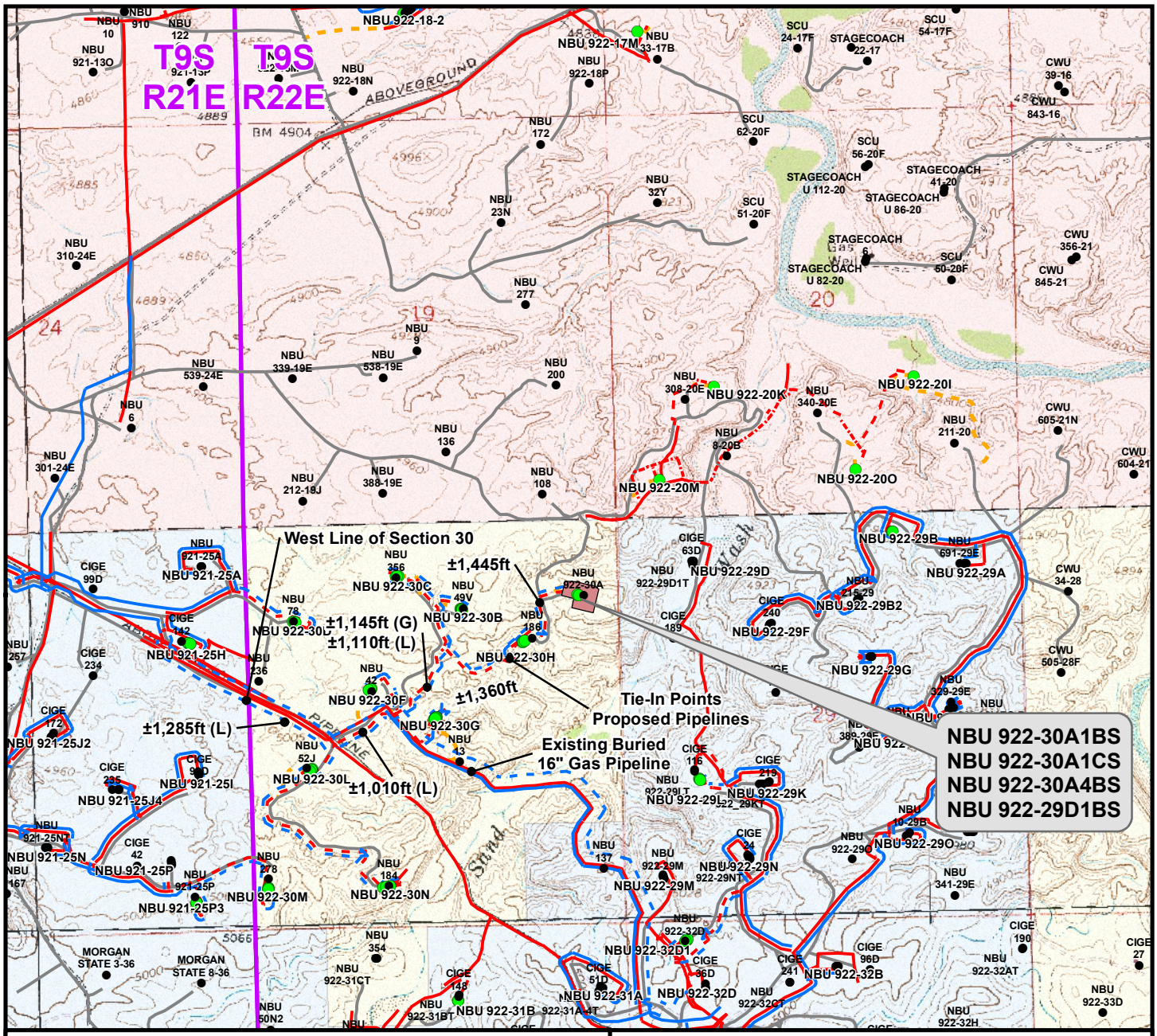
609 CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 12
Drawn: KGS	Date: 14 Jan 2011	12 of 16
Revised: KGS	Date: 13 May 2011	

RECEIVED: June 14, 2011

API Well Number: 43047516670000



Proposed Liquid Pipeline	Length
Buried 6"(Max.) (Meter House to Edge of Pad)	±475ft
Buried 6"(Max.) (Edge of Pad to 30H Intersection)	±1,445ft
TOTAL PROPOSED LIQUID PIPELINE =	±1,920ft

Proposed Gas Pipeline	Length
Buried 6" (Meter House to Edge of Pad)	±475ft
Buried 6" (Edge of Pad to 30H Intersection)	±1,445ft
TOTAL PROPOSED GAS PIPELINE =	±1,920ft

Legend

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

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

WELL PAD - NBU 922-30A

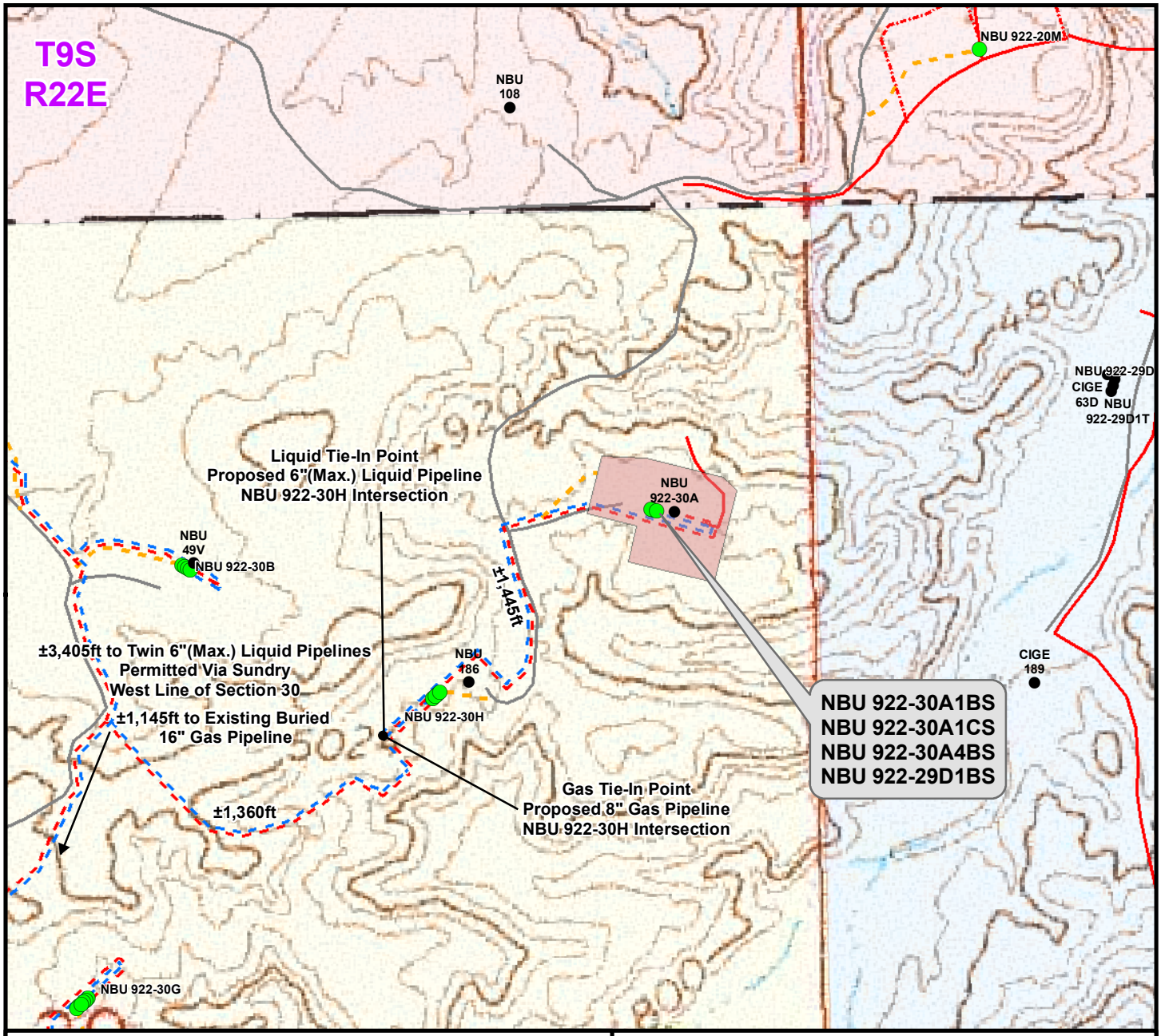
TOPO D
NBU 922-30A1BS, NBU 922-30A1CS, NBU 922-30A4BS & NBU 922-29D1BS
LOCATED IN SECTION 30, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

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

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: KGS	Date: 14 Jan 2011	13
Revised: TL	Date: 13 May 2011	13 of 16

RECEIVED: June 14, 2011



Proposed Liquid Pipeline	Length
Buried 6"(Max.) (Meter House to Edge of Pad)	±475ft
Buried 6"(Max.) (Edge of Pad to 30H Intersection)	±1,445ft
TOTAL PROPOSED LIQUID PIPELINE =	±1,920ft

Proposed Gas Pipeline	Length
Buried 6" (Meter House to Edge of Pad)	±475ft
Buried 6" (Edge of Pad to 30H Intersection)	±1,445ft
TOTAL PROPOSED GAS PIPELINE =	±1,920ft

Legend

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

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

WELL PAD - NBU 922-30A

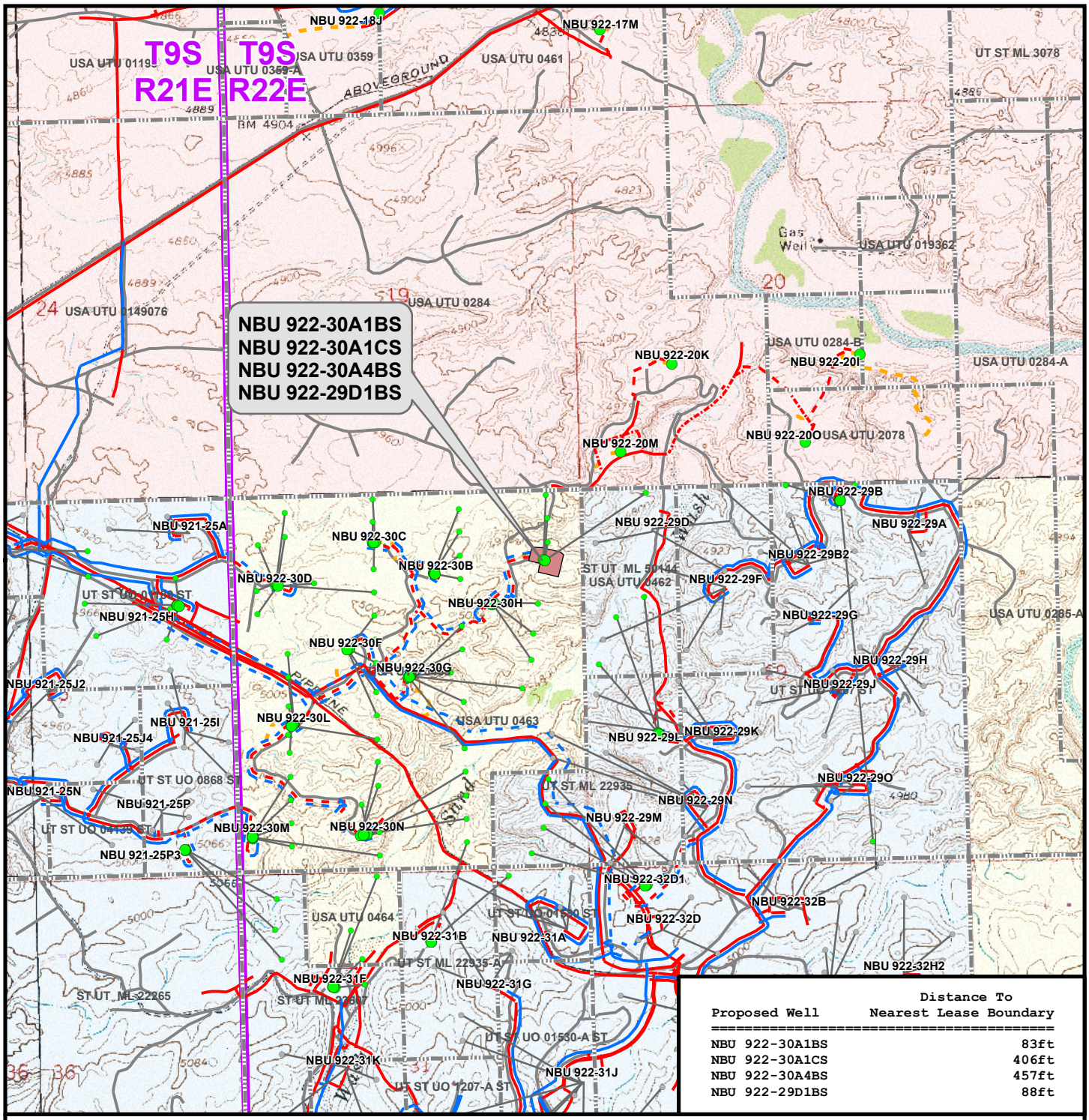
TOPO D2 (PAD & PIPELINE DETAIL)
NBU 922-30A1BS, NBU 922-30A1CS,
NBU 922-30A4BS & NBU 922-29D1BS
LOCATED IN SECTION 30, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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

N

Scale: 1" = 500ft	NAD83 USP Central		Sheet No: 14
Drawn: KGS	Date: 14 Jan 2011		14 of 16
Revised: TL	Date: 13 May 2011		

RECEIVED: June 14, 2011



Proposed Well	Distance To Nearest Lease Boundary
NBU 922-30A1BS	83ft
NBU 922-30A1CS	406ft
NBU 922-30A4BS	457ft
NBU 922-29D1BS	88ft

Legend

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

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

WELL PAD - NBU 922-30A

TOPO E
NBU 922-30A1BS, NBU 922-30A1CS, NBU 922-30A4BS & NBU 922-29D1BS
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

N

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: KGS	Date: 14 Jan 2011	15
Revised: TL	Date: 13 May 2011	15 of 16

RECEIVED: June 14, 2011

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 922-30A
WELLS – NBU 922-30A1BS, NBU 922-30A1CS,
NBU 922-30A4BS & NBU 922-29D1BS
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 16.8 miles to a service road to the south. Exit left and proceed in a southerly, then southeasterly direction along the service road approximately 1.5 miles to a second service road to the east. Exit right and proceed in a southeasterly, then southwesterly, then southerly direction along the service road approximately 0.3 miles to a second service road to the east. Exit left and proceed in an easterly direction along the second service road approximately 105 feet to the proposed access road. Follow road flags in a northeasterly direction approximately 220 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 42.2 miles in a southerly direction.

RECEIVED: June 14, 2011

API Well Number: 43047516670000

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT UTM12
Site: NBU 922-30A PAD
Well: NBU 922-30A4BS
Wellbore: OH
Design: PLAN #1 PRELIMINARY

Anadarko Petroleum Corporation

WELL DETAILS: NBU 922-30A4BS

GL 4924' & KB 9' @ 4933.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14533925.10	2067610.18	40° 0' 41.756 N	109° 28' 27.840 W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9529.00	254.95	44.81	14534180.78	2067650.62	40° 0' 44.276 N	109° 28' 27.264 W	Circle (Radius: 25.0
- plan hits target center								

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1426.00	1431.30	GREEN RIVER
4709.00	4722.23	WASATCH
7320.00	7333.23	MESAVERDE

CASING DETAILS

TVD	MD	Name	Size
2584.00	2595.95	8 5/8"	8.625

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
606.35	6.13	9.97	605.76	16.12	2.83	2.00	9.97	16.36	
2703.12	6.13	9.97	2690.56	236.53	41.57	0.00	0.00	240.15	
3053.23	0.00	0.00	3040.00	254.95	44.81	1.75	180.00	258.86	
9542.23	0.00	0.00	9529.00	254.95	44.81	0.00	0.00	258.86	PBHL_NBU 922-30A4BS

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

RECEIVED: June 14, 2011

API Well Number: 43047516670000

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT UTM12
Site: NBU 922-30A PAD
Well: NBU 922-30A4BS
Wellbore: OH
Design: PLAN #1 PRELIMINARY

Anadarko Petroleum Corporation

WELL DETAILS: NBU 922-30A4BS

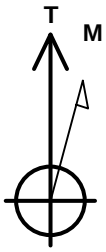
GL 4924' & KB 9' @ 4933.00ft (ASSUMED)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14533925.10	2067610.18	40° 0' 41.756 N	109° 28' 27.840 W

DESIGN TARGET DETAILS

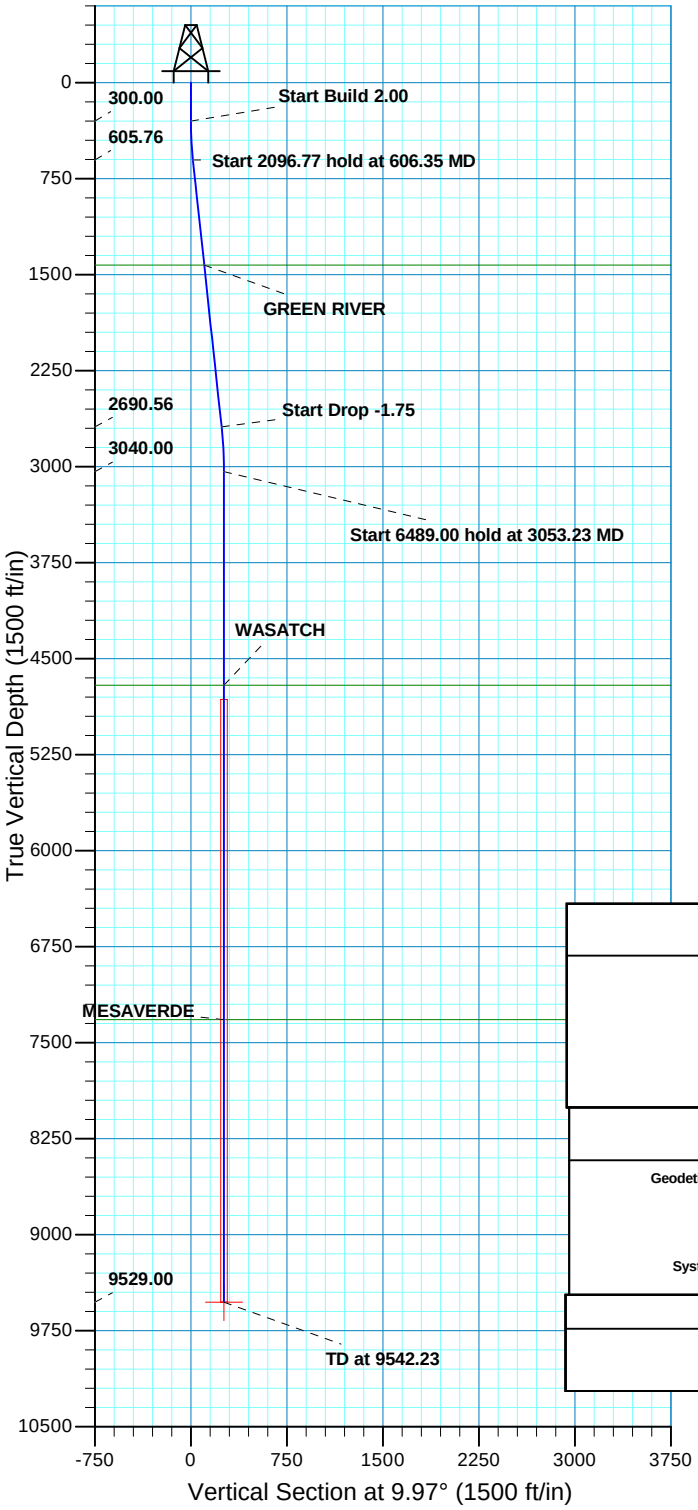
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9529.00	254.95	44.81	14534180.78	2067650.62	40° 0' 44.276 N	109° 28' 27.264 W	Circle (Radius: 25.00)

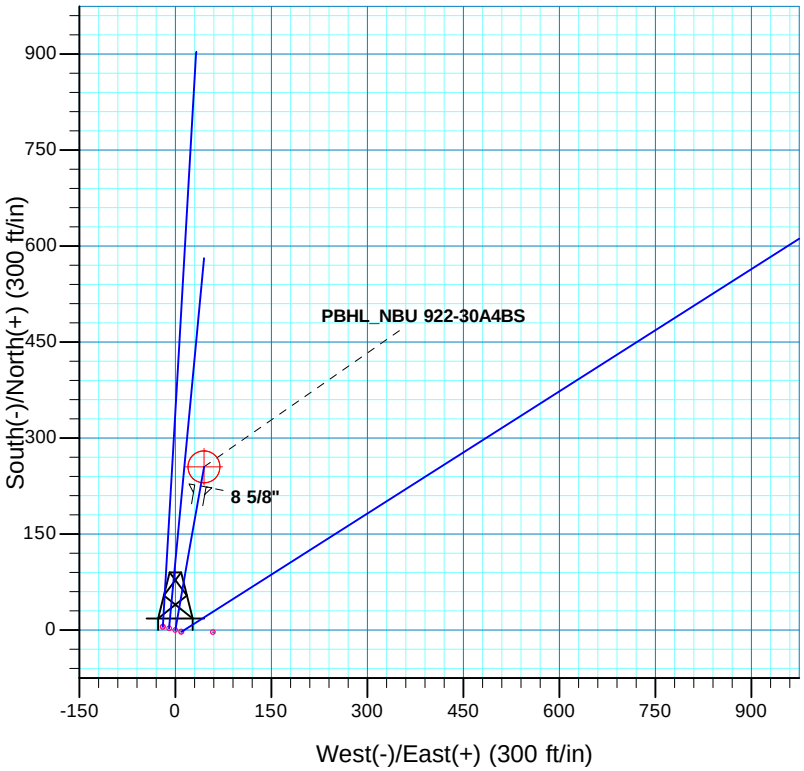
- plan hits target center



Azimuths to True North
Magnetic North: 11.07°

Magnetic Field
Strength: 52342.8snT
Dip Angle: 65.88°
Date: 06/02/2011
Model: IGRF2010





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	
606.35	6.13	9.97	605.76	16.12	2.83	2.00	9.97	16.36	
2703.12	6.13	9.97	2690.56	236.53	41.57	0.00	0.00	240.15	
3053.23	0.00	0.00	3040.00	254.95	44.81	1.75	180.00	258.86	
9542.23	0.00	0.00	9529.00	254.95	44.81	0.00	0.00	258.86	PBHL_NBU 922-30A4BS

PROJECT DETAILS: Uintah County, UT UTM12

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

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1426.00	1431.30	GREEN RIVER
4709.00	4722.23	WASATCH
7320.00	7333.23	MESAVERDE

CASING DETAILS

TVD	MD	Name	Size
2584.00	2595.95	8 5/8"	8.625

Plan: PLAN #1 PRELIMINARY (NBU 922-30A4BS/OH)

Created By: RobertScott Date: 12:58, June 06 2011

REC

Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12
NBU 922-30A PAD
NBU 922-30A4BS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

06 June, 2011

Anadarko
Petroleum Corporation

RECEIVED: June 14, 2011

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 922-30A4BS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4924' & KB 9' @ 4933.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	**MD Reference:**	GL 4924' & KB 9' @ 4933.00ft (ASSUMED)
Site:	NBU 922-30A PAD	**North Reference:**	True
Well:	NBU 922-30A4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Project Uintah County, UT UTM12

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site NBU 922-30A PAD, SECTION 30 T9S R22E

Site Position:		**Northing:**	14,533,922.36 usft	**Latitude:**	40° 0' 41.728 N
From:	Lat/Long	**Easting:**	2,067,619.74 usft	**Longitude:**	109° 28' 27.718 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.98 °

Well NBU 922-30A4BS, 987 FNL 502 FEL

Well Position	**+N/-S**	2.91 ft	**Northing:**	14,533,925.11 usft	**Latitude:**	40° 0' 41.756 N
	+E/-W	-9.52 ft	**Easting:**	2,067,610.17 usft	**Longitude:**	109° 28' 27.840 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**		**Ground Level:**	4,924.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	06/02/2011	11.07	65.88	52,343

Design PLAN #1 PRELIMINARY

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	9.97

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
606.35	6.13	9.97	605.76	16.12	2.83	2.00	2.00	0.00	9.97	
2,703.12	6.13	9.97	2,690.56	236.53	41.57	0.00	0.00	0.00	0.00	
3,053.23	0.00	0.00	3,040.00	254.95	44.81	1.75	-1.75	0.00	180.00	
9,542.23	0.00	0.00	9,529.00	254.95	44.81	0.00	0.00	0.00	0.00	PBHL_NBU 922-30A4

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Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 922-30A4BS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4924' & KB 9' @ 4933.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	**MD Reference:**	GL 4924' & KB 9' @ 4933.00ft (ASSUMED)
Site:	NBU 922-30A PAD	**North Reference:**	True
Well:	NBU 922-30A4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	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
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
400.00	2.00	9.97	399.98	1.72	0.30	1.75	2.00	2.00	0.00
500.00	4.00	9.97	499.84	6.87	1.21	6.98	2.00	2.00	0.00
600.00	6.00	9.97	599.45	15.46	2.72	15.69	2.00	2.00	0.00
606.35	6.13	9.97	605.76	16.12	2.83	16.36	2.00	2.00	0.00
Start 2096.77 hold at 606.35 MD									
700.00	6.13	9.97	698.88	25.96	4.56	26.36	0.00	0.00	0.00
800.00	6.13	9.97	798.31	36.47	6.41	37.03	0.00	0.00	0.00
900.00	6.13	9.97	897.74	46.99	8.26	47.71	0.00	0.00	0.00
1,000.00	6.13	9.97	997.17	57.50	10.11	58.38	0.00	0.00	0.00
1,100.00	6.13	9.97	1,096.60	68.01	11.95	69.05	0.00	0.00	0.00
1,200.00	6.13	9.97	1,196.03	78.52	13.80	79.73	0.00	0.00	0.00
1,300.00	6.13	9.97	1,295.45	89.03	15.65	90.40	0.00	0.00	0.00
1,400.00	6.13	9.97	1,394.88	99.55	17.50	101.07	0.00	0.00	0.00
1,431.30	6.13	9.97	1,426.00	102.84	18.07	104.41	0.00	0.00	0.00
GREEN RIVER									
1,500.00	6.13	9.97	1,494.31	110.06	19.34	111.74	0.00	0.00	0.00
1,600.00	6.13	9.97	1,593.74	120.57	21.19	122.42	0.00	0.00	0.00
1,700.00	6.13	9.97	1,693.17	131.08	23.04	133.09	0.00	0.00	0.00
1,800.00	6.13	9.97	1,792.60	141.59	24.89	143.76	0.00	0.00	0.00
1,900.00	6.13	9.97	1,892.03	152.11	26.73	154.44	0.00	0.00	0.00
2,000.00	6.13	9.97	1,991.46	162.62	28.58	165.11	0.00	0.00	0.00
2,100.00	6.13	9.97	2,090.88	173.13	30.43	175.78	0.00	0.00	0.00
2,200.00	6.13	9.97	2,190.31	183.64	32.28	186.46	0.00	0.00	0.00
2,300.00	6.13	9.97	2,289.74	194.15	34.13	197.13	0.00	0.00	0.00
2,400.00	6.13	9.97	2,389.17	204.67	35.97	207.80	0.00	0.00	0.00
2,500.00	6.13	9.97	2,488.60	215.18	37.82	218.48	0.00	0.00	0.00
2,595.95	6.13	9.97	2,584.00	225.26	39.59	228.72	0.00	0.00	0.00
8 5/8"									
2,600.00	6.13	9.97	2,588.03	225.69	39.67	229.15	0.00	0.00	0.00
2,700.00	6.13	9.97	2,687.46	236.20	41.52	239.82	0.00	0.00	0.00
2,703.12	6.13	9.97	2,690.56	236.53	41.57	240.15	0.00	0.00	0.00
Start Drop -1.75									
2,800.00	4.43	9.97	2,787.03	245.31	43.12	249.07	1.75	-1.75	0.00
2,900.00	2.68	9.97	2,886.83	251.42	44.19	255.27	1.75	-1.75	0.00
3,000.00	0.93	9.97	2,986.78	254.52	44.74	258.42	1.75	-1.75	0.00
3,053.23	0.00	0.00	3,040.00	254.95	44.81	258.86	1.75	-1.75	0.00
Start 6489.00 hold at 3053.23 MD									
3,100.00	0.00	0.00	3,086.77	254.95	44.81	258.86	0.00	0.00	0.00
3,200.00	0.00	0.00	3,186.77	254.95	44.81	258.86	0.00	0.00	0.00
3,300.00	0.00	0.00	3,286.77	254.95	44.81	258.86	0.00	0.00	0.00
3,400.00	0.00	0.00	3,386.77	254.95	44.81	258.86	0.00	0.00	0.00
3,500.00	0.00	0.00	3,486.77	254.95	44.81	258.86	0.00	0.00	0.00
3,600.00	0.00	0.00	3,586.77	254.95	44.81	258.86	0.00	0.00	0.00
3,700.00	0.00	0.00	3,686.77	254.95	44.81	258.86	0.00	0.00	0.00
3,800.00	0.00	0.00	3,786.77	254.95	44.81	258.86	0.00	0.00	0.00
3,900.00	0.00	0.00	3,886.77	254.95	44.81	258.86	0.00	0.00	0.00
4,000.00	0.00	0.00	3,986.77	254.95	44.81	258.86	0.00	0.00	0.00
4,100.00	0.00	0.00	4,086.77	254.95	44.81	258.86	0.00	0.00	0.00

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Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 922-30A4BS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4924' & KB 9' @ 4933.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	**MD Reference:**	GL 4924' & KB 9' @ 4933.00ft (ASSUMED)
Site:	NBU 922-30A PAD	**North Reference:**	True
Well:	NBU 922-30A4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,200.00	0.00	0.00	4,186.77	254.95	44.81	258.86	0.00	0.00	0.00
4,300.00	0.00	0.00	4,286.77	254.95	44.81	258.86	0.00	0.00	0.00
4,400.00	0.00	0.00	4,386.77	254.95	44.81	258.86	0.00	0.00	0.00
4,500.00	0.00	0.00	4,486.77	254.95	44.81	258.86	0.00	0.00	0.00
4,600.00	0.00	0.00	4,586.77	254.95	44.81	258.86	0.00	0.00	0.00
4,700.00	0.00	0.00	4,686.77	254.95	44.81	258.86	0.00	0.00	0.00
4,722.23	0.00	0.00	4,709.00	254.95	44.81	258.86	0.00	0.00	0.00
WASATCH									
4,800.00	0.00	0.00	4,786.77	254.95	44.81	258.86	0.00	0.00	0.00
4,900.00	0.00	0.00	4,886.77	254.95	44.81	258.86	0.00	0.00	0.00
5,000.00	0.00	0.00	4,986.77	254.95	44.81	258.86	0.00	0.00	0.00
5,100.00	0.00	0.00	5,086.77	254.95	44.81	258.86	0.00	0.00	0.00
5,200.00	0.00	0.00	5,186.77	254.95	44.81	258.86	0.00	0.00	0.00
5,300.00	0.00	0.00	5,286.77	254.95	44.81	258.86	0.00	0.00	0.00
5,400.00	0.00	0.00	5,386.77	254.95	44.81	258.86	0.00	0.00	0.00
5,500.00	0.00	0.00	5,486.77	254.95	44.81	258.86	0.00	0.00	0.00
5,600.00	0.00	0.00	5,586.77	254.95	44.81	258.86	0.00	0.00	0.00
5,700.00	0.00	0.00	5,686.77	254.95	44.81	258.86	0.00	0.00	0.00
5,800.00	0.00	0.00	5,786.77	254.95	44.81	258.86	0.00	0.00	0.00
5,900.00	0.00	0.00	5,886.77	254.95	44.81	258.86	0.00	0.00	0.00
6,000.00	0.00	0.00	5,986.77	254.95	44.81	258.86	0.00	0.00	0.00
6,100.00	0.00	0.00	6,086.77	254.95	44.81	258.86	0.00	0.00	0.00
6,200.00	0.00	0.00	6,186.77	254.95	44.81	258.86	0.00	0.00	0.00
6,300.00	0.00	0.00	6,286.77	254.95	44.81	258.86	0.00	0.00	0.00
6,400.00	0.00	0.00	6,386.77	254.95	44.81	258.86	0.00	0.00	0.00
6,500.00	0.00	0.00	6,486.77	254.95	44.81	258.86	0.00	0.00	0.00
6,600.00	0.00	0.00	6,586.77	254.95	44.81	258.86	0.00	0.00	0.00
6,700.00	0.00	0.00	6,686.77	254.95	44.81	258.86	0.00	0.00	0.00
6,800.00	0.00	0.00	6,786.77	254.95	44.81	258.86	0.00	0.00	0.00
6,900.00	0.00	0.00	6,886.77	254.95	44.81	258.86	0.00	0.00	0.00
7,000.00	0.00	0.00	6,986.77	254.95	44.81	258.86	0.00	0.00	0.00
7,100.00	0.00	0.00	7,086.77	254.95	44.81	258.86	0.00	0.00	0.00
7,200.00	0.00	0.00	7,186.77	254.95	44.81	258.86	0.00	0.00	0.00
7,300.00	0.00	0.00	7,286.77	254.95	44.81	258.86	0.00	0.00	0.00
7,333.23	0.00	0.00	7,320.00	254.95	44.81	258.86	0.00	0.00	0.00
MESAVERDE									
7,400.00	0.00	0.00	7,386.77	254.95	44.81	258.86	0.00	0.00	0.00
7,500.00	0.00	0.00	7,486.77	254.95	44.81	258.86	0.00	0.00	0.00
7,600.00	0.00	0.00	7,586.77	254.95	44.81	258.86	0.00	0.00	0.00
7,700.00	0.00	0.00	7,686.77	254.95	44.81	258.86	0.00	0.00	0.00
7,800.00	0.00	0.00	7,786.77	254.95	44.81	258.86	0.00	0.00	0.00
7,900.00	0.00	0.00	7,886.77	254.95	44.81	258.86	0.00	0.00	0.00
8,000.00	0.00	0.00	7,986.77	254.95	44.81	258.86	0.00	0.00	0.00
8,100.00	0.00	0.00	8,086.77	254.95	44.81	258.86	0.00	0.00	0.00
8,200.00	0.00	0.00	8,186.77	254.95	44.81	258.86	0.00	0.00	0.00
8,300.00	0.00	0.00	8,286.77	254.95	44.81	258.86	0.00	0.00	0.00
8,400.00	0.00	0.00	8,386.77	254.95	44.81	258.86	0.00	0.00	0.00
8,500.00	0.00	0.00	8,486.77	254.95	44.81	258.86	0.00	0.00	0.00
8,600.00	0.00	0.00	8,586.77	254.95	44.81	258.86	0.00	0.00	0.00
8,700.00	0.00	0.00	8,686.77	254.95	44.81	258.86	0.00	0.00	0.00
8,800.00	0.00	0.00	8,786.77	254.95	44.81	258.86	0.00	0.00	0.00
8,900.00	0.00	0.00	8,886.77	254.95	44.81	258.86	0.00	0.00	0.00
9,000.00	0.00	0.00	8,986.77	254.95	44.81	258.86	0.00	0.00	0.00
9,100.00	0.00	0.00	9,086.77	254.95	44.81	258.86	0.00	0.00	0.00

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Anadarko Petroleum Corporation

Database:	EDM5000-RobertS-Local	**Local Co-ordinate Reference:**	Well NBU 922-30A4BS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4924' & KB 9' @ 4933.00ft (ASSUMED)
Project:	Uintah County, UT UTM12	**MD Reference:**	GL 4924' & KB 9' @ 4933.00ft (ASSUMED)
Site:	NBU 922-30A PAD	**North Reference:**	True
Well:	NBU 922-30A4BS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,200.00	0.00	0.00	9,186.77	254.95	44.81	258.86	0.00	0.00	0.00
9,300.00	0.00	0.00	9,286.77	254.95	44.81	258.86	0.00	0.00	0.00
9,400.00	0.00	0.00	9,386.77	254.95	44.81	258.86	0.00	0.00	0.00
9,500.00	0.00	0.00	9,486.77	254.95	44.81	258.86	0.00	0.00	0.00
9,542.23	0.00	0.00	9,529.00	254.95	44.81	258.86	0.00	0.00	0.00
PBHL_NBU 922-30A4BS									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 922-30A4BS - plan hits target center - Circle (radius 25.00)	0.00	0.00	9,529.00	254.95	44.81	14,534,180.79	2,067,650.61	40° 0' 44.276 N	109° 28' 27.264 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,595.95	2,584.00	8 5/8"	8.625	11.000

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,431.30	1,426.00	GREEN RIVER			
4,722.23	4,709.00	WASATCH			
7,333.23	7,320.00	MESAVERDE			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
606.35	605.76	16.12	2.83	Start 2096.77 hold at 606.35 MD
2,703.12	2,690.56	236.53	41.57	Start Drop -1.75
3,053.23	3,040.00	254.95	44.81	Start 6489.00 hold at 3053.23 MD
9,542.23	9,529.00	254.95	44.81	TD at 9542.23

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Kerr-McGee Oil & Gas Onshore. L.P.

NBU 922-30A Pad

API #		NBU 922-30A1BS		
	Surface:	982 FNL / 521 FEL	NENE	Lot
	BHL:	83 FNL / 469 FEL	NENE	Lot
API #		NBU 922-30A1CS		
	Surface:	985 FNL / 512 FEL	NENE	Lot
	BHL:	406 FNL / 457 FEL	NENE	Lot
API #		NBU 922-30A4BS		
	Surface:	987 FNL / 502 FEL	NENE	Lot
	BHL:	732 FNL / 457 FEL	NENE	Lot
API #		NBU 922-29D1BS		
	Surface:	990 FNL / 492 FEL	NENE	Lot
	BHL:	88 FNL / 925 FWL	NWNW	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; and
- John Slaugh and Mitch Batty - Timberline Engineering & Land Surveying, Inc.; and
- Jacob Dunham - 609 Consulting, LLC; and
- Andy Lytle, Charles Chase, Ken Gathings, Roger Parry, Grizz Oleen, and Sheila Wopsock - Kerr-McGee

A. Existing Roads:

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

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

Roads, gathering lines and electrical distribution lines will occupy common disturbance corridors where possible. Where available, roadways will be used as the staging area and working space for installation of gathering lines. All

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disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining safe and sound construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Please refer to Topo B, for existing roads.

No segments require a ROW.

B. New or Reconstructed Access Roads:

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

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

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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"

±240' (0.05 miles) – Section 30 T09S R22E (NE/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 922-30A, 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 accomodate 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 is 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 ±4,430' and the individual segments are broken up as follows:

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

±475' (0.09 miles) – Section 30 T09S R22E (NE/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.

±1,445' (0.27 miles) – Section 30 T09S R22E (NE/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 8" gas gathering pipeline at the 30H intersection. (SE/4 NE/4). Please refer to Exhibit A, Line 10.

±150' (0.03 miles) – Section 30 T09S R22E (SW/4 NE/4) – On-lease UTU0463, BLM surface, New 8" buried gas gathering pipeline from the 6" 30A/30H intersection to the edge of the 30H pad (SW/4 NE/4). This pipeline will be used concurrently with the 30H pad. Please refer to Exhibit A, Line 9.

±1,210' (0.23 miles) – Section 30 T09S R22E (SW/4 NE/4) – On-lease UTU0463, BLM surface, New 8" cross country buried gas gathering pipeline from the edge of the 30H pad to the 10" proposed gas gathering pipeline 30B intersection (SW/4 NE/4). This pipeline will be used concurrently with the 30H pad. Please refer to Exhibit A, Line 8.

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±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 30B 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 30B 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, 30B, 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 ±8,280' and the individual segments are broken up as follows:

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

±475' (0.09 miles) – Section 30 T09S R22E (NE/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.

±1,595' (0.3 miles) – Section 30 T09S R22E (NE/4 NE/4) – Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the edge of the 30A pad to the tie-in at the proposed 30H intersection (SW/4 NE/4). Please refer to Exhibit B, Lines 11, and 10. This pipeline will be used concurrently with the 30H pad.

±1,210' (0.23 miles) – Section 30 T09S R22E (SW/4 NE/4) – Lease UTU0463, BLM surface, New 6" buried cross country liquid gathering pipeline from the edge of the 30H pad to the tie-in at the proposed 6" buried liquid gathering line 30B intersection segment (SW/4 NE/4). Please refer to Exhibit B, Line 9. This pipeline will be used concurrently with the 30H 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 30B 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 30B 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 gathering line to the (2) proposed twin 6" liquid gathering pipelines at the 30F intersection (SE/4 NW/4). Please refer Exhibit B, Line 3. This pipeline will be used concurrently with the 30H, 30C, 30B, 30G, and 30F pads.

±495' (0.09 miles) – Section 30 T09S R22E (SE/4 NW/4) – Lease UTU0463, BLM surface, Two (2) new 6" buried liquid gathering pipelines from the proposed Transfer line to the tie-in point at the proposed 30G/30F intersection (SW/4 NE/4). Please refer Exhibit B, Line 13. This pipeline will be used concurrently with the 30H, 30C, 30B, 30F, 30G, 30N, and 30L pads. Two (2) Lines for a total of 990'.

±2,895' (0.55 miles) – Section 30 T09S R22E (SW/4 NE/4) – Lease UTU0463, BLM surface, New 6"

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buried liquid gathering pipeline from the proposed 30G/30F intersection going southeast to the edge of the lease boundry of SE/4 SE/4. Please refer to Exhibit B, Line 15. The remaining liquid pipeline segment will travel to the existing tank battery on State surface. Kerr-McGee will apply for the appropriate State easements under separate cover. This pipeline will be used concurrently with the 30H, 30C, 30B, 30F, 30G, 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 ±8,985' and the individual segments are broken up as follows:

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

±475' (0.09 miles) – Section 30 T09S R22E (NE/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.

±1,595' (0.3 miles) – Section 30 T09S R22E (NE/4 NE/4) – Lease UTU0463, BLM surface, New 6" buried liquid gathering gathering pipeline from the edge of the 30A pad to the tie-in at the proposed 30H intersection (SW/4 NE/4). Please refer to Exhibit B, Lines 11, and 10. This pipeline will be used concurrently with the 30H pad.

±1,210' (0.23 miles) – Section 30 T09S R22E (SW/4 NE/4) – Lease UTU0463, BLM surface, New 6" buried cross country liquid gathering pipeline from the edge of the 30H pad to the tie-in at the proposed 6" buried liquid gathering line 30B intersection segment (SW/4 NE/4). Please refer to Exhibit B, Line 9. This pipeline will be used concurrently with the 30H 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 30B 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 30B 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 gathering line to the (2) proposed twin 6" liquid gathing pipelines at the 30F intersection (SE/4 NW/4). Please refer Exhibit B, Line 3. This pipeline will be used concurrently with the 30H, 30C, 30B, 30G, and 30F 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, 30B, 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, 30B, 30F, 30G, 30N, and 30L pads.

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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' distrubance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent distrubance width is for maintenance and repairs. Cross country permanent distrubance 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

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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 it's 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 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 be also be installed where water trucks would 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.

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E. Location and Types of Water Supply:

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

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

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

No water well is to be drilled on this lease.

F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from federal lands without prior approval from the BLM. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BLM.

G. Methods for Handling Waste:

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

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BLM, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil/topsoil storage areas and/or construction of berms, ditches, etc). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/

sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless 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,

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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

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(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.

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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.

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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	**ure Live Seed lbs/acre**
Indian Ricegrass (Nezpar)	3
Sandberg bluegrass	0.75
Bottlebrush squirreltail	1
Great Basin Wildrye	0.5
Crested wheatgrass (Ephraim)	1.5
Winterfat	0.25
Shadscale	1.5
Four-wing saltbush	0.75
Forage Kochia	0.25
Total	9.5

Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a

RECEIVED: June 14, 2011

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 Sream Alteration Permit for the associated pipeline coridor for this pad.
- Facilities: Will be painted Shadow Grey
- Existing surface gas gathering pipeline will be removed from location if no longer in service

Cultural and Paleontological Resources

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

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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-399.

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 922-30A4BS
T9S-R22E
Section 30 NENE (Surf), NENE (Bottom)
Surface: 987' FNL, 502' FEL
Bottom Hole: 732' FNL, 457' 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 922-30A4BS 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,

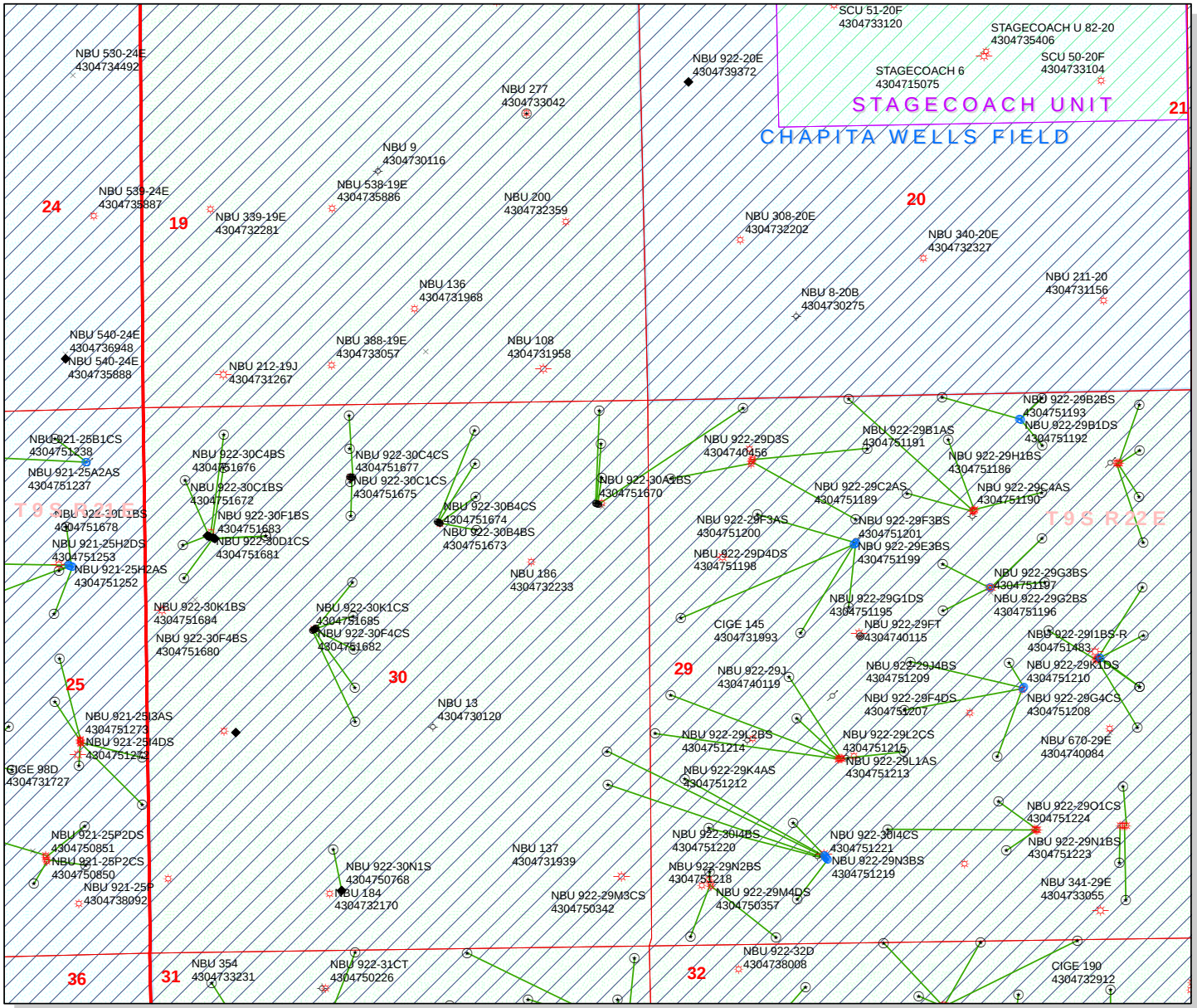
KERR-MCGEE OIL & GAS ONSHORE LP

Joe Matney

Joe Matney
Sr. Staff Landman

RECEIVED: June 14, 2011

API Well Number: 43047516670000



API Number: 4304751667

Well Name: NBU 922-30A4BS

Township T0.9 . Range R2.2 . Section 30

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units
STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields
STATUS
- Unknown
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- STORAGE
- TERMINATED
- Sections
- Township

Wells Query
Status
- APD - Aproved Permit
- DRL - Spuded (Drilling Commenced)
- GIW - Gas Injection
- GS - Gas Storage
- LA - Location Abandoned
- LOC - New Location
- OPS - Operation Suspended
- PA - Plugged Abandoned
- PGW - Producing Gas Well
- POW - Producing Oil Well
- RET - Returned APD
- SGW - Shut-in Gas Well
- SOW - Shut-in Oil Well
- TA - Temp. Abandoned
- TW - Test Well
- WDW - Water Disposal
- WIW - Water Injection Well
- WSW - Water Supply Well

1,250 625 0 1,250 Feet

1:12,000

RECEIVED: June 20, 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
(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

(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

RECEIVED: June 21, 2011

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 6/14/2011
API NO. ASSIGNED: 43047516670000
WELL NAME: NBU 922-30A4BS
OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)
PHONE NUMBER: 720 929-6356
CONTACT: Laura Abrams

PROPOSED LOCATION: NENE 30 090S 220E
Permit Tech Review: ✔

SURFACE: 0987 FNL 0502 FEL
Engineering Review: ✔

BOTTOM: 0732 FNL 0457 FEL
Geology Review: ✔

COUNTY: UINTAH
LATITUDE: 40.01159
LONGITUDE: -109.47433
UTM SURF EASTINGS: 630215.00
NORTHINGS: 4429948.00
FIELD NAME: NATURAL BUTTES
LEASE TYPE: 1 - Federal
LEASE NUMBER: UTU463
PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE
SURFACE OWNER: 1 - Federal
COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- ✔ **PLAT**
- ✔ **Bond:** FEDERAL - WYB000291
- ☐ **Potash**
- ✔ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ✔ **Water Permit:** 43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☐ **Intent to Commingle**

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

RECEIVED: August 17, 2011

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 922-30A4BS
API Well Number: 43047516670000
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.

API Well No: 43047516670000

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

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JUN 16 2011

BLM VERNAL, UTAH

Form 3160-3
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
UTU463

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
UTU63047A

8. Lease Name and Well No.
NBU 922-30A4BS

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator
KERR MCGEE OIL&GAS ONSHORE LP
Contact: LAURA ABRAMS
E-Mail: Laura.Abrams@anadarko.com

9. API Well No.
43-047-51667

3a. Address
PO BOX 173779
DENVER, CO 80202-3779

3b. Phone No. (include area code)
Ph: 720-929-6356
Fx: 720-929-7356

10. Field and Pool, or Exploratory
NATURAL BUTTES

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

At surface NENE 987FNL 502FEL 40.011564 N Lat, 109.475086 W Lon

At proposed prod. zone NENE 732FNL 457FEL 40.012264 N Lat, 109.474925 W Lon

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

14. Distance in miles and direction from nearest town or post office*
APPROXIMATELY 42.2 MILES SOUTH OF VERNAL, UT

12. County or Parish
UINTAH COUNTY

13. State
UT

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any)
457'

16. No. of Acres in Lease
551.00

17. Spacing Unit dedicated to this well

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.
259'

19. Proposed Depth
9542 MD
9529 TVD

20. BLM/BIA Bond No. on file
WYB000291

21. Elevations (Show whether DF, KB, RT, GL, etc.
4925 GL

22. Approximate date work will start
12/01/2011

23. Estimated duration
60-90 DAYS

24. Attachments

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

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

25. Signature
(Electronic Submission)

Name (Printed/Typed)
LAURA ABRAMS Ph: 720-929-6356

Date
06/09/2011

Title
REGULATORY ANALYST II

Approved by (Signature)

Name (Printed/Typed) Jerry Kenczka

Date DEC 15 20

Title Assistant Field Manager
Lands & Mineral Resources

Office VERNAL FIELD OFFICE

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

CONDITIONS OF APPROVAL ATTACHED

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

Additional Operator Remarks (see next page)

Electronic Submission #110246 verified by the BLM Well Information System
For KERR MCGEE OIL&GAS ONSHORE, LP, sent to the Vernal

RECEIVED

DEC 27 2011

DIV. OF OIL, GAS & MINING

UDOGM

NOTICE OF APPROVAL

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

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE
170 South 500 East VERNAL, UT 84078 (435) 781-4400

CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	**KERR-MCGEE OIL & GAS ONSHORE**	**Location:**	**NENE, SEC. 30, T9S, R22E SLM**
Well No:	**NBU 922-30A4BS**	**Lease No:**	**UTU-463**
API No:	**43-047-51667**	**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: ut_vn_opreport@blm.gov.
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	- Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

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 actives: 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.

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 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.

- 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.

FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

FORM 9

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

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463

SUNDRY NOTICES AND REPORTS ON WELLS

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

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 922-30A4BS

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

9. API NUMBER: 43047516670000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 EXT

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0987 FNL 0502 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE 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		
✓ NOTICE OF INTENT Approximate date work will start: 5/30/2012	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	✓ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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: June 05, 2012

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mahler	720 929-6029	Regulatory Analyst I

SIGNATURE	DATE
N/A	5/30/2012

RECEIVED: May. 30, 2012

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 922-30A4BS

Surface:	987 FNL / 502 FEL	NENE
BHL:	732 FNL / 457 FEL	NENE

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:

Formation	Depth	Resource
Uinta	0 - Surface	
Green River	1,417'	
Birds Nest	1,745'	Water
Mahogany	2,264'	Water
Wasatch	4,711'	Gas
Mesaverde	7,315'	Gas
Sego	9,515'	Gas
Castlegate	9,562'	Gas
Blackhawk	10,018'	Gas
TVD	10,618'	
TD	10,631'	

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

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7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 10618' TVD, approximately equals 7,008 psi (0.66 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 4,720 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.

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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 11inch 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.

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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.

RECEIVED: May. 30, 2012

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	February 8, 2012
WELL NAME	**NBU 922-30A4BS**	TD	10,618' TVD 10,631' MD
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah
		FINISHED ELEVATION	4,924'
SURFACE LOCATION	NENE 987 FNL 502 FEL	Sec 30 T 9S R 22E	
	Latitude: 40.011564	Longitude: -109.475086	NAD 83
BTM HOLE LOCATION	NENE 732 FNL 457 FEL	Sec 30 T 9S R 22E	
	Latitude: 40.012264	Longitude: -109.474925	NAD 83
OBJECTIVE ZONE(S)	BLACKHAWK (Part of the Mesaverde Group)		
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept.		

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
			12-1/4	8-5/8", 28#, IJ-55, LTC	Air mist
		200'			
			11.00'	8-5/8", 28#, IJ-55, LTC	Air mist
			7-7/8"	4-1/2" 11.6# HCP-110 Ultra DQX/LTC csg	Water / Fresh Water Mud 8.3-13.0 ppg

All water flows encountered while drilling will be reported to the appropriate agencies.

Green River @ 1,417'
Top of Birds Nest @ 1,745'
Mahogany @ 2,264'

Preset f/ GL @ 2,710' TVD

Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.

Wasatch @ 4,711'

Mud logging program TBD
Cased hole logging program from TD - surf csg

Mesaverde @ 7,315' TVD

Sego @ 9,515' TVD

Castlegate @ 9,562' TVD

Blackhawk @ 10,018' TVD

Max anticipated Mud required 13.0 ppg

TD @ 10,618' TVD
10,631' MD

KerrMcGee

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION LTC	TENSION DQX
CONDUCTOR	14"	0-40'									
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,710	28.00	IJ-55	LTC	1.99	1.48	5.24	N/A
								10,690	8,650	279,000	367,174
PRODUCTION	4-1/2"	0	to	5,000	11.60	HCP-110	DQX	1.19	1.21		3.72
	4-1/2"	5,000	to	10,631'	11.60	HCP-110	LTC	1.19	1.21	5.33	

Surface Casing:

(Burst Assumptions: TD = 13.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

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

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

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.66 psi/ft = bottomhole gradient

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

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT		YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1			+ 0.25 pps flocele					
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
			+ 2% CaCl + 0.25 pps flocele					
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**					
Option 2	LEAD	2,210'	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	4,211'	Premium Lite II +0.25 pps	330	35%	12.00		3.38
			celloflake + 5 pps gilsonite + 10% gel					
			+ 0.5% extender					
	TAIL	6,420'	50/50 Poz/G + 10% salt + 2% gel	1,520	35%	14.30		1.31
			+ 0.1% R-3					

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

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

FLOAT EQUIPMENT & CENTRALIZERS

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

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER: _____ **DATE:** _____

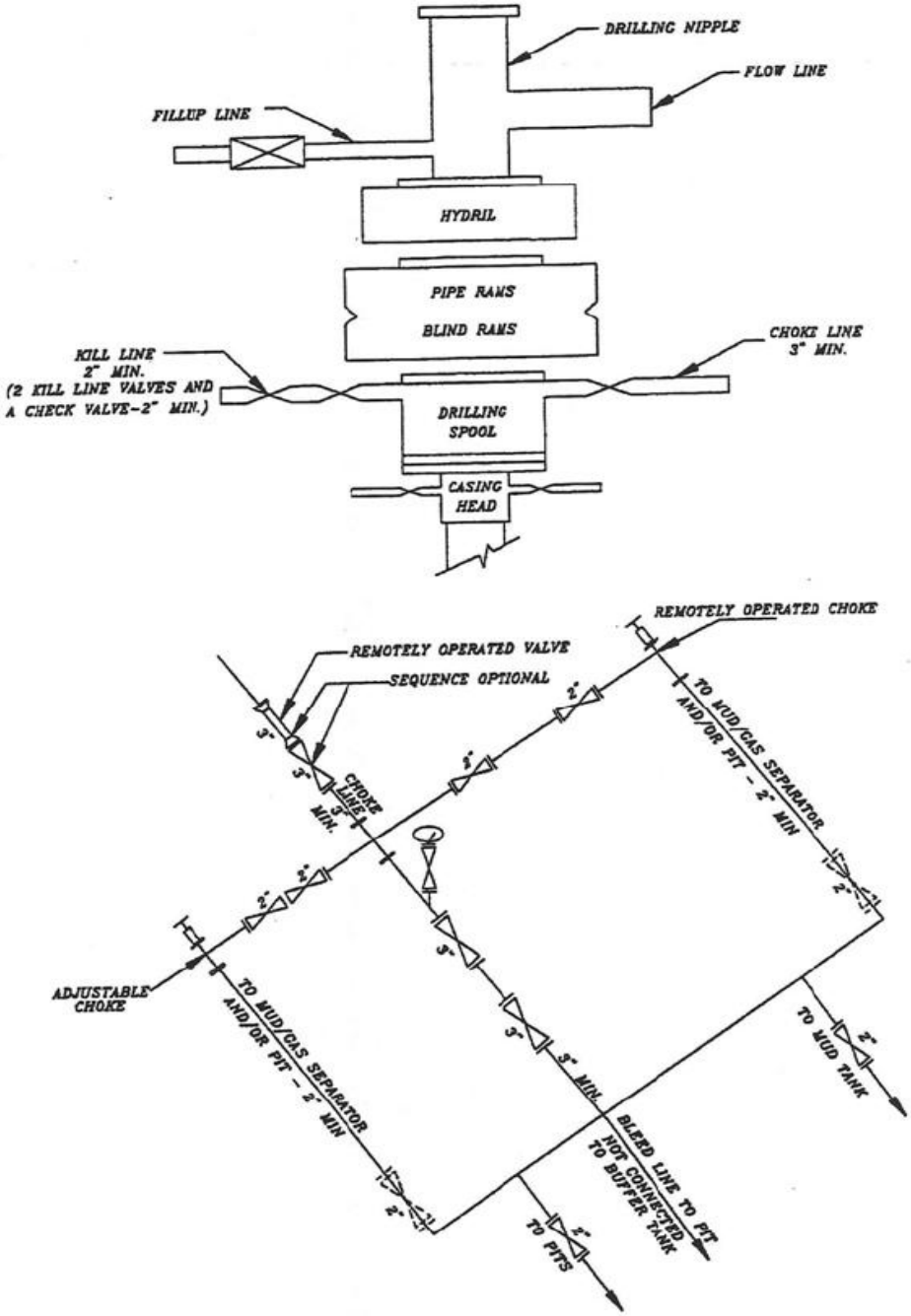
Nick Spence / Danny Showers / Chad Loesel

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Kenny Gathings / Lovel Young

RECEIVED: May. 30, 2012

EXHIBIT A
NBU 922-30A4BS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

RECEIVED: May. 30, 2012

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.

RECEIVED: May. 30, 2012

FORM 9

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

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463

SUNDRY NOTICES AND REPORTS ON WELLS

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

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 922-30A4BS

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

9. API NUMBER: 43047516670000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 EXT

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0987 FNL 0502 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE 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		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud: 6/19/2012	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

MIRU TRIPLE A BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 CONDUCTOR PIPE. CMT W/28 SX READY MIX. SPUD WELL LOCATION ON DATE 6/19/2012 AT 10:00 HRS.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
June 22, 2012

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mahler	720 929-6029	Regulatory Analyst I
SIGNATURE N/A		**DATE** 6/20/2012

RECEIVED: Jun. 20, 2012

SUBMIT AS EMAIL | Print Form

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By J. Scharnowske Phone Number 720.929.6304
Well Name/Number NBU 922-30A4BS
Qtr/Qtr NENE Section 30 Township 9S Range 22E
Lease Serial Number UTU463
API Number 4304751667

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

Date/Time 06/19/2012 11:00 HRS AM ☐ PM ☐

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

- ☑ Surface Casing
- ☐ Intermediate Casing
- ☐ Production Casing
- ☐ Liner
- ☐ Other

Date/Time 06/29/2012 08:00 HRS AM ☐ PM ☐

BOPE

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

Date/Time _____ _____ AM ☐ PM ☐

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT 435.828.0986 OR LOVEL YOUNG AT 435.781.7051

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

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP
Operator Account Number: N 2995
Address: P.O. Box 173779
city DENVER
state CO zip 80217
Phone Number: (720) 929-6029

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751666	NBU 922-29D1BS		NENE	30	9S	22E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	6/19/2012			6/29/2012	

Comments: MIRU BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 6/19/2012 AT 7:30 HRS. BHL: S29 nwnw

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751667	NBU 922-30A4BS		NENE	30	9S	22E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	6/19/2012			6/29/2012	

Comments: MIRU BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 6/19/2012 AT 10:00 HRS. BHL: nene

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751668	NBU 922-30A1CS		NENE	30	9S	22E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	6/19/2012			6/29/2012	

Comments: MIRU BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 6/19/2012 AT 12:00 HRS. BHL: nene

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)

Cara Mahler
Name (Please Print)

Signature

REGULATORY ANALYST
Title

6/20/2012
Date

RECEIVED
JUN 21 2012
Div. of Oil, Gas & Mining

(5/2000)

FORM 9

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

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463

SUNDRY NOTICES AND REPORTS ON WELLS

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

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 922-30A4BS

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

9. API NUMBER: 43047516670000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 EXT

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0987 FNL 0502 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE 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		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 7/11/2012	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

MIRU AIR RIG ON 7/11/2012. DRILLED SURFACE HOLE TO 2787'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.

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

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mahler	720 929-6029	Regulatory Analyst I
SIGNATURE N/A		**DATE** 7/18/2012

RECEIVED: Jul. 18, 2012

FORM 9

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

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463

SUNDRY NOTICES AND REPORTS ON WELLS

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

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 922-30A4BS

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

9. API NUMBER: 43047516670000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 EXT

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0987 FNL 0502 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 30 Township: 09.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 8/10/2012	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

MIRU ROTARY RIG. FINISHED DRILLING FROM 2787' TO 9535' ON 8/9/2012. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED SST 54 RIG ON 8/10/2012 @ 13:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
August 14, 2012

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Cara Mahler	720 929-6029	Regulatory Analyst I
SIGNATURE N/A		**DATE** 8/14/2012

RECEIVED: Aug. 14, 2012

FORM 9

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

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463

SUNDRY NOTICES AND REPORTS ON WELLS

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

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 922-30A4BS

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

9. API NUMBER: 43047516670000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 EXT

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0987 FNL 0502 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE 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		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
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☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
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	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 10/2/2012	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

Started completing the well. Well TD at 9,535.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
October 03, 2012

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Lindsey Frazier	720 929-6857	Regulatory Analyst II

SIGNATURE	DATE
N/A	10/2/2012

RECEIVED: Oct. 02, 2012

FORM 9

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

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463

SUNDRY NOTICES AND REPORTS ON WELLS

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7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 922-30A4BS

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

9. API NUMBER: 43047516670000

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PHONE NUMBER: 720 929-6515 EXT

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0987 FNL 0502 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 30 Township: 09.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 11/5/2012	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

Started completing the well. Well TD at 9,535.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
November 05, 2012

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jaime Scharnowske	720 929-6304	Regulartory Analyst
SIGNATURE N/A		**DATE** 11/5/2012

RECEIVED: Nov. 05, 2012

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

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU463

SUNDRY NOTICES AND REPORTS ON WELLS

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1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 922-30A4BS

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9. API NUMBER: 43047516670000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 EXT

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0987 FNL 0502 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE 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

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	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 11/28/2012	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

The subject well was placed on production on 11/28/2012. 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
December 03, 2012

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Lindsey Frazier	720 929-6857	Regulatory Analyst II

SIGNATURE	DATE
N/A	11/30/2012

RECEIVED: Nov. 30, 2012

Form 3160-4
(August 2007)

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 LP
Contact: LINDSEY A FRAZIER
E-Mail: lindsey.frazier@anadarko.com

8. Lease Name and Well No. NBU 922-30A4BS

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

9. API Well No. 43-047-51667

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
At surface NENE 987FNL 502FEL 40.011564 N Lat, 109.475086 W Lon
At top prod interval reported below NENE 724FNL 474FEL
At total depth NENE 733FNL 466FEL BHL by HSM

10. Field and Pool, or Exploratory NATURAL BUTTES

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

12. County or Parish UINTAH
13. State UT

14. Date Spudded 06/19/2012
15. Date T.D. Reached 08/09/2012
16. Date Completed ☐ D & A ☒ Ready to Prod. 11/28/2012
17. Elevations (DF, KB, RT, GL)* 4943 KB

18. Total Depth: MD 9535 TVD 9521
19. Plug Back T.D.: MD 9474 TVD 9460
20. Depth Bridge Plug Set: MD TVD

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

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

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

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & 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	2771		720		0	
7.875	4.500 I-80	11.6	0	9521		1540		2798	

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	8637							

25. Producing Intervals

Formation	Top	Bottom
A) WASATCH	6520	7290
B) MESAVERDE	7345	9059
C)		
D)		

26. Perforation Record

Perforated Interval	Size	No. Holes	Perf. Status
6520 TO 7290	0.360	80	OPEN
7345 TO 9059	0.360	148	OPEN

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

Depth Interval	Amount and Type of Material
6520 TO 9059	PUMP 9,547 BBLS SLICK H2O AND 210,105 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
11/28/2012	11/29/2012	24	→	0.0	1669.0	276.0			FLOWS FROM WELL

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
20/64	1550	2300.0	→	0	1669	276		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. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

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(See Instructions and spaces for additional data on reverse side)
ELECTRONIC SUBMISSION #167887 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED

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	1583
				BIRD'S NEST	1771
				MAHOGANY	2152
				WASATCH	4738
				MESAVERDE	7342

32. Additional remarks (include plugging procedure):
The first 210 ft. of the surface hole was drilled with a 12 ? in. bit. The remainder of surface hole was drilled with an 11 in. bit. DQX csg was run from surface to 5038 ft; LTC csg was run from 5038 ft. to 9,521 ft. 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 #167887 Verified by the BLM Well Information System.
For KERR MCGEE OIL & GAS ONSHORE L, sent to the Vernal

Name *(please print)* LINDSEY A FRAZIER Title REGUALTORY ANALYST

Signature (Electronic Submission) Date 12/20/2012

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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 fradulent 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 922-30A4BS BLUE		Spud Date: 7/11/2012	
Project: UTAH-UINTAH	Site: NBU 922-30A PAD		Rig Name No: PROPETRO 11/11, SST 54/54
Event: DRILLING	Start Date: 6/25/2012		End Date: 8/10/2012
Active Datum: RKB @4,943.00usft (above Mean Sea Level)	UWI: NE/NE/0/9/S/22/E/30/0/0/26/PM/N/987/E/0/502/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
7/11/2012	20:00 - 22:00	2.00	MIRU	07	A	P		1,000 HR SERVICE ON RIG
	22:00 - 23:00	1.00	MIRU	01	B	P		NBU 922-29D1BS (WELL 1 OF 4) INSTALL DIVERTOR HEAD AND BLUEY LINE. RIG UP NOV. SPOT IN RIG. SPOT IN CATWALK AND PIPE RACKS. RIG UP PUMP. PRIME PUMP. INSPECT RIG. SAFETY MEETING
	23:00 - 23:30	0.50	DRLSUR	06	A	P		PICK UP #1 BHA
	23:30 - 0:00	0.50	DRLSUR	02	D	P		DRL F/44' - T/210' (166' @ 166' ROP) W.O.B. 5 -15K RPM 45 POWERHEAD UP/DWN/ROT 22/20/22 PSI ON/OFF 500/300 M.W. 8.4# VIS 27 396 GPM PUMP RATE NOV - ONLINE
7/12/2012	0:00 - 0:30	0.50	DRLSUR	02	D	P		DRL F/44' - T/210' (166' @ 166' ROP) W.O.B. 5 - 15K RPM 45 POWERHEAD UP/DWN/ROT 22/20/22 PSI ON/OFF 500/300 M.W. 8.4# VIS 27 396 GPM PUMP RATE NOV - ONLINE
	0:30 - 6:30	6.00	DRLSUR	02	D	P		DRL F/210' - 830' (620' @ 103.3' ROP)
	6:30 - 7:30	1.00	DRLSUR	08	B	Z		*****CHANGE OUT SWABS ON MUD PUMP
	7:30 - 12:00	4.50	DRLSUR	02	D	P		DRL F/830' - T/1310' (480' @ 106.6' ROP) W.O.B. 18 -20K RPM 45 POWERHEAD UP/DWN/ROT 65/55/58 PSI ON/OFF 1150/940 M.W. 8.5# VIS 27 396 GPM PUMP RATE / NO AIR NOV-ONLINE 5' RIGHT AND 1.2' HIGH OF LINE
	12:00 - 16:30	4.50	DRLSUR	02	D	P		DRL F1310' - T/1670' (360' @ 80' ROP) W.O.B. 18 -20K RPM 45 POWERHEAD UP/DWN/ROT 71/55/65 6K DRAG PSI ON/OFF 1240/950 M.W. 8.5# VIS 27 396 GPM PUMP RATE NOV-ONLINE
	16:30 - 18:00	1.50	DRLSUR	08	B	Z		*****CHANGE OUT LINERS IN MUD PUMP

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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	18:00 - 0:00	6.00	DRLSUR	02	D	P		DRL F/1670' - T/2240' (570' @ 95' ROP) W.O.B. 18 -20K RPM 45 POWERHEAD UP/DWN/ROT 82/63/72 PSI ON/OFF 1400/1160 M.W. 8.5# VIS 27 396 GPM PUMP RATE / NO AIR NOV-ONLINE 3.5' AND .5' LEFT OF LINE 44' / 8% SLIDE
7/13/2012	0:00 - 6:30	6.50	DRLSUR	02	D	P		DRL F/2240' - T/2487' (547' @ 84.2' ROP) W.O.B. 18 -20K RPM 45 POWERHEAD UP/DWN/ROT 85/70/75 10K DRAG PSI ON/OFF 1440/1280 M.W. 8.5# VIS 27 396 GPM PUMP RATE NOV-ONLINE
	6:30 - 8:30	2.00	DRLSUR	05	C	P		CIRCULATE FOR CASING
	8:30 - 12:30	4.00	DRLSUR	06	A	P		LDDS,BHA & DIRECTIONAL TOOLS
	12:30 - 13:30	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.
	13:30 - 16:00	2.50	DRLSUR	12	C	P		TIH 62 JOINTS 8 5/8", 28#, J55 CASING SHOE IS AT 2752.4' BAFFLE IS AT 2708'
	16:00 - 16:30	0.50	DRLSUR	12	B	P		HOLD SAFETY MEETING PUMP ON CASING RUN 200' OF 1". RIG DOWN RIG MOVE OFF WELL, RIG UP CEMENT TRUCKS, AND CEMENT HEAD.
	16:30 - 18:00	1.50	CSGSUR	12	E	P		MAKE UP HEAD AND LOAD PLUG. PRESSURE TEST LINES TO 2000PSI. PUMP 50BBLS AHEAD 8.4# H20. PUMP 20BBLS 8.4# GEL H2O AHEAD, PUMP 300 SX (148.5BBLS) 12# 2.78 YIELD CEMENT. PUMP 200 SX (41 BBLS) OF 15.8 1.15 YIELD TAIL (2% CALC, 1/4#/SK OF FLOCECE) DROP PLUG ON THE FLY AND DISPLACE WITH 160BBLS OF 8.4# H20. FINAL LIFT PRESSURE WAS 950PSI, BUMP PRESSURE WAS 1300PSI HELD FOR 5 MINS. FLOAT HELD, RETURNS THRU OUT JOB. 30BBLS LEAD CEMENT BACK TO SURFACE. PUMP 125 SK 15.8 (25.6BBLS) CEMENT, W/4% CALCIUM DOWN 1". CEMENT FELL BACK APROX. 10' RELEASE RIG @ 18:00
8/5/2012	11:00 - 12:00	1.00	MIRU	01	C	P		SKID ON NBU922-30A4BS
	12:00 - 14:00	2.00	PRPSPD	14	A	P		NIPPLE UP AND FUNCTION TEST,RIG UP FLOW AND FLARE LINES,MI SWACO
	14:00 - 18:00	4.00	PRPSPD	15	A	P		TEST FLOOR VALVES,RAMS, CHOKE AND KILL LINE,MANIFOLD,HCR,TO 5000,ANNULAR 2500,CASING 1500 FOR 30 MINUTES,250 LOWS
	18:00 - 19:00	1.00	PRPSPD	09	A	P		CUT & SLIP 120' DRILLING LINE
	19:00 - 22:30	3.50	PRPSPD	06	A	P		PICK UP BHA#1,SCRIBE DIRECTIONAL TOOL,SURFACE TEST EQUIPMENT,TRIP IN TAG CEMENT AT 2660'
	22:30 - 0:00	1.50	PRPSPD	02	F			DRILL CEMENT AND SHOE TRACK FROM 2660 TO 2802

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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/6/2012	0:00 - 15:00	15.00	DRLPRO	02	D	P		DRILL SLIDE 2802 TO 4731=1929 AVG 128 WEIGHT ON BIT 18-22 ROTARY RPM 60. MUD MOTOR RPM 114. STROKES PER MINUTE 120 GALLONS PER MINUTE 513 ON/OFF PSI 1500/1100 DIFFERENTIAL 400 TORQUE ON/8250 OFFBOTTOM 4800 STRING WEIGHT UP/DOWN/ROT 138/110/120. DRAG 14K. SLIDE 117' 8.9% ROTATE 1713' 93% NOV DEWATERING RUNNING 2 CENTRIFUGES(WT 8.6 VIS 26.) MI SWACO OFFLINE NO FLARE. (BOP DRILL 2 MINUTES)
	15:00 - 15:30	0.50	DRLPRO	07	A	P		RIG SERVICE
	15:30 - 0:00	8.50	DRLPRO	02	D	P		DRILL SLIDE 4731 TO 5750'= 1019 AVG WEIGHT ON BIT 18-22 ROTARY RPM 60. MUD MOTOR RPM 114. STROKES PER MINUTE 120 GALLONS PER MINUTE 513 ON/OFF PSI 1500/1100 DIFFERENTIAL 400 TORQUE ON/8250 OFFBOTTOM 4800 STRING WEIGHT UP/DOWN/ROT 145/115/130. DRAG 20K. SLIDE 8% ROTATE 92% NOV DEWATERING RUNNING 2 CENTRIFUGES(WT 8.6 VIS 26.) MI SWACO OFFLINE NO FLARE. (BOP DRILL 2 MINUTES)
8/7/2012	0:00 - 15:30	15.50	DRLPRO	02	D	P		DRILL SLIDE 5750' TO 7019=1269 AVG 82 WEIGHT ON BIT 20-22 ROTARY RPM 60. MUD MOTOR RPM 114. STROKES PER MINUTE 130 GALLONS PER MINUTE 420 ON/OFF PSI 1800/1500 DIFFERENTIAL 300 TORQUE ON/9800 OFFBOTTOM 5800 STRING WEIGHT UP/DOWN/ROT 145/115/130. DRAG 20K. SLIDE 7.4 95'% ROTATE 86 1175' % 14' NORTH 19' WEST NOV DEWATERING RUNNING 2 CENTRIFUGES(WT 8.6 VIS 26.) MI SWACO OFFLINE NO FLARE SEEPING 25 BBLS HOUR PUMPING LCM SWEEPS,,SHAKER NOT BYPASSED
	15:30 - 16:00	0.50	DRLPRO	07	A	P		RIG SERVICE

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Event: DRILLING	Start Date: 6/25/2012	End Date: 8/10/2012
Active Datum: RKB @4,943.00usft (above Mean Sea Level)	UWI: NE/NE/0/9/S/22/E/30/0/0/26/PM/N/987/E/0/502/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	16:00 - 0:00	8.00	DRLPRO	02	D	P		DRILL SLIDE 7019 TO 7755 =736 AVG 92 WEIGHT ON BIT 20-23 ROTARY RPM 60. MUD MOTOR RPM 114. STROKES PER MINUTE 130 GALLONS PER MINUTE 420 ON/OFF PSI 1800/1500 DIFFERENTIAL 300 TORQUE ON/12000 OFFBOTTOM 9300 STRING WEIGHT UP/DOWN/ROT 200/155/180. DRAG 20K. SLIDE 10% ROTATE 90 % 22' NORTH 2' WEST OF CENTER NOV DEWATERING RUNNING 2 CENTRIFUGES(WT 8. VIS 26.) MI SWACO OFFLINE NO FLARE SEEPING 15- 20 BBLS HOUR PUMPING LCM SWEEPS,,SHAKER NOT BYPASSED
8/8/2012	0:00 - 12:30	12.50	DRLPRO	02	D	P		DRILL SLIDE 7755 TO 8636 =881 AVG 70 WEIGHT ON BIT 20-23 ROTARY RPM 60. MUD MOTOR RPM 114. STROKES PER MINUTE 130 GALLONS PER MINUTE 420 ON/OFF PSI 1800/1500 DIFFERENTIAL 300 TORQUE ON/12000 OFFBOTTOM 9300 STRING WEIGHT UP/DOWN/ROT 230/180/205. DRAG 25K. SLIDE 102' 12% FOOTAGE 24% TIME ROTATE 756' 88% FOOTAGE 76% TIME 11' NORTH 6' WEST OF CENTER NOV DEWATERING RUNNING 2 CENTRIFUGES(WT 8.6 VIS 35) MI SWACO ON LINE 5' FLARE,NO PRESSURE HELD SEEPING 10 BBLS HOUR PUMPING LCM SWEEPS,,SHAKER NOT BYPASSED
	12:30 - 13:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	13:00 - 0:00	11.00	DRLPRO	02	D	P		DRILL SLIDE 8636 TO 9370' =734 AVG 66 WEIGHT ON BIT 24 ROTARY RPM 60. MUD MOTOR RPM 114. STROKES PER MINUTE 130 GALLONS PER MINUTE 420 ON/OFF PSI 1850/1400 DIFFERENTIAL 250 TORQUE ON/12000 OFFBOTTOM 9300 STRING WEIGHT UP/DOWN/ROT 240/185/210. DRAG 30K. SLIDE 0% ROTATE 100% NORTH WEST OF CENTER NOV DEWATERING RUNNING 2 CENTRIFUGES(WT 8.6 VIS 35) MI SWACO ON LINE 5' FLARE,NO PRESSURE HELD SEEPING 10 BBLS HOUR PUMPING LCM SWEEPS,,SHAKER NOT BYPASSED

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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/9/2012	0:00 - 2:30	2.50	DRLPRO	02	D	P		DRILL SLIDE 9370' TO TD 9535 =165 AVG 66 WEIGHT ON BIT 24 ROTARY RPM 60. MUD MOTOR RPM 114. STROKES PER MINUTE 130 GALLONS PER MINUTE 420 ON/OFF PSI 1850/1400 DIFFERENTIAL 250-300 TORQUE ON/11800 OFFBOTTOM 8500 STRING WEIGHT UP/DOWN/ROT 240/185/210. DRAG 30K. SLIDE 0% ROTATE 100% 1 NORTH 9 WEST OF CENTER NOV RUNNING 2 CENTRIFUGES(WT 8.6 VIS 41) AT TD MI SWACO ON LINE 6-8' FLARE,NO PRESSURE HELD SEEPING 5 BBLS HOUR PUMPING LCM SWEEPS,,SHAKER NOT BYPASSED
	2:30 - 8:30	6.00	DRLPRO	05	C	P		TRANSFER IN 400 BBLS STORED MUD,RAISE MUD WT TO 10.6 38 VIS HOLE STARTING TO SEEP 5' FLARE,BYPASS SHAKERS AND CARRY 8%LCM FOR LOSSES WHILE BRINGING UP MUD WEIGHT FOR KILL MUD 11.6 /40 VIS
	8:30 - 11:00	2.50	DRLPRO	06	E	P		FLOW CHECK/NO FLOW,20 STAND SHORTTRIP BACK TO 8535',TRIP IN WASH 90' TO BOTTOM,5' FILL
	11:00 - 13:00	2.00	DRLPRO	05	C	P		CIRCULATE,BOTTOMS UP 20' FLARE,14 BBL GAIN,CIRC OUT WITH SWACO,RAISE MUD WT FROM 11.6+ TO 12.0#
	13:00 - 19:00	6.00	DRLPRO	06	A	P		FLOW CHECK/NO FLOW,PUMP OUT 3 STANDS,STRAIGHT PULL 260K,TRIP OUT OF HOLE NO TIGHT SPOTS,STAND BACK DIRECTIONAL TOOLS,LAYDOWN BIT & MOTOR #1,PULL WEARBUSHING
	19:00 - 0:00	5.00	CSGPRO	12	C	P		SAFETY MEET WITH FRANKS,RIG UP & RUN 220 JTS 4.5 11.6# I-80 CASING TO SHOE DEPTH 9520',FLOAT COLLAR @9476',MVL MARKER 7267'
8/10/2012	0:00 - 6:00	6.00	CSGPRO	12	C	P		RUN 220 JTS I-80 4.5" 11.6# LTC & DQX CASING TO 9520',FLOAT COLLAR 9476,LAND CSG, AT 97,000#
	6:00 - 7:30	1.50	CSGPRO	05	D	P		CIRCULATE BOTTOMS UP FOR CEMENT
	7:30 - 9:00	1.50	RDMO	22	L	Z		***WAIT ON BIN COMPRESSOR FROM BAKER TO CEMENT***NPT REPORT
	9:00 - 11:30	2.50	CSGPRO	12	E	P		SAFETY MEET WITH BAKER,PRESSURE TEST 5000,PUMP 25 BBL SPACER/520SX LEAD 1.98YIELD #12.5,1020 SX TAIL 1.31 YIELD 14.3#,,-DISPLACE 147 BBL CLAYFIX,FINALLIFT 2550,BUMPPLUG 500 OVER, FLOATSHELD,20 BBLS SPACER BACK,RIG DOWN CEMENTER
	11:30 - 13:00	1.50	RDMO	14	A	P		FLUSH STACK,SET PACK OFF WITH CAMERON,NIPPLE DOWN,SAVE MUD,CLEAN PITS,PREP FOR SKID,RIG RELEASE AT 13:00 8/10/2012

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1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 922-30A4BS BLUE	Wellbore No.	OH
Well Name	NBU 922-30A4BS	Wellbore Name	NBU 922-30A4BS
Report No.	1	Report Date	9/24/2012
Project	UTAH-UINTAH	Site	NBU 922-30A PAD
Rig Name/No.		Event	COMPLETION
Start Date	11/27/2012	End Date	11/28/2012
Spud Date	7/11/2012	Active Datum	RKB @4,943.00usft (above Mean Sea Level)
UWI	NE/NE/0/9/S/22/E/30/0/0/26/PM/N/987/E/0/502/0/0		

1.3 General

Contractor		Job Method		Supervisor	
Perforated Assembly		Conveyed Method			

1.4 Initial Conditions

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

1.5 Summary

Gross Interval	6,520.0 (usft)-9,059.0 (usft	Start Date/Time	11/8/2012 12:00AM
No. of Intervals	50	End Date/Time	11/8/2012 12:00AM
Total Shots	228	Net Perforation Interval	72.00 (usft)
Avg Shot Density	3.17 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (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
11/8/2012 12:00AM	WASATCH/			6,520.0	6,522.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

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2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (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
11/8/2012 12:00AM	WASATCH/			6,542.0	6,544.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	WASATCH/			6,626.0	6,628.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	WASATCH/			6,650.0	6,652.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	WASATCH/			6,722.0	6,724.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	WASATCH/			6,779.0	6,781.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	WASATCH/			6,816.0	6,818.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	WASATCH/			6,892.0	6,894.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	WASATCH/			7,024.0	7,027.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
11/8/2012 12:00AM	WASATCH/			7,113.0	7,116.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
11/8/2012 12:00AM	WASATCH/			7,288.0	7,290.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			7,345.0	7,347.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			7,363.0	7,365.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			7,471.0	7,473.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			7,538.0	7,540.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			7,592.0	7,594.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			7,618.0	7,620.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			7,661.0	7,662.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			7,694.0	7,695.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			7,722.0	7,723.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			7,749.0	7,751.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			7,823.0	7,825.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

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2.1 Perforated Interval (Continued)

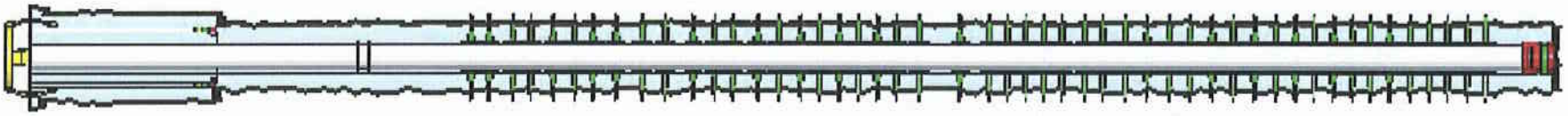
Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/8/2012 12:00AM	MESAVERDE/			8,213.0	8,214.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,378.0	8,379.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,389.0	8,390.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,419.0	8,420.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,429.0	8,431.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,444.0	8,445.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,507.0	8,508.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,523.0	8,524.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,575.0	8,576.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,591.0	8,592.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,602.0	8,603.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,625.0	8,626.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,644.0	8,645.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,677.0	8,678.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,708.0	8,709.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,724.0	8,725.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,755.0	8,756.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,797.0	8,798.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,811.0	8,812.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,843.0	8,844.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,869.0	8,870.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (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
11/8/2012 12:00AM	MESAVERDE/			8,912.0	8,913.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,924.0	8,925.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,964.0	8,965.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,979.0	8,980.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			8,996.0	8,997.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			9,029.0	9,030.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
11/8/2012 12:00AM	MESAVERDE/			9,058.0	9,059.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

3 Plots

3.1 Wellbore Schematic



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US ROCKIES REGION

Operation Summary Report

Well: NBU 922-30A4BS BLUE	Spud Date: 7/11/2012	
Project: UTAH-UINTAH	Site: NBU 922-30A PAD	Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION	Start Date: 11/27/2012	End Date: 11/28/2012
Active Datum: RKB @4,943.00usft (above Mean Sea Level)	UWI: NE/NE/0/9/S/22/E/30/0/0/26/PM/N/987/E/0/502/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/24/2012	12:30 - 13:00	0.50	SURFPR	33		P		RU HOT OILER FILLED SURFACE W/ 2 BBLS TMAC 1ST PSI TEST TO 1500 PSI LOST 500 PSI 2MIN 2ND PSI TEST TO 1500 PSI LOST 250 PSI 5 MIN 3RD PSI TEST TO 1500 PSI LOST 100 PSI 5 MIN BLED PSI, OFF INSTALLED SURFACE POP OFF
9/25/2012	-							
11/1/2012	7:30 - 9:00	1.50	FRAC	33	C	P		FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 31 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 34 PSI. 1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 75 PSI. NO COMMUNICATION SLIGHT MIGRATION WITH SURFACE CSG BLEED OFF PSI. MOVE T/ NEXT WELL. SWIFW
								ATTEMPT TO PUMP DOWN SURFACE AGAIN NO SUCCESS
11/9/2012	7:00 - 10:00	3.00	FRAC	37		P		PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER PERF DESIGN. POOH. SWIFW
11/12/2012	6:30 - 6:45	0.25	FRAC	48		P		JSA-SAFETY MEETING
	6:45 - 7:00	0.25	FRAC	52	B	P		PRESSURE TEST SURFACE LINES 9400#, LOST 400# IN 15 MIN,

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US ROCKIES REGION

Operation Summary Report

Well: NBU 922-30A4BS BLUE		Spud Date: 7/11/2012
Project: UTAH-UINTAH	Site: NBU 922-30A PAD	Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION	Start Date: 11/27/2012	End Date: 11/28/2012
Active Datum: RKB @4,943.00usft (above Mean Sea Level)	UWI: NE/NE/0/9/S/22/E/30/0/0/26/PM/N/987/E/0/502/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 17:00	10.00	FRAC	36	B	P		PERF & FRAC FOLLOWING WELL AS PER DESIGN W/ 30/50 MESH SAND & SLK WTR. ALL CBP'S ARE HALIBURTON 8K CBP'S. REFER TO STIM PJR FOR FLIUD, SAND AND CHEMICL VOLUME PUM'D (FRAC STG #1) WHP = 940 #, BRK DN PERFS = 3051 #, @ 4.7 BPM, ISIP = 1911#, FG = 0.65 , CALC PERF OPEN @ 52.5 BPM, @ 5331 # = 95%, (20/21 HOLES OPEN,) FINAL ISIP = 2832 #, FINAL FG = 0.75 , NET PRESSURE INCREASE = 921 #, MAX PSI = 5988 #, MAX RATE = 53 BPM, AVERAGE PSI = 5432 #, AVERAGE RATE = 52.3 BPM, X OVER TO WIRE LINE (PERF STG #2) P/U 4 ½" HALLIBURTON 8K CBP & 3 1/8" PERF GUN, 23 GM, 0.36 HOLE SIZE, 90 – 120* PHASING, RIH SET CBP @ = 8900 ', PERF AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW (FRAC STG #2) WHP = 1852 #, BRK DN PERFS = 2642 #, @ = 4.7 BPM, ISIP = 1868 #, FG = 0.65, CALC PERF OPEN @ 52.4 BPM, @ 2949 PSI = 92 %, (22/24 HOLES OPEN) FINAL ISIP = 2414 #, FINAL FG = 0.71, NET PRESSURE INCREASE = 546 #, MAX PSI = 5300 #, MAX RATE = 53.3 BPM, AVERAGE PSI = 4792 #, AVERAGE RATE = 52.4 BPM, X OVER TO WIRE LINE (PERF STG #3) P/U 4 ½" HALLIBURTON 8K CBP & 3 1/8" PERF GUN, 23 GM, 0.36 HOLE SIZE, 90 – 120* PHASING, RIH SET CBP @ 8655 ', PERF AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW (FRAC STG #3) WHP = 2191 #, BRK DN PERFS = 2439 #, @ 5 BPM, ISIP = 2162 #, F.G = 0.69 , CALC PER OPEN @ 50.6 BPM @ 4607 PSI = 100 %, (21/21 HOLES OPEN) FINAIL ISIP = 2511 #, FINIAL F.G. = 0.73 , NET PRESSURE INCREACE = 349 #, MAX PSI = 5082 #, MAX RATE = 51.5 BPM, AVERAGE PSI = 4634 #, AVERAGE RATE = 50.6 BPM X OVER TO WIRE LINE (PERF STG #4) P/U 4 ½" HALIBURTON 8K CBP & 3 1/8" PERF GUN, 23 GM, 0.36 HOLE SIZE, 90 – 120* PHASING, RIH SET CBP @ =8475 ', PERF AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW
11/13/2012	6:30 - 6:45	0.25	FRAC	48		P		JSA-SAFETY MEETING

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US ROCKIES REGION

Operation Summary Report

Well: NBU 922-30A4BS BLUE		Spud Date: 7/11/2012
Project: UTAH-UINTAH	Site: NBU 922-30A PAD	Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION	Start Date: 11/27/2012	End Date: 11/28/2012
Active Datum: RKB @4,943.00usft (above Mean Sea Level)	UWI: NE/NE/0/9/S/22/E/30/0/0/26/PM/N/987/E/0/502/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:45 - 17:00	10.25	FRAC	36	E	P		(FRAC STG #4) WHP = 1661 #, BRK DN PERFS = 2223 #, @ 4.3 BPM, ISIP = 1702 #, FG = 0.64 , CALC PERF OPEN @ 50.4 BPM @ 4422 PSI = 100 %, (21/21 HOLES OPEN, FINAL ISIP = 2343 #, FINAL FG = 0.72 , NET PRESSURE INCREASE = 641 #, MAX PSI = 4891 #, MAX RATE = 52.1 BPM, AVERAGE PSI = 4476 #, AVERAGE RATE = 50.6 BPM, X OVER TO WIRE LINE (PERF STG #5) P/U 4 ½" HALIBURTON 8K CBP & 3 1/8" PERF GUN, 23 GM, 0.36 HOLE SIZE, 90 – 120* PHASING, RIH SET CBP @ = 7855 ', PERF AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW (FRAC STG #5) WHP = 287 #, BRK DN PERFS = 1525#, @ = 4.7 BPM, ISIP = 758 #, F G = 0.54 , CALC PERF OPEN @ 50.8 BPM @ 4530 PSI = 76 %, (16/21 HOLES OPEN) FINAL ISIP = 1957 #, FINAL F G = 0.69 , NET PRESSURE INCREASE = 1199 #, MAX PSI = 5575 #, MAX RATE = 51.8 BPM, AVERAGE PSI = 4179 #, AVERAGE RATE = 50.6 BPM, X OVER TO WIRE LINE (PERF STG #6) P/U 4 ½" HALIBURTON 8K CBP & 3 1/8" PERF GUN, 23 GM, 0.36 HOLE SIZE, 90 – 120* PHASING, RIH SET CBP @ = 7650 ', PERF AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW (FRAC STG #6) WHP = 582 #, BRK DN PERFS = 2552 #, @ 4.8 BPM, ISIP = 1453 #, F G = 0.63 , CALC PERF OPEN @ 50.8 BPM @ 3809 PSI = 100 %, (24/24 HOLES OPEN,) FINAL ISIP = 2053 #, FINAL F G = 0.71 , NET PRESSURE INCREASE = 600 PSI. MAX PSI = 5049 #, MAX RATE = 51.1 BPM, AVERAGE PSI = 3792 #. AVERAGE RATE = 50.6 BPM, X OVER TO WIRE LINE (PERF STG #7) P/U 4 ½" HALLIBURTON 8K CBP & 3 1/8" PERF GUN, 23 gm, 0.36 HOLE SIZE, 90 – 120* PHASING, RIH SET CBP @ = 7395 ', PERF AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW (FRAC STG #7) WHP = 511 #, BRK DN PERFS = 2307 #, @ 4.8 BPM, ISIP = 405 #, F G = 0.49 ,(CALLED DENVER, GO AHEAD AND FRAC WELL,) CALC PERF OPEN @ 50.7 BPM @ 4387 PSI = 63 %,

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US ROCKIES REGION

Operation Summary Report

Well: NBU 922-30A4BS BLUE		Spud Date: 7/11/2012
Project: UTAH-UINTAH	Site: NBU 922-30A PAD	Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION	Start Date: 11/27/2012	End Date: 11/28/2012
Active Datum: RKB @4,943.00usft (above Mean Sea Level)	UWI: NE/NE/0/9/S/22/E/30/0/0/26/PM/N/987/E/0/502/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
								(15/24 HOLES OPEN) FINAL ISIP = 2326 #, FINAL F G = 0.76 , NET PRESSURE INCREASE = 1921 PSI, MAX PSI = 4990 #, MAX RATE = 51.4 BPM, AVERAGE PSI = 4208 #, AVERAGE RATE = 50.5 BPM, X OVER TO WIRE LINE (PERF STG #8) P/U 4 ½" HALIBURTON 8K CBP & 3 1/8" PERF GUN, 23 GM, 0.36 HOLE SIZE, 90-120* PHASING, RIH SET CBP @ 7146 ', PERF AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW (FRAC STG #8) WHP = 604 #, BRK DN PERFS = 3585 #, @ 4.4 BPM, ISIP = 2063 #, F G = 0.73 , CALC PERF OPEN @ 51 BPM @ 5522 PSI = 71 %, (17/24 HOLES OPEN) FINAL ISIP = 2417 #, FINAL F G = 0.78 , NET PRESSURE INCREASE = 354 PSI, MAX PSI = 5686 #, MAX RATE = 51.7 BPM, AVERAGE PSI = 4825 #, AVERAGE RATE = 50.9 BPM, X OVER TO WIRE LINE (PERF STG #9) P/U 4 ½" HALLIBURTON 8K CBP & 3 1/8" PERF GUN, 23 gm, 0.36 HOLE SIZE, 90 – 120* PHASING, RIH SET CBP @ = 6924 ', PERF AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW
11/14/2012	6:30 - 6:45	0.25	FRAC	48		P		JSA-SAFETY MEETING

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US ROCKIES REGION

Operation Summary Report

Well: NBU 922-30A4BS BLUE		Spud Date: 7/11/2012
Project: UTAH-UINTAH	Site: NBU 922-30A PAD	Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION	Start Date: 11/27/2012	End Date: 11/28/2012
Active Datum: RKB @4,943.00usft (above Mean Sea Level)	UWI: NE/NE/0/9/S/22/E/30/0/0/26/PM/N/987/E/0/502/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:45 - 11:00	4.25	FRAC	36	B	P		(FRAC STG #9) WHP = 994 #, BRK DN PERFS = 2581 #, @ 4.7 BPM, ISIP = 1724 #, F G = 0.69 , CALC PERF OPEN @ 48.8 BPM @ 5459 PSI = 63 %, (15/24 HOLES OPEN) FINAL ISIP = 1832 #, FINAL F G = 0.71 , NET PRESSURE INCREASE = 108 PSI, MAX PSI = 5672 #, MAX RATE = 52.1 BPM, AVERAGE PSI = 4007 #, AVERAGE RATE = 50.8 BPM, X OVER TO WIRE LINE (PERF STG #10) P/U 4 ½" HALIBURTON 8K CBP & 3 1/8" PERF GUN, 23 GM, 0.36 HOLE SIZE, 90-120* PHASING, RIH SET CBP @ 6682 ', PERF AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW (FRAC STG #10) WHP = 1462 #, BRK DN PERFS = 2030 #, @ 4.9 BPM, ISIP = 1559 #, F G = 0.68 , CALC PERF OPEN @ 51 BPM @ 4644 PSI = 79 %, (19/24 HOLES OPEN) FINAL ISIP = 1634 #, FINAL F G = 0.69 , NET PRESSURE INCREASE = 75 PSI, MAX PSI = 4843 #, MAX RATE = 51.9 BPM, AVERAGE PSI = 3698 #, AVERAGE RATE = 51.1 BPM, X OVER TO WIRE LINE (KILL PLUG) P/U RIH W/ HALIBURTON 8K CBP, SET FOR TOP KILL @ = 6470' R/D WIRELINE AND FRAC CREW, SHUT WELL IN, TOTAL FLUID PUMP'D = 9547 BBLS TOTAL SAND PUMP'D = 210105
11/27/2012	7:00 - 7:15	0.25	DRLOUT	48		P		JSA= NU BOPS

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US ROCKIES REGION

Operation Summary Report

Well: NBU 922-30A4BS BLUE		Spud Date: 7/11/2012
Project: UTAH-UINTAH	Site: NBU 922-30A PAD	Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION	Start Date: 11/27/2012	End Date: 11/28/2012
Active Datum: RKB @4,943.00usft (above Mean Sea Level)	UWI: NE/NE/0/9/S/22/E/30/0/0/26/PM/N/987/E/0/502/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 17:00	9.75	DRLOUT	30		P		RD RIG ON 29D1BS MOVE RU ON 30A4BS ND W/H NU BOPS RU FLOOR & TUBING EQUIP TALLY & PU TUBING TAG 1ST PLUG @ 6470' EST CIRC TEST BOPS TO 3000# DRILL THRU 1ST CBP PLUG #1] DRILL THRU HALLI 8K CBP @ 6470' IN 11 MIN W/ 50# INCREASE PLUG #2] CONTINUE TO RIH TAG SAND @ 6652' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @ 6682' IN 9 MIN W/ 0 INCREASE PLUG #3] CONTINUE TO RIH TAG SAND @ 6904' (20' FILL) C/O & DRILL THRU HALLI 8K CBP @ 6924' IN 8 MIN W/ 0# INCREASE PLUG #4] CONTINUE TO RIH TAG SAND @ 7126' (20' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7146' IN 9 MIN W/ 0 INCREASE PLUG #5] CONTINUE TO RIH TAG SAND @ 7375' (20' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7395' IN 6 MIN W/ 0 INCREASE PLUG #6] CONTINUE TO RIH TAG SAND @ 7635' (15' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7650' IN 8 MIN W/ 0 INCREASE PLUG #7] CONTINUE TO RIH TAG SAND @ 7830' (25' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7855' IN 10 MIN W/ 150# INCREASE CONTINUE TO CIRC 15 MIN ALLOW WELL TO FLOW 1 HR SIW SDFN
11/28/2012	7:00 - 7:15	0.25	DRLOUT	48		P		JSA= DRILLING PLUGS

DEC 2 7 2012

US ROCKIES REGION

Operation Summary Report

Well: NBU 922-30A4BS BLUE		Spud Date: 7/11/2012
Project: UTAH-UINTAH	Site: NBU 922-30A PAD	Rig Name No: SWABBCO 6/6, SWABBCO 6/6
Event: COMPLETION	Start Date: 11/27/2012	End Date: 11/28/2012
Active Datum: RKB @4,943.00usft (above Mean Sea Level)	UWI: NE/NE/0/9/S/22/E/30/0/0/26/PM/N/987/E/0/502/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 14:00	6.75	DRLOUT	30		P		OPEN WELL TO PIT @ 6:00 AM ALLOW TO FLOW 1 HR CONTINUE TO RIH TAG FILL ON PLUG # 8 @ 8455' PLUG #8] DAG SAND @ 8455' (20' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8475' IN 9 MIN W/ 100# INCREASE PLUG #9] CONTINUE TO RIH TAG SAND @ 8640' (15' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8655' IN 7 MIN W/ 50# INCREASE PLUG #10] CONTINUE TO RIH TAG SAND @ 8885' (15' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8900' IN 9 MIN W/ 50# INCREASE PBTD] CONTINUE TO RIH TO 9230' POOH LD 20 JNTS LAND TUB ON HNGR W/ 271 JNTS 2-3/8" L-80 TUBING EOT @ 8636.71' RD PWR SWVL RD FLOOR & TUBING EQUIP ND BOPS NU WELLHEAD DROP BALL PUMP OFF BIT @ 2000# NU & TEST FLOW LINE TURN WELL OVER TO FBC RD MOVE TO 30A1CS TUBING DETAIL K.B.....19.00' HANGER.....83" 271 JNTS 2-3/8" L-80.....8614.74' POBS.....2.20' EOT@.....8636.77 TOTAL FLUID PUMPED= 9547 BBLS RIG REC= 3000 BBLS LEFT TO REC= 6547 BBLS CTAP DEL 313 JNTS USED 271 JNTS RETURNED 42 JNTS
	14:00 - 14:00	0.00	DRLOUT	50				WELL TURNED TO SALES @ 1345 HR ON 11/28/2012. 2200 MCFD, 1920 BWPD, FCP 2000#, FTP 1855#, 20/64" CK.
11/29/2012	-							
	7:00 -			50				WELL IP'D ON 11/29/12 - 1669 MCFD, 276 BWPD, 0 BOPD, CP 2300#, FTP 1550#, LP 79#, 24 HRS, CK 20/64

DEC 2 7 2012

Site: UINTAH_NBU 922-30A PAD
Well: NBU 922-30A4BS
Wellbore: NBU 922-30A4BS
Section:
SHL:
Design: NBU 922-30A4BS (wp01)
Latitude: 40.011599
Longitude: -109.474400
GL: 4924.00
KB: 18' RKB + 4924' GL @ 4942.00ft (SST 54)

TVDPath	MDPath	Formation
1417.00	1421.81	GREEN RIVER
1745.00	1751.72	BIRDS NEST
2264.00	2273.68	MAHOGANY
4711.00	4724.15	WASATCH
5311.00	5324.15	TOP OF CYLINDER
7315.00	7328.18	MESAVERDE
9515.00	9528.22	SEGO

WELL DETAILS: NBU 922-30A4BS

Ground Level: 4924.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	14533925.10	2067610.18	40.011599	-109.474400	

CASING DETAILS

TVD	MD	Name	Size
2744.78	2756.40	8-5/8	8-5/8

T M

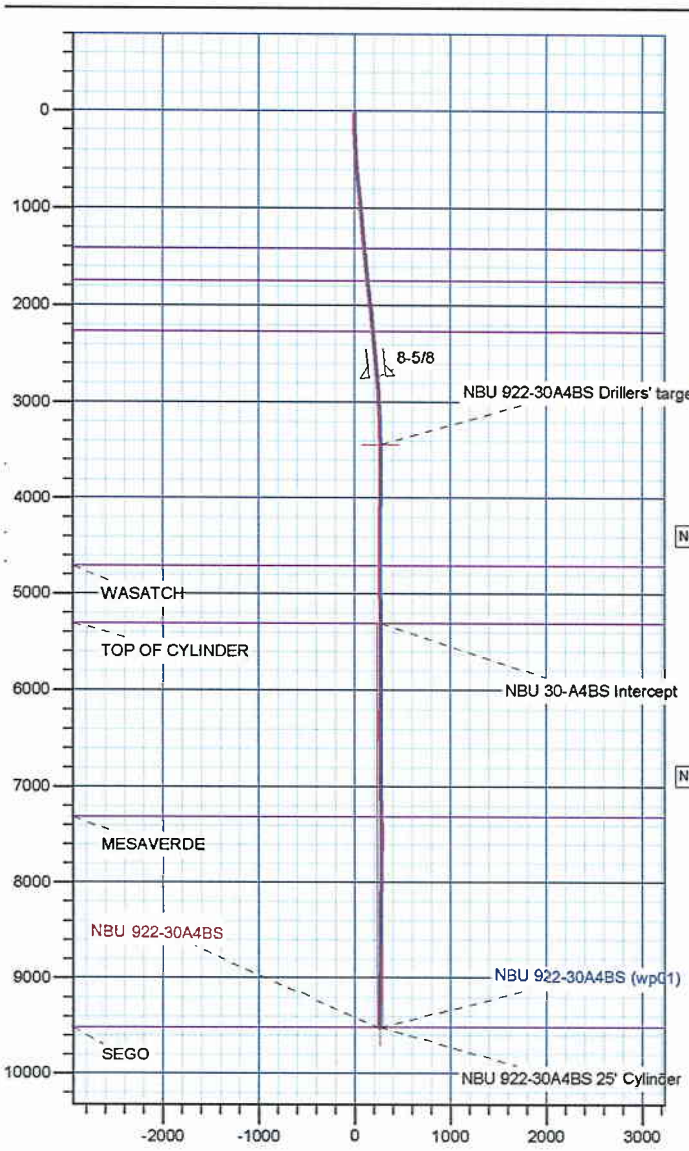
Azimuths to True Nor
Magnetic North: 10.9
Magnetic Fie
Strength: 52230.6sr
Dip Angle: 65.8
Date: 7/18/201
Model: IGRF201

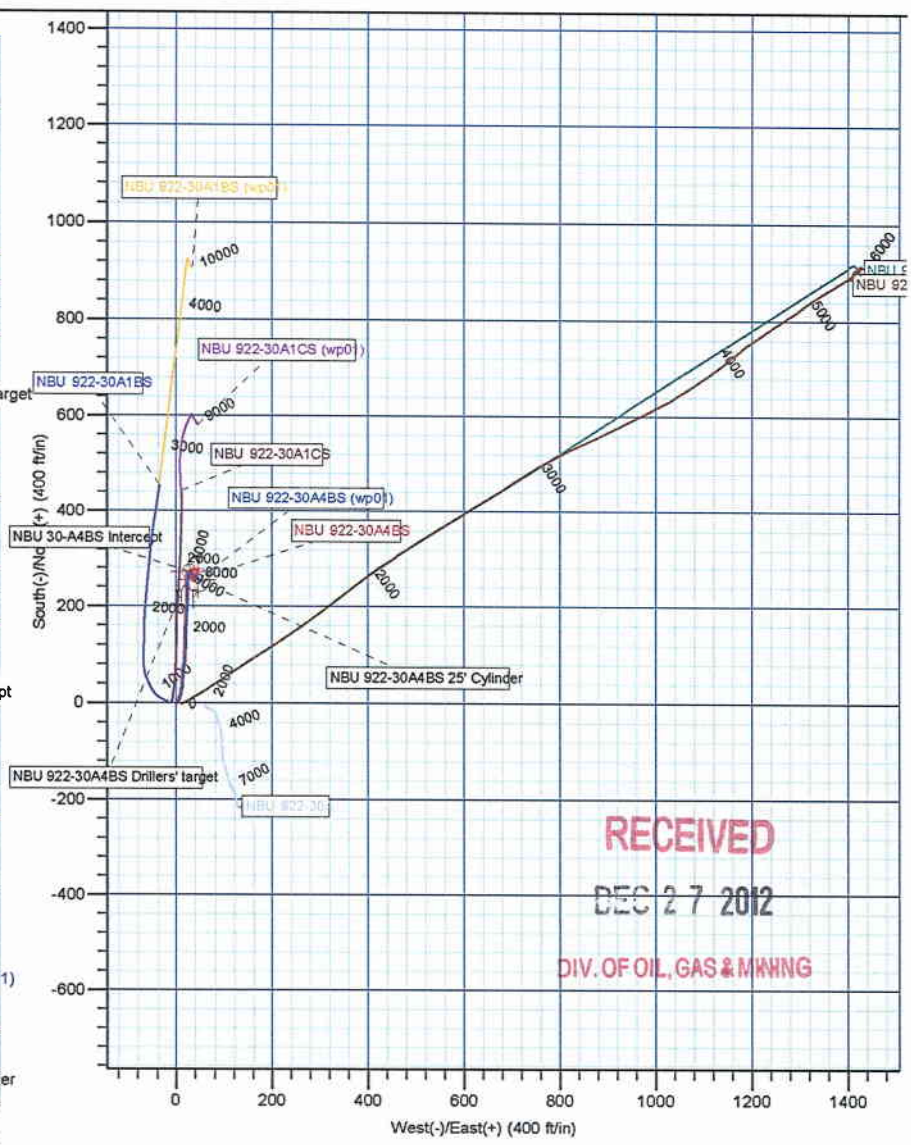
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
NBU 922-30A4BS Drillers' target	3434.86	272.99	27.46	14534198.52	2067632.96	40.012349	-109.474302	Circle (Radius: 15.00
NBU 30-A4BS Intercept	5311.00	272.99	27.46	14534198.52	2067632.96	40.012349	-109.474302	Point
NBU 922-30A4BS 25' Cylinder	9515.00	254.95	44.81	14534180.78	2067650.62	40.012299	-109.474240	Circle (Radius: 25.00

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
2733.00	5.65	359.60	2721.50	231.09	22.57	0.00	0.00	231.50
2883.00	5.65	359.60	2870.77	245.85	22.47	0.00	0.00	246.03
3448.00	0.00	32.09	3434.86	272.99	27.46	1.04	164.18	273.62
5324.15	0.00	32.09	5311.00	272.99	27.46	0.00	32.09	273.62
5439.43	0.35	136.11	5426.29	272.73	27.70	0.30	136.11	273.41
9528.22	0.35	136.11	9515.00	254.95	44.81	0.00	0.00	258.86





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US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N
UINTAH_NBU 922-30A PAD
NBU 922-30A4BS

NBU 922-30A4BS

Design: NBU 922-30A4BS

Standard Survey Report

15 August, 2012

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Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 922-30A4BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	18' RKB + 4924' GL @ 4942.00ft (SST 54)
Site:	UINTAH_NBU 922-30A PAD	**MD Reference:**	18' RKB + 4924' GL @ 4942.00ft (SST 54)
Well:	NBU 922-30A4BS	**North Reference:**	True
Wellbore:	NBU 922-30A4BS	**Survey Calculation Method:**	Minimum Curvature
Design:	NBU 922-30A4BS	**Database:**	edmp

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

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site UINTAH_NBU 922-30A PAD

Site Position:		**Northing:**	14,533,922.36 usft	**Latitude:**	40.011591
From:	Lat/Long	**Easting:**	2,067,619.74 usft	**Longitude:**	-109.474366
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.98 °

Well NBU 922-30A4BS

Well Position	**+N/-S**	0.00 ft	**Northing:**	14,533,925.11 usft	**Latitude:**	40.011599
	+E/-W	0.00 ft	**Easting:**	2,067,610.17 usft	**Longitude:**	-109.474400
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,924.00 ft

Wellbore NBU 922-30A4BS

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/18/2012	10.93	65.85	52,231

Design NBU 922-30A4BS

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	14.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	14.00	0.00	0.00	5.58

Survey Program **Date** 8/15/2012

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
158.00	2,733.00	Survey #1 (NBU 922-30A4BS)	MWD	MWD - STANDARD
2,858.00	9,535.00	Survey #2 (NBU 922-30A4BS)	MWD	MWD - STANDARD

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14.00	0.00	0.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00
158.00	0.63	40.51	158.00	0.60	0.51	0.65	0.44	0.44	0.00
186.00	0.62	24.82	186.00	0.86	0.68	0.92	0.61	-0.04	-56.04
214.00	0.64	43.84	213.99	1.11	0.85	1.18	0.75	0.07	67.93
244.00	0.89	35.13	243.99	1.42	1.10	1.52	0.92	0.83	-29.03
273.00	1.11	45.38	272.99	1.80	1.43	1.93	0.97	0.76	35.34
303.00	1.49	38.09	302.98	2.31	1.88	2.48	1.38	1.27	-24.30
329.00	1.74	40.79	328.97	2.88	2.34	3.09	1.00	0.96	10.38
359.00	1.82	39.29	358.95	3.59	2.94	3.86	0.31	0.27	-5.00
449.00	2.82	19.14	448.88	6.79	4.57	7.20	1.42	1.11	-22.39

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Survey Report

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 922-30A4BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	18' RKB + 4924' GL @ 4942.00ft (SST 54)
Site:	UINTAH_NBU 922-30A PAD	**MD Reference:**	18' RKB + 4924' GL @ 4942.00ft (SST 54)
Well:	NBU 922-30A4BS	**North Reference:**	True
Wellbore:	NBU 922-30A4BS	**Survey Calculation Method:**	Minimum Curvature
Design:	NBU 922-30A4BS	**Database:**	edmp

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
539.00	4.04	18.58	538.72	11.88	6.31	12.44	1.36	1.36	-0.62
629.00	5.27	16.88	628.42	18.84	8.52	19.58	1.38	1.37	-1.89
719.00	6.00	14.01	717.98	27.36	10.86	28.29	0.87	0.81	-3.19
809.00	6.42	5.13	807.46	36.94	12.45	37.97	1.16	0.47	-9.87
899.00	6.40	1.22	896.90	46.97	13.00	48.01	0.49	-0.02	-4.34
989.00	6.24	0.38	986.35	56.87	13.14	57.88	0.21	-0.18	-0.93
1,079.00	5.63	8.20	1,075.87	66.13	13.81	67.16	1.12	-0.68	8.69
1,169.00	5.54	11.10	1,165.44	74.77	15.27	75.90	0.33	-0.10	3.22
1,259.00	5.72	6.27	1,255.01	83.49	16.60	84.70	0.56	0.20	-5.37
1,349.00	5.72	5.04	1,344.56	92.41	17.48	93.67	0.14	0.00	-1.37
1,439.00	5.75	3.51	1,434.11	101.38	18.15	102.66	0.17	0.03	-1.70
1,529.00	5.89	2.76	1,523.64	110.49	18.65	111.78	0.18	0.16	-0.83
1,619.00	6.41	0.96	1,613.13	120.13	18.96	121.40	0.62	0.58	-2.00
1,709.00	6.51	359.42	1,702.55	130.25	18.99	131.48	0.22	0.11	-1.71
1,799.00	6.42	359.06	1,791.98	140.39	18.86	141.55	0.11	-0.10	-0.40
1,889.00	6.07	5.22	1,881.45	150.16	19.21	151.31	0.84	-0.39	6.84
1,979.00	6.42	4.34	1,970.91	159.91	20.02	161.10	0.40	0.39	-0.98
2,069.00	6.33	359.24	2,060.36	169.89	20.33	171.06	0.64	-0.10	-5.67
2,159.00	5.89	357.75	2,149.85	179.47	20.09	180.57	0.52	-0.49	-1.66
2,249.00	5.28	7.76	2,239.42	188.18	20.46	189.28	1.27	-0.68	11.12
2,339.00	4.75	9.52	2,329.08	195.96	21.64	197.14	0.61	-0.59	1.96
2,429.00	5.01	5.30	2,418.75	203.55	22.62	204.78	0.49	0.29	-4.69
2,519.00	5.17	359.97	2,508.40	211.52	22.98	212.75	0.55	0.18	-5.92
2,609.00	5.01	357.83	2,598.04	219.50	22.83	220.68	0.28	-0.18	-2.38
2,699.00	5.54	359.06	2,687.66	227.77	22.61	228.89	0.60	0.59	1.37
2,733.00	5.65	359.60	2,721.50	231.09	22.57	232.19	0.36	0.32	1.59
TIE ON									
2,858.00	4.67	348.52	2,845.99	242.23	21.52	243.17	1.11	-0.78	-8.86
FIRST MWD SURVEY									
2,954.00	3.30	0.60	2,941.76	248.82	20.77	249.66	1.67	-1.43	12.58
3,049.00	2.56	3.07	3,036.64	253.67	20.91	254.50	0.79	-0.78	2.60
3,144.00	2.25	2.45	3,131.55	257.65	21.10	258.48	0.33	-0.33	-0.65
3,239.00	1.81	355.58	3,226.49	261.01	21.07	261.82	0.53	-0.46	-7.23
3,335.00	1.69	26.83	3,322.45	263.79	21.59	264.64	0.99	-0.13	32.55
3,430.00	1.31	36.58	3,417.42	265.91	22.87	266.87	0.48	-0.40	10.26
3,526.00	0.69	50.08	3,513.40	267.16	23.96	268.23	0.69	-0.65	14.06
3,621.00	0.44	79.45	3,608.40	267.60	24.76	268.74	0.39	-0.26	30.92
3,716.00	0.38	130.33	3,703.40	267.46	25.36	268.66	0.38	-0.06	53.56
3,812.00	0.69	171.20	3,799.39	266.68	25.69	267.92	0.49	0.32	42.57
3,907.00	1.00	179.20	3,894.38	265.29	25.79	266.54	0.35	0.33	8.42
4,003.00	0.38	110.20	3,990.37	264.34	26.10	265.62	0.97	-0.65	-71.88
4,098.00	0.44	25.58	4,085.37	264.56	26.55	265.89	0.58	0.06	-89.07
4,193.00	0.19	160.95	4,180.37	264.74	26.76	266.09	0.62	-0.26	142.50

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Survey Report

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 922-30A4BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	18' RKB + 4924' GL @ 4942.00ft (SST 54)
Site:	UINTAH_NBU 922-30A PAD	**MD Reference:**	18' RKB + 4924' GL @ 4942.00ft (SST 54)
Well:	NBU 922-30A4BS	**North Reference:**	True
Wellbore:	NBU 922-30A4BS	**Survey Calculation Method:**	Minimum Curvature
Design:	NBU 922-30A4BS	**Database:**	edmp

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,289.00	0.56	339.20	4,276.37	265.03	26.65	266.36	0.78	0.39	185.68
4,384.00	0.13	11.95	4,371.37	265.57	26.51	266.89	0.48	-0.45	34.47
4,480.00	0.25	183.83	4,467.37	265.46	26.52	266.78	0.39	0.13	179.04
4,575.00	0.44	314.83	4,562.37	265.52	26.24	266.81	0.67	0.20	137.90
4,671.00	0.56	243.45	4,658.37	265.57	25.56	266.79	0.62	0.13	-74.35
4,766.00	0.75	221.95	4,753.36	264.90	24.73	266.04	0.32	0.20	-22.63
4,862.00	0.81	205.58	4,849.35	263.82	24.02	264.90	0.24	0.06	-17.05
4,957.00	0.19	90.70	4,944.35	263.21	23.89	264.28	0.95	-0.65	-120.93
5,053.00	0.88	14.70	5,040.34	263.92	24.23	265.03	0.89	0.72	-79.17
5,148.00	0.75	16.33	5,135.33	265.22	24.59	266.36	0.14	-0.14	1.72
5,244.00	0.50	23.45	5,231.33	266.21	24.93	267.37	0.27	-0.26	7.42
5,339.00	0.38	74.33	5,326.33	266.67	25.40	267.88	0.41	-0.13	53.56
5,434.00	1.25	50.95	5,421.32	267.41	26.51	268.72	0.96	0.92	-24.61
5,530.00	1.00	73.20	5,517.30	268.31	28.13	269.78	0.52	-0.26	23.18
5,625.00	0.88	94.58	5,612.28	268.50	29.65	270.11	0.39	-0.13	22.51
5,720.00	1.00	110.20	5,707.27	268.15	31.15	269.91	0.30	0.13	16.44
5,816.00	1.25	119.58	5,803.25	267.34	32.85	269.27	0.32	0.26	9.77
5,911.00	0.81	191.33	5,898.24	266.17	33.62	268.18	1.32	-0.46	75.53
6,005.00	1.00	260.08	5,992.23	265.38	32.68	267.30	1.10	0.20	73.14
6,101.00	0.81	244.70	6,088.22	264.95	31.24	266.73	0.32	-0.20	-16.02
6,196.00	0.88	225.70	6,183.21	264.15	30.11	265.83	0.30	0.07	-20.00
6,292.00	1.00	209.70	6,279.20	262.91	29.17	264.50	0.30	0.13	-16.67
6,387.00	0.44	279.95	6,374.19	262.25	28.40	263.77	1.00	-0.59	73.95
6,482.00	1.25	341.58	6,469.18	263.30	27.71	264.74	1.17	0.85	64.87
6,578.00	1.31	342.70	6,565.16	265.34	27.06	266.71	0.07	0.06	1.17
6,673.00	0.88	343.58	6,660.14	267.08	26.53	268.39	0.45	-0.45	0.93
6,769.00	0.56	337.95	6,756.13	268.22	26.14	269.49	0.34	-0.33	-5.86
6,864.00	0.38	344.20	6,851.13	268.95	25.88	270.19	0.20	-0.19	6.58
6,959.00	0.13	350.95	6,946.13	269.36	25.78	270.59	0.26	-0.26	7.11
7,053.00	0.94	17.45	7,040.12	270.20	25.99	271.45	0.88	0.86	28.19
7,148.00	1.81	34.58	7,135.09	272.18	27.08	273.52	1.00	0.92	18.03
7,244.00	2.13	60.83	7,231.04	274.30	29.50	275.87	0.99	0.33	27.34
7,338.00	2.19	67.20	7,324.97	275.85	32.68	277.72	0.26	0.06	6.78
7,432.00	2.25	76.45	7,418.90	276.97	36.13	279.17	0.39	0.06	9.84
7,527.00	2.25	82.83	7,513.83	277.64	39.79	280.20	0.26	0.00	6.72
7,622.00	1.63	126.58	7,608.78	277.07	42.73	279.91	1.64	-0.65	46.05
7,718.00	1.06	154.70	7,704.75	275.45	44.20	278.45	0.89	-0.59	29.29
7,813.00	0.75	190.08	7,799.74	274.05	44.47	277.07	0.66	-0.33	37.24
7,908.00	1.06	183.95	7,894.73	272.56	44.30	275.57	0.34	0.33	-6.45
8,002.00	1.13	182.70	7,988.71	270.77	44.20	273.78	0.08	0.07	-1.33
8,098.00	1.31	174.58	8,084.69	268.73	44.25	271.76	0.26	0.19	-8.46
8,193.00	1.31	179.58	8,179.67	266.56	44.37	269.61	0.12	0.00	5.26
8,289.00	0.75	233.83	8,275.65	265.09	43.87	268.10	1.11	-0.58	56.51
8,384.00	1.06	264.83	8,370.64	264.65	42.49	267.52	0.60	0.33	32.63

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Survey Report

Company:	US ROCKIES REGION PLANNING	**Local Co-ordinate Reference:**	Well NBU 922-30A4BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	**TVD Reference:**	18' RKB + 4924' GL @ 4942.00ft (SST 54)
Site:	UINTAH_NBU 922-30A PAD	**MD Reference:**	18' RKB + 4924' GL @ 4942.00ft (SST 54)
Well:	NBU 922-30A4BS	**North Reference:**	True
Wellbore:	NBU 922-30A4BS	**Survey Calculation Method:**	Minimum Curvature
Design:	NBU 922-30A4BS	**Database:**	edmp

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,480.00	1.45	294.26	8,466.62	265.07	40.50	267.75	0.77	0.41	30.66
8,576.00	1.25	292.23	8,562.59	265.96	38.42	268.44	0.21	-0.21	-2.11
8,671.00	1.25	287.20	8,657.57	266.66	36.47	268.94	0.12	0.00	-5.29
8,767.00	1.01	276.91	8,753.55	267.07	34.63	269.17	0.33	-0.25	-10.72
8,863.00	0.88	236.20	8,849.54	266.76	33.18	268.72	0.70	-0.14	-42.41
8,958.00	1.13	216.70	8,944.53	265.61	32.01	267.46	0.44	0.26	-20.53
9,054.00	1.06	205.95	9,040.51	264.05	31.06	265.82	0.23	-0.07	-11.20
9,149.00	1.38	148.70	9,135.49	262.28	31.27	264.08	1.27	0.34	-60.26
9,244.00	1.50	148.33	9,230.46	260.24	32.52	262.17	0.13	0.13	-0.39
9,340.00	1.50	149.20	9,326.43	258.10	33.82	260.16	0.02	0.00	0.91
9,434.00	1.53	153.73	9,420.39	255.91	35.00	258.10	0.13	0.03	4.82
9,475.00	1.44	156.82	9,461.38	254.95	35.45	257.19	0.29	-0.22	7.54
LAST MWD SURVEY									
9,535.00	1.44	156.82	9,521.36	253.56	36.04	255.87	0.00	0.00	0.00
PROJECTION TO TD									

Checked By: _____ Approved By: _____ Date: _____

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