

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 921-35L1CS		
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT NATURAL BUTTES		
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES		
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.						7. OPERATOR PHONE 720 929-6007		
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217						9. OPERATOR E-MAIL Kathy.SchneebeckDulnoan@anadarko.com		
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UO 01194 ST			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>		
13. NAME OF SURFACE OWNER (if box 12 = 'fee')						14. SURFACE OWNER PHONE (if box 12 = 'fee')		
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')		
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>			19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>		
20. LOCATION OF WELL		FOOTAGES		QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE		2009 FSL 787 FWL		NWSW	35	9.0 S	21.0 E	S
Top of Uppermost Producing Zone		2255 FSL 835 FWL		NWSW	35	9.0 S	21.0 E	S
At Total Depth		2255 FSL 835 FWL		NWSW	35	9.0 S	21.0 E	S
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 835			23. NUMBER OF ACRES IN DRILLING UNIT 1083		
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 261			26. PROPOSED DEPTH MD: 10663 TVD: 10610		
27. ELEVATION - GROUND LEVEL 5065			28. BOND NUMBER 22013542			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Permit #43-8496		
ATTACHMENTS								
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES								
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER				<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN				
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)				<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER				
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)				<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP				
NAME Danielle Piernot			TITLE Regulatory Analyst			PHONE 720 929-6156		
SIGNATURE			DATE 11/23/2010			EMAIL gnbregulatory@anadarko.com		
API NUMBER ASSIGNED 43047513890000			APPROVAL  Permit Manager					

Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Prod	7.875	4.5	0	10663		
Pipe	Grade	Length	Weight			
	Grade HCP-110 LT&C	10663	11.6			

Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	12.25	9.625	0	2580		
Pipe	Grade	Length	Weight			
	Grade J-55 LT&C	2580	36.0			

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

NBU 921-35L1CS

Surface:	2009 FSL / 787 FWL	NWSW
BHL:	2255 FSL / 835 FWL	NWSW

Section 35 T9S R21E

Unitah County, Utah
Mineral Lease: ST UT UO 01194 ST

ONSHORE ORDER NO. 1

DRILLING PROGRAM

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

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1460	
Birds Nest	1748	Water
Mahogany	2131	Water
Wasatch	4745	Gas
Mesaverde	7486	Gas
MVU2	8366	Gas
MVL1	8927	Gas
Sego*	9724	
Castlegate*	9735	
MN5*	10157	
TVD	10610	
TD	10663	

* The Blackhawk formation is in the Mesaverde group

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

Please refer to the attached Drilling Program

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

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. Evaluation Program:

Please refer to the attached Drilling Program

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 10,610' TVD, approximately equals 7,051 psi (calculated at 0.66 psi/foot).

Maximum anticipated surface pressure equals approximately 4,717 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:**9. Variances:**

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

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

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

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

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

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

Background

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

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

The air rig is then mobilized to drill the surface casing hole by drilling a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 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 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

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

Variance for BOPE Requirements

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

Variance for Mud Material Requirements

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

Variance for Special Drilling Operation (surface equipment placement) Requirements

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

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

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

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

Conclusion

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

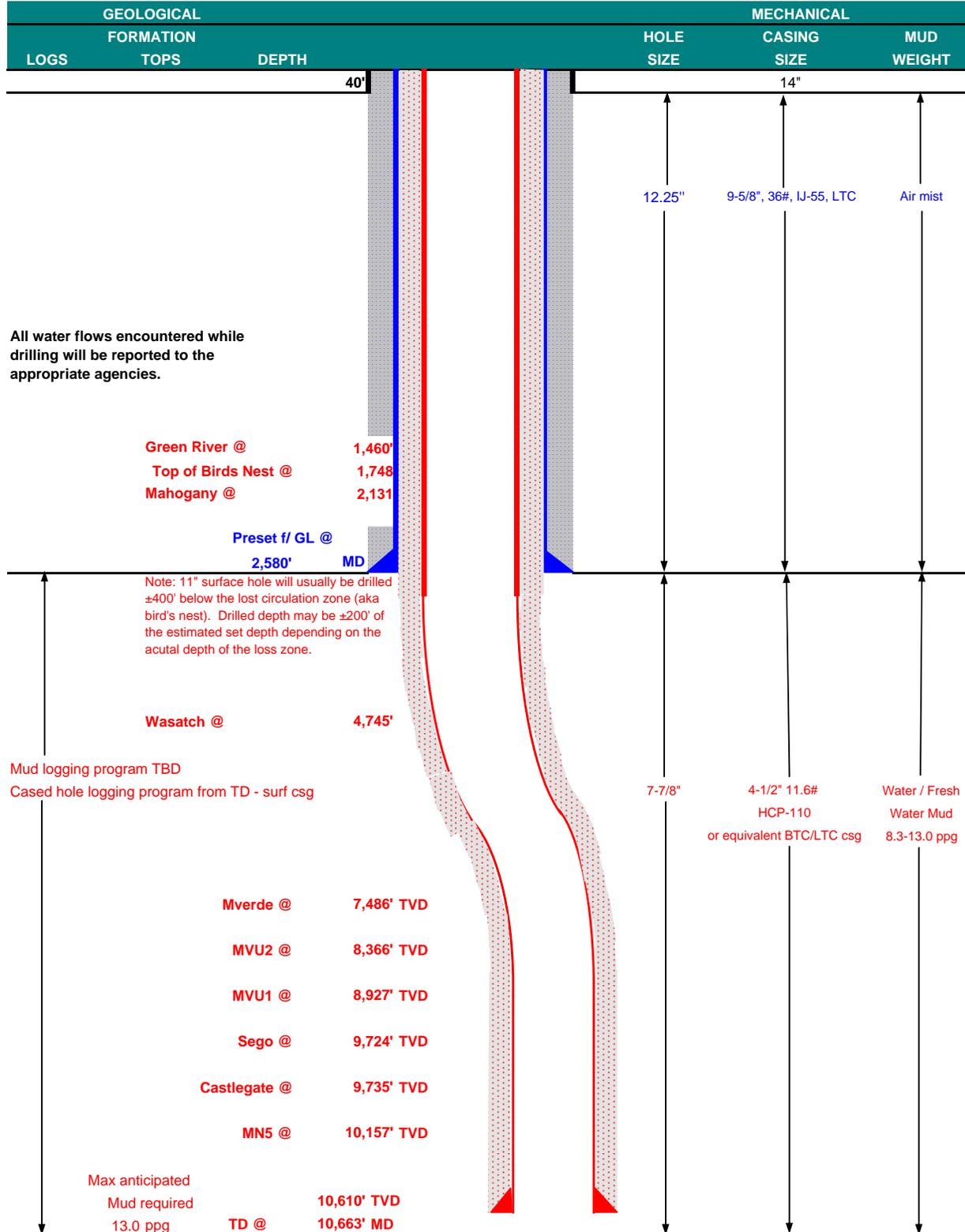
10. **Other Information:**

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	November 18, 2010	
WELL NAME	NBU 921-35L1CS		TD	10,610' TVD	10,663' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah
SURFACE LOCATION	NWSW	2009 FSL	787 FWL	Sec 35 T 9S R 21E	FINISHED ELEVATION 5,065'
BTM HOLE LOCATION	Latitude: 39.990695		Longitude: -109.524819		NAD 27
	NWSW	2255 FSL	835 FWL	Sec 35 T 9S R 21E	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
	ADDITIONAL INFO Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.				





KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						
						3,520	2,020	453,000
SURFACE	9-5/8"	0 to 2,580'	36.00	IJ-55	LTC	0.72	1.67	6.21
						10,690	8,650	367,000
PRODUCTION	4-1/2"	0 to 10,663'	11.60	HCP-110	BTC	4.56	1.21	3.70

*Burst on surface casing is controlled by fracture gradient as shoe with gas gradient above.

D.F. = 2.17

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 13.0 ppg)

0.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 4,717 psi

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

(Burst Assumptions: TD = 13.0 ppg)

0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 7,051 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD	
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	220	60%	15.80	1.15	
Option 1			+ 0.25 pps flocele					
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	330	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	240	35%	11.00	3.82	
			+ 0.25 pps Flocele + 3% salt BWOW					
	TAIL	500'	Premium cmt + 2% CaCl	190	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	4,243'	Premium Lite II + 3% KCl + 0.25 pps	320	20%	11.00	3.38	
			celloflake + 5 pps gilsonite + 10% gel					
			+ 0.5% extender					
	TAIL	6,420'	50/50 Poz/G + 10% salt + 2% gel	1,350	20%	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.

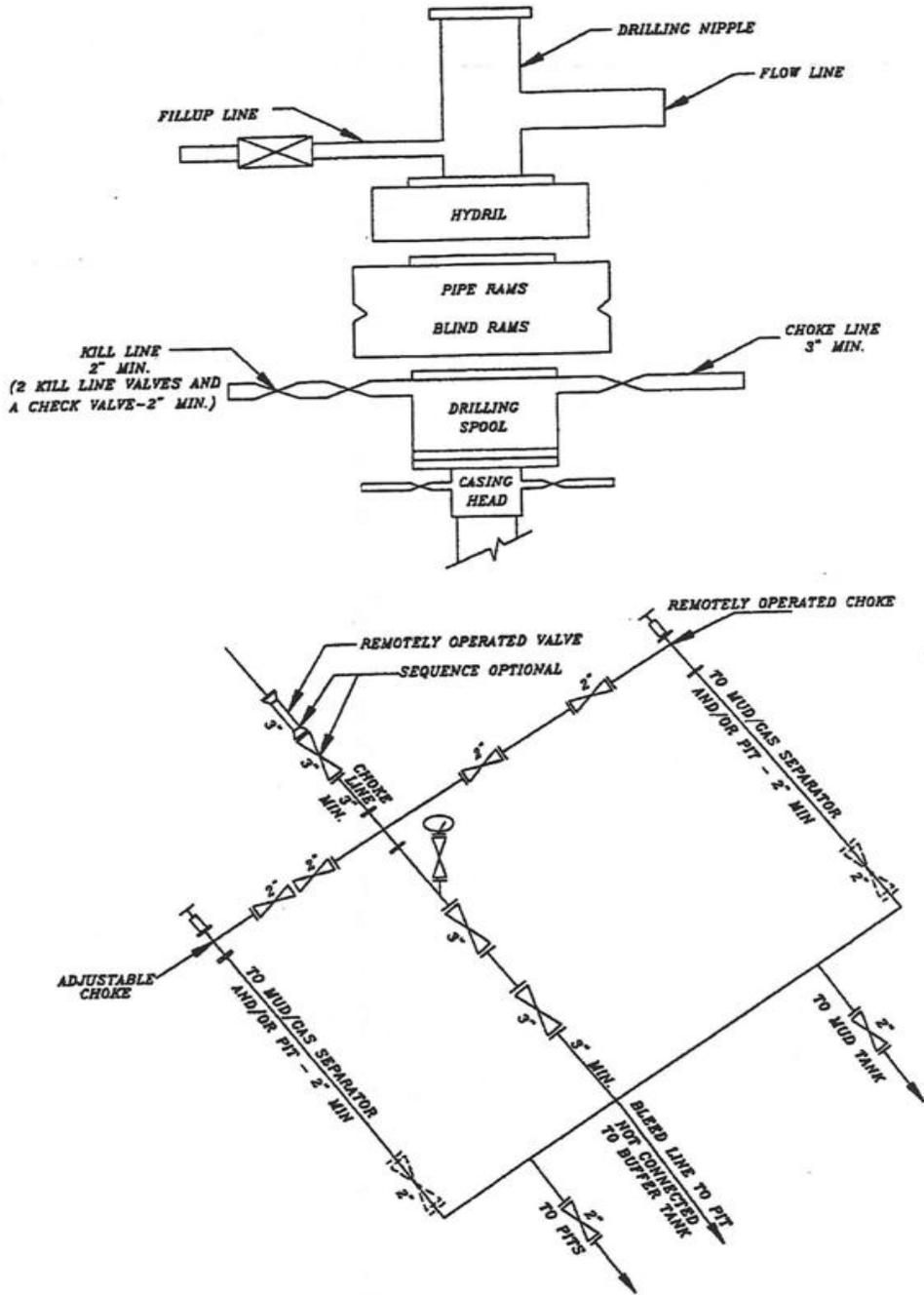
Surveys will be taken at 1,000' minimum intervals.

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

DRILLING ENGINEER: John Huycke / Emile Goodwin

DRILLING SUPERINTENDENT: John Merkel / Lovel Young

EXHIBIT A NBU 921-35L1CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

T9S, R21E, S.L.B.&M.

Found Uintah County Aluminum Cap in Pile of Stones.

WEST - 80.00 (G.L.O.)
 N89°47'37"W - 2646.18' (Meas.) N89°47'25"W - 2645.99' (Meas.)

Found 1" Aluminum Cap on 5/8" Rebar. Pile of Stones.

N00°21'17"W - 2645.28' (Meas.)

NBU 921-35L1CS (Surface Position)
 NAD 83 LATITUDE = 39.990660° (39° 59' 26.374")
 LONGITUDE = 109.525506° (109° 31' 31.821")
 NAD 27 LATITUDE = 39.990695° (39° 59' 26.500")
 LONGITUDE = 109.524819° (109° 31' 29.347")

NBU 921-35L1CS (Bottom Hole)
 NAD 83 LATITUDE = 39.991337° (39° 59' 28.814")
 LONGITUDE = 109.525332° (109° 31' 31.195")
 NAD 27 LATITUDE = 39.991372° (39° 59' 28.940")
 LONGITUDE = 109.524645° (109° 31' 28.721")

Found Uintah County Surveyor 1 1/2" Aluminum Cap on 5/8" Rebar in Pile of Stones.

Bottom of Hole

35

Found 1 1/2" Aluminum Cap on 5/8" Rebar in Pile of Stones.

N00°12'59"E
 2703.72' (Measured to C.C.)
 N00°03'W - 81.10 (G.L.O.)
 N00°21'17"W - 2645.28' (Meas.)

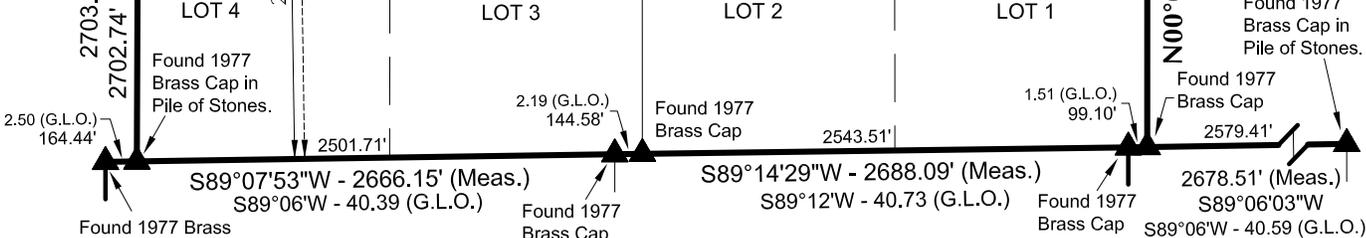
2702.74' (Measured to True Corner)

Well Surface Position
 835'
 787'

**WELL LOCATION:
 NBU 921-35L1CS**
 ELEV. UNGRADED GROUND = 5065.4'

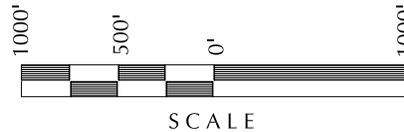
N00°03'41"W - 2641.51' (Meas.)

N00°00'34"E (Basis of Bearings)
 2612.15' (Measured) N00°03'E - 79.80 (G.L.O.)



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 N11°12'25"E 251.71' from the Surface Position.
- 4. Bearings are based on Global Positioning Satellite observations.
- 5. Basis of elevation is Tri-Sta "Two Water" located in the NW 1/4 of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SURVEYOR'S CERTIFICATE

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

PROFESSIONAL LAND SURVEYOR
 No. 6028691
 JOHN R. SAUGH
 STATE OF UTAH
 PROFESSIONAL LAND SURVEYOR
 REGISTRATION No. 6028691
 STATE OF UTAH

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

WELL PAD: NBU 921-35L

**NBU 921-35L1CS
 WELL PLAT**
 2255' FSL, 835' FWL (Bottom Hole)
 NW 1/4 SW 1/4 OF SECTION 35, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH.



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

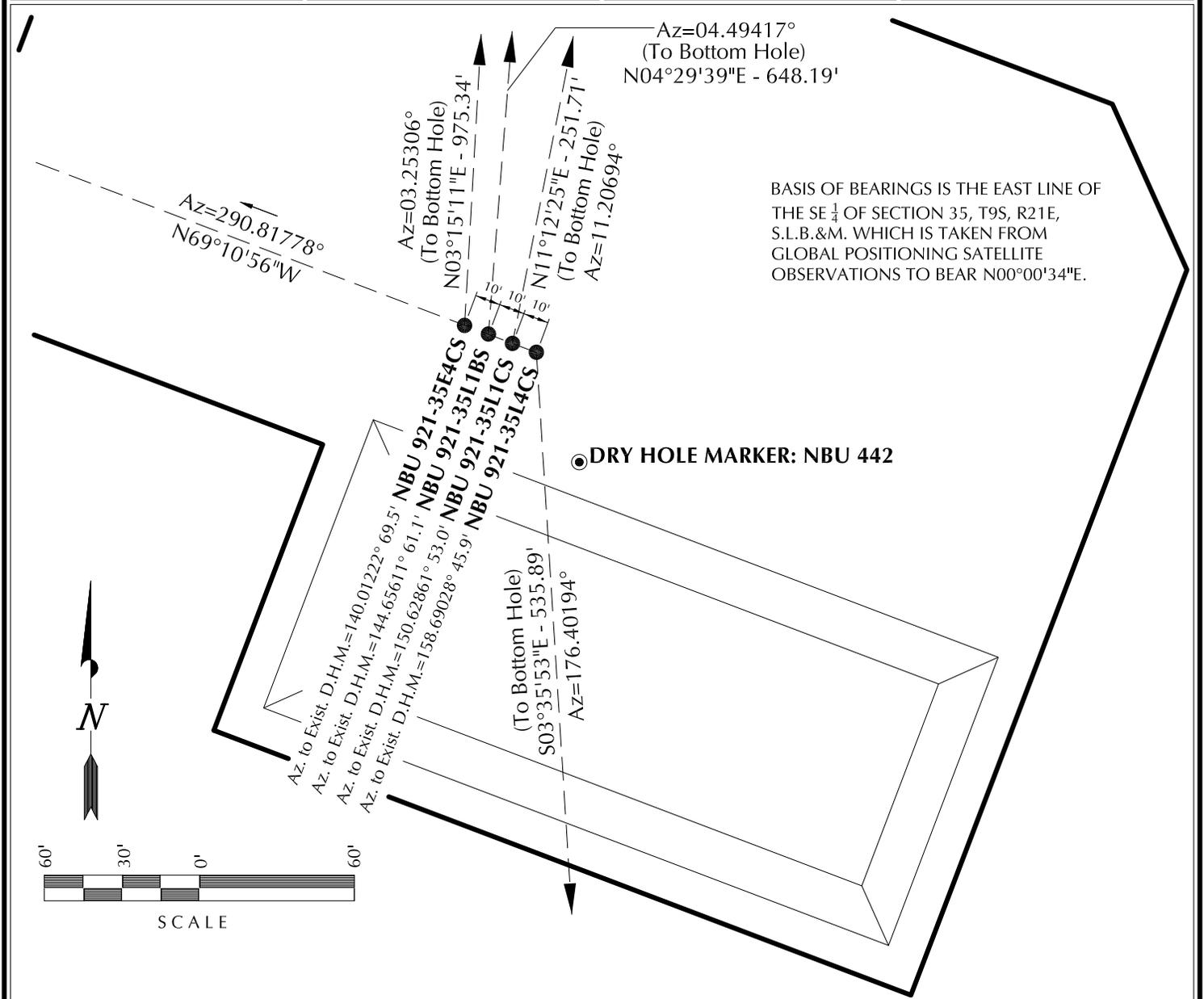
TIMBERLINE (435) 789-1365
 ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 09-30-10	SURVEYED BY: D.J.S.	SHEET NO: 3 3 OF 16
DATE DRAWN: 10-05-10	DRAWN BY: B.M.	
SCALE: 1" = 1000'		

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
NBU 921-35E4CS	39°59'26.443"	109°31'32.061"	39°59'26.569"	109°31'29.586"	2016' FSL 768' FWL	39°59'36.064"	109°31'31.358"	39°59'36.191"	109°31'28.884"	2343' FNL 823' FWL
NBU 921-35L1BS	39°59'26.410"	109°31'31.941"	39°59'26.536"	109°31'29.467"	2013' FSL 778' FWL	39°59'32.795"	109°31'31.295"	39°59'32.921"	109°31'28.820"	2658' FSL 826' FWL
NBU 921-35L1CS	39°59'26.374"	109°31'31.821"	39°59'26.500"	109°31'29.347"	2009' FSL 787' FWL	39°59'28.814"	109°31'31.195"	39°59'28.940"	109°31'28.721"	2255' FSL 835' FWL
NBU 921-35L4CS	39°59'26.340"	109°31'31.701"	39°59'26.466"	109°31'29.227"	2005' FSL 796' FWL	39°59'21.056"	109°31'31.265"	39°59'21.182"	109°31'28.791"	1470' FSL 832' FWL
NBU 442	39°59'25.918"	109°31'31.487"	39°59'26.044"	109°31'29.013"	1962' FSL 813' FWL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 921-35E4CS	973.8'	55.3'	NBU 921-35L1BS	646.2'	50.8'	NBU 921-35L1CS	246.9'	48.9'	NBU 921-35L4CS	-534.8'	33.6'



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

WELL PAD - NBU 921-35L

WELL PAD INTERFERENCE PLAT
WELLS - NBU 921-35E4CS, NBU 921-35L1BS,
NBU 921-35L1CS & NBU 921-35L4CS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.



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

TIMBERLINE

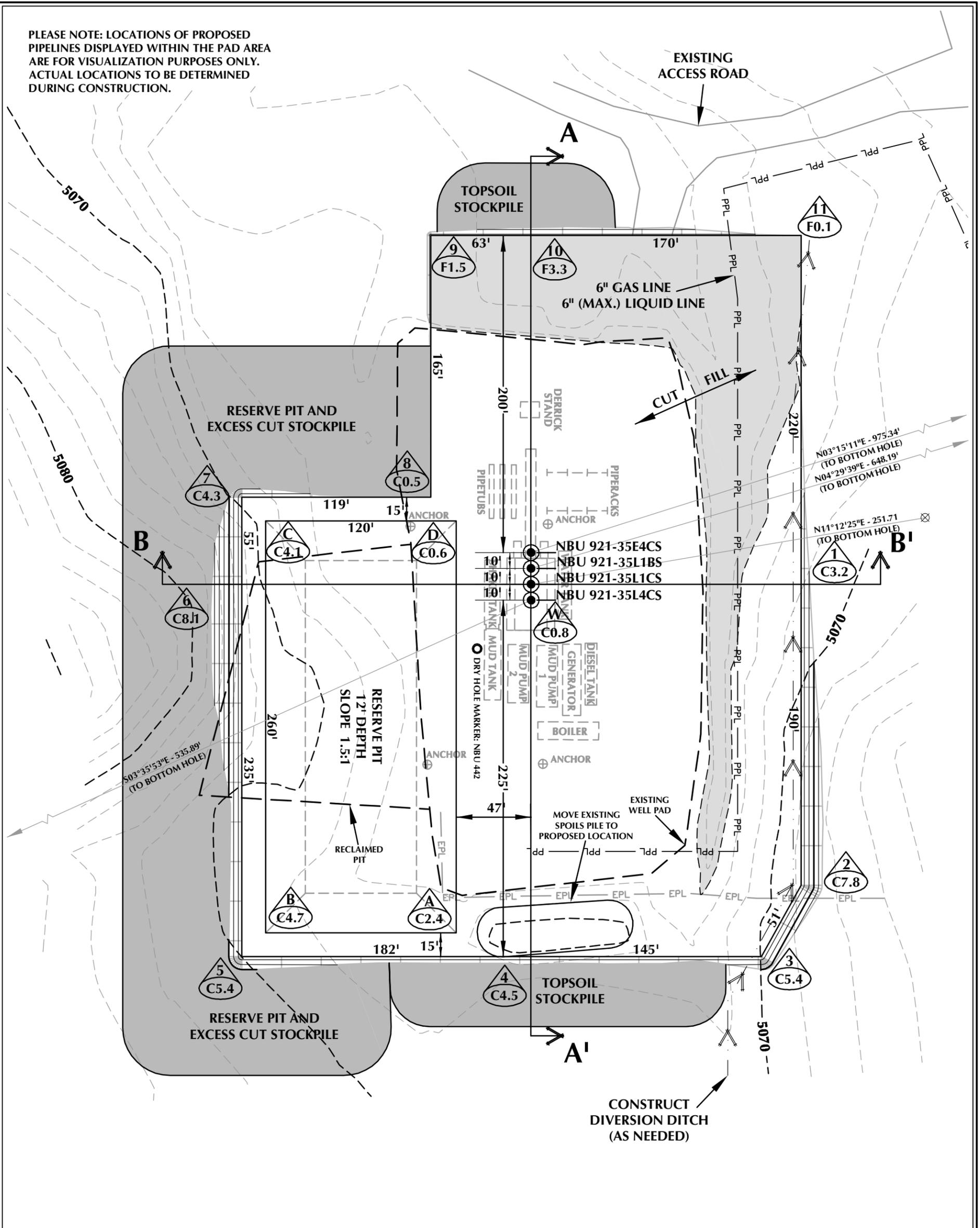
(435) 789-1365

ENGINEERING & LAND SURVEYING, INC.

209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 09-30-10	SURVEYED BY: D.J.S.	SHEET NO: 5 OF 16
DATE DRAWN: 10-05-10	DRAWN BY: B.M.	
SCALE: 1" = 60'	Date Last Revised: 12-03-10 M.W.W.	

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 921-35L DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5065.4'
 FINISHED GRADE ELEVATION = 5064.6'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.44 ACRES
 TOTAL DAMAGE AREA = 6.28 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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

WELL PAD - NBU 921-35L

WELL PAD - LOCATION LAYOUT
 NBU 921-35E4CS, NBU 921-35L1BS,
 NBU 921-35L1CS & NBU 921-35L4CS
 LOCATED IN SECTION 35, T9S, R21E,
 S.L.B.&M., UTAH COUNTY, UTAH



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

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 7,562 C.Y.
 TOTAL FILL FOR WELL PAD = 2,236 C.Y.
 TOPSOIL @ 6" DEPTH = 1,690 C.Y.
 EXCESS MATERIAL = 5,326 C.Y.

RESERVE PIT QUANTITIES

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

WELL PAD LEGEND

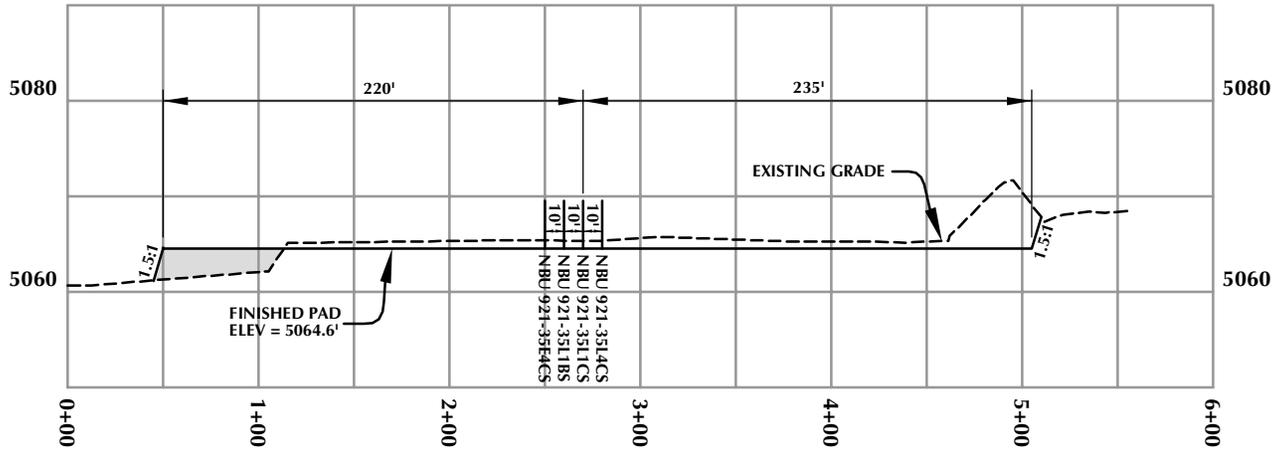
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PROPOSED PIPELINE
- EXISTING PIPELINE



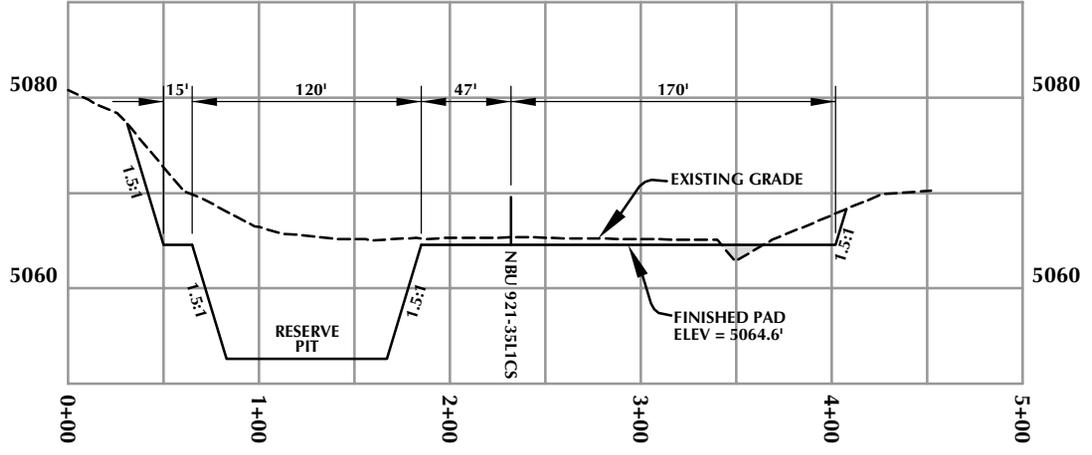
HORIZONTAL 0 30 60 1" = 60'
 2' CONTOURS

Scale: 1"=60' Date: 10/15/10 SHEET NO:
 REVISED: GRB 12/9/10 **6** 6 OF 16

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



CROSS SECTION A-A'



CROSS SECTION B-B'

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

WELL PAD - NBU 921-35L

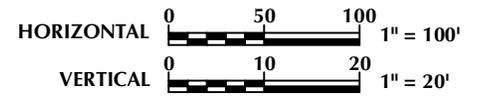
WELL PAD - CROSS SECTIONS
 NBU 921-35E4CS, NBU 921-35L1BS,
 NBU 921-35L1CS & NBU 921-35L4CS
 LOCATED IN SECTION 35, T9S, R21E,
 S.L.B.&M., Uintah County, Utah



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

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

(435) 789-1365

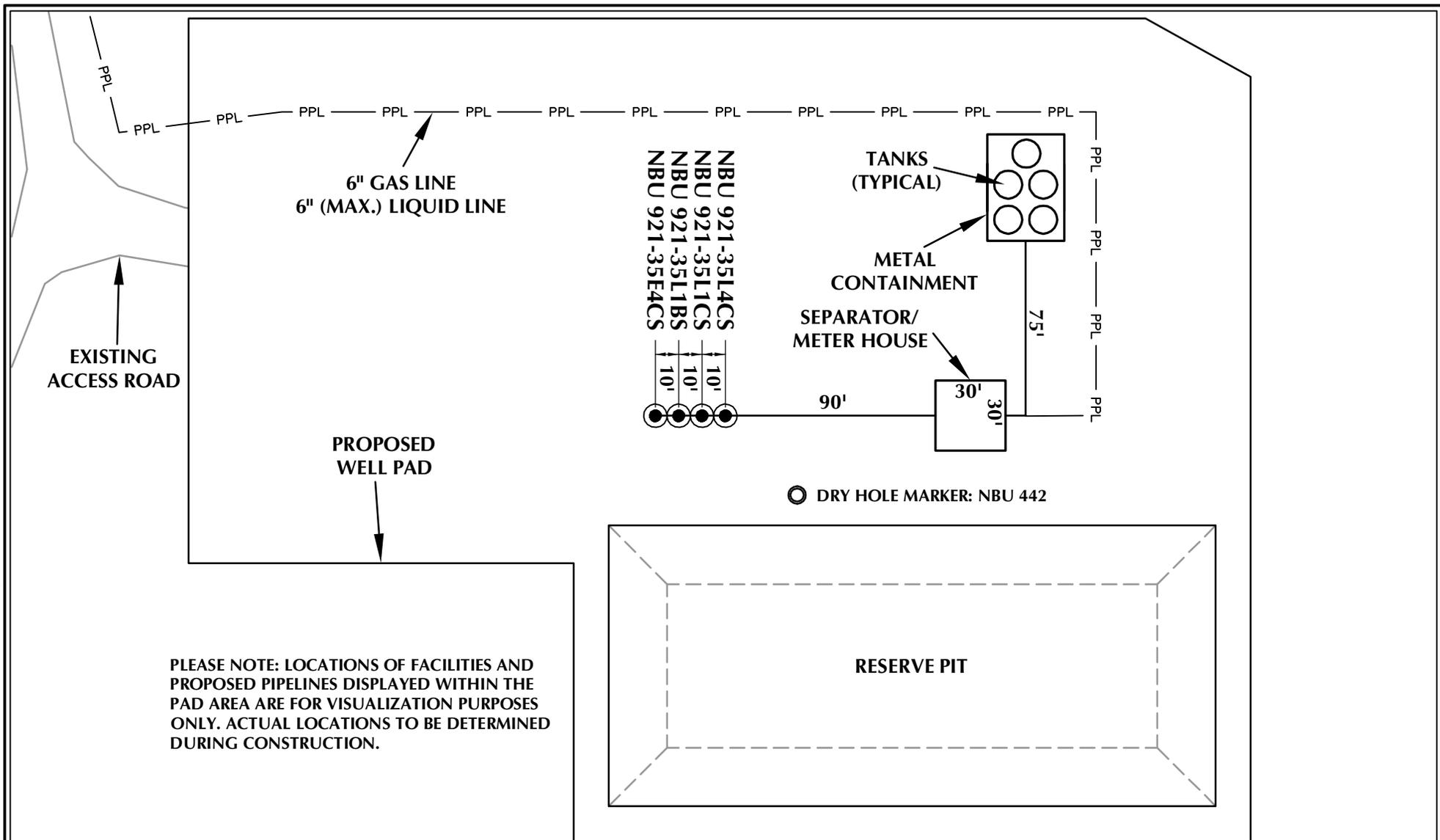


Scale: 1"=100' Date: 10/15/10
 REVISED: TAR 12/9/10

SHEET NO:
7
 7 OF 16

'APIWellNo:43047513890000'
 K:\ANADARKO\2010_35_NBU_FOCUS_SEC_921-35\DWG\NBU 921-35L_PAD_20101228.dwg, 12/28/2010 9:41:25 AM, jpk

'APIWellNo:43047513890000'
 K:\ANADARKO\2010_53_NBU_FOCUS_SEC_921-35\DWG\NBU 921-35L\NBU 921-35L_PAD_20101209.dwg, 12/3/2010 3:53:17 PM



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 921-35L

WELL PAD - FACILITIES DIAGRAM
 NBU 921-35E4CS, NBU 921-35L1BS,
 NBU 921-35L1CS & NBU 921-35L4CS
 LOCATED IN SECTION 35, T9S, R21E,
 S.L.B.&M., Uintah County, Utah



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WELL PAD LEGEND

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



HORIZONTAL 0 30' 60' 1" = 60'

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

Scale: 1"=60' Date: 10/19/10
 REVISED: TAR 12/9/10

SHEET NO:
8 8 OF 16

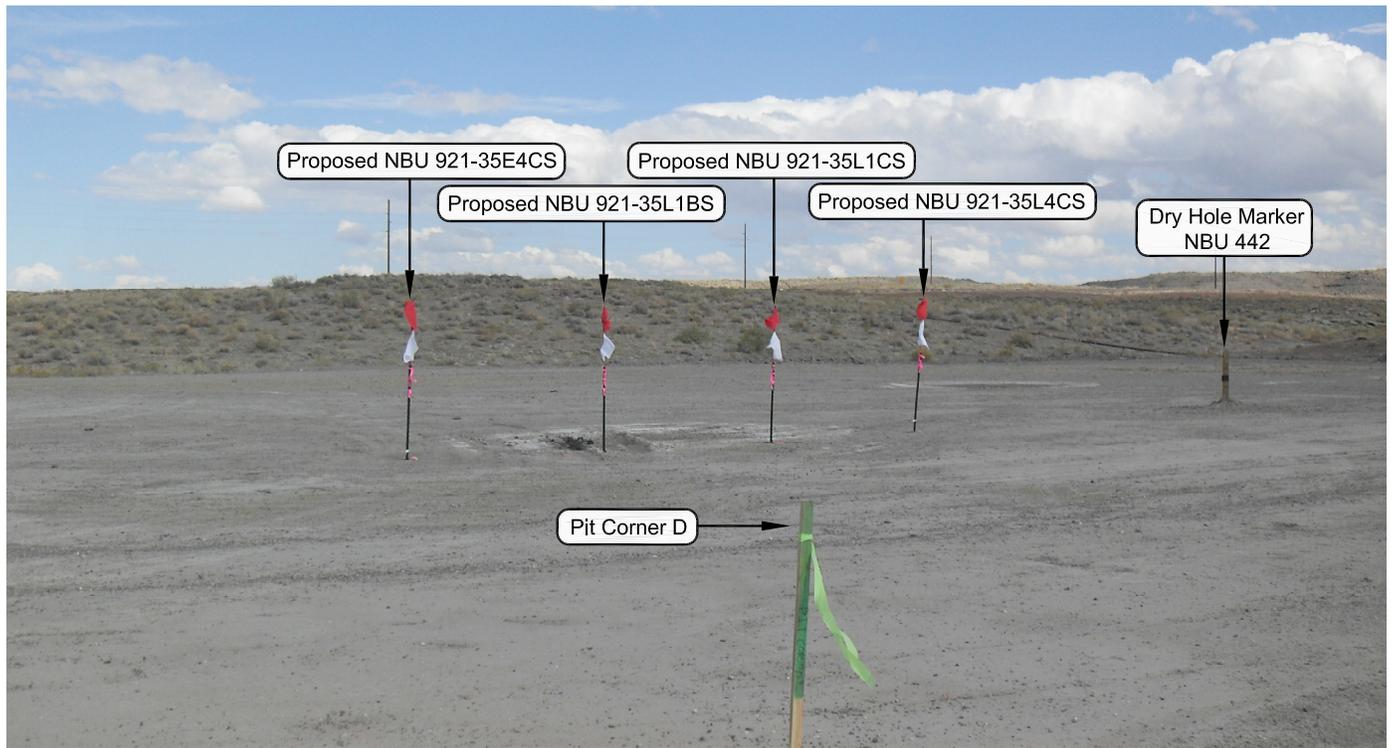


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHEASTERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: SOUTHEASTERLY

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

WELL PAD - NBU 921-35L

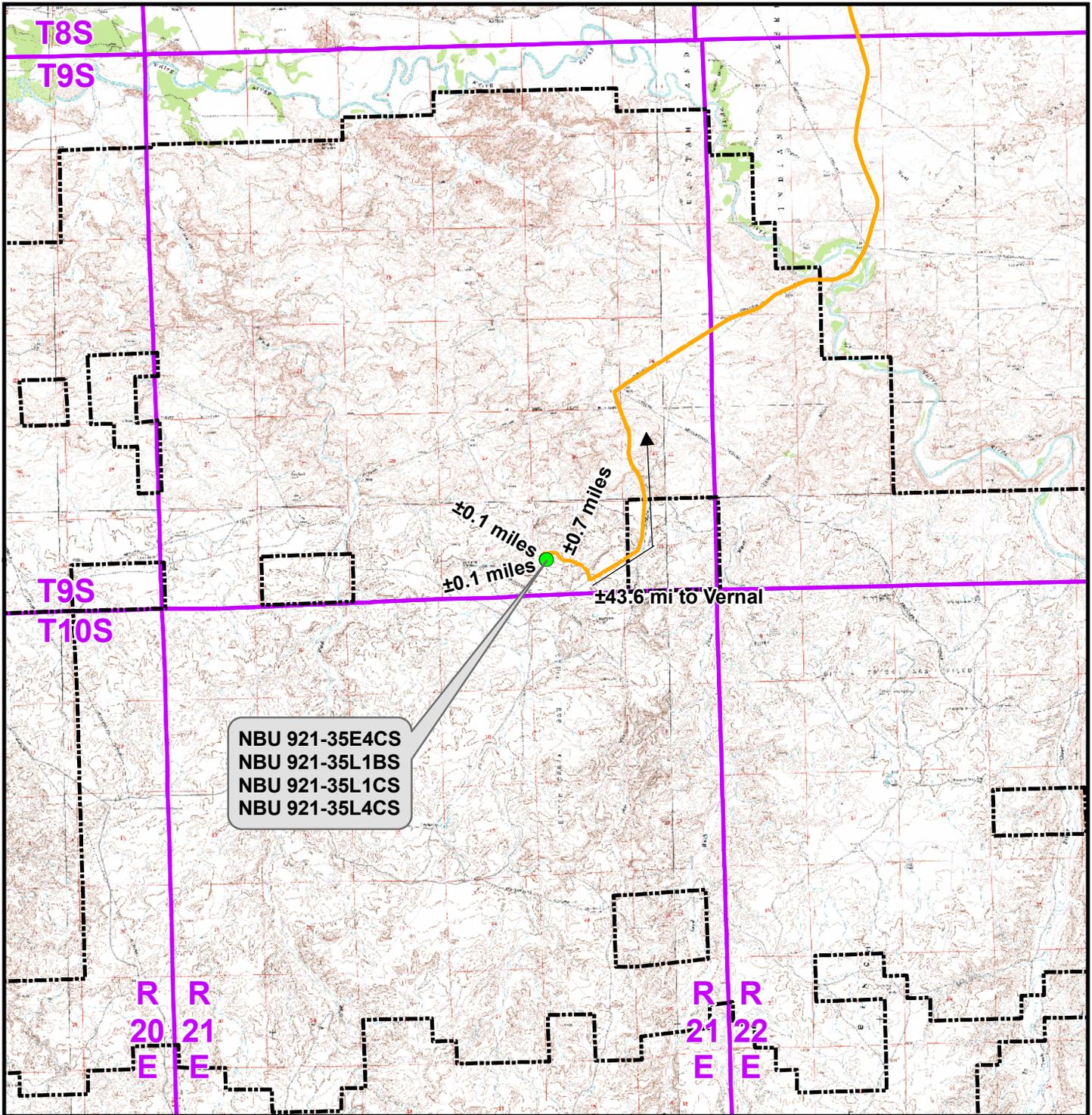
LOCATION PHOTOS
 NBU 921-35E4CS, NBU 921-35L1BS,
 NBU 921-35L1CS & NBU 921-35L4CS
 LOCATED IN SECTION 35, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH.



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 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: 10-05-10	PHOTOS TAKEN BY: M.S.B.	SHEET NO: 9 9 OF 16
DATE DRAWN: 10-05-10	DRAWN BY: B.M.	
Date Last Revised:		



Legend

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

Distance From Well Pad - NBU 921-35L To Unit Boundary: ±4,513ft

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

WELL PAD - NBU 921-35L

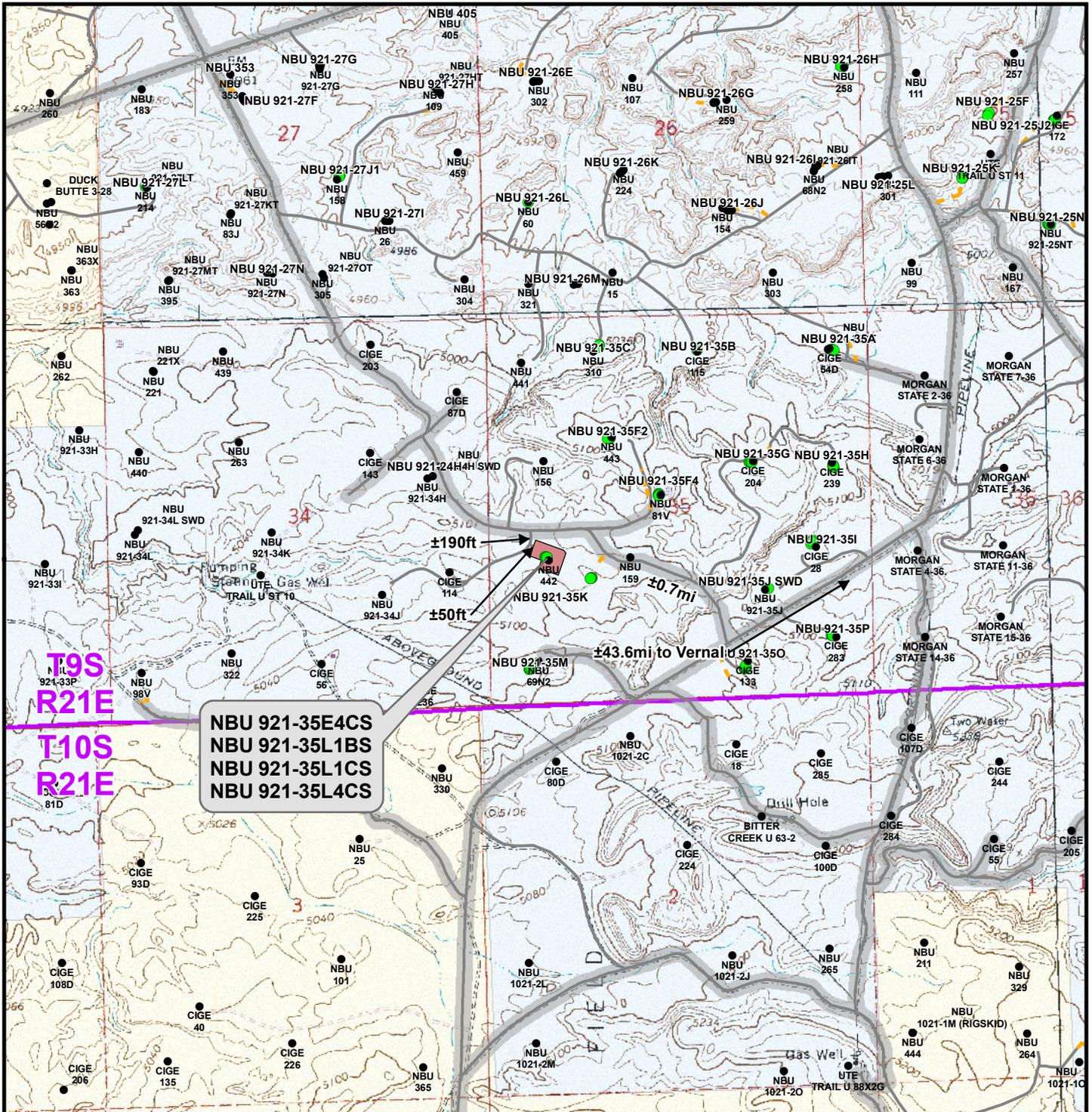
TOPO A
 NBU 921-35E4CS, NBU 921-35L1BS,
 NBU 921-35L1CS & NBU 921-35L4CS
 LOCATED IN SECTION 35, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH



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 Phone (307) 674-0609
 Fax (307) 674-0182



Scale: 1:100,000	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 19 Oct 2010	10
Revised:	Date:	



Legend

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

Total Proposed Road Length: ±0ft

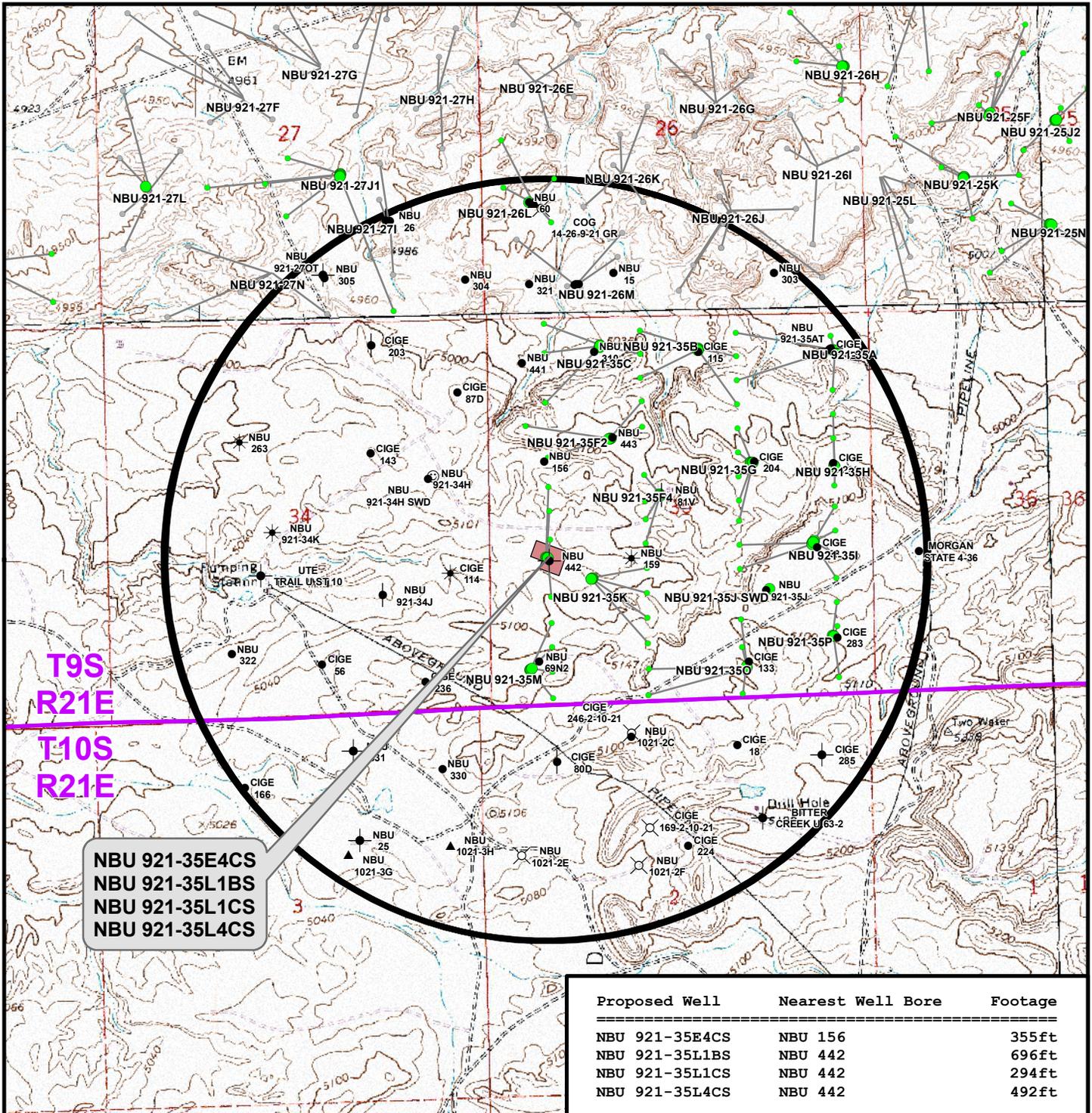
Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-35L

TOPO B
NBU 921-35E4CS, NBU 921-35L1BS,
NBU 921-35L1CS & NBU 921-35L4CS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UTAH COUNTY, UTAH

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

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 11
Drawn: TL	Date: 19 Oct 2010	11 of 16
Revised: TL	Date: 9 Dec 2010	



Proposed Well	Nearest Well Bore	Footage
NBU 921-35E4CS	NBU 156	355ft
NBU 921-35L1BS	NBU 442	696ft
NBU 921-35L1CS	NBU 442	294ft
NBU 921-35L4CS	NBU 442	492ft

Legend

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

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

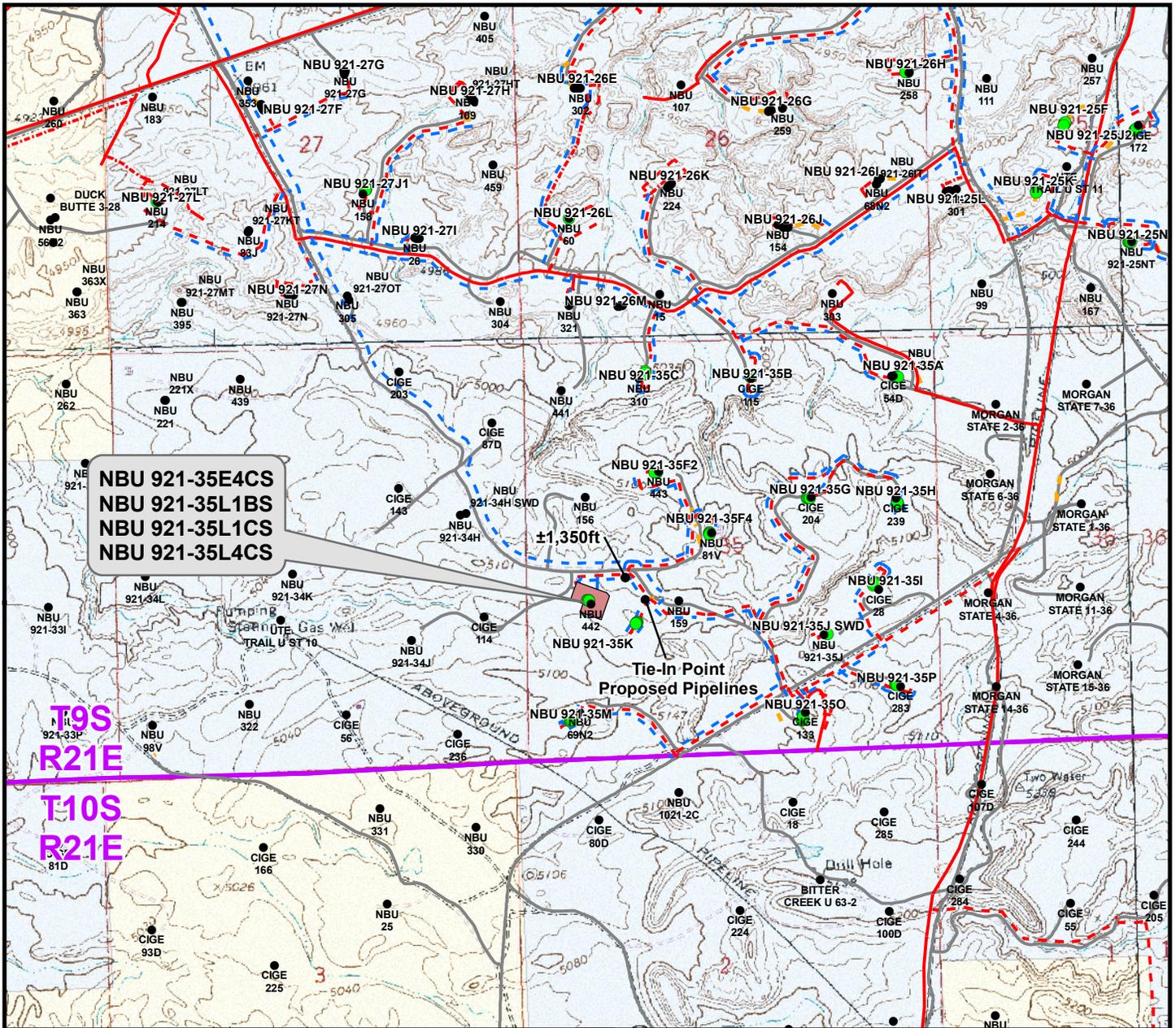
WELL PAD - NBU 921-35L

TOPO C
NBU 921-35E4CS, NBU 921-35L1BS,
NBU 921-35L1CS & NBU 921-35L4CS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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



Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 19 Oct 2010	12
Revised: TL	Date: 9 Dec 2010	



Proposed Liquid Pipeline	Length
Proposed 6" (Max.) (Meter House to Edge of Pad)	±575ft
Proposed 6" (Max.) (Edge of Pad to 35F4 Intersection)	±880ft
Proposed 6" (Max.) (35F4 Intersection to 35K Intersection)	±470ft
TOTAL PROPOSED LIQUID PIPELINE =	±1,925ft

Proposed Gas Pipeline	Length
Proposed 6" (Meter House to Edge of Pad)	±575ft
Proposed 6" (Edge of Pad to 35F4 Intersection)	±880ft
Proposed 10" (35F4 Intersection to 35K Intersection)	±470ft
TOTAL PROPOSED GAS PIPELINE =	±1,925ft

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

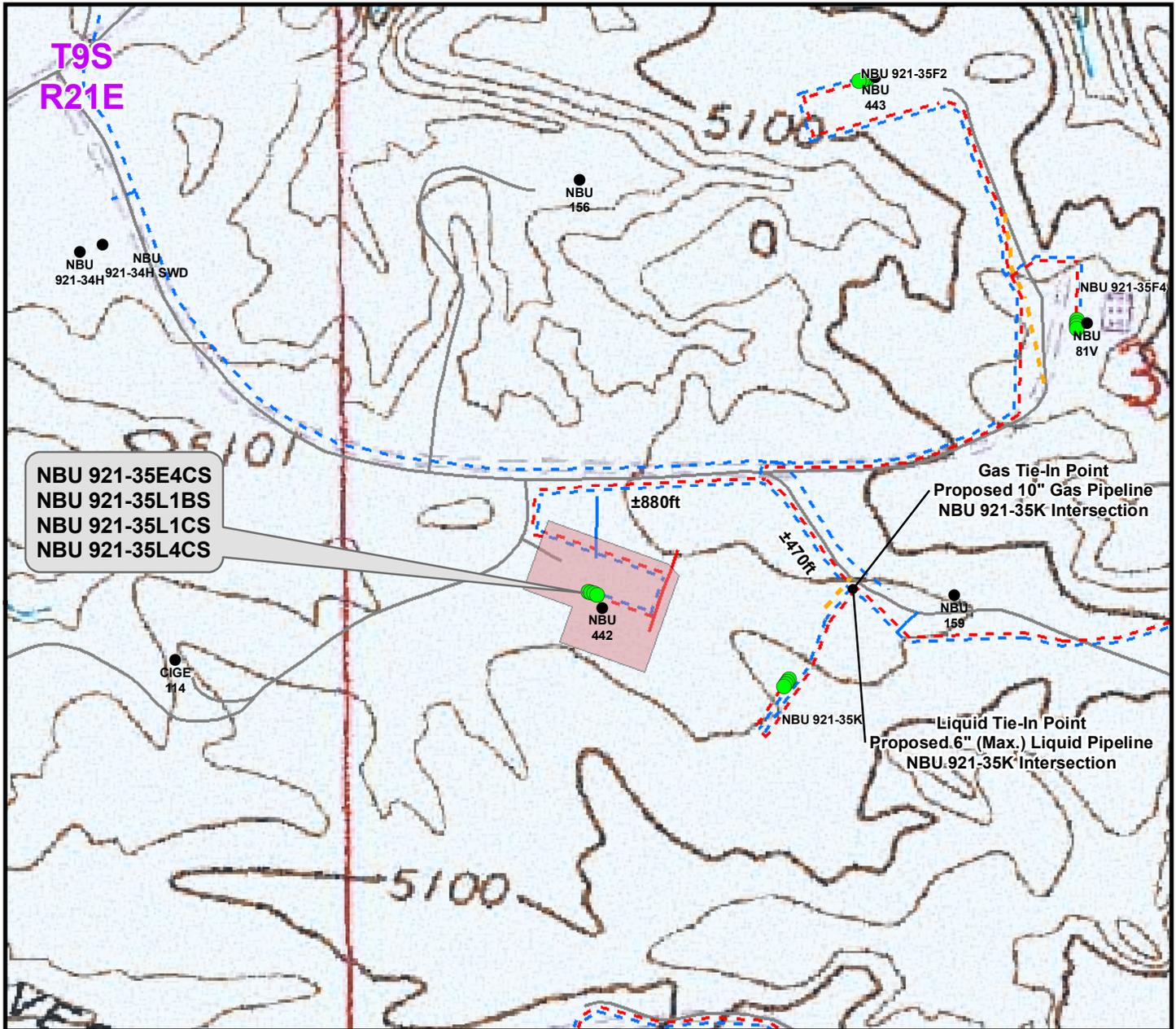
Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 921-35L

TOPO D
NBU 921-35E4CS, NBU 921-35L1BS,
NBU 921-35L1CS & NBU 921-35L4CS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 19 Oct 2010	13 13 of 16
Revised: TL	Date: 9 Dec 2010	



Proposed Liquid Pipeline	Length
Proposed 6" (Max.) (Meter House to Edge of Pad)	±575ft
Proposed 6" (Max.) (Edge of Pad to 35F4 Intersection)	±880ft
Proposed 6" (Max.) (35F4 Intersection to 35K Intersection)	±470ft
TOTAL PROPOSED LIQUID PIPELINE =	±1,925ft

Proposed Gas Pipeline	Length
Proposed 6" (Meter House to Edge of Pad)	±575ft
Proposed 6" (Edge of Pad to 35F4 Intersection)	±880ft
Proposed 10" (35F4 Intersection to 35K Intersection)	±470ft
TOTAL PROPOSED GAS PIPELINE =	±1,925ft

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

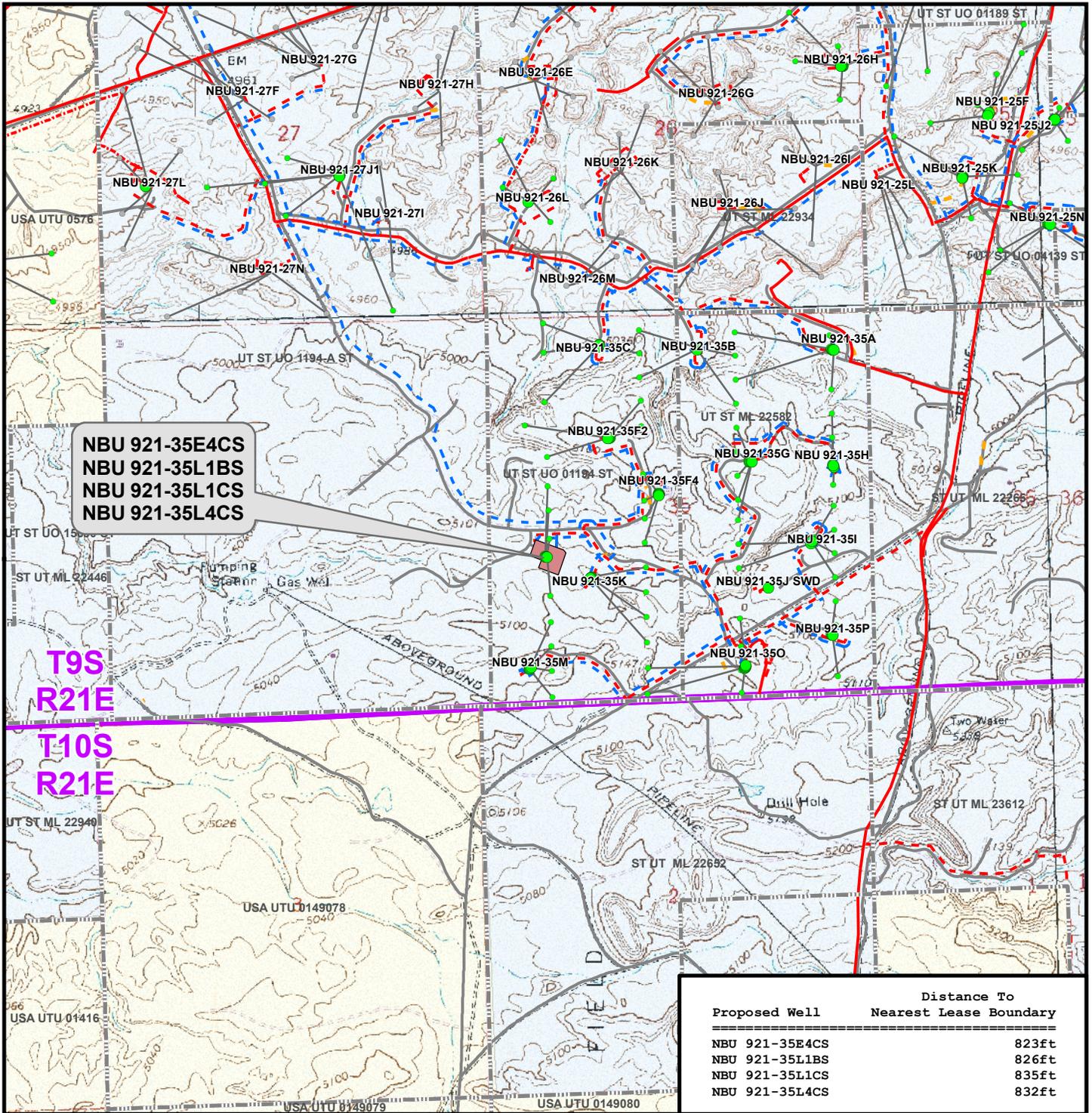
WELL PAD - NBU 921-35L

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 921-35E4CS, NBU 921-35L1BS,
NBU 921-35L1CS & NBU 921-35L4CS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH

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



Scale: 1" = 500ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 19 Oct 2010	14 14 of 16
Revised: TL	Date: 9 Dec 2010	



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 921-35L

TOPO E
 NBU 921-35E4CS, NBU 921-35L1BS,
 NBU 921-35L1CS & NBU 921-35L4CS
 LOCATED IN SECTION 35, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH



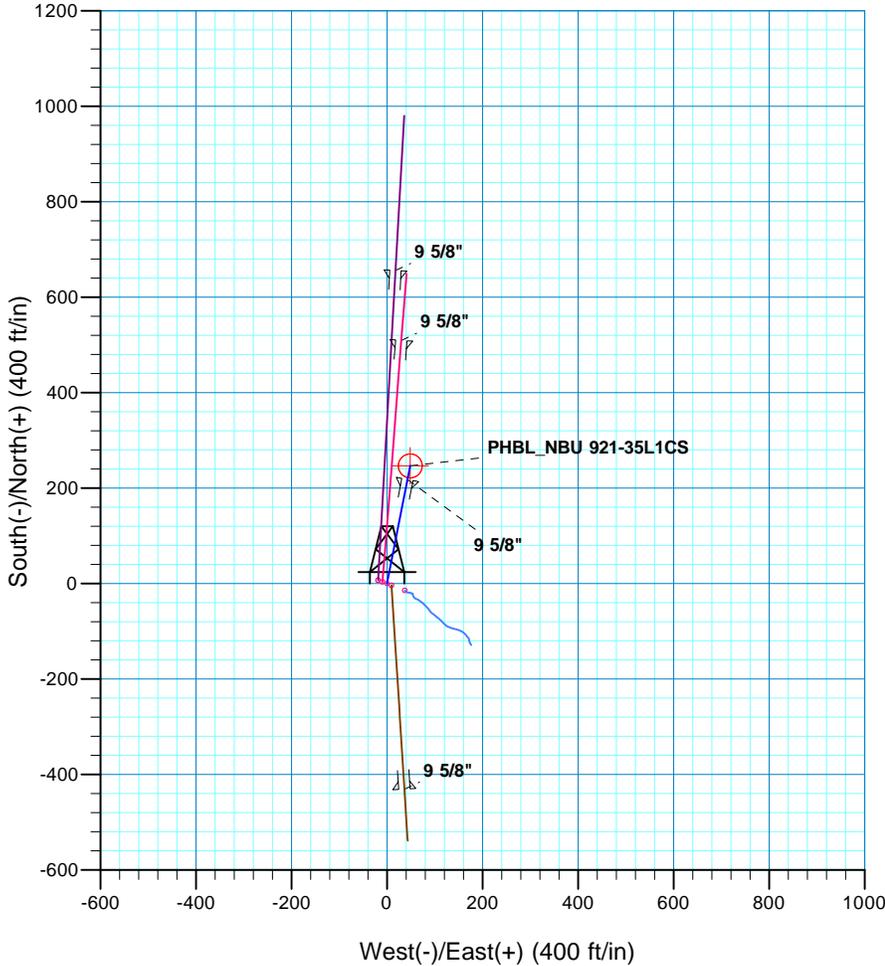
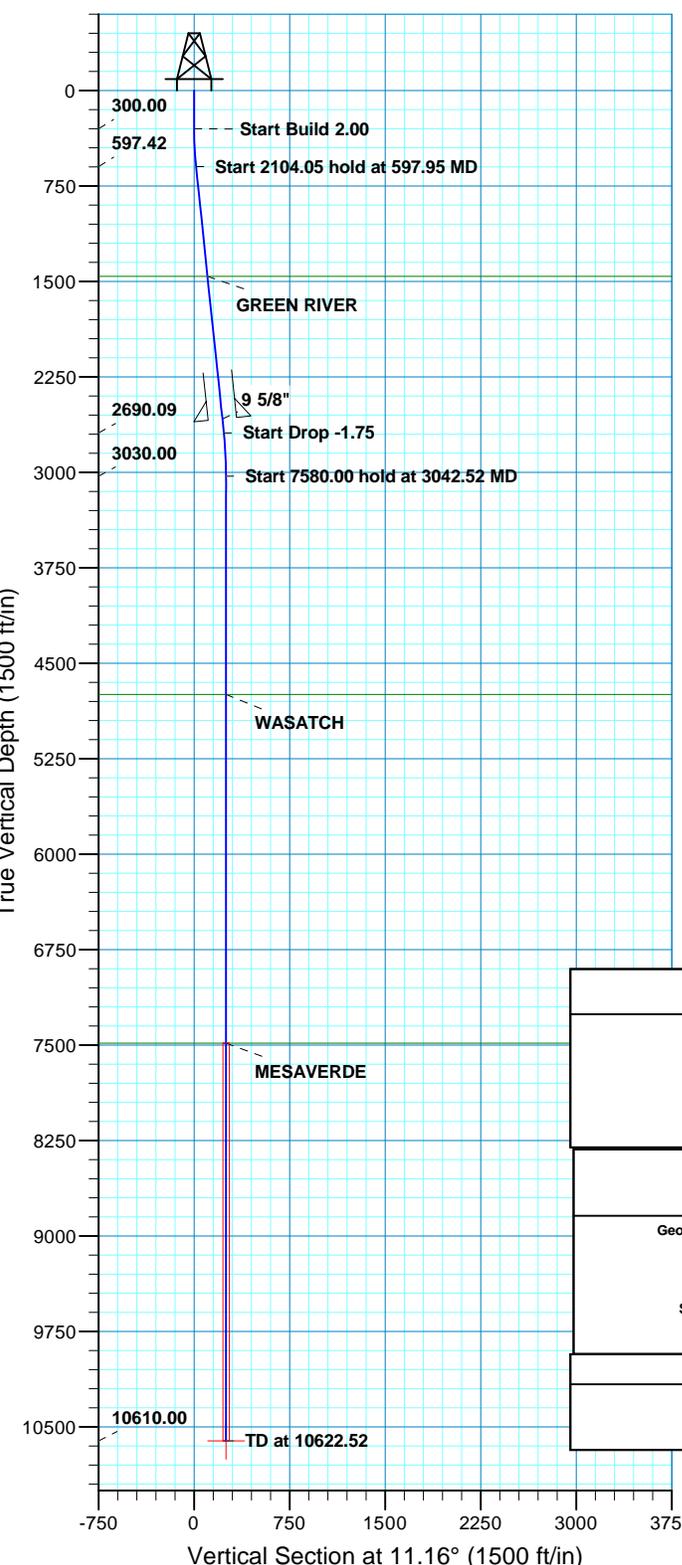
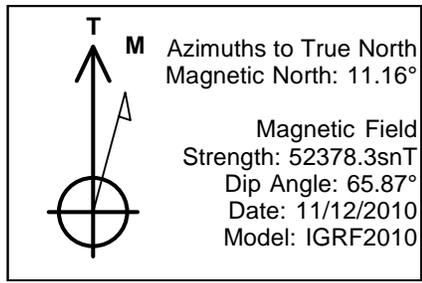
Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 19 Oct 2010	15 15 of 16
Revised: TL	Date: 9 Dec 2010	

**Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 921-35L
WELLS – NBU 921-35E4CS, NBU 921-35L1BS,
NBU 921-35L1CS & NBU 921-35L4CS
Section 35, T9S, R21E, 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 20.1 miles to a Class D County Road to the northwest. Exit right and proceed in a northwesterly direction along the Class D County Road approximately 0.7 miles to a service road to the south. Exit left and proceed in a southerly direction along the service road approximately 190 feet to a second service road to the southeast. Exit left and proceed in a southeasterly direction along the second service road approximately 50 feet to the proposed well pad.

Total distance from Vernal, Utah to the proposed well location is approximately 44.3 miles in a southerly direction.

WELL DETAILS: P_NBU 921-35L1CS						
GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	14526074.84	2053617.58	39° 59' 26.500 N	109° 31' 29.347 W	
DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude Longitude Shape
PHBL	10610.00	246.85	48.71	14526322.46	2053662.21	39° 59' 28.940 N 109° 31' 28.721 W Circle (Radius: 25.00)
- plan hits target center						



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
597.95	5.96	11.16	597.42	15.19	3.00	2.00	11.16	15.48	
2702.00	5.96	11.16	2690.09	229.49	45.29	0.00	0.00	233.92	
3042.52	0.00	0.00	3030.00	246.85	48.71	1.75	180.00	251.61	
10622.52	0.00	0.00	10610.00	246.85	48.71	0.00	0.00	251.61	PHBL_NBU 921-35L1CS
FORMATION TOP DETAILS									
PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N									
Geodetic System: Universal Transverse Mercator (US Survey Feet)					TVDPath				
Datum: NAD 1927 (NADCON CONUS)					1460.00				
Ellipsoid: Clarke 1866					4745.00				
Zone: Zone 12N (114 W to 108 W)					4757.52				
Location: SECTION 35 T9S R21E					7486.00				
System Datum: Mean Sea Level					7498.52				
					FORMATION				
					GREEN RIVER				
					WASATCH				
					MESAVERDE				
CASING DETAILS									
	TVD	MD	Name	Size					
	2581.00	2592.31	9 5/8"	9.625					



Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

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

UINTAH_NBU 921-35L PAD

P_NBU 921-35L1CS

P_NBU 921-35L1CS

Plan: PLAN #1 11-12-10 RHS

Standard Planning Report

12 November, 2010



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_NBU 921-35L1CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35L PAD	North Reference:	True
Well:	P_NBU 921-35L1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NBU 921-35L1CS		
Design:	PLAN #1 11-12-10 RHS		

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 921-35L PAD, SECTION 35 T9S R21E				
Site Position:		Northing:	14,526,071.56 usft	Latitude:	39° 59' 26.466 N
From:	Lat/Long	Easting:	2,053,627.05 usft	Longitude:	109° 31' 29.226 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.95 °

Well	P_NBU 921-35L1CS, 2009 FSL 787 FWL					
Well Position	+N/-S	3.44 ft	Northing:	14,526,074.84 usft	Latitude:	39° 59' 26.500 N
	+E/-W	-9.42 ft	Easting:	2,053,617.58 usft	Longitude:	109° 31' 29.347 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,065.00 ft

Wellbore	P_NBU 921-35L1CS				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/12/2010	11.16	65.87	52,378

Design	PLAN #1 11-12-10 RHS			
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	11.16

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	
597.95	5.96	11.16	597.42	15.19	3.00	2.00	2.00	0.00	11.16	
2,702.00	5.96	11.16	2,690.09	229.49	45.29	0.00	0.00	0.00	0.00	
3,042.52	0.00	0.00	3,030.00	246.85	48.71	1.75	-1.75	0.00	180.00	
10,622.52	0.00	0.00	10,610.00	246.85	48.71	0.00	0.00	0.00	0.00	PHBL_NBU 921-35L1

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_NBU 921-35L1CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35L PAD	North Reference:	True
Well:	P_NBU 921-35L1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NBU 921-35L1CS		
Design:	PLAN #1 11-12-10 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00										
400.00	2.00	11.16	399.98	1.71	0.34	1.75	2.00	2.00	2.00	0.00
500.00	4.00	11.16	499.84	6.85	1.35	6.98	2.00	2.00	2.00	0.00
597.95	5.96	11.16	597.42	15.19	3.00	15.48	2.00	2.00	2.00	0.00
Start 2104.05 hold at 597.95 MD										
600.00	5.96	11.16	599.45	15.40	3.04	15.69	0.00	0.00	0.00	0.00
700.00	5.96	11.16	698.91	25.58	5.05	26.07	0.00	0.00	0.00	0.00
800.00	5.96	11.16	798.37	35.77	7.06	36.46	0.00	0.00	0.00	0.00
900.00	5.96	11.16	897.83	45.95	9.07	46.84	0.00	0.00	0.00	0.00
1,000.00	5.96	11.16	997.29	56.14	11.08	57.22	0.00	0.00	0.00	0.00
1,100.00	5.96	11.16	1,096.75	66.32	13.09	67.60	0.00	0.00	0.00	0.00
1,200.00	5.96	11.16	1,196.21	76.51	15.10	77.98	0.00	0.00	0.00	0.00
1,300.00	5.96	11.16	1,295.67	86.69	17.11	88.37	0.00	0.00	0.00	0.00
1,400.00	5.96	11.16	1,395.13	96.88	19.12	98.75	0.00	0.00	0.00	0.00
1,465.22	5.96	11.16	1,460.00	103.52	20.43	105.52	0.00	0.00	0.00	0.00
GREEN RIVER										
1,500.00	5.96	11.16	1,494.59	107.06	21.13	109.13	0.00	0.00	0.00	0.00
1,600.00	5.96	11.16	1,594.05	117.25	23.14	119.51	0.00	0.00	0.00	0.00
1,700.00	5.96	11.16	1,693.51	127.44	25.15	129.89	0.00	0.00	0.00	0.00
1,800.00	5.96	11.16	1,792.97	137.62	27.16	140.27	0.00	0.00	0.00	0.00
1,900.00	5.96	11.16	1,892.43	147.81	29.17	150.66	0.00	0.00	0.00	0.00
2,000.00	5.96	11.16	1,991.89	157.99	31.18	161.04	0.00	0.00	0.00	0.00
2,100.00	5.96	11.16	2,091.35	168.18	33.19	171.42	0.00	0.00	0.00	0.00
2,200.00	5.96	11.16	2,190.81	178.36	35.20	181.80	0.00	0.00	0.00	0.00
2,300.00	5.96	11.16	2,290.27	188.55	37.21	192.18	0.00	0.00	0.00	0.00
2,400.00	5.96	11.16	2,389.73	198.73	39.22	202.57	0.00	0.00	0.00	0.00
2,500.00	5.96	11.16	2,489.19	208.92	41.23	212.95	0.00	0.00	0.00	0.00
2,592.31	5.96	11.16	2,581.00	218.32	43.08	222.53	0.00	0.00	0.00	0.00
9 5/8"										
2,600.00	5.96	11.16	2,588.64	219.10	43.24	223.33	0.00	0.00	0.00	0.00
2,700.00	5.96	11.16	2,688.10	229.29	45.25	233.71	0.00	0.00	0.00	0.00
2,702.00	5.96	11.16	2,690.09	229.49	45.29	233.92	0.00	0.00	0.00	0.00
Start Drop -1.75										
2,800.00	4.24	11.16	2,787.70	238.04	46.98	242.63	1.75	-1.75	0.00	0.00
2,900.00	2.49	11.16	2,887.52	243.81	48.11	248.51	1.75	-1.75	0.00	0.00
3,000.00	0.74	11.16	2,987.48	246.58	48.66	251.34	1.75	-1.75	0.00	0.00
3,042.52	0.00	0.00	3,030.00	246.85	48.71	251.61	1.75	-1.75	-26.25	0.00
Start 7580.00 hold at 3042.52 MD										
3,100.00	0.00	0.00	3,087.48	246.85	48.71	251.61	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,187.48	246.85	48.71	251.61	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,287.48	246.85	48.71	251.61	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,387.48	246.85	48.71	251.61	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,487.48	246.85	48.71	251.61	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,587.48	246.85	48.71	251.61	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,687.48	246.85	48.71	251.61	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,787.48	246.85	48.71	251.61	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,887.48	246.85	48.71	251.61	0.00	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_NBU 921-35L1CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35L PAD	North Reference:	True
Well:	P_NBU 921-35L1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NBU 921-35L1CS		
Design:	PLAN #1 11-12-10 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,000.00	0.00	0.00	3,987.48	246.85	48.71	251.61	0.00	0.00	0.00	
4,100.00	0.00	0.00	4,087.48	246.85	48.71	251.61	0.00	0.00	0.00	
4,200.00	0.00	0.00	4,187.48	246.85	48.71	251.61	0.00	0.00	0.00	
4,300.00	0.00	0.00	4,287.48	246.85	48.71	251.61	0.00	0.00	0.00	
4,400.00	0.00	0.00	4,387.48	246.85	48.71	251.61	0.00	0.00	0.00	
4,500.00	0.00	0.00	4,487.48	246.85	48.71	251.61	0.00	0.00	0.00	
4,600.00	0.00	0.00	4,587.48	246.85	48.71	251.61	0.00	0.00	0.00	
4,700.00	0.00	0.00	4,687.48	246.85	48.71	251.61	0.00	0.00	0.00	
4,757.52	0.00	0.00	4,745.00	246.85	48.71	251.61	0.00	0.00	0.00	
WASATCH										
4,800.00	0.00	0.00	4,787.48	246.85	48.71	251.61	0.00	0.00	0.00	
4,900.00	0.00	0.00	4,887.48	246.85	48.71	251.61	0.00	0.00	0.00	
5,000.00	0.00	0.00	4,987.48	246.85	48.71	251.61	0.00	0.00	0.00	
5,100.00	0.00	0.00	5,087.48	246.85	48.71	251.61	0.00	0.00	0.00	
5,200.00	0.00	0.00	5,187.48	246.85	48.71	251.61	0.00	0.00	0.00	
5,300.00	0.00	0.00	5,287.48	246.85	48.71	251.61	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,387.48	246.85	48.71	251.61	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,487.48	246.85	48.71	251.61	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,587.48	246.85	48.71	251.61	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,687.48	246.85	48.71	251.61	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,787.48	246.85	48.71	251.61	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,887.48	246.85	48.71	251.61	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,987.48	246.85	48.71	251.61	0.00	0.00	0.00	
6,100.00	0.00	0.00	6,087.48	246.85	48.71	251.61	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,187.48	246.85	48.71	251.61	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,287.48	246.85	48.71	251.61	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,387.48	246.85	48.71	251.61	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,487.48	246.85	48.71	251.61	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,587.48	246.85	48.71	251.61	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,687.48	246.85	48.71	251.61	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,787.48	246.85	48.71	251.61	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,887.48	246.85	48.71	251.61	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,987.48	246.85	48.71	251.61	0.00	0.00	0.00	
7,100.00	0.00	0.00	7,087.48	246.85	48.71	251.61	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,187.48	246.85	48.71	251.61	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,287.48	246.85	48.71	251.61	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,387.48	246.85	48.71	251.61	0.00	0.00	0.00	
7,498.52	0.00	0.00	7,486.00	246.85	48.71	251.61	0.00	0.00	0.00	
MESAVERDE										
7,500.00	0.00	0.00	7,487.48	246.85	48.71	251.61	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,587.48	246.85	48.71	251.61	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,687.48	246.85	48.71	251.61	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,787.48	246.85	48.71	251.61	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,887.48	246.85	48.71	251.61	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,987.48	246.85	48.71	251.61	0.00	0.00	0.00	
8,100.00	0.00	0.00	8,087.48	246.85	48.71	251.61	0.00	0.00	0.00	
8,200.00	0.00	0.00	8,187.48	246.85	48.71	251.61	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,287.48	246.85	48.71	251.61	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,387.48	246.85	48.71	251.61	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,487.48	246.85	48.71	251.61	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,587.48	246.85	48.71	251.61	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,687.48	246.85	48.71	251.61	0.00	0.00	0.00	

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_NBU 921-35L1CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35L PAD	North Reference:	True
Well:	P_NBU 921-35L1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NBU 921-35L1CS		
Design:	PLAN #1 11-12-10 RHS		

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)	
8,800.00	0.00	0.00	8,787.48	246.85	48.71	251.61	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,887.48	246.85	48.71	251.61	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,987.48	246.85	48.71	251.61	0.00	0.00	0.00	
9,100.00	0.00	0.00	9,087.48	246.85	48.71	251.61	0.00	0.00	0.00	
9,200.00	0.00	0.00	9,187.48	246.85	48.71	251.61	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,287.48	246.85	48.71	251.61	0.00	0.00	0.00	
9,400.00	0.00	0.00	9,387.48	246.85	48.71	251.61	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,487.48	246.85	48.71	251.61	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,587.48	246.85	48.71	251.61	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,687.48	246.85	48.71	251.61	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,787.48	246.85	48.71	251.61	0.00	0.00	0.00	
9,900.00	0.00	0.00	9,887.48	246.85	48.71	251.61	0.00	0.00	0.00	
10,000.00	0.00	0.00	9,987.48	246.85	48.71	251.61	0.00	0.00	0.00	
10,100.00	0.00	0.00	10,087.48	246.85	48.71	251.61	0.00	0.00	0.00	
10,200.00	0.00	0.00	10,187.48	246.85	48.71	251.61	0.00	0.00	0.00	
10,300.00	0.00	0.00	10,287.48	246.85	48.71	251.61	0.00	0.00	0.00	
10,400.00	0.00	0.00	10,387.48	246.85	48.71	251.61	0.00	0.00	0.00	
10,500.00	0.00	0.00	10,487.48	246.85	48.71	251.61	0.00	0.00	0.00	
10,600.00	0.00	0.00	10,587.48	246.85	48.71	251.61	0.00	0.00	0.00	
10,622.52	0.00	0.00	10,610.00	246.85	48.71	251.61	0.00	0.00	0.00	
PHBL_NBU 921-35L1CS										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
PHBL_NBU 921-35L1CS - hit/miss target - Shape - Circle (radius 25.00)	0.00	0.00	10,610.00	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)		
2,592.31	2,581.00	9 5/8"	9.625	12.250		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,465.22	1,460.00	GREEN RIVER				
4,757.52	4,745.00	WASATCH				
7,498.52	7,486.00	MESAVERDE				

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_NBU 921-35L1CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35L PAD	North Reference:	True
Well:	P_NBU 921-35L1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NBU 921-35L1CS		
Design:	PLAN #1 11-12-10 RHS		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
300.00	300.00	0.00	0.00	Start Build 2.00
597.95	597.42	15.19	3.00	Start 2104.05 hold at 597.95 MD
2,702.00	2,690.09	229.49	45.29	Start Drop -1.75
3,042.52	3,030.00	246.85	48.71	Start 7580.00 hold at 3042.52 MD
10,622.52	10,610.00	246.85	48.71	TD at 10622.52



Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

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

UINTAH_NBU 921-35L PAD

P_NBU 921-35L1CS

P_NBU 921-35L1CS

Plan: PLAN #1 11-12-10 RHS

Standard Planning Report - Geographic

12 November, 2010



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_NBU 921-35L1CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35L PAD	North Reference:	True
Well:	P_NBU 921-35L1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NBU 921-35L1CS		
Design:	PLAN #1 11-12-10 RHS		

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 921-35L PAD, SECTION 35 T9S R21E				
Site Position:		Northing:	14,526,071.56 usft	Latitude:	39° 59' 26.466 N
From:	Lat/Long	Easting:	2,053,627.05 usft	Longitude:	109° 31' 29.226 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.95 °

Well	P_NBU 921-35L1CS, 2009 FSL 787 FWL					
Well Position	+N/-S	0.00 ft	Northing:	14,526,074.84 usft	Latitude:	39° 59' 26.500 N
	+E/-W	0.00 ft	Easting:	2,053,617.58 usft	Longitude:	109° 31' 29.347 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,065.00 ft

Wellbore	P_NBU 921-35L1CS				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/12/2010	11.16	65.87	52,378

Design	PLAN #1 11-12-10 RHS			
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	11.16

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	
597.95	5.96	11.16	597.42	15.19	3.00	2.00	2.00	0.00	11.16	
2,702.00	5.96	11.16	2,690.09	229.49	45.29	0.00	0.00	0.00	0.00	
3,042.52	0.00	0.00	3,030.00	246.85	48.71	1.75	-1.75	0.00	180.00	
10,622.52	0.00	0.00	10,610.00	246.85	48.71	0.00	0.00	0.00	0.00	PHBL_NBU 921-35L1

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_NBU 921-35L1CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35L PAD	North Reference:	True
Well:	P_NBU 921-35L1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NBU 921-35L1CS		
Design:	PLAN #1 11-12-10 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	14,526,074.84	2,053,617.58	39° 59' 26.500 N	109° 31' 29.347 W	
100.00	0.00	0.00	100.00	0.00	0.00	14,526,074.84	2,053,617.58	39° 59' 26.500 N	109° 31' 29.347 W	
200.00	0.00	0.00	200.00	0.00	0.00	14,526,074.84	2,053,617.58	39° 59' 26.500 N	109° 31' 29.347 W	
300.00	0.00	0.00	300.00	0.00	0.00	14,526,074.84	2,053,617.58	39° 59' 26.500 N	109° 31' 29.347 W	
Start Build 2.00										
400.00	2.00	11.16	399.98	1.71	0.34	14,526,076.56	2,053,617.89	39° 59' 26.517 N	109° 31' 29.343 W	
500.00	4.00	11.16	499.84	6.85	1.35	14,526,081.71	2,053,618.82	39° 59' 26.568 N	109° 31' 29.330 W	
597.95	5.96	11.16	597.42	15.19	3.00	14,526,090.08	2,053,620.32	39° 59' 26.650 N	109° 31' 29.308 W	
Start 2104.05 hold at 597.95 MD										
600.00	5.96	11.16	599.45	15.40	3.04	14,526,090.29	2,053,620.36	39° 59' 26.652 N	109° 31' 29.308 W	
700.00	5.96	11.16	698.91	25.58	5.05	14,526,100.50	2,053,622.20	39° 59' 26.753 N	109° 31' 29.282 W	
800.00	5.96	11.16	798.37	35.77	7.06	14,526,110.72	2,053,624.04	39° 59' 26.854 N	109° 31' 29.256 W	
900.00	5.96	11.16	897.83	45.95	9.07	14,526,120.94	2,053,625.88	39° 59' 26.954 N	109° 31' 29.230 W	
1,000.00	5.96	11.16	997.29	56.14	11.08	14,526,131.15	2,053,627.73	39° 59' 27.055 N	109° 31' 29.205 W	
1,100.00	5.96	11.16	1,096.75	66.32	13.09	14,526,141.37	2,053,629.57	39° 59' 27.156 N	109° 31' 29.179 W	
1,200.00	5.96	11.16	1,196.21	76.51	15.10	14,526,151.59	2,053,631.41	39° 59' 27.256 N	109° 31' 29.153 W	
1,300.00	5.96	11.16	1,295.67	86.69	17.11	14,526,161.81	2,053,633.25	39° 59' 27.357 N	109° 31' 29.127 W	
1,400.00	5.96	11.16	1,395.13	96.88	19.12	14,526,172.02	2,053,635.09	39° 59' 27.458 N	109° 31' 29.101 W	
1,465.22	5.96	11.16	1,460.00	103.52	20.43	14,526,178.69	2,053,636.29	39° 59' 27.523 N	109° 31' 29.084 W	
GREEN RIVER										
1,500.00	5.96	11.16	1,494.59	107.06	21.13	14,526,182.24	2,053,636.93	39° 59' 27.558 N	109° 31' 29.075 W	
1,600.00	5.96	11.16	1,594.05	117.25	23.14	14,526,192.46	2,053,638.77	39° 59' 27.659 N	109° 31' 29.050 W	
1,700.00	5.96	11.16	1,693.51	127.44	25.15	14,526,202.68	2,053,640.61	39° 59' 27.760 N	109° 31' 29.024 W	
1,800.00	5.96	11.16	1,792.97	137.62	27.16	14,526,212.89	2,053,642.46	39° 59' 27.860 N	109° 31' 28.998 W	
1,900.00	5.96	11.16	1,892.43	147.81	29.17	14,526,223.11	2,053,644.30	39° 59' 27.961 N	109° 31' 28.972 W	
2,000.00	5.96	11.16	1,991.89	157.99	31.18	14,526,233.33	2,053,646.14	39° 59' 28.062 N	109° 31' 28.946 W	
2,100.00	5.96	11.16	2,091.35	168.18	33.19	14,526,243.54	2,053,647.98	39° 59' 28.162 N	109° 31' 28.921 W	
2,200.00	5.96	11.16	2,190.81	178.36	35.20	14,526,253.76	2,053,649.82	39° 59' 28.263 N	109° 31' 28.895 W	
2,300.00	5.96	11.16	2,290.27	188.55	37.21	14,526,263.98	2,053,651.66	39° 59' 28.364 N	109° 31' 28.869 W	
2,400.00	5.96	11.16	2,389.73	198.73	39.22	14,526,274.20	2,053,653.50	39° 59' 28.464 N	109° 31' 28.843 W	
2,500.00	5.96	11.16	2,489.19	208.92	41.23	14,526,284.41	2,053,655.34	39° 59' 28.565 N	109° 31' 28.817 W	
2,592.31	5.96	11.16	2,581.00	218.32	43.08	14,526,293.85	2,053,657.04	39° 59' 28.658 N	109° 31' 28.793 W	
9 5/8"										
2,600.00	5.96	11.16	2,588.64	219.10	43.24	14,526,294.63	2,053,657.19	39° 59' 28.666 N	109° 31' 28.791 W	
2,700.00	5.96	11.16	2,688.10	229.29	45.25	14,526,304.85	2,053,659.03	39° 59' 28.766 N	109° 31' 28.766 W	
2,702.00	5.96	11.16	2,690.09	229.49	45.29	14,526,305.05	2,053,659.06	39° 59' 28.768 N	109° 31' 28.765 W	
Start Drop -1.75										
2,800.00	4.24	11.16	2,787.70	238.04	46.98	14,526,313.63	2,053,660.61	39° 59' 28.853 N	109° 31' 28.743 W	
2,900.00	2.49	11.16	2,887.52	243.81	48.11	14,526,319.41	2,053,661.65	39° 59' 28.910 N	109° 31' 28.729 W	
3,000.00	0.74	11.16	2,987.48	246.58	48.66	14,526,322.19	2,053,662.15	39° 59' 28.937 N	109° 31' 28.722 W	
3,042.52	0.00	0.00	3,030.00	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
Start 7580.00 hold at 3042.52 MD										
3,100.00	0.00	0.00	3,087.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
3,200.00	0.00	0.00	3,187.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
3,300.00	0.00	0.00	3,287.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
3,400.00	0.00	0.00	3,387.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
3,500.00	0.00	0.00	3,487.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
3,600.00	0.00	0.00	3,587.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
3,700.00	0.00	0.00	3,687.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
3,800.00	0.00	0.00	3,787.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
3,900.00	0.00	0.00	3,887.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
4,000.00	0.00	0.00	3,987.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_NBU 921-35L1CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35L PAD	North Reference:	True
Well:	P_NBU 921-35L1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NBU 921-35L1CS		
Design:	PLAN #1 11-12-10 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,100.00	0.00	0.00	4,087.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
4,200.00	0.00	0.00	4,187.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
4,300.00	0.00	0.00	4,287.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
4,400.00	0.00	0.00	4,387.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
4,500.00	0.00	0.00	4,487.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
4,600.00	0.00	0.00	4,587.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
4,700.00	0.00	0.00	4,687.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
4,757.52	0.00	0.00	4,745.00	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
WASATCH										
4,800.00	0.00	0.00	4,787.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
4,900.00	0.00	0.00	4,887.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
5,000.00	0.00	0.00	4,987.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
5,100.00	0.00	0.00	5,087.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
5,200.00	0.00	0.00	5,187.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
5,300.00	0.00	0.00	5,287.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
5,400.00	0.00	0.00	5,387.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
5,500.00	0.00	0.00	5,487.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
5,600.00	0.00	0.00	5,587.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
5,700.00	0.00	0.00	5,687.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
5,800.00	0.00	0.00	5,787.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
5,900.00	0.00	0.00	5,887.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
6,000.00	0.00	0.00	5,987.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
6,100.00	0.00	0.00	6,087.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
6,200.00	0.00	0.00	6,187.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
6,300.00	0.00	0.00	6,287.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
6,400.00	0.00	0.00	6,387.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
6,500.00	0.00	0.00	6,487.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
6,600.00	0.00	0.00	6,587.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
6,700.00	0.00	0.00	6,687.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
6,800.00	0.00	0.00	6,787.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
6,900.00	0.00	0.00	6,887.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
7,000.00	0.00	0.00	6,987.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
7,100.00	0.00	0.00	7,087.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
7,200.00	0.00	0.00	7,187.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
7,300.00	0.00	0.00	7,287.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
7,400.00	0.00	0.00	7,387.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
7,498.52	0.00	0.00	7,486.00	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
MESAVERDE										
7,500.00	0.00	0.00	7,487.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
7,600.00	0.00	0.00	7,587.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
7,700.00	0.00	0.00	7,687.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
7,800.00	0.00	0.00	7,787.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
7,900.00	0.00	0.00	7,887.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
8,000.00	0.00	0.00	7,987.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
8,100.00	0.00	0.00	8,087.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
8,200.00	0.00	0.00	8,187.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
8,300.00	0.00	0.00	8,287.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
8,400.00	0.00	0.00	8,387.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
8,500.00	0.00	0.00	8,487.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
8,600.00	0.00	0.00	8,587.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
8,700.00	0.00	0.00	8,687.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
8,800.00	0.00	0.00	8,787.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_NBU 921-35L1CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35L PAD	North Reference:	True
Well:	P_NBU 921-35L1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NBU 921-35L1CS		
Design:	PLAN #1 11-12-10 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
8,900.00	0.00	0.00	8,887.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
9,000.00	0.00	0.00	8,987.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
9,100.00	0.00	0.00	9,087.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
9,200.00	0.00	0.00	9,187.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
9,300.00	0.00	0.00	9,287.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
9,400.00	0.00	0.00	9,387.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
9,500.00	0.00	0.00	9,487.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
9,600.00	0.00	0.00	9,587.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
9,700.00	0.00	0.00	9,687.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
9,800.00	0.00	0.00	9,787.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
9,900.00	0.00	0.00	9,887.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
10,000.00	0.00	0.00	9,987.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
10,100.00	0.00	0.00	10,087.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
10,200.00	0.00	0.00	10,187.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
10,300.00	0.00	0.00	10,287.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
10,400.00	0.00	0.00	10,387.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
10,500.00	0.00	0.00	10,487.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
10,600.00	0.00	0.00	10,587.48	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
10,622.52	0.00	0.00	10,610.00	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	
PHBL_NBU 921-35L1CS										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
PHBL_NBU 921-35L1CS - hit/miss target - Shape - Circle (radius 25.00)	0.00	0.00	10,610.00	246.85	48.71	14,526,322.46	2,053,662.20	39° 59' 28.940 N	109° 31' 28.721 W	

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)		
2,592.31	2,581.00	9 5/8"	9.625	12.250		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,465.22	1,460.00	GREEN RIVER				
4,757.52	4,745.00	WASATCH				
7,498.52	7,486.00	MESAVERDE				

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_NBU 921-35L1CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5065' & RKB 14' @ 5079.00ft (ASSUMED)
Site:	UINTAH_NBU 921-35L PAD	North Reference:	True
Well:	P_NBU 921-35L1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NBU 921-35L1CS		
Design:	PLAN #1 11-12-10 RHS		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
300.00	300.00	0.00	0.00	Start Build 2.00
597.95	597.42	15.19	3.00	Start 2104.05 hold at 597.95 MD
2,702.00	2,690.09	229.49	45.29	Start Drop -1.75
3,042.52	3,030.00	246.85	48.71	Start 7580.00 hold at 3042.52 MD
10,622.52	10,610.00	246.85	48.71	TD at 10622.52

NBU 921-35E4CS

Surface: 2,016' FSL 768' FWL (NW/4SW/4)
BHL: 2,343' FNL 823' FWL (SW/4NW/4)

NBU 921-35L1BS

Surface: 2,013' FSL 778' FWL (NW/4SW/4)
BHL: 2,658' FSL 826' FWL (NW/4SW/4)

NBU 921-35L1CS

Surface: 2,009' FSL 787' FWL (NW/4SW/4)
BHL: 2,255' FSL 835' FWL (NW/4SW/4)

NBU 921-35L4CS

Surface: 2,005' FSL 796' FWL (NW/4SW/4)
BHL: 1,470' FSL 832' FWL (NW/4SW/4)

Pad: NBU 921-35L
Section 35 T9S R21E
Mineral Lease: UO 1194 ST

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

MULTI-POINT SURFACE USE PLAN of OPERATIONS (SUPO)

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

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

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

A. Existing Roads:

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

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each

other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

No new access road is proposed (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

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

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

C. Location of Existing and Proposed Facilities:

This pad will expand the existing pad for the NBU 442. This well location is a plugged and abandoned well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of November 11, 2010.

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

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

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 UDOGM.

Gathering facilities:

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

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 1,950'$ and the individual segments are broken up as follows:

$\pm 600'$ (0.1 miles) –New 6" buried gas pipeline from the meter to the edge of the pad.

$\pm 880'$ (0.2 miles) –New 6" buried gas pipeline from the edge of pad to the NBU 921-35F4 pad intersection.

$\pm 470'$ (0.1 miles) –New 10" buried gas pipeline from the NBU 921-35F4 pad intersection to the NBU 921-35K pad intersection.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 1,950'$ and the individual segments are broken up as follows:

- $\pm 600'$ (0.1 miles) –New 6” buried liquid pipeline from the meter to the edge of the pad.
- $\pm 880'$ (0.2 miles) –New 6” buried liquid pipeline from the edge of pad to the NBU 921-35F4 pad intersection.
- $\pm 470'$ (0.1 miles) –New 6” buried liquid pipeline from the NBU 921-35F4 pad intersection to the NBU 921-35K pad intersection.

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

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

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

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

D. Location and Type of Water Supply:

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

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

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

No water well is to be drilled on this lease.

E. Source of Construction Materials:

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

F. Methods of Handling Waste Materials:

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

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

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

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

The reserve and/or fracture stimulation pit will be lined with a synthetic material 20-mil or thicker, The liner

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

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

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

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

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

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

Materials Management

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

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

G. Ancillary Facilities:

None are anticipated.

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

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

Coordinates are provided in the National Spatial Reference System, North American Datum, 1983 (NAD83) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

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

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

Interim Reclamation

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

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

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

Final Reclamation

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

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

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

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

Seeding and Measures Common to Interim and Final Reclamation

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

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

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

vegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

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

K. Other Information:

None

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

Danielle Piernot
Regulatory Analyst I
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6156

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

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

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

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

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

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.


Danielle Piernot

November 19, 2010
Date



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

October 27, 2010

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 921-35L1CS
T9S-R21E
Section 35: NWSW (Surf), NWSW (Bottom)
Surface: 2009' FSL, 787' FWL
Bottom Hole: 2255' FSL, 835' FWL
Uintah County, Utah

Dear Ms. Mason:

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

- Kerr-McGee's NBU 921-35L1CS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

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

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

A handwritten signature in blue ink that reads 'Joe Matney'.

Joe Matney
Sr. Staff Landman

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:

3160

(UT-922)

December 1, 2010

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2010 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 2010 within the Natural Buttes Unit, Uintah County, Utah.

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

NBU 921-35F2 Pad

43-047-51355	NBU 921-35F1BS	Sec 35 T09S R21E 1684 FNL 1709 FWL
	BHL	Sec 35 T09S R21E 1531 FNL 2146 FWL

NBU 921-35F4 PAD

43-047-51356	NBU 921-35F4BS	Sec 35 T09S R21E 2473 FNL 2358 FWL
	BHL	Sec 35 T09S R21E 2210 FNL 2158 FWL

43-047-51357	NBU 921-35F4CS	Sec 35 T09S R21E 2483 FNL 2358 FWL
	BHL	Sec 35 T09S R21E 2567 FNL 2159 FWL

43-047-51358	NBU 921-35K1BS	Sec 35 T09S R21E 2493 FNL 2358 FWL
	BHL	Sec 35 T09S R21E 2484 FSL 2161 FWL

43-047-51359	NBU 921-35K1CS	Sec 35 T09S R21E 2503 FNL 2357 FWL
	BHL	Sec 35 T09S R21E 2163 FSL 2155 FWL

NBU 921-35G Pad

43-047-51360	NBU 921-35G1BS	Sec 35 T09S R21E 2053 FNL 1633 FEL
	BHL	Sec 35 T09S R21E 1583 FNL 1819 FEL

43-047-51361	NBU 921-35G1CS	Sec 35 T09S R21E 2053 FNL 1653 FEL
	BHL	Sec 35 T09S R21E 1916 FNL 1820 FEL

43-047-51362	NBU 921-35G4BS	Sec 35 T09S R21E 2053 FNL 1643 FEL
	BHL	Sec 35 T09S R21E 2250 FNL 1822 FEL

API #	WELL NAME			LOCATION						
(Proposed PZ WASATCH-MESA VERDE)										
43-047-51363	NBU 921-35G4CS	Sec	35	T09S	R21E	2053	FNL	1623	FEL	
	BHL	Sec	35	T09S	R21E	2583	FNL	1823	FEL	
43-047-51364	NBU 921-35J1BS	Sec	35	T09S	R21E	2053	FNL	1613	FEL	
	BHL	Sec	35	T09S	R21E	2419	FSL	1824	FEL	
NBU 921-35H PAD										
43-047-51365	NBU 921-35H1BS	Sec	35	T09S	R21E	2143	FNL	0486	FEL	
	BHL	Sec	35	T09S	R21E	1411	FNL	0494	FEL	
43-047-51366	NBU 921-35H1CS	Sec	35	T09S	R21E	2133	FNL	0490	FEL	
	BHL	Sec	35	T09S	R21E	1743	FNL	0495	FEL	
43-047-51367	NBU 921-35H4BS	Sec	35	T09S	R21E	2124	FNL	0493	FEL	
	BHL	Sec	35	T09S	R21E	2075	FNL	0495	FEL	
43-047-51368	NBU 921-35H4CS	Sec	35	T09S	R21E	2152	FNL	0483	FEL	
	BHL	Sec	35	T09S	R21E	2407	FNL	0495	FEL	
NBU 921-35I PAD										
43-047-51369	NBU 921-35I1BS	Sec	35	T09S	R21E	2106	FSL	0794	FEL	
	BHL	Sec	35	T09S	R21E	2572	FSL	0496	FEL	
43-047-51370	NBU 921-35I1CS	Sec	35	T09S	R21E	2098	FSL	0800	FEL	
	BHL	Sec	35	T09S	R21E	2240	FSL	0496	FEL	
43-047-51371	NBU 921-35I4BS	Sec	35	T09S	R21E	2090	FSL	0806	FEL	
	BHL	Sec	35	T09S	R21E	1908	FSL	0496	FEL	
43-047-51372	NBU 921-35I4CS	Sec	35	T09S	R21E	2082	FSL	0811	FEL	
	BHL	Sec	35	T09S	R21E	1577	FSL	0497	FEL	
43-047-51373	NBU 921-35J1CS	Sec	35	T09S	R21E	2074	FSL	0817	FEL	
	BHL	Sec	35	T09S	R21E	2086	FSL	1825	FEL	
43-047-51374	NBU 921-35J4BS	Sec	35	T09S	R21E	2066	FSL	0823	FEL	
	BHL	Sec	35	T09S	R21E	1752	FSL	1826	FEL	
NBU 921-35K PAD										
43-047-51375	NBU 921-35K4BS	Sec	35	T09S	R21E	1710	FSL	1409	FWL	
	BHL	Sec	35	T09S	R21E	1814	FSL	2165	FWL	
43-047-51376	NBU 921-35K4CS	Sec	35	T09S	R21E	1702	FSL	1403	FWL	
	BHL	Sec	35	T09S	R21E	1469	FSL	2163	FWL	
43-047-51377	NBU 921-35N1BS	Sec	35	T09S	R21E	1694	FSL	1397	FWL	
	BHL	Sec	35	T09S	R21E	1124	FSL	2161	FWL	
43-047-51378	NBU 921-35N1CS	Sec	35	T09S	R21E	1686	FSL	1392	FWL	
	BHL	Sec	35	T09S	R21E	0771	FSL	2162	FWL	

API #	WELL NAME	LOCATION	
NBU 921-35L PAD			
43-047-51379	NBU 921-35E4CS	Sec 35 T09S R21E 2016 FSL 0768 FWL	
	BHL	Sec 35 T09S R21E 2343 FNL 0823 FWL	
43-047-51386	NBU 921-35L1BS	Sec 35 T09S R21E 2013 FSL 0778 FWL	
	BHL	Sec 35 T09S R21E 2658 FSL 0826 FWL	
43-047-51389	NBU 921-35L1CS	Sec 35 T09S R21E 2009 FSL 0787 FWL	
	BHL	Sec 35 T09S R21E 2255 FSL 0835 FWL	
43-047-51390	NBU 921-35L4CS	Sec 35 T09S R21E 2005 FSL 0796 FWL	
	BHL	Sec 35 T09S R21E 1470 FSL 0832 FWL	
NBU 921-35P PAD			
43-047-51380	NBU 921-35P4CS	Sec 35 T09S R21E 0781 FSL 0557 FEL	
	BHL	Sec 35 T09S R21E 0208 FSL 0489 FEL	
43-047-51381	NBU 921-35P1CS	Sec 35 T09S R21E 0778 FSL 0547 FEL	
	BHL	Sec 35 T09S R21E 0913 FSL 0497 FEL	
43-047-51382	NBU 921-35P1BS	Sec 35 T09S R21E 0785 FSL 0566 FEL	
	BHL	Sec 35 T09S R21E 1245 FSL 0497 FEL	
NBU 921-35O PAD			
43-047-51383	NBU 921-35O4CS	Sec 35 T09S R21E 0360 FSL 1780 FEL	
	BHL	Sec 35 T09S R21E 0026 FSL 1826 FEL	
43-047-51384	NBU 921-35O4BS	Sec 35 T09S R21E 0370 FSL 1777 FEL	
	BHL	Sec 35 T09S R21E 0336 FSL 1833 FEL	
43-047-51385	NBU 921-35O1CS	Sec 35 T09S R21E 0398 FSL 1766 FEL	
	BHL	Sec 35 T09S R21E 0674 FSL 1828 FEL	
43-047-51387	NBU 921-35O1BS	Sec 35 T09S R21E 0407 FSL 1763 FEL	
	BHL	Sec 35 T09S R21E 1059 FSL 1833 FEL	
43-047-51388	NBU 921-35N4CS	Sec 35 T09S R21E 0379 FSL 1773 FEL	
	BHL	Sec 35 T09S R21E 0051 FSL 2153 FWL	
43-047-51395	NBU 921-35N4BS	Sec 35 T09S R21E 0388 FSL 1770 FEL	
	BHL	Sec 35 T09S R21E 0410 FSL 2164 FWL	
NBU 921-35M PAD			
43-047-51391	NBU 921-35M1BS	Sec 35 T09S R21E 0469 FSL 0526 FWL	
	BHL	Sec 35 T09S R21E 1096 FSL 0830 FWL	
43-047-51392	NBU 921-35M1CS	Sec 35 T09S R21E 0474 FSL 0534 FWL	
	BHL	Sec 35 T09S R21E 0760 FSL 0830 FWL	

API #	WELL NAME	LOCATION
43-047-51393	NBU 921-35M4BS	Sec 35 T09S R21E 0478 FSL 0543 FWL BHL Sec 35 T09S R21E 0423 FSL 0831 FWL
43-047-51394	NBU 921-35M4CS	Sec 35 T09S R21E 0464 FSL 0517 FWL BHL Sec 35 T09S R21E 0055 FSL 0834 FWL

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

Michael L. Coulthard

Digitally signed by Michael L. Coulthard
DN: cn=Michael L. Coulthard, o=Bureau of Land Management, ou=Branch of Minerals, email=Michael_Coulthard@blm.gov, c=US
Date: 2010.12.01 10:03:00 -07'00'

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

MCoulthard:mc:12-1-10

From: Jim Davis
To: Bonner, Ed; Hill, Brad; Mason, Diana
CC: Curry, Kristine; Danielle Piernot; Garrison, LaVonne; Hayden, Martha;...
Date: 12/22/2010 5:49 AM
Subject: Kerr McGee APD approvals in 9S 21E Sec 35
Attachments: KMG approvals 921-35 on 12.22.2010.xls

The following wells have been approved by SITLA under the following arch and paleo stipulations. This is a long list, so I'm attaching a spreadsheet with the same information.

A note on arch and paleo stipulations: Wells that have an arch note "non-significant site" do not need to be avoided or mitigated. Only those that say "needs to be avoided".

The paleo reports make recommendations for "spot paleo monitoring" or "full paleo monitoring". It is my understanding that Kerr McGee is taking these stipulations and doing full monitoring in either case, in an abundance of caution.

-Jim Davis

Well Name	API	Paleo Stipulations	Arch Stipulations
Kerr-McGee's NBU 921-35A1BS (U-07-MQ-1437b,i,p,s)		API #4304751339	IPC 10-98 Spot Paleo Monitoring
Kerr-McGee's NBU 921-35A4CS (U-07-MQ-1437b,i,p,s)		API #4304751340	IPC 10-98 Spot Paleo Monitoring
Kerr-McGee's NBU 921-35B1BS (U-07-MQ-1437b,i,p,s)		API #4304751341	IPC 10-98 Spot Paleo Monitoring
Kerr-McGee's NBU 921-35B4BS (U-07-MQ-1437b,i,p,s)		API #4304751342	IPC 10-98 Spot Paleo Monitoring
Kerr-McGee's NBU 921-35B1CS (U-07-MQ-1437b,i,p,s; eligible site 42Un6461, just south of proposed pipeline needs to be avoided)		API #4304751343	IPC 10-98 Spot Paleo Monitoring
Kerr-McGee's NBU 921-35B4CS (U-07-MQ-1437b,i,p,s; eligible site 42Un6461, just south of proposed pipeline needs to be avoided)		API #4304751344	IPC 10-98 Spot Paleo Monitoring
Kerr-McGee's NBU 921-35C1BS (U-07-MQ-1437b,i,p,s; eligible site 42Un6461, just south of proposed pipeline needs to be avoided)		API #4304751345	IPC 10-98 Spot Paleo Monitoring
Kerr-McGee's NBU 921-35C4BS (U-07-MQ-1437b,i,p,s; eligible site 42Un6461, just south of proposed pipeline needs to be avoided)		API #4304751346	IPC 10-98 Spot Paleo Monitoring
Kerr-McGee's NBU 921-35C1CS (U-07-MQ-1437b,i,p,s)		API #4304751347	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35D1BS (U-07-MQ-1437b,i,p,s)		API #4304751348	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35D1CS (U-07-MQ-1437b,i,p,s)		API #4304751349	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35D4CS (U-07-MQ-1437b,i,p,s)		API #4304751350	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35C4CS (U-07-MQ-1437b,i,p,s)		API #4304751351	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35E1CS (U-07-MQ-1437b,i,p,s)		API #4304751352	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35E2AS (U-07-MQ-1437b,i,p,s)		API #4304751353	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35F1BS (U-07-MQ-1437b,i,p,s)		API #4304751355	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35F4BS (U-07-MQ-1437b,i,p,s)		API #4304751356	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35F4CS (U-07-MQ-1437b,i,p,s)		API #4304751357	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35K1BS		API #4304751358	IPC 10-97 Full Paleo Monitoring (U-07-MQ-1437b,i,p,s)

MQ-1437b,i,p,s)			
Kerr-McGee's NBU 921-35K1CS	API #4304751359	IPC 10-97 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35G1BS	API #4304751360	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un2395, adjacent to the road)
Kerr-McGee's NBU 921-35G1CS	API #4304751361	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un2395, adjacent to the road)
Kerr-McGee's NBU 921-35G4BS	API #4304751362	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un2395, adjacent to the road)
Kerr-McGee's NBU 921-35G4CS	API #4304751363	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un2395, adjacent to the road)
Kerr-McGee's NBU 921-35J1S	API #4304751364	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un2395, adjacent to the road)
Kerr-McGee's NBU 921-35H1BS	API #4304751365	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35H1CS	API #4304751366	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35H4BS	API #4304751367	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35H4CS	API #4304751368	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35I1BS	API #4304751369	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35I1CS	API #4304751370	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35I4BS	API #4304751371	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35I4CS	API #4304751372	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35J1CS	API #4304751373	IPC 10-98 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35J4BS	API #4304751374	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35K4BS	API #4304751375	IPC 10-99 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35K4CS	API #4304751376	IPC 10-99 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35N1BS	API #4304751377	IPC 10-99 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35N1CS	API #4304751378	IPC 10-99 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35E4CS	API #4304751379	IPC 10-99 Spot Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35P4CS	API #4304751380	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35P1CS	API #4304751381	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35P1BS	API #4304751382	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s)
Kerr-McGee's NBU 921-35O4CS	API #4304751383	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)
Kerr-McGee's NBU 921-35O4BS	API #4304751384	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)
Kerr-McGee's NBU 921-35O1CS	API #4304751385	IPC 10-100 Full Paleo Monitoring	(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)
Kerr-McGee's NBU 921-35L1BS	API #4304751386	IPC 10-99 Spot Paleo Monitoring	

(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35O1BS	API #4304751387	IPC 10-100 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)		
Kerr-McGee's NBU 921-35N4CS	API #4304751388	IPC 10-100 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)		
Kerr-McGee's NBU 921-35L1CS	API #4304751389	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35L4CS	API #4304751390	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35M1BS	API #4304751391	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35M1CS	API #4304751392	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35M4BS	API #4304751393	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35M4CS	API #4304751394	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35N4BS	API #4304751395	IPC 10-100 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant site, 42Un1836, adjacent to pipeline)		

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 921-35L1CS 4304751389			
String	Surf	Prod		
Casing Size(")	9.625	4.500		
Setting Depth (TVD)	2569	10650		
Previous Shoe Setting Depth (TVD)	40	2569		
Max Mud Weight (ppg)	8.3	13.0		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3520	10690		
Operators Max Anticipated Pressure (psi)	7051	12.7		

Calculations	Surf String	9.625	"
Max BHP (psi)	$.052 * \text{Setting Depth} * \text{MW} =$	1113	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	805	NO
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	548	NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	557	NO Reasonable depth in area
Required Casing/BOPE Test Pressure=		2464	psi
*Max Pressure Allowed @ Previous Casing Shoe=		40	psi *Assumes 1psi/ft frac gradient

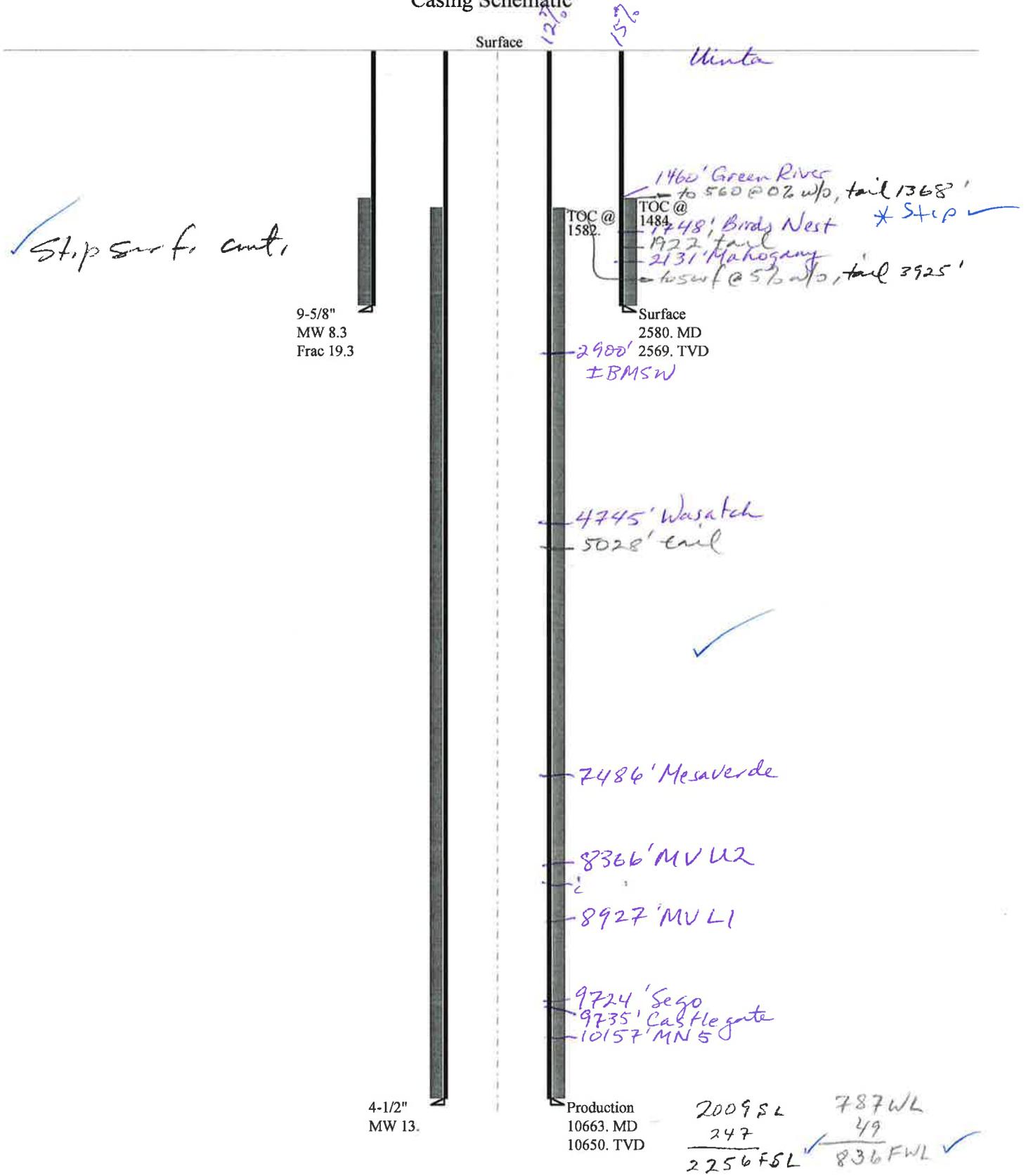
Calculations	Prod String	4.500	"
Max BHP (psi)	$.052 * \text{Setting Depth} * \text{MW} =$	7199	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	5921	NO
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	4856	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	5421	NO Reasonable
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2569	psi *Assumes 1psi/ft frac gradient

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

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

43047513890000 NBU 921-35L1CS

Casing Schematic



NW SW Sec 35-9S-21E

Well name:	43047513890000 NBU 921-35L1CS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Surface	Project ID:	43-047-51389
Location:	UINTAH COUNTY		

Design parameters:

Collapse

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

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 110 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 1,484 ft

Burst

Max anticipated surface pressure: 2,270 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,579 psi

No backup mud specified.

Tension:

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

Tension is based on air weight.
Neutral point: 2,262 ft

Directional Info - Build & Drop

Kick-off point 300 ft
Departure at shoe: 221 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 5.96 °

Re subsequent strings:

Next setting depth: 10,650 ft
Next mud weight: 13.000 ppg
Next setting BHP: 7,193 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,580 ft
Injection pressure: 2,580 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2580	9.625	36.00	J-55	LT&C	2569	2580	8.796	21098
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	1112	2020	1.817	2579	3520	1.37	92.5	453	4.90 J

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

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

Date: December 27, 2010
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2569 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name:	43047513890000 NBU 921-35L1CS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Production	Project ID:	43-047-51389
Location:	UINTAH COUNTY		

Design parameters:

Collapse

Mud weight: 13.000 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 223 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 1,582 ft

Burst

Max anticipated surface pressure: 4,849 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 7,193 psi

No backup mud specified.

Tension:

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

Tension is based on air weight.
Neutral point: 8,593 ft

Directional Info - Build & Drop

Kick-off point 300 ft
Departure at shoe: 252 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	10663	4.5	11.60	HCP-110	Buttress	10650	10663	3.875	54964
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	7193	8650	1.203	7193	10690	1.49	123.5	367.2	2.97 B

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

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

Date: December 27, 2010
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 10650 ft, a mud weight of 13 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.				
Well Name	NBU 921-35L1CS				
API Number	43047513890000	APD No	3214	Field/Unit	NATURAL BUTTES
Location: 1/4,1/4	NWSW	Sec	35	Tw	9.0S
		Rng	21.0E	2009	FSL 787 FWL
GPS Coord (UTM)	625960	4427566	Surface Owner		

Participants

See other comments:

Regional/Local Setting & Topography

The general area is within the Natural Buttes Unit in the lower portion of the Sand Wash Drainage of Uintah, County, approximately 37 air miles and 44.3 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads to the site. Topography of the Sand Wash area is characterized by broad open flats dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs, furnishing water for antelope or livestock.

The NBU 921-35L pad will be created by significantly enlarging the existing pad of the plugged and partially re-claimed pad of the NBU-442 gas well. It will be enlarged in all directions. Four gas wells, to be directionally drilled, will be added. They are the NBU 921-35E4CS, NBU 921-35L1BS, NBU 921-35L1CS and MBU 921-35L4CS. The site slopes to the north from a gentle ridge on the south. An existing constructed drainage ditch parallels the old pad on the north. As the pad is extended to the north, a ditch and berm, if needed, will be constructed inside the outer edge as a diversion ditch. A major tributary of Sand Wash is about 1 mile to the east of the site and the White River about 3 miles down drainage. The selected site appears to be suitable for enlarging a pad, drilling and operating the proposed wells and is the only site in the immediate area.

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use

- Grazing
- Wildlife Habitat
- Existing Well Pad

New Road Miles	Well Pad	Src Const Material	Surface Formation
0	Width 352 Length 435	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Vegetation is a poor desert shrub type, which includes rabbit brush, Indian ricegrass, stipa commata, greasewood, broom snakeweed, shadscale and halogeton.

Antelope, sheep during the winter, rabbits, coyotes, and small mammals, birds and raptors.

Soil Type and Characteristics

Surface soils are a shallow rocky sandy loam.

Erosion Issues Y

Sedimentation Issues Y

Site Stability Issues N

Drainage Diversion Required? Y

. An existing constructed drainage ditch parallels the old pad on the north. As the pad is extended to the north, a ditch and berm, if needed, will be constructed inside the outer edge as a diversion ditch.

Berm Required? N

Erosion Sedimentation Control Required? Y

. An existing constructed drainage ditch parallels the old pad on the north. As the pad is extended to the north, a ditch and berm, if needed, will be constructed inside the outer edge as a diversion ditch.

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

Reserve Pit

Site-Specific Factors

Site Ranking

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

1 Sensitivity Level

Characteristics / Requirements

The proposed reserve pit is 120' x 260' x 12' deep located in a cut on the southeast corner of the location. Kerr McGee plans a 30-mil liner with a double felt sub-liner.

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

Other Observations / Comments

Floyd Bartlett (DOGM), Sheila Wopsock, Clay Einerson, Lovell Young, Grizz Oleen, Charles Chase, Colby Sutton, Doyle Holmes, Claudia Sass, (Kerr McGee), Mitch Batty, John Slaugh, (Timberline Engineering and Land Surveying), Jim Davis (SITLA) and Ben Williams, (UDWR).

Floyd Bartlett
Evaluator

11/30/2010
Date / Time

Application for Permit to Drill

Statement of Basis

12/28/2010

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
3214	43047513890000	LOCKED	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		Surface Owner-APD		
Well Name	NBU 921-35L1CS	Unit		NATURAL BUTTES	
Field	NATURAL BUTTES	Type of Work		DRILL	
Location	NWSW 35 9S 21E S 2009 FSL 787 FWL GPS Coord (UTM)			625944E	4427543N

Geologic Statement of Basis

Kerr McGee proposes to set 2,580' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 2,900'. A search of Division of Water Rights records shows one water well within a 10,000 foot radius of the center of Section 35. The well is listed as 2,640 feet deep and used for drilling water. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought up to cover the base of the moderately saline ground water in order to isolate fresher waters uphole.

Brad Hill
APD Evaluator

12/20/2010
Date / Time

Surface Statement of Basis

The general area is within the Natural Buttes Unit in the lower portion of the Sand Wash Drainage of Uintah, County, approximately 37 air miles and 44.3 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads to the site. Topography of the Sand Wash area is characterized by broad open flats dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs, furnishing water for antelope or livestock.

The NBU 921-35L pad will be created by significantly enlarging the existing pad of the plugged and partially re-claimed pad of the NBU-442 gas well. It will be enlarged in all directions. Four gas wells, to be directionally drilled, will be added. They are the NBU 921-35E4CS, NBU 921-35L1BS, NBU 921-35L1CS and MBU 921-35L4CS. The site slopes to the north from a gentle ridge on the south. An existing constructed drainage ditch parallels the old pad on the north. As the pad is extended to the north, a ditch and berm, if needed, will be constructed inside the outer edge as a diversion ditch. A major tributary of Sand Wash is about 1 mile to the east of the site and the White River about 3 miles down drainage. The selected site appears to be suitable for enlarging a pad, drilling and operating the proposed wells and is the only site in the immediate area.

Both the surface and minerals are owned by SITLA. Jim Davis represented SITLA at the pre-site investigation. Mr. Davis had no concerns pertaining to this location excepted as covered above. SITLA provided a seed mix to be used when reclaiming the site.

Ben Williams represented the Utah Division of Wildlife Resources. Mr. Williams stated the area is classified as crucial yearlong antelope habitat but recommended no restrictions for this species. No other wildlife will be significantly affected.

Floyd Bartlett
Onsite Evaluator

11/30/2010
Date / Time

Application for Permit to Drill Statement of Basis

12/28/2010

Utah Division of Oil, Gas and Mining

Page 2

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 30 mils with a double felt subliner shall be properly installed and maintained in the reserve pit.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 11/23/2010

WELL NAME: NBU 921-35L1CS

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

CONTACT: Danielle Piernot

API NO. ASSIGNED: 43047513890000

PHONE NUMBER: 720 929-6156

PROPOSED LOCATION: NWSW 35 090S 210E

SURFACE: 2009 FSL 0787 FWL

BOTTOM: 2255 FSL 0835 FWL

COUNTY: UINTAH

LATITUDE: 39.99058

UTM SURF EASTINGS: 625944.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: UO 01194 ST

SURFACE OWNER: 3 - State

Permit Tech Review:

Engineering Review:

Geology Review:

LONGITUDE: -109.52482

NORTHINGS: 4427543.00

PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: STATE/FEE - 22013542
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: 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
5 - Statement of Basis - bhill
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason
25 - Surface Casing - hmacdonald



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 921-35L1CS
API Well Number: 43047513890000
Lease Number: UO 01194 ST
Surface Owner: STATE
Approval Date: 12/28/2010

Issued to:

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

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

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

Commingle:

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

General:

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

Conditions of Approval:

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

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

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

Surface casing shall be cemented to the surface.

Additional Approvals:

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

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

Notification Requirements:

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

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

Contact Information:

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

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

Reporting Requirements:

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

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

Approved By:



For John Rogers
Associate Director, Oil & Gas

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST
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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 921-35L1CS
------------------------------------	---

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047513890000
---	---

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: 2009 FSL 0787 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 35 Township: 09.0S Range: 21.0E Meridian: S	COUNTY: UINTAH STATE: UTAH
---	---

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 3/10/2011	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

MIRU PETE MARTIN 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 MARCH 10, 2011 AT 13:00 HRS.

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

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 3/11/2011

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
 Submitted By ANDY LYTLE Phone Number 720.929.6100
 Well Name/Number NBU 921-35L1CS
 Qtr/Qtr NWSW Section 35 Township 9S Range 21E
 Lease Serial Number UO-01194ST
 API Number 4304751389

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

Date/Time 03/10/2011 13:00 HRS AM PM

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

- Surface Casing
 Intermediate Casing
 Production Casing
 Liner
 Other

Date/Time 03/29/2011 08:00 HRS AM PM

BOPE

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

RECEIVED

MAR 09 2011

DIV. OF OIL, GAS & MINING

Date/Time _____ AM PM

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT

435.828.0986 OR LOVEL YOUNG AT 435.781.7051

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

FORM 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) 929-6100

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751379	NBU 921-35E4CS		NWSW	35	09S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
<u>B</u>	99999	<u>2900</u>	3/10/2011		<u>3/23/11</u>		
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL LOCATION ON 03/10/2011 AT 8:00 HRS. <u>BHL = SWNW</u>							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751386	NBU 921-35L1BS		NWSW	35	09S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
<u>B</u>	99999	<u>2900</u>	3/10/2011		<u>3/23/11</u>		
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL LOCATION ON 03/10/2011 AT 11:00 HRS. <u>BHL = NWSW</u>							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751389	NBU 921-35L1CS		NWSW	35	09S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
<u>B</u>	99999	<u>2900</u>	3/10/2011		<u>3/23/11</u>		
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL LOCATION ON 03/10/2011 AT 13:00 HRS. <u>BHL = NWSW</u>							

ACTION CODES:

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

GINA BECKER

Name (Please Print)

Gina Becker

Signature

REGULATORY ANALYST

Title

3/11/2011

Date

RECEIVED

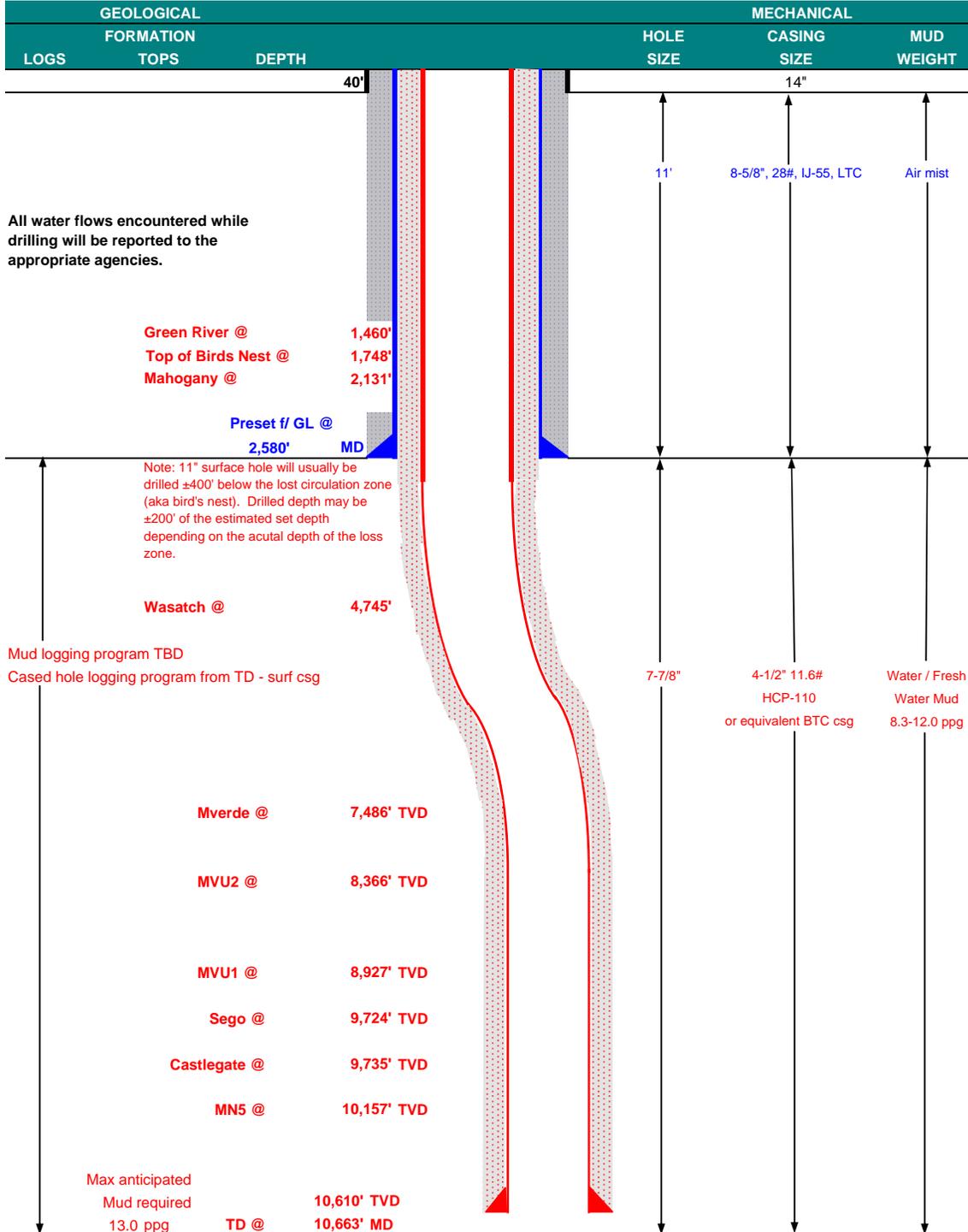
MAR 14 2011

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
		5. LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST
SUNDRY NOTICES AND REPORTS ON WELLS		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
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.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: NBU 921-35L1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		9. API NUMBER: 43047513890000
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: 2009 FSL 0787 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 35 Township: 09.0S Range: 21.0E Meridian: S		COUNTY: UINTAH
		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 3/31/2011 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION <input checked="" type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	
	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
<p>Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests to change the surface casing size FROM: 9-5/8" TO: 8-5/8" and the surface hole size FROM 12-1/4" TO: 11". Please see the attached for additional details. Please contact the undersigned with any questions and/or comments. Thank you.</p>		
		<p>Approved by the Utah Division of Oil, Gas and Mining</p> <p>Date: 04/05/2011</p> <p>By: <u><i>Danielle Piernot</i></u></p>
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 3/30/2011



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	March 30, 2011			
WELL NAME	NBU 921-35L1CS		TD	10,610' TVD	10,663' MD		
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	FINISHED ELEVATION	5,065'
SURFACE LOCATION	NWSW	2009 FSL	787 FWL	Sec 35	T 9S	R 21E	
	Latitude:	39.990695	Longitude:	-109.524819		NAD 27	
BTM HOLE LOCATION	NWSW	2255 FSL	835 FWL	Sec 35	T 9S	R 21E	
	Latitude:	39.991372	Longitude:	-109.524645		NAD 27	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde						
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.						





KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3,390	1,880	348,000
SURFACE	8-5/8"	0 to 2,580	28.00	IJ-55	LTC	2.10	1.56	4.77
PRODUCTION	4-1/2"	0 to 10,663	11.60	HCP-110	BTC	10,690	8,650	367,000
						1.19	1.21	3.70

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 + 0.25 pps flocele	180	60%	15.80	1.15
Option 1						
	TOP OUT CMT (6 jobs) 1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
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 + 0.25 pps Flocele + 3% salt BWOW	190	35%	11.00	3.82
	TAIL 500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD 4,243'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	310	10%	11.00	3.38
	TAIL 6,420'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,240	10%	14.30	1.31

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

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

FLOAT EQUIPMENT & CENTRALIZERS

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

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER:

Nick Spence / Emile Goodwin

DATE:**DRILLING SUPERINTENDENT:**

Kenny Gathings / Lovel Young

DATE:

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST
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 921-35L1CS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047513890000	
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: 2009 FSL 0787 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 35 Township: 09.0S Range: 21.0E Meridian: S	COUNTY: UINTAH	
	STATE: UTAH	
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 4/5/2011	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	
	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
MIRU AIR RIG ON APRIL 3, 2011. DRILLED 11" SURFACE HOLE TO 2650'. RAN 8 5/8" 28# IJ55 SURFACE CASING. CEMENTED SURFACE CASING. 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		
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 4/6/2011	

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# PIONEER 54
Submitted By DARWYNE CADY Phone Number 435- 790-2921
Well Name/Number NBU 921-35L1CS
Qtr/Qtr NE/4 SW/4 Section 35 Township 9S Range 21E
Lease Serial Number UO 01194 ST
API Number 43047513890000

Casing – Time casing run starts, not cementing times.

- Production Casing
 Other

Date/Time _ _ AM PM

BOPE

- Initial BOPE test at surface casing point
 Other

Date/Time 5/16/11 1 AM PM

Rig Move

Location To:

Date/Time _____ AM PM

Remarks

RECEIVED
MAY 16 2011
DIV. OF OIL, GAS & MINING

State of Utah - Notification Form

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Date/Time _____ AM PM

Remarks

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DIV. OF OIL, GAS & MINING

State of Utah - Notification Form

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Well Name/Number NBU 921-35L1CS
Qtr/Qtr NE/4 SW/4 Section 35 Township 9S Range 21E
Lease Serial Number UO 01194 ST
API Number 43047513890000

Casing – Time casing run starts, not cementing times.

- Production Casing
 Other

Date/Time 5/23/11 AM PM

BOPE

- Initial BOPE test at surface casing point
 Other

Date/Time _____ AM PM

Rig Move

Location To:

Date/Time _____ AM PM

Remarks RUN AND CMT PROD CSG

RECEIVED

MAY 23 2011

DIV. OF OIL, GAS & MINING

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST
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:
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		STATE: UTAH
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12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
MIRU ROTARY RIG. FINISHED DRILLING FROM 2650' TO 10,611' ON MAY 23, 2011. RAN 4-1/2" 11.6# P-110 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED PIONEER RIG 54 ON MAY 24, 2011 @ 16:00 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		
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 5/26/2011	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST
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4. LOCATION OF WELL FOOTAGES AT SURFACE: 2009 FSL 0787 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 35 Township: 09.0S Range: 21.0E Meridian: S	COUNTY: UINTAH	
	STATE: UTAH	
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 9/14/2011	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON
	<input checked="" type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER
		<input type="checkbox"/> CASING REPAIR
		<input type="checkbox"/> CHANGE WELL NAME
		<input type="checkbox"/> CONVERT WELL TYPE
		<input type="checkbox"/> NEW CONSTRUCTION
		<input type="checkbox"/> PLUG BACK
		<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
		<input type="checkbox"/> TEMPORARY ABANDON
		<input type="checkbox"/> WATER DISPOSAL
		<input type="checkbox"/> APD EXTENSION
		OTHER: <input style="width: 100px;" type="text"/>
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 09/14/2011 AT 6:00 PM. 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		
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 9/15/2011	

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

AMENDED REPORT FORM 8
(highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER:
UO 01194 ST

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME
UTU63047A

8. WELL NAME and NUMBER:
NBU 921-35L1CS

9. API NUMBER:
4304751389

10. FIELD AND POOL, OR WILDCAT
NATURAL BUTTES

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
NWSW 35 9S 21E S

12. COUNTY
UINTAH

13. STATE
UTAH

14. DATE SPUDDED: **3/10/2011**

15. DATE T.D. REACHED: **5/23/2011**

16. DATE COMPLETED: **9/14/2011** ABANDONED READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL):
5065 GL

18. TOTAL DEPTH: MD **10,611** TVD **10,584**

19. PLUG BACK T.D.: MD **10,555** TVD **10,528**

20. IF MULTIPLE COMPLETIONS, HOW MANY? *

21. DEPTH BRIDGE MD PLUG SET: TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
HDIL/ZDL/CNGR-SCBL

23. WAS WELL CORED? NO YES (Submit analysis)
WAS DST RUN? NO YES (Submit report)
DIRECTIONAL SURVEY? NO YES (Submit copy)

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

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#		40		28			
11"	8 5/8" IJ-55	28#		2,628		510		0	
7 7/8"	4 1/2" P-110	11.6#		10,599		1,942		230	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	10,190							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) MESAVERDE	8,013	10,441			8,013 10,441	0.36	72	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(B) <i>UIS MVD</i>								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

27. PERFORATION RECORD

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
8013 - 10,441	PUMP 3,948 BBLs SLICK H2O & 95,575 LBS SAND

29. ENCLOSED ATTACHMENTS:

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

30. WELL STATUS:
PROD

RECEIVED

31. INITIAL PRODUCTION

INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED: 9/14/2011		TEST DATE: 9/17/2011		HOURS TESTED: 24		TEST PRODUCTION RATES: →	OIL - BBL: 0	GAS - MCF: 1,946	WATER - BBL: 476	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS. 1,150	CSG. PRESS. 1,750	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL: 0	GAS - MCF: 1,946	WATER - BBL: 476	INTERVAL STATUS: PROD

INTERVAL B (As shown in Item #26)

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

INTERVAL C (As shown in Item #26)

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

INTERVAL D (As shown in Item #26)

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

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

33. SUMMARY OF POROUS ZONES (Include Aquifers):

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

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
GREEN RIVER	1,460				
BIRD'S NEST	1,775				
MAHOGANY	2,323				
WASATCH	4,775	7,444			
MESAVERDE	7,444	10,611	TD		

35. ADDITIONAL REMARKS (Include plugging procedure)

The first 225' of the surface hole was drilled with a 12 1/4" bit. The remainder of surface hole was drilled with an 11" bit. Attached is the chronological well history, perforation report & final survey.

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

NAME (PLEASE PRINT) JAIME SCHARNOWSKE

TITLE REGULATORY ANALYST

SIGNATURE *Jaime Scharnowske*

DATE 10-20-2011

This report must be submitted within 30 days of

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

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

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

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

Phone: 801-538-5340

Fax: 801-359-3940

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-35L1CS (BLUE)	Spud Conductor: 3/10/2011	Spud Date: 4/3/2011
Project: UTAH-UINTAH	Site: NBU 921-35L PAD	Rig Name No: PIONEER 54/54, CAPSTAR 310/310
Event: DRILLING	Start Date: 3/20/2011	End Date: 5/24/2011
Active Datum: RKB @5,084.01ft (above Mean Sea Level)	UWI: NWSW0/9/S/21/E/35/0/0/26/PM/S/2009/W/0/787/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
4/3/2011	16:00 - 19:00	3.00	DRLSUR	01	C	P		SKID RIG TO WELL # 2/4 NBU 921-35L1CS
	19:00 - 20:30	1.50	DRLSUR	14	A	P		WELD ON CONDUCTOR AND RIG UP FLOW LINE
	20:30 - 21:30	1.00	DRLSUR	06	A	P		PICK UP BIT AND MUD MOTOR PRE PARE TO SPUD
	21:30 - 22:30	1.00	DRLSUR	08	A	Z		WORK ON # 2 PUMP
	22:30 - 0:00	1.50	DRLSUR	02	C	P		SPUD WELL WITH 12.25" BIT DRILL F/ 40' - 225'
4/4/2011	0:00 - 2:30	2.50	DRLSUR	06	A	P		WOB 8-18 ROT 45-55 DHR 99 GPM 600 NO LOSSES TOOH PICK UP DIRECTIONAL TOOLS ORIENT MUD MOTOR TO MWD TOOL AND TIH CHANGE OUT ROT RUBBER
	2:30 - 6:00	3.50	DRLSUR	02	C	P		DRILL 11" HOLE F/ 225' - 729' AVE ROP 144 FT HR WOB 18-20 RIT 45-55 DHR 99 GPM 600 NO LOSSES LAST SURVEY .09 DEG 8.08 AZI
	6:00 - 6:30	0.50	DRLSUR	08	A	Z		WORK ON SWIVEL LOCK
	6:30 - 14:30	8.00	DRLSUR	02	C	P		DRILL 11" HOLE F/ 729' - 1730' AVE ROP 125 FT HR WOB 18-20 RIT 45-55 DHR 99 GPM 600 NO LOSSES LAST SURVEY 9.5 DEG 6.89 AZI
	14:30 - 15:00	0.50	DRLSUR	07	A	P		DAILY RIG SERVICE
4/5/2011	15:00 - 0:00	9.00	DRLSUR	02	B	P		DRILL 11" HOLE F/ 1730' - 2579' AVE ROP 94 FT HR WOB 18-20 RIT 45-55 DHR 99 GPM 600 NO LOSSES LAST SURVEY 10.66 DEG 7 AZI
	0:00 - 1:00	1.00	DRLSUR	02	C	P		DRILL 11" HOLE F/ 2579' - 2650' AVE ROP 94 FT HR WOB 18-20 RIT 45-55 DHR 99 GPM 600 NO LOSSES LAST SURVEY 10.66 DEG 7 AZI
	1:00 - 2:00	1.00	DRLSUR	05	C	P		CIRCULATE AND CONDITION MUD PRIOR TO LDDS
	2:00 - 6:00	4.00	DRLSUR	06	A	P		TOOH LAYING DOWN BREAK DOWN DIRECTIONAL TOOLS L/D MWD TOOL AND BIT AND MUD MOTOR RIG UP AND RUN 59 JOINTS 8.625 28# J-55 CASING SHOE AT 2618' BAFFLE AT 2574'
	6:00 - 9:30	3.50	DRLSUR	12	C	P		HOLD SAFETY MEETING W/ SUPERIOR WELL SERVICES CEMENTERS. INSTALL CEMENT HEAD ON TOP OF LANDING JT. PRESSURE TEST LINE TO 2000 PSI. PUMP 50 BBLS OF WATER AHEAD, PUMP 20 BBLS OF GEL WATER. PUMP 200 SX OF 11#, 3.52 YD, 23 GAL/SK HI FILL LEAD, PUMP 225 SX OF 15.8# 1.15 YD, 5 GAL/SK TAIL PREM. CLASS G CEMENT. DROP PLUG ON FLY, DISPLACE W/ 144.5 BBLS OF WATER. 490 PSI OF LIFT @ 2 BBLS/MIN RATE. LOST CIRCULATION W/ 30 BBLS LEFT TO DISPLACE. BUMP PLUG W/ 900 PSI. FLOAT HELD. PUMP 85 SX OF 15.8# PREMIUM 3% CALC CEMENT DOWN 1" DOWN BACK SIDE. CEMENT FELL, WAIT TILL NEXT JOB TO TOP OUT.
11:30 - 12:00	0.50	DRLSUR	14	A	P		CUT CONDUCTOR AND RIG DOWN FLOW LINE RELEASE RIG 4-5-2011	
5/16/2011	10:30 - 11:30	1.00	DRLPRO	01	C	P		SKID RIG TO NBU-921-35L1CS
	11:30 - 12:00	0.50	DRLPRO	14	A	P		N/U BOPE
	12:00 - 15:30	3.50	DRLPRO	15	A	P		TEST BOPE 250 - 5000 HYDRILL 2500 CSG 1500 30 MIN
	15:30 - 16:00	0.50	DRLPRO	14	B	P		RUN W/BUSHING 8"

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-35L1CS (BLUE)		Spud Conductor: 3/10/2011	Spud Date: 4/3/2011
Project: UTAH-UINTAH		Site: NBU 921-35L PAD	Rig Name No: PIONEER 54/54, CAPSTAR 310/310
Event: DRILLING		Start Date: 3/20/2011	End Date: 5/24/2011
Active Datum: RKB @5,084.01ft (above Mean Sea Level)		UWI: NWSW0/9/S/21/E/35/0/0/26/PM/S/2009/W/0/787/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	16:00 - 19:00	3.00	DRLPRO	06	A	P		PICK UP BIT,MOTOR,SCRIBE MWD RIH TAG CMT @ 2516'
	19:00 - 20:30	1.50	DRLPRO	09	A	P		SLIP AND CUT 70' DRLG LINE
	20:30 - 21:30	1.00	DRLPRO	02	F	P		DRLG CMT F/2516' FC @ 2582' SHOE @ 2628' RAT HOLE TO 2660'
	21:30 - 0:00	2.50	DRLPRO	02	D	P		DRLG F/2660' TO 3235' 575' @ 230' PH WOB/22-RPM60-MM168-SPM160-GPM=600 PSION/OFF= 2000/1500 TRQ=10-8 PU/SO/RT=125/105/115 ROT= 2.16 HRS 547' @ 253.24' PH SLIDE=.34 HRS 28' 82.35' PH MW 8.4 VISC 27 LCM 0% LOST PARTIAL RTNS @ 2750' NO FLAIR
5/17/2011	0:00 - 16:00	16.00	DRLPRO	02	D	P		DRLG F/3235' TO 6339' 3104' @ 194' PH WOB/22-RPM60-MM168-SPM160-GPM=600 PSION/OFF= 2200/1900 TRQ=10-8 PU/SO/RT=135/115/125 ROT= 15.08 HRS 3023' @ 200.46' PH SLIDE=.92 HRS 81' 88.04' PH MW 8.4 VISC 27 LCM 0%
	16:00 - 16:30	0.50	DRLPRO	07	A	P		RIG SERVICE
	16:30 - 0:00	7.50	DRLPRO	02	D	P		DRLG F/6339' TO 7145' 806' @ 107.46' PH WOB/22-RPM60-MM168-SPM160-GPM=600 PSION/OFF= 2200/1900 TRQ=10-8 PU/SO/RT=180/135/160 ROT= 6.66 HRS 736' @ 110.51' PH SLIDE=.84 HRS 70' 83.33' PH MW 8.4 VISC 27 LCM 0% 1800 UNITS GAS AT 7300' MUD UP AT 7300' MW 11.6 VISC 34 LCM 12% NO LOSSES
5/18/2011	0:00 - 15:00	15.00	DRLPRO	02	D	P		DRLG F/7145' TO 7953' 808' @ 53.86' PH WOB/22-RPM60-MM127-SPM120-GPM=454 PSION/OFF= 2600/2100 TRQ=10-8 PU/SO/RT=190/145/170 ROT= 14 HRS 778' @ 55.57' PH SLIDE=1 HRS 30' 83.33' PH MW 12.2 VISC 36 LCM 15%
	15:00 - 15:30	0.50	DRLPRO	07	A	P		RIG SERVICE
	15:30 - 0:00	8.50	DRLPRO	02	D	P		DRLG F/7953' TO 8305' 352' @ 41.41' PH WOB/22-RPM60-MM127-SPM120-GPM=454 PSION/OFF= 2800/2400 TRQ=10-8 PU/SO/RT=205/165/180 ROT= 6.16 HRS 295' @ 47.88' PH SLIDE=2.34 HRS 57' 24.35' PH MW 12.2 VISC 36 LCM 15% 20' BTMS UP FLAIR AT 8300'

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-35L1CS (BLUE)		Spud Conductor: 3/10/2011	Spud Date: 4/3/2011
Project: UTAH-UINTAH		Site: NBU 921-35L PAD	Rig Name No: PIONEER 54/54, CAPSTAR 310/310
Event: DRILLING		Start Date: 3/20/2011	End Date: 5/24/2011
Active Datum: RKB @5,084.01ft (above Mean Sea Level)		UWI: NW/SW/0/9/S/21/E/35/0/0/26/PM/S/2009/W/0/787/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
5/19/2011	0:00 - 17:00	17.00	DRLPRO	02	D	P		DRLG F/8305' TO 8995' 690' @ 40.58' PH WOB/22-RPM60-MM127-SPM120-GPM=454 PSION/OFF= 2800/2400 TRQ=10-8 PU/SO/RT=205/155/170 ROT= 15.75 HRS 665' @ 42.22' PH SLIDE=1.25 HRS 25' 20' PH MW 12.4 VISC 36 LCM 20% 10' CONN GAS FLAIR @ 8560' RIG SERVICE
	17:00 - 17:30	0.50	DRLPRO	07	A	P		
	17:30 - 0:00	6.50	DRLPRO	02	D	P		DRLG F/8995' TO 9119' 124' @ 19.07' PH WOB/22-RPM60-MM127-SPM120-GPM=454 PSION/OFF= 2800/2400 TRQ=10-8 PU/SO/RT=205/155/174 ROT= 6.5 HRS 124' @ 19.07' PH SLIDE=0 HRS MW 12.6 VISC 44 LCM 20% POOH TO CHANGE BIT AND MOTOR ROP DOWN
5/20/2011	0:00 - 3:00	3.00	DRLPRO	06	A	P		M/U BIT-MOTOR-SCRIBE MWD RIH TO 3400'
	3:00 - 6:00	3.00	DRLPRO	06	A	P		TRY TO BRK CIRC PIPE PACKED OFF
	6:00 - 10:00	4.00	DRLPRO	06	A	X		POOH L/D MOTOR, CLEAN OUT MWD TOOL
	10:00 - 14:00	4.00	DRLPRO	06	A	P		PICK UP MOTOR M/U BIT SCRIBE MWD BRK CIRC RIH BRK CIRC @ SHOE 3500'-6200' WASH 10' TO BOTTRM NO FILL 15' BTMS UP FLAIR
	14:00 - 17:00	3.00	DRLPRO	02	D	P		DRLG F/9119' TO 9285' 166' @ 55.33' PH WOB/22-RPM60-MM95-SPM120-GPM=454 PSION/OFF= 2800/2400 TRQ=10-8 PU/SO/RT=210/165/180 ROT= 3 HRS 166' @ 55.33' PH SLIDE=0 HRS MW 12.6 VISC 42 LCM 18% RIG SERVICE
	17:00 - 17:30	0.50	DRLPRO	07	A	P		
	17:30 - 0:00	6.50	DRLPRO	02	D	P		DRLG F/9285' TO 9525' 240' @ 36.92' PH WOB/22-RPM60-MM95-SPM120-GPM=454 PSION/OFF= 2800/2400 TRQ=10-8 PU/SO/RT=220/165/180 ROT= 6.5 HRS 240' @ 36.92' PH SLIDE=0 HRS MW 12.6 VISC 42 LCM 18% RIG SERVICE
5/21/2011	0:00 - 12:30	12.50	DRLPRO	02	D	P		DRLG F/9525' TO 9761' 236' @ 18.88' PH WOB/22-RPM60-MM95-SPM120-GPM=454 PSION/OFF= 2800/2400 TRQ=10-8 PU/SO/RT=220/165/180 ROT= 12.5 HRS 236' @ 18.88' PH SLIDE=0 HRS MW 12.6 VISC 42 LCM 18% RIG SERVICE
	12:30 - 13:00	0.50	DRLPRO	07	A	P		

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-35L1CS (BLUE)	Spud Conductor: 3/10/2011	Spud Date: 4/3/2011
Project: UTAH-UINTAH	Site: NBU 921-35L PAD	Rig Name No: PIONEER 54/54, CAPSTAR 310/310
Event: DRILLING	Start Date: 3/20/2011	End Date: 5/24/2011
Active Datum: RKB @5,084.01ft (above Mean Sea Level)		UWI: NW/SW/0/9/S/21/E/35/0/0/26/PM/S/2009/W/0/787/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	13:00 - 0:00	11.00	DRLPRO	02	D	P		DRLG F/9761' TO 9886' 125' @ 11.36' PH WOB/22-RPM60-MM95-SPM120-GPM=454 PSION/OFF= 2800/2400 TRQ=10-8 PU/SO/RT=225/165/180 ROT= 11 HRS 125' @ 11.36' PH SLIDE=0 HRS MW 12.6 VISC 42 LCM 18%
5/22/2011	0:00 - 1:00	1.00	DRLPRO	02	D	P		DRLG F/9886' TO 9900' 14' @ 14' PH WOB/22-RPM60-MM95-SPM120-GPM=454 PSION/OFF= 2800/2400 TRQ=10-8 PU/SO/RT=225/165/180 ROT= 1 HRS 14' @ 14' PH SLIDE=0 HRS MW 12.6 VISC 42 LCM 18%
	1:00 - 4:30	3.50	DRLPRO	06	A	P		POOH CANGE BIT AND MOTOR
	4:30 - 5:30	1.00	DRLPRO	06	A	P		RIH TO 2600'
	5:30 - 6:30	1.00	DRLPRO	09	A	P		SLIP AND CUT 75' DRLG LINE
	6:30 - 9:00	2.50	DRLPRO	06	A	P		RIH TO 9870' WASH 30' TO BTM NO FILL 20' BTMS UP FLAIR
	9:00 - 17:30	8.50	DRLPRO	02	D	P		DRLG F/9900' TO 10130' 230' @ 27' PH WOB/22-RPM60-MM127-SPM120-GPM=454 PSION/OFF= 2800/2400 TRQ=10-8 PU/SO/RT=230/160/184 ROT= 8.5 HRS 230' @ 27' PH SLIDE=0 HRS MW 12.6 VISC 42 LCM 18%
	17:30 - 18:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	18:00 - 0:00	6.00	DRLPRO	02	D	P		DRLG F/10130' TO 10330' 200' @ 33.33' PH WOB/22-RPM60-MM127-SPM120-GPM=454 PSION/OFF= 2800/2400 TRQ=10-8 PU/SO/RT=230/165/184 ROT= 6 HRS 200' @ 33.33' PH SLIDE=0 HRS MW 12.6 VISC 42 LCM 18%
5/23/2011	0:00 - 8:00	8.00	DRLPRO	02	D	P		10' CONN GAS FLAIR @ 10285 DRLG F/10330' TO 10611' 281' @ 35.12' PH WOB/22-RPM60-MM127-SPM120-GPM=454 PSION/OFF= 2800/2400 TRQ=10-8 PU/SO/RT=230/165/191 ROT= 9 HRS 281' @ 35.12' PH SLIDE=0 HRS MW 12.7 VISC 50 LCM 20%
	8:00 - 9:00	1.00	DRLPRO	05	F	P		PUMP HIGH VISC SWEEP CIRC HOLE CLEAN
	9:00 - 10:30	1.50	DRLPRO	06	E	P		SHORT TRIP 20 STANDS
	10:30 - 12:30	2.00	DRLPRO	05	F	P		PUMP HIGH VISC SWEEP CIRC HOLE CLEAN
	12:30 - 17:00	4.50	DRLPRO	06	B	P		POOH FOR O-HOLE LOGGS
	17:00 - 17:30	0.50	DRLPRO	14	B	P		PULL W/BUSHING
	17:30 - 0:00	6.50	DRLPRO	11	D	P		RIG UP AND RUN O-HOLE LOGGS LOGGER TD=10610'
5/24/2011	0:00 - 1:00	1.00	DRLPRO	11	D	P		RIG DOWN LOGGERS
	1:00 - 2:00	1.00	DRLPRO	12	A	P		RIG UP KIMSEY CSG
	2:00 - 9:00	7.00	DRLPRO	12	C	P		RUN 252 JTS 2 MARKERS MARKER 4767 MARKER 7522 SHOE @ 10596' FC @ 10552'

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-35L1CS (BLUE)	Spud Conductor: 3/10/2011	Spud Date: 4/3/2011
Project: UTAH-UINTAH	Site: NBU 921-35L PAD	Rig Name No: PIONEER 54/54, CAPSTAR 310/310
Event: DRILLING	Start Date: 3/20/2011	End Date: 5/24/2011
Active Datum: RKB @5,084.01ft (above Mean Sea Level)	UWI: NW/SW/0/9/S/21/E/35/0/0/26/PM/S/2009/NW/0/787/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	9:00 - 10:00	1.00	DRLPRO	05	D	P		CIRC PRIOR TO CEMENT JOB
	10:00 - 13:00	3.00	DRLPRO	12	E	P		570 SKS 12.6 LEAD 1372 SKS TAIL 14.3 164 DISP PLUG DOWN @ 12:30 RIG DOWN BJ
	13:00 - 13:30	0.50	DRLPRO	14	B	P		SET SLIPS 110K CUT CSG
	13:30 - 16:30	3.00	DRLPRO	14	A	P		N/D BOPE CLEAN PITS RELEASE RIG @ 16:30 5/24/11

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 921-35L1CS (BLUE)	Wellbore No.	OH
Well Name	NBU 921-35L1CS	Wellbore Name	NBU 921-35L1CS
Report No.	1	Report Date	9/2/2011
Project	UTAH-UINTAH	Site	NBU 921-35L PAD
Rig Name/No.		Event	COMPLETION
Start Date	8/29/2011	End Date	9/14/2011
Spud Date	4/3/2011	Active Datum	RKB @5,084.01ft (above Mean Sea Level)
UWI	NW/SW0/9/S/21/E/35/O/O/26/PM/S/2009/W/O/787/O/O		

1.3 General

Contractor	CASED HOLE SOLUTIONS	Job Method	PERFORATE	Supervisor	ED GUDAC
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.4 Initial Conditions

Fluid Type		Fluid Density		Gross Interval	8,013.0 (ft)-10,441.0 (ft)	Start Date/Time	9/6/2011 12:00AM
Surface Press		Estimate Res Press		No. of Intervals	7	End Date/Time	9/6/2011 12:00AM
TVD Fluid Top		Fluid Head		Total Shots	72	Net Perforation Interval	18.00 (ft)
Hydrostatic Press		Press Difference		Avg Shot Density	4.00 (shot/ft)	Final Surface Pressure	
Balance Cond	NEUTRAL					Final Press Date	

1.5 Summary

2 Intervals

2.1 Perforated Interval

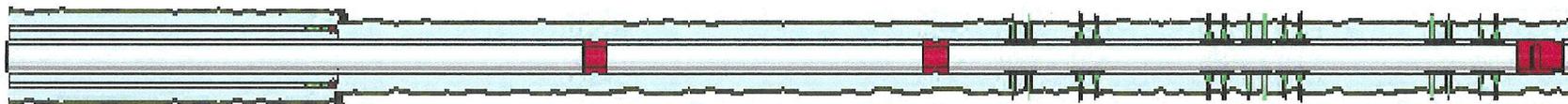
Date	Formation/ Reservoir	CCL@ (ft)	CCL-T S (ft)	MD Top (ft)	MD Base (ft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/6/2011 12:00AM	MESAVERDE/			8,013.0	8,016.0	4.00		0.360		3.135	90.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (ft)	CCL-T S (ft)	MD Top (ft)	MD Base (ft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/6/2011 12:00AM	MESAVERDE/			8,326.0	8,329.0	4.00		0.360		3.135	90.00		23.00	PRODUCTIO N	
9/6/2011 12:00AM	MESAVERDE/			9,170.0	9,172.0	4.00		0.360		3.135	90.00		23.00	PRODUCTIO N	
9/6/2011 12:00AM	MESAVERDE/			9,250.0	9,252.0	4.00		0.360		3.135	90.00		23.00	PRODUCTIO N	
9/6/2011 12:00AM	MESAVERDE/			9,288.0	9,290.0	4.00		0.360		3.135	90.00		23.00	PRODUCTIO N	
9/6/2011 12:00AM	MESAVERDE/			10,296.0	10,300.0	4.00		0.360		3.135	90.00		23.00	PRODUCTIO N	
9/6/2011 12:00AM	MESAVERDE/			10,439.0	10,441.0	4.00		0.360		3.135	90.00		23.00	PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



US ROCKIES REGION
Operation Summary Report

Well: NBU 921-35L1CS (BLUE)		Spud Conductor: 3/10/2011	Spud Date: 4/3/2011
Project: UTAH-UINTAH		Site: NBU 921-35L PAD	Rig Name No: GWS 1/1
Event: COMPLETION		Start Date: 8/29/2011	End Date: 9/14/2011
Active Datum: RKB @5,084.01ft (above Mean Sea Level)		UWI: NW/SW/0/9/S/21/E/35/0/0/26/PM/S/2009/NW/0/787/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
9/6/2011	7:00 - 15:00	8.00	COMP	33	C	P		<p>OPEN WELL 0 PSI. FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 17 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 25 PSI. 1ST PSI TEST T/ 9000 PSI. HELD FOR 30 MIN LOST 192 PSI. 2ND PSI TEST T/ 9000 PSI. HELD FOR 30 MIN. LOST 151 PSI. 3RD PSI TEST T/ 9000 PSI. HELD FOR 30 MIN. LOST 109 PSI. BLEED OFF PSI. MOVE T/ NEXT WELL</p> <p>PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER STG 1 PERF DESIGN. POOH. SWIFWE</p>
	7:00 - 18:00	11.00	COMP	36	B	P		<p>FRAC STG 1)WHP 1657 PSI, BRK 3941 PSI @ 4.7 BPM. ISIP 3058 PSI, FG .73. PUMPED PRE PAD, SHUT DOWN T/ REPAIR INLINE DENSO. (DOWN 1HR 30 MIN.) CALC PERFS OPEN @ 50.5 BPM @ 6525 PSI = 89% HOLES OPEN. ISIP 3752 PSI, FG .80, NPI 694 PSI. MP 8115 PSI, MR 50.9 BPM, AP 6639 PSI, AR 50.5 BPM,</p> <p>PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 9320' PU PERF AS PER STG 2 PERF DESIGN. POOH. SWIFN.</p>

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-35L1CS (BLUE)		Spud Conductor: 3/10/2011	Spud Date: 4/3/2011
Project: UTAH-UJINTAH		Site: NBU 921-35L PAD	Rig Name No: GWS 1/1
Event: COMPLETION		Start Date: 8/29/2011	End Date: 9/14/2011
Active Datum: RKB @5,084.01ft (above Mean Sea Level)		UWI: NW/SW/0/9/S/21/E/35/0/0/26/PM/S/2009/N/0/787/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
9/7/2011	7:00 - 18:00	11.00	COMP	36	B	P		<p>FRAC STG 2)WHP 2064 PSI, BRK 5129 PSI @ 4.7 BPM. ISIP 3304 PSI, FG .80. CALC PERFS OPEN @ 33.1 BPM @ 6072 PSI = 60% HOLES OPEN. ISIP 3538 PSI, FG .82, NPI 234 PSI. MP 6486 PSI, MR 41.1 BPM, AP 6175 PSI, AR 36.5 BPM, SWI, X-OVER FOR WL.</p> <p>PERF STG 3)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8359' P/U PERF AS PER STG 3 PERF DESIGN. POOH.</p> <p>FRAC STG 3)WHP 770 PSI, BRK 3401 PSI @ 4.4 BPM. ISIP 2640 PSI, FG .76. CALC PERFS OPEN @ 44.1 BPM @ 6170 PSI = 65% HOLES OPEN. ISIP 2644 PSI, FG .76, NPI 4 PSI. MP 6419 PSI, MR 45.6 BPM, AP 5979 PSI, AR 41.5 BPM, SWI, X-OVER FOR WL.</p> <p>PU 4 1/2 8K HAL CBP. RIH SET KILL PLUG @ 7963'</p> <p>TOTAL SAND = 95,575 LBS TOTAL CLFL = 3948 BBLS</p>
9/13/2011	14:00 - 17:00	3.00	COMP	31	I	P		<p>MIRU, SPOT EQUIP, ND WH, NU 10K BOP, RU FLOOR & TBG EQUIP, RU HAL 9000 & FLOWLINE TO PIT, SPOT TBG TRAILER, PU TBG, REMOVE THREAD PROTECTORS, TALLY & DRIFT TBG, SWI, SDFN. HSM, SLIPS, TRIPS & FALLS, RABBITTING TBG.</p>
9/14/2011	7:00 - 7:15	0.25	COMP	48		P		

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-35L1CS (BLUE)		Spud Conductor: 3/10/2011	Spud Date: 4/3/2011
Project: UTAH-UINTAH		Site: NBU 921-35L PAD	Rig Name No: GWS 1/1
Event: COMPLETION		Start Date: 8/29/2011	End Date: 9/14/2011
Active Datum: RKB @5,084.01ft (above Mean Sea Level)		UWI: NW/SW/0/9/S/21/E/35/0/0/26/PM/S/2009/NW/0/787/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 18:00	10.75	COMP	31	I	P		<p>PU TBG, REMOVE THREAD PROTECTORS, TALLY & DRIFT TBG, INSTAL STRIPPING RUBBER, RU POWER SWIVEL, FILL TBG BREAK CIRC, PRESS TEST 10K BOP TO 3,000 PSI, LOST 0 PSI, SURFACE CSG VALVE OPEN & LOCKED, D/O PLUGS.</p> <p>C/O 20' SAND, TAG 1ST PLUG @ 7,963' DRL PLUG IN 9 MIN. 1,000 PSI INCREASE RIH, CSG PRESS 150 PSI. APPROX G/LR: 50% GAS & 50% WATER.</p> <p>C/O 25' SAND, TAG 2ND PLUG @ 8,361' DRL PLUG IN 8 MIN. 0 PSI INCREASE RIH, CSG PRESS 150 PSI. APPROX G/LR: 15% / 85%</p> <p>C/O 50' SAND, TAG 3RD PLUG @ 9,320' DRL PLUG IN 9 MIN. 1,300 PSI INCREASE RIH, CSG PRESS 475 PSI. APPROX G/LR: 70% / 30%</p> <p>PBTD @ 10,554', BTM PERF @ 10,441', RIH TAG @ 10,441', P/U POWER SWIVEL, C/O FROM 10,441' TO 10,545'. 104' PAST BTM PERF W/ 334 JTS 2 3/8" L-80 TBG, LD 11 JTS, PU & STRIP IN TBG HANGER & LAND TBG W/ 323 JTS 2 3/8" L-80, EOT 10,190.06'.</p> <p>RD POWER SWIVEL, WENT TO UNSCREW LANDING JT WOULDN'T UNSCREW ND & PU BOP, HAD TO CUT LANDING JT OFF W/ HACK SAW RIGHT ABOVE TBG HANGER, SET BOP BACK DOWN, RD FLOOR & TBG EQUIP, ND BOPS, NU WH, DROP BALL TO SHEAR OFF BIT W/ 3,600 PSI, LET BIT FALL FOR 20 MIN.</p> <p>TURN OVER TO FLOW BACK CREW, SDFN.</p> <p>KB= 19' 4 1/16" WEATHERFORD HANGER= .83' TBG DELIVERED 316 JTS 323 JTS 2 3/8" L-80 = 10,168.03' TRANSFERRED 23 JTS FROM NBU 921-35L1BS POBS= 2.20' TOTAL 339 JTS ON LOCATION EOT @ 10,190.06' USED 323 JTS</p> <p>RETURNED 15 JTS TO CTAP TWTR= 3,948 BBLS 1 JT CUT OFF (LANDING JT) TWR= 1,000 BBLS TWLTR= 2,948 BBLS</p> <p>NOTE: WILL NEED TO SPEAR TBG TO UNLAND ON NEXT MAINTANCE JOB, TBG CUT OFF RIGHT ABOVE HANGER.</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-35L1CS (BLUE)		Spud Conductor: 3/10/2011	Spud Date: 4/3/2011
Project: UTAH-UINTAH		Site: NBU 921-35L PAD	Rig Name No: GWS 1/1
Event: COMPLETION		Start Date: 8/29/2011	End Date: 9/14/2011
Active Datum: RKB @5,084.01ft (above Mean Sea Level)		UWI: NW/SW/0/9/S/21/E/35/0/0/26/PM/S/2009/NW/0/787/0/0	

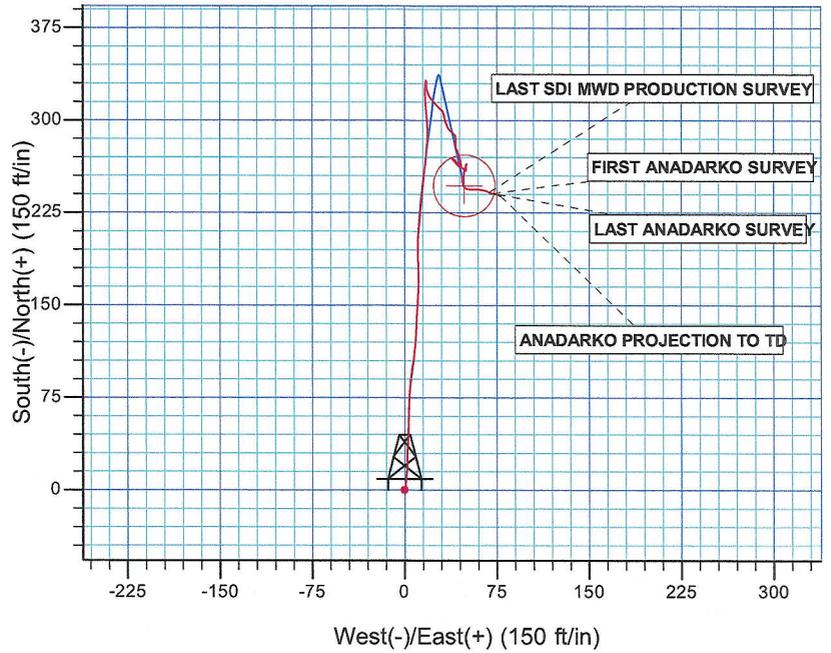
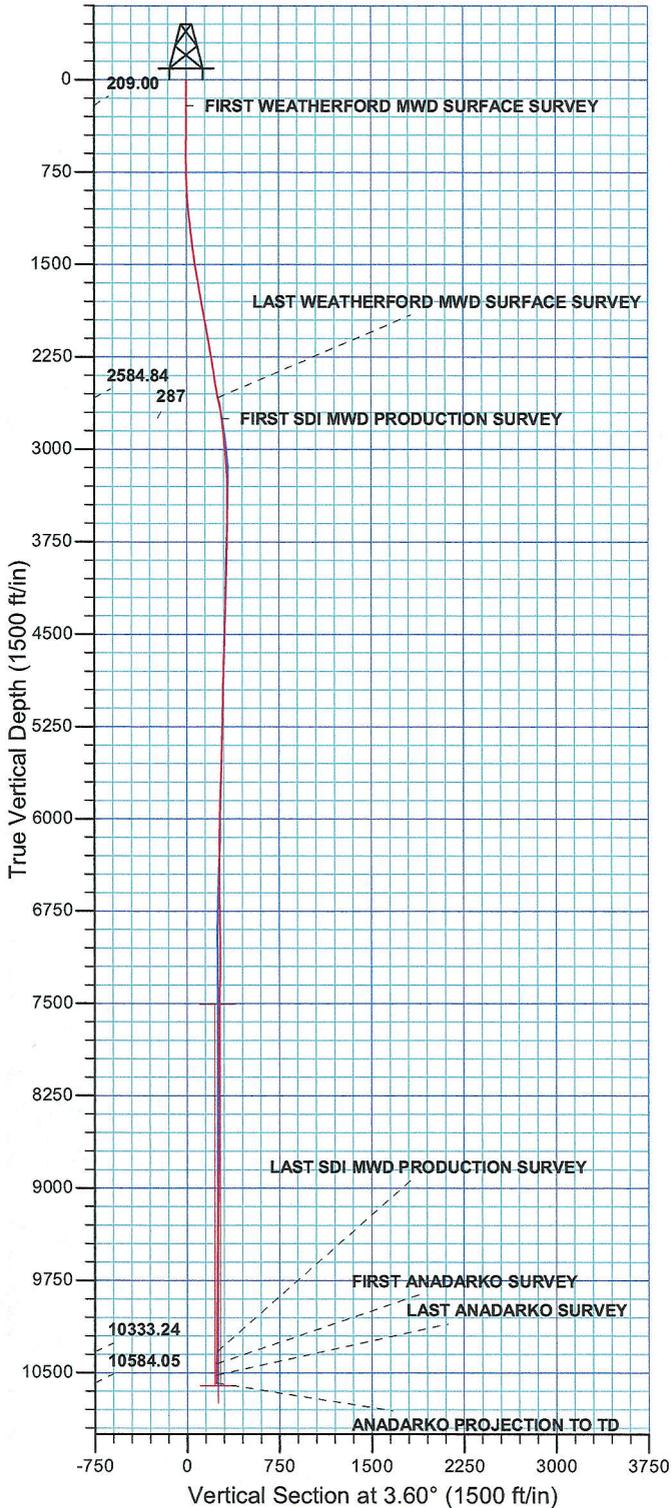
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
9/15/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 2600#, TP 2050#, 20/64" CK, 46 BWPH, HVY SAND, - GAS TTL BBLS RECOVERED: 1665 BBLS LEFT TO RECOVER: 2283
9/16/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 2100#, TP 1450#, 20/64" CK, 35 BWPH, MED SAND, - GAS TTL BBLS RECOVERED: 2587 BBLS LEFT TO RECOVER: 1361
9/17/2011	7:00 -			50				WELL IP'D ON 9/17/11 - 1946 MCFD, 0 BOPD, 476 BWPD, CP 1750#, FTP 1150#, CK /64", LP 106#, 24 HRS
	7:00 -			33	A			7 AM FLBK REPORT: CP 1750#, TP 1150#, 20/64" CK, 25 BWPH, LIGHT SAND, - GAS TTL BBLS RECOVERED: 3247 BBLS LEFT TO RECOVER: 701
9/18/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 1500#, TP 1000#, 20/64" CK, 17 BWPH, LIGHT SAND, - GAS TTL BBLS RECOVERED: 3723 BBLS LEFT TO RECOVER: 225

WELL DETAILS: NBU 921-35L1CS						
GL 5065' & RKB 19' @ 5084.00ft (PIONEER 54)						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	14526074.84	2053617.58	39° 59' 26.500 N	109° 31' 29.347 W	

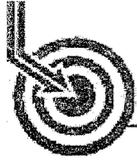


Azimuths to True North
 Magnetic North: 11.09°

Magnetic Field
 Strength: 52326.8snT
 Dip Angle: 65.86°
 Date: 05/20/2011
 Model: IGRF2010



PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N
Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 35 T9S R21E
System Datum: Mean Sea Level



Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

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

UINTAH_NBU 921-35L PAD

NBU 921-35L1CS

OH

Design: OH

Standard Survey Report

14 June, 2011

Anadarko 
Petroleum Corporation

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_NBU 921-35L PAD
Well: NBU 921-35L1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-35L1CS
TVD Reference: GL 5065' & RKB 19' @ 5084.00ft (PIONEER 54)
MD Reference: GL 5065' & RKB 19' @ 5084.00ft (PIONEER 54)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

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 921-35L PAD, SECTION 35 T9S R21E				
Site Position:		Northing:	14,526,071.56 usft	Latitude:	39° 59' 26.466 N
From:	Lat/Long	Easting:	2,053,627.05 usft	Longitude:	109° 31' 29.226 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.95 °

Well	NBU 921-35L1CS, 2009 FSL 787 FWL				
Well Position	+N/-S	0.00 ft	Northing:	14,526,074.84 usft	Latitude: 39° 59' 26.500 N
	+E/-W	0.00 ft	Easting:	2,053,617.58 usft	Longitude: 109° 31' 29.347 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level: 5,065.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	05/20/2011	11.09	65.86	52,327

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	3.60	

Survey Program	Date	06/14/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
10.00	2,605.00	Survey #1 WEATHERFORD MWD SURFA	MWD	MWD - Standard	
2,771.00	10,360.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	
10,455.00	10,611.00	Survey #3 ANADARKO SURVEY (OH)	MWD	MWD - Standard	

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	
10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	
209.00	0.09	4.43	209.00	0.16	0.01	0.16	0.05	0.05	0.00	
FIRST WEATHERFORD MWD SURFACE SURVEY										
301.00	0.09	8.08	301.00	0.30	0.03	0.30	0.01	0.00	3.97	
394.00	0.09	306.96	394.00	0.42	-0.02	0.41	0.10	0.00	-65.72	
488.00	0.06	299.39	488.00	0.48	-0.12	0.48	0.03	-0.03	-8.05	
583.00	0.00	45.27	583.00	0.51	-0.17	0.50	0.06	-0.06	0.00	
679.00	0.13	148.39	679.00	0.42	-0.11	0.41	0.14	0.14	0.00	

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_NBU 921-35L PAD
Well: NBU 921-35L1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-35L1CS
TVD Reference: GL 5065' & RKB 19' @ 5084.00ft (PIONEER 54)
MD Reference: GL 5065' & RKB 19' @ 5084.00ft (PIONEER 54)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

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)	
774.00	0.94	28.39	774.00	1.01	0.32	1.03	1.06	0.85	-126.32	
869.00	2.13	6.37	868.96	3.45	0.88	3.50	1.38	1.25	-23.18	
963.00	3.69	5.77	962.84	8.20	1.38	8.27	1.66	1.66	-0.64	
1,058.00	5.00	3.52	1,057.56	15.37	1.94	15.46	1.39	1.38	-2.37	
1,153.00	6.44	0.14	1,152.09	24.83	2.21	24.92	1.56	1.52	-3.56	
1,248.00	7.69	2.14	1,246.36	36.51	2.46	36.59	1.34	1.32	2.11	
1,343.00	7.81	2.52	1,340.50	49.31	2.98	49.40	0.14	0.13	0.40	
1,438.00	8.13	1.89	1,434.58	62.47	3.49	62.57	0.35	0.34	-0.66	
1,534.00	8.56	3.89	1,529.56	76.38	4.20	76.50	0.54	0.45	2.08	
1,628.00	9.44	8.14	1,622.40	91.00	5.76	91.18	1.17	0.94	4.52	
1,721.00	9.50	6.89	1,714.14	106.17	7.76	106.44	0.23	0.06	-1.34	
1,816.00	9.88	2.77	1,807.78	122.09	9.10	122.42	0.83	0.40	-4.34	
1,912.00	10.50	4.52	1,902.27	139.04	10.19	139.40	0.72	0.65	1.82	
2,006.00	11.25	1.89	1,994.58	156.74	11.16	157.13	0.96	0.80	-2.80	
2,101.00	9.31	0.14	2,088.05	173.69	11.49	174.07	2.07	-2.04	-1.84	
2,197.00	9.19	357.02	2,182.80	189.11	11.11	189.43	0.54	-0.13	-3.25	
2,297.00	9.19	3.27	2,281.52	205.06	11.15	205.35	1.00	0.00	6.25	
2,392.00	9.63	6.27	2,375.24	220.53	12.45	220.87	0.69	0.46	3.16	
2,488.00	10.31	4.77	2,469.79	237.07	14.04	237.48	0.76	0.71	-1.56	
2,605.00	10.66	7.00	2,584.84	258.25	16.23	258.75	0.46	0.30	1.91	
LAST WEATHERFORD MWD SURFACE SURVEY										
2,771.00	8.71	2.92	2,748.47	286.04	18.74	286.65	1.24	-1.17	-2.46	
FIRST SDI MWD PRODUCTION SURVEY										
2,866.00	7.21	356.68	2,842.55	299.18	18.76	299.76	1.82	-1.58	-6.57	
2,961.00	5.45	350.44	2,936.97	309.58	17.67	310.08	1.99	-1.85	-6.57	
3,056.00	4.22	1.34	3,031.63	317.52	17.00	317.96	1.61	-1.29	11.47	
3,151.00	3.78	359.67	3,126.40	324.15	17.06	324.58	0.48	-0.46	-1.76	
3,246.00	2.64	3.47	3,221.25	329.46	17.18	329.89	1.22	-1.20	4.00	
3,341.00	0.62	14.96	3,316.21	332.14	17.44	332.58	2.14	-2.13	12.09	
3,496.00	0.53	163.58	3,471.20	332.27	17.86	332.73	0.71	-0.06	95.88	
3,530.00	0.70	147.94	3,505.20	331.94	18.02	332.42	0.70	0.50	-46.00	
3,625.00	0.42	198.95	3,600.20	331.12	18.21	331.61	0.57	-0.29	53.69	
3,720.00	0.97	177.29	3,695.19	329.99	18.14	330.47	0.63	0.58	-22.80	
3,815.00	1.48	185.82	3,790.17	327.96	18.05	328.45	0.57	0.54	8.98	
3,910.00	1.76	166.22	3,885.13	325.32	18.27	325.83	0.65	0.29	-20.63	
4,004.00	1.62	158.14	3,979.09	322.69	19.11	323.25	0.29	-0.15	-8.60	
4,100.00	1.76	158.75	4,075.05	320.06	20.15	320.69	0.15	0.15	0.64	
4,194.00	1.76	139.59	4,169.01	317.61	21.61	318.34	0.62	0.00	-20.38	
4,289.00	1.85	140.47	4,263.96	315.32	23.53	316.17	0.10	0.09	0.93	
4,384.00	2.29	136.95	4,358.90	312.75	25.80	313.75	0.48	0.46	-3.71	
4,478.00	2.37	133.09	4,452.82	310.05	28.51	311.22	0.19	0.09	-4.11	
4,573.00	2.20	143.46	4,547.74	307.24	31.03	308.58	0.47	-0.18	10.92	
4,668.00	1.50	176.29	4,642.70	304.53	32.19	305.95	1.31	-0.74	34.56	
4,763.00	1.65	176.35	4,737.66	301.93	32.36	303.36	0.16	0.16	0.06	

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North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

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)
4,858.00	1.67	151.58	4,832.62	299.35	33.11	300.83	0.75	0.02	-26.07
4,952.00	1.73	163.75	4,926.58	296.78	34.15	298.34	0.39	0.06	12.95
5,047.00	1.37	143.02	5,021.55	294.50	35.24	296.13	0.70	-0.38	-21.82
5,142.00	1.35	145.67	5,116.52	292.66	36.55	294.38	0.07	-0.02	2.79
5,237.00	1.28	135.42	5,211.49	290.98	37.93	292.79	0.26	-0.07	-10.79
5,332.00	1.42	119.71	5,306.47	289.65	39.70	291.56	0.41	0.15	-16.54
5,426.00	1.77	170.14	5,400.44	287.64	40.96	289.64	1.48	0.37	53.65
5,521.00	2.12	174.02	5,495.38	284.44	41.39	286.48	0.39	0.37	4.08
5,616.00	2.04	182.06	5,590.32	281.01	41.51	283.06	0.32	-0.08	8.46
5,711.00	1.81	165.62	5,685.27	277.86	41.82	279.94	0.63	-0.24	-17.31
5,805.00	1.92	156.56	5,779.22	274.98	42.82	277.13	0.33	0.12	-9.64
5,900.00	1.90	162.03	5,874.16	272.02	43.94	274.24	0.19	-0.02	5.76
5,995.00	1.82	157.25	5,969.11	269.13	45.01	271.43	0.18	-0.08	-5.03
6,090.00	0.88	182.04	6,064.09	267.01	45.57	269.35	1.14	-0.99	26.09
6,184.00	1.23	178.88	6,158.07	265.28	45.56	267.62	0.38	0.37	-3.36
6,279.00	1.41	155.94	6,253.05	263.20	46.06	265.57	0.58	0.19	-24.15
6,374.00	0.55	210.82	6,348.03	261.74	46.30	264.13	1.24	-0.91	57.77
6,469.00	1.85	309.39	6,443.02	262.32	44.88	264.62	2.11	1.37	103.76
6,564.00	1.85	318.01	6,537.97	264.43	42.67	266.59	0.29	0.00	9.07
6,659.00	1.23	311.06	6,632.93	266.24	40.87	268.28	0.68	-0.65	-7.32
6,754.00	0.79	343.85	6,727.92	267.54	39.92	269.52	0.75	-0.46	34.52
6,849.00	0.26	330.84	6,822.91	268.36	39.64	270.32	0.57	-0.56	-13.69
6,944.00	0.32	293.06	6,917.91	268.65	39.29	270.59	0.21	0.06	-39.77
7,038.00	0.35	53.28	7,011.91	268.92	39.28	270.86	0.62	0.03	127.89
7,133.00	0.79	129.04	7,106.91	268.69	40.02	270.67	0.82	0.46	79.75
7,228.00	0.57	137.39	7,201.90	267.93	40.85	269.96	0.25	-0.23	8.79
7,323.00	1.06	128.08	7,296.89	267.04	41.86	269.14	0.53	0.52	-9.80
7,418.00	1.14	148.20	7,391.87	265.69	43.05	267.87	0.41	0.08	21.18
7,513.00	1.25	143.70	7,486.85	264.05	44.16	266.30	0.15	0.12	-4.74
7,608.00	1.65	133.59	7,581.82	262.27	45.76	264.63	0.50	0.42	-10.64
7,703.00	1.27	115.33	7,676.79	260.88	47.70	263.36	0.63	-0.40	-19.22
7,798.00	0.87	133.78	7,771.78	259.93	49.18	262.50	0.55	-0.42	19.42
7,893.00	0.57	148.39	7,866.77	259.03	49.95	261.65	0.37	-0.32	15.38
7,988.00	0.35	351.58	7,961.77	258.91	50.15	261.55	0.95	-0.23	-165.06
8,082.00	0.88	349.21	8,055.76	259.91	49.97	262.53	0.56	0.56	-2.52
8,177.00	1.14	1.16	8,150.75	261.57	49.86	264.18	0.35	0.27	12.58
8,272.00	0.97	8.90	8,245.73	263.31	50.00	265.93	0.23	-0.18	8.15
8,366.00	0.79	49.24	8,339.72	264.52	50.61	267.17	0.67	-0.19	42.91
8,461.00	0.79	214.82	8,434.72	264.41	50.74	267.07	1.65	0.00	174.29
8,555.00	1.13	197.14	8,528.70	262.99	50.09	265.61	0.48	0.36	-18.81
8,650.00	1.37	197.22	8,623.68	261.01	49.48	263.60	0.25	0.25	0.08
8,745.00	0.72	189.69	8,718.66	259.34	49.04	261.90	0.70	-0.68	-7.93
8,840.00	1.53	187.46	8,813.65	257.49	48.78	260.04	0.85	0.85	-2.35

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North Reference: True
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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)
8,935.00	0.97	197.70	8,908.62	255.47	48.37	258.00	0.63	-0.59	10.78
9,030.00	0.79	212.80	9,003.61	254.15	47.77	256.65	0.31	-0.19	15.89
9,126.00	1.05	192.24	9,099.60	252.73	47.22	255.20	0.43	0.27	-21.42
9,221.00	0.74	171.76	9,194.59	251.28	47.13	253.74	0.46	-0.33	-21.56
9,316.00	0.79	182.83	9,289.58	250.02	47.18	252.48	0.16	0.05	11.65
9,412.00	1.07	169.41	9,385.57	248.47	47.32	250.95	0.37	0.29	-13.98
9,507.00	0.97	149.52	9,480.55	246.91	47.89	249.43	0.39	-0.11	-20.94
9,602.00	1.34	138.85	9,575.53	245.38	49.03	247.97	0.45	0.39	-11.23
9,697.00	1.30	110.18	9,670.51	244.17	50.77	246.87	0.69	-0.04	-30.18
9,791.00	1.31	93.05	9,764.48	243.75	52.84	246.58	0.41	0.01	-18.22
9,886.00	1.67	86.50	9,859.45	243.77	55.31	246.76	0.42	0.38	-6.89
9,980.00	1.59	96.84	9,953.41	243.70	57.97	246.86	0.32	-0.09	11.00
10,075.00	1.58	84.99	10,048.38	243.66	60.58	246.98	0.34	-0.01	-12.47
10,170.00	1.67	102.50	10,143.34	243.47	63.24	246.96	0.53	0.09	18.43
10,265.00	2.00	110.45	10,238.29	242.59	66.14	246.27	0.44	0.35	8.37
10,360.00	1.85	111.20	10,333.24	241.46	69.13	245.32	0.16	-0.16	0.79
LAST SDI MWD PRODUCTION SURVEY									
10,455.00	2.20	104.96	10,428.18	240.44	72.32	244.50	0.43	0.37	-6.57
FIRST ANADARKO SURVEY									
10,550.00	2.34	114.07	10,523.10	239.17	75.85	243.46	0.41	0.15	9.59
LAST ANADARKO SURVEY									
10,611.00	2.34	114.07	10,584.05	238.16	78.12	242.59	0.00	0.00	0.00
ANADARKO PROJECTION TO TD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
209.00	209.00	0.16	0.01	FIRST WEATHERFORD MWD SURFACE SURVEY
2,605.00	2,584.84	258.25	16.23	LAST WEATHERFORD MWD SURFACE SURVEY
2,771.00	2,748.47	286.04	18.74	FIRST SDI MWD PRODUCTION SURVEY
10,360.00	10,333.24	241.46	69.13	LAST SDI MWD PRODUCTION SURVEY

Checked By: _____ Approved By: _____ Date: _____



Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

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

UINTAH_NBU 921-35L PAD

NBU 921-35L1CS

OH

Design: OH

Survey Report - Geographic

14 June, 2011

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_NBU 921-35L PAD
Well: NBU 921-35L1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-35L1CS
TVD Reference: GL 5065' & RKB 19' @ 5084.00ft (PIONEER 54)
MD Reference: GL 5065' & RKB 19' @ 5084.00ft (PIONEER 54)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

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	UINAH_NBU 921-35L PAD, SECTION 35 T9S R21E				
Site Position:		Northing:	14,526,071.56 usft	Latitude:	39° 59' 26.466 N
From:	Lat/Long	Easting:	2,053,627.05 usft	Longitude:	109° 31' 29.226 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.95 °

Well	NBU 921-35L1CS, 2009 FSL 787 FWL				
Well Position	+N/-S	0.00 ft	Northing:	14,526,074.84 usft	Latitude: 39° 59' 26.500 N
	+E/-W	0.00 ft	Easting:	2,053,617.58 usft	Longitude: 109° 31' 29.347 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level: 5,065.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	05/20/2011	11.09	65.86	52,327

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	3.60	

Survey Program	Date	06/14/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
10.00	2,605.00	Survey #1 WEATHERFORD MWD SURFA	MWD	MWD - Standard	
2,771.00	10,360.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	
10,455.00	10,611.00	Survey #3 ANADARKO SURVEY (OH)	MWD	MWD - Standard	

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,526,074.84	2,053,617.58	39° 59' 26.500 N	109° 31' 29.347 W
10.00	0.00	0.00	10.00	0.00	0.00	14,526,074.84	2,053,617.58	39° 59' 26.500 N	109° 31' 29.347 W
209.00	0.09	4.43	209.00	0.16	0.01	14,526,075.00	2,053,617.59	39° 59' 26.502 N	109° 31' 29.347 W
FIRST WEATHERFORD MWD SURFACE SURVEY									
301.00	0.09	8.08	301.00	0.30	0.03	14,526,075.14	2,053,617.60	39° 59' 26.503 N	109° 31' 29.347 W
394.00	0.09	306.96	394.00	0.42	-0.02	14,526,075.26	2,053,617.55	39° 59' 26.504 N	109° 31' 29.347 W
488.00	0.06	299.39	488.00	0.48	-0.12	14,526,075.32	2,053,617.45	39° 59' 26.505 N	109° 31' 29.349 W
583.00	0.00	45.27	583.00	0.51	-0.17	14,526,075.35	2,053,617.40	39° 59' 26.505 N	109° 31' 29.349 W
679.00	0.13	148.39	679.00	0.42	-0.11	14,526,075.26	2,053,617.46	39° 59' 26.504 N	109° 31' 29.348 W
774.00	0.94	28.39	774.00	1.01	0.32	14,526,075.86	2,053,617.88	39° 59' 26.510 N	109° 31' 29.343 W

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_NBU 921-35L PAD
Well: NBU 921-35L1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-35L1CS
TVD Reference: GL 5065' & RKB 19' @ 5084.00ft (PIONEER 54)
MD Reference: GL 5065' & RKB 19' @ 5084.00ft (PIONEER 54)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
869.00	2.13	6.37	868.96	3.45	0.88	14,526,078.31	2,053,618.41	39° 59' 26.534 N	109° 31' 29.336 W	
963.00	3.69	5.77	962.84	8.20	1.38	14,526,083.06	2,053,618.83	39° 59' 26.581 N	109° 31' 29.329 W	
1,058.00	5.00	3.52	1,057.56	15.37	1.94	14,526,090.24	2,053,619.27	39° 59' 26.652 N	109° 31' 29.322 W	
1,153.00	6.44	0.14	1,152.09	24.83	2.21	14,526,099.70	2,053,619.38	39° 59' 26.745 N	109° 31' 29.319 W	
1,248.00	7.69	2.14	1,246.36	36.51	2.46	14,526,111.39	2,053,619.44	39° 59' 26.861 N	109° 31' 29.315 W	
1,343.00	7.81	2.52	1,340.50	49.31	2.98	14,526,124.19	2,053,619.74	39° 59' 26.987 N	109° 31' 29.309 W	
1,438.00	8.13	1.89	1,434.58	62.47	3.49	14,526,137.36	2,053,620.03	39° 59' 27.118 N	109° 31' 29.302 W	
1,534.00	8.56	3.89	1,529.56	76.38	4.20	14,526,151.29	2,053,620.51	39° 59' 27.255 N	109° 31' 29.293 W	
1,628.00	9.44	8.14	1,622.40	91.00	5.76	14,526,165.92	2,053,621.83	39° 59' 27.399 N	109° 31' 29.273 W	
1,721.00	9.50	6.89	1,714.14	106.17	7.76	14,526,181.12	2,053,623.58	39° 59' 27.549 N	109° 31' 29.247 W	
1,816.00	9.88	2.77	1,807.78	122.09	9.10	14,526,197.06	2,053,624.65	39° 59' 27.707 N	109° 31' 29.230 W	
1,912.00	10.50	4.52	1,902.27	139.04	10.19	14,526,214.03	2,053,625.46	39° 59' 27.874 N	109° 31' 29.216 W	
2,006.00	11.25	1.89	1,994.58	156.74	11.16	14,526,231.74	2,053,626.15	39° 59' 28.049 N	109° 31' 29.204 W	
2,101.00	9.31	0.14	2,088.05	173.69	11.49	14,526,248.69	2,053,626.19	39° 59' 28.217 N	109° 31' 29.199 W	
2,197.00	9.19	357.02	2,182.80	189.11	11.11	14,526,264.11	2,053,625.55	39° 59' 28.369 N	109° 31' 29.204 W	
2,297.00	9.19	3.27	2,281.52	205.06	11.15	14,526,280.05	2,053,625.33	39° 59' 28.527 N	109° 31' 29.204 W	
2,392.00	9.63	6.27	2,375.24	220.53	12.45	14,526,295.54	2,053,626.38	39° 59' 28.680 N	109° 31' 29.187 W	
2,488.00	10.31	4.77	2,469.79	237.07	14.04	14,526,312.11	2,053,627.69	39° 59' 28.843 N	109° 31' 29.167 W	
2,605.00	10.66	7.00	2,584.84	258.25	16.23	14,526,333.32	2,053,629.53	39° 59' 29.053 N	109° 31' 29.138 W	
LAST WEATHERFORD MWD SURFACE SURVEY										
2,771.00	8.71	2.92	2,748.47	286.04	18.74	14,526,361.15	2,053,631.58	39° 59' 29.327 N	109° 31' 29.106 W	
FIRST SDI MWD PRODUCTION SURVEY										
2,866.00	7.21	356.68	2,842.55	299.18	18.76	14,526,374.29	2,053,631.39	39° 59' 29.457 N	109° 31' 29.106 W	
2,961.00	5.45	350.44	2,936.97	309.58	17.67	14,526,384.67	2,053,630.12	39° 59' 29.560 N	109° 31' 29.120 W	
3,056.00	4.22	1.34	3,031.63	317.52	17.00	14,526,392.60	2,053,629.32	39° 59' 29.639 N	109° 31' 29.129 W	
3,151.00	3.78	359.67	3,126.40	324.15	17.06	14,526,399.23	2,053,629.28	39° 59' 29.704 N	109° 31' 29.128 W	
3,246.00	2.64	3.47	3,221.25	329.46	17.18	14,526,404.54	2,053,629.30	39° 59' 29.757 N	109° 31' 29.126 W	
3,341.00	0.62	14.96	3,316.21	332.14	17.44	14,526,407.23	2,053,629.52	39° 59' 29.783 N	109° 31' 29.123 W	
3,496.00	0.53	163.58	3,471.20	332.27	17.86	14,526,407.36	2,053,629.94	39° 59' 29.784 N	109° 31' 29.117 W	
3,530.00	0.70	147.94	3,505.20	331.94	18.02	14,526,407.03	2,053,630.10	39° 59' 29.781 N	109° 31' 29.115 W	
3,625.00	0.42	198.95	3,600.20	331.12	18.21	14,526,406.21	2,053,630.31	39° 59' 29.773 N	109° 31' 29.113 W	
3,720.00	0.97	177.29	3,695.19	329.99	18.14	14,526,405.08	2,053,630.25	39° 59' 29.762 N	109° 31' 29.114 W	
3,815.00	1.48	185.82	3,790.17	327.96	18.05	14,526,403.06	2,053,630.20	39° 59' 29.742 N	109° 31' 29.115 W	
3,910.00	1.76	166.22	3,885.13	325.32	18.27	14,526,400.42	2,053,630.47	39° 59' 29.716 N	109° 31' 29.112 W	
4,004.00	1.62	158.14	3,979.09	322.69	19.11	14,526,397.80	2,053,631.35	39° 59' 29.690 N	109° 31' 29.101 W	
4,100.00	1.76	158.75	4,075.05	320.06	20.15	14,526,395.19	2,053,632.43	39° 59' 29.664 N	109° 31' 29.088 W	
4,194.00	1.76	139.59	4,169.01	317.61	21.61	14,526,392.77	2,053,633.93	39° 59' 29.639 N	109° 31' 29.069 W	
4,289.00	1.85	140.47	4,263.96	315.32	23.53	14,526,390.50	2,053,635.89	39° 59' 29.617 N	109° 31' 29.045 W	
4,384.00	2.29	136.95	4,358.90	312.75	25.80	14,526,387.97	2,053,638.20	39° 59' 29.591 N	109° 31' 29.015 W	
4,478.00	2.37	133.09	4,452.82	310.05	28.51	14,526,385.32	2,053,640.95	39° 59' 29.565 N	109° 31' 28.981 W	
4,573.00	2.20	143.46	4,547.74	307.24	31.03	14,526,382.55	2,053,643.52	39° 59' 29.537 N	109° 31' 28.948 W	
4,668.00	1.50	176.29	4,642.70	304.53	32.19	14,526,379.87	2,053,644.73	39° 59' 29.510 N	109° 31' 28.933 W	
4,763.00	1.65	176.35	4,737.66	301.93	32.36	14,526,377.26	2,053,644.94	39° 59' 29.484 N	109° 31' 28.931 W	
4,858.00	1.67	151.58	4,832.62	299.35	33.11	14,526,374.69	2,053,645.72	39° 59' 29.459 N	109° 31' 28.922 W	
4,952.00	1.73	163.75	4,926.58	296.78	34.15	14,526,372.15	2,053,646.82	39° 59' 29.434 N	109° 31' 28.908 W	
5,047.00	1.37	143.02	5,021.55	294.50	35.24	14,526,369.88	2,053,647.94	39° 59' 29.411 N	109° 31' 28.894 W	
5,142.00	1.35	145.67	5,116.52	292.66	36.55	14,526,368.07	2,053,649.28	39° 59' 29.393 N	109° 31' 28.877 W	
5,237.00	1.28	135.42	5,211.49	290.98	37.93	14,526,366.41	2,053,650.69	39° 59' 29.376 N	109° 31' 28.860 W	
5,332.00	1.42	119.71	5,306.47	289.65	39.70	14,526,365.10	2,053,652.48	39° 59' 29.363 N	109° 31' 28.837 W	
5,426.00	1.77	170.14	5,400.44	287.64	40.96	14,526,363.12	2,053,653.77	39° 59' 29.343 N	109° 31' 28.821 W	
5,521.00	2.12	174.02	5,495.38	284.44	41.39	14,526,359.93	2,053,654.26	39° 59' 29.312 N	109° 31' 28.815 W	
5,616.00	2.04	182.06	5,590.32	281.01	41.51	14,526,356.50	2,053,654.43	39° 59' 29.278 N	109° 31' 28.814 W	
5,711.00	1.81	165.62	5,685.27	277.86	41.82	14,526,353.36	2,053,654.80	39° 59' 29.247 N	109° 31' 28.810 W	
5,805.00	1.92	156.56	5,779.22	274.98	42.82	14,526,350.49	2,053,655.84	39° 59' 29.218 N	109° 31' 28.797 W	
5,900.00	1.90	162.03	5,874.16	272.02	43.94	14,526,347.55	2,053,657.01	39° 59' 29.189 N	109° 31' 28.782 W	

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_NBU 921-35L PAD
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Local Co-ordinate Reference: Well NBU 921-35L1CS
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North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,995.00	1.82	157.25	5,969.11	269.13	45.01	14,526,344.68	2,053,658.13	39° 59' 29.160 N	109° 31' 28.769 W
6,090.00	0.88	182.04	6,064.09	267.01	45.57	14,526,342.57	2,053,658.72	39° 59' 29.139 N	109° 31' 28.761 W
6,184.00	1.23	178.88	6,158.07	265.28	45.56	14,526,340.84	2,053,658.74	39° 59' 29.122 N	109° 31' 28.762 W
6,279.00	1.41	155.94	6,253.05	263.20	46.06	14,526,338.76	2,053,659.27	39° 59' 29.102 N	109° 31' 28.755 W
6,374.00	0.55	210.82	6,348.03	261.74	46.30	14,526,337.31	2,053,659.54	39° 59' 29.087 N	109° 31' 28.752 W
6,469.00	1.85	309.39	6,443.02	262.32	44.88	14,526,337.87	2,053,658.11	39° 59' 29.093 N	109° 31' 28.770 W
6,564.00	1.85	318.01	6,537.97	264.43	42.67	14,526,339.94	2,053,655.87	39° 59' 29.114 N	109° 31' 28.799 W
6,659.00	1.23	311.06	6,632.93	266.24	40.87	14,526,341.72	2,053,654.04	39° 59' 29.132 N	109° 31' 28.822 W
6,754.00	0.79	343.85	6,727.92	267.54	39.92	14,526,343.01	2,053,653.07	39° 59' 29.145 N	109° 31' 28.834 W
6,849.00	0.26	330.84	6,822.91	268.36	39.64	14,526,343.82	2,053,652.77	39° 59' 29.153 N	109° 31' 28.838 W
6,944.00	0.32	293.06	6,917.91	268.65	39.29	14,526,344.10	2,053,652.41	39° 59' 29.155 N	109° 31' 28.842 W
7,038.00	0.35	53.28	7,011.91	268.92	39.28	14,526,344.38	2,053,652.40	39° 59' 29.158 N	109° 31' 28.842 W
7,133.00	0.79	129.04	7,106.91	268.69	40.02	14,526,344.15	2,053,653.14	39° 59' 29.156 N	109° 31' 28.833 W
7,228.00	0.57	137.39	7,201.90	267.93	40.85	14,526,343.41	2,053,653.98	39° 59' 29.148 N	109° 31' 28.822 W
7,323.00	1.06	128.08	7,296.89	267.04	41.86	14,526,342.53	2,053,655.01	39° 59' 29.140 N	109° 31' 28.809 W
7,418.00	1.14	148.20	7,391.87	265.69	43.05	14,526,341.21	2,053,656.22	39° 59' 29.126 N	109° 31' 28.794 W
7,513.00	1.25	143.70	7,486.85	264.05	44.16	14,526,339.59	2,053,657.36	39° 59' 29.110 N	109° 31' 28.780 W
7,608.00	1.65	133.59	7,581.82	262.27	45.76	14,526,337.84	2,053,658.99	39° 59' 29.092 N	109° 31' 28.759 W
7,703.00	1.27	115.33	7,676.79	260.88	47.70	14,526,336.48	2,053,660.96	39° 59' 29.079 N	109° 31' 28.734 W
7,798.00	0.87	133.78	7,771.78	259.93	49.18	14,526,335.55	2,053,662.45	39° 59' 29.069 N	109° 31' 28.715 W
7,893.00	0.57	148.39	7,866.77	259.03	49.95	14,526,334.66	2,053,663.23	39° 59' 29.060 N	109° 31' 28.705 W
7,988.00	0.35	351.58	7,961.77	258.91	50.15	14,526,334.55	2,053,663.44	39° 59' 29.059 N	109° 31' 28.703 W
8,082.00	0.88	349.21	8,055.76	259.91	49.97	14,526,335.54	2,053,663.24	39° 59' 29.069 N	109° 31' 28.705 W
8,177.00	1.14	1.16	8,150.75	261.57	49.86	14,526,337.20	2,053,663.10	39° 59' 29.085 N	109° 31' 28.706 W
8,272.00	0.97	8.90	8,245.73	263.31	50.00	14,526,338.94	2,053,663.21	39° 59' 29.103 N	109° 31' 28.704 W
8,366.00	0.79	49.24	8,339.72	264.52	50.61	14,526,340.16	2,053,663.81	39° 59' 29.115 N	109° 31' 28.697 W
8,461.00	0.79	214.82	8,434.72	264.41	50.74	14,526,340.05	2,053,663.93	39° 59' 29.114 N	109° 31' 28.695 W
8,555.00	1.13	197.14	8,528.70	262.99	50.09	14,526,338.62	2,053,663.31	39° 59' 29.100 N	109° 31' 28.703 W
8,650.00	1.37	197.22	8,623.68	261.01	49.48	14,526,336.63	2,053,662.73	39° 59' 29.080 N	109° 31' 28.711 W
8,745.00	0.72	189.69	8,718.66	259.34	49.04	14,526,334.95	2,053,662.32	39° 59' 29.063 N	109° 31' 28.717 W
8,840.00	1.53	187.46	8,813.65	257.49	48.78	14,526,333.10	2,053,662.09	39° 59' 29.045 N	109° 31' 28.720 W
8,935.00	0.97	197.70	8,908.62	255.47	48.37	14,526,331.07	2,053,661.71	39° 59' 29.025 N	109° 31' 28.725 W
9,030.00	0.79	212.80	9,003.61	254.15	47.77	14,526,329.75	2,053,661.14	39° 59' 29.012 N	109° 31' 28.733 W
9,126.00	1.05	192.24	9,099.60	252.73	47.22	14,526,328.32	2,053,660.61	39° 59' 28.998 N	109° 31' 28.740 W
9,221.00	0.74	171.76	9,194.59	251.28	47.13	14,526,326.86	2,053,660.54	39° 59' 28.984 N	109° 31' 28.741 W
9,316.00	0.79	182.83	9,289.58	250.02	47.18	14,526,325.60	2,053,660.62	39° 59' 28.971 N	109° 31' 28.741 W
9,412.00	1.07	169.41	9,385.57	248.47	47.32	14,526,324.06	2,053,660.78	39° 59' 28.956 N	109° 31' 28.739 W
9,507.00	0.97	149.52	9,480.55	246.91	47.89	14,526,322.51	2,053,661.37	39° 59' 28.941 N	109° 31' 28.732 W
9,602.00	1.34	138.85	9,575.53	245.38	49.03	14,526,321.00	2,053,662.54	39° 59' 28.925 N	109° 31' 28.717 W
9,697.00	1.30	110.18	9,670.51	244.17	50.77	14,526,319.82	2,053,664.30	39° 59' 28.914 N	109° 31' 28.695 W
9,791.00	1.31	93.05	9,764.48	243.75	52.84	14,526,319.43	2,053,666.38	39° 59' 28.909 N	109° 31' 28.668 W
9,886.00	1.67	86.50	9,859.45	243.77	55.31	14,526,319.50	2,053,668.84	39° 59' 28.910 N	109° 31' 28.636 W
9,980.00	1.59	96.84	9,953.41	243.70	57.97	14,526,319.47	2,053,671.51	39° 59' 28.909 N	109° 31' 28.602 W
10,075.00	1.58	84.99	10,048.38	243.66	60.58	14,526,319.47	2,053,674.12	39° 59' 28.908 N	109° 31' 28.568 W
10,170.00	1.67	102.50	10,143.34	243.47	63.24	14,526,319.33	2,053,676.78	39° 59' 28.907 N	109° 31' 28.534 W
10,265.00	2.00	110.45	10,238.29	242.59	66.14	14,526,318.50	2,053,679.70	39° 59' 28.898 N	109° 31' 28.497 W
10,360.00	1.85	111.20	10,333.24	241.46	69.13	14,526,317.41	2,053,682.70	39° 59' 28.887 N	109° 31' 28.459 W
LAST SDI MWD PRODUCTION SURVEY									
10,455.00	2.20	104.96	10,428.18	240.44	72.32	14,526,316.44	2,053,685.91	39° 59' 28.877 N	109° 31' 28.418 W
FIRST ANADARKO SURVEY									
10,550.00	2.34	114.07	10,523.10	239.17	75.85	14,526,315.24	2,053,689.46	39° 59' 28.864 N	109° 31' 28.372 W
LAST ANADARKO SURVEY									
10,611.00	2.34	114.07	10,584.05	238.16	78.12	14,526,314.26	2,053,691.75	39° 59' 28.854 N	109° 31' 28.343 W
ANADARKO PROJECTION TO TD									

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_NBU 921-35L PAD
Well: NBU 921-35L1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-35L1CS
TVD Reference: GL 5065' & RKB 19' @ 5084.00ft (PIONEER 54)
MD Reference: GL 5065' & RKB 19' @ 5084.00ft (PIONEER 54)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
209.00	209.00	0.16	0.01	FIRST WEATHERFORD MWD SURFACE SURVEY
2,605.00	2,584.84	258.25	16.23	LAST WEATHERFORD MWD SURFACE SURVEY
2,771.00	2,748.47	286.04	18.74	FIRST SDI MWD PRODUCTION SURVEY
10,360.00	10,333.24	241.46	69.13	LAST SDI MWD PRODUCTION SURVEY
10,455.00	10,428.18	240.44	72.32	FIRST ANADARKO SURVEY
10,550.00	10,523.10	239.17	75.85	LAST ANADARKO SURVEY
10,611.00	10,584.05	238.16	78.12	ANADARKO PROJECTION TO TD

Checked By: _____ Approved By: _____ Date: _____