

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 921-23P1CS				
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT NATURAL BUTTES				
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES				
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.						7. OPERATOR PHONE 720 929-6515				
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217						9. OPERATOR E-MAIL julie.jacobson@anadarko.com				
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU 0149075			11. MINERAL OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>				
13. NAME OF SURFACE OWNER (if box 12 = 'fee')						14. SURFACE OWNER PHONE (if box 12 = 'fee')				
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')				
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN') Ute Indian Tribe			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		381 FSL 1175 FEL		SESE	23	9.0 S	21.0 E	S		
Top of Uppermost Producing Zone		907 FSL 494 FEL		SESE	23	9.0 S	21.0 E	S		
At Total Depth		907 FSL 494 FEL		SESE	23	9.0 S	21.0 E	S		
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 494			23. NUMBER OF ACRES IN DRILLING UNIT 640				
27. ELEVATION - GROUND LEVEL 4897			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 557			26. PROPOSED DEPTH MD: 10989 TVD: 10858				
28. BOND NUMBER WYB000291			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-8496							
Hole, Casing, and Cement Information										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	11	8.625	0 - 2780	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8
							Class G	270	1.15	15.8
Prod	7.875	4.5	0 - 10989	11.6	HCP-110 LT&C	13.0	Premium Lite High Strength	340	3.38	12.0
							50/50 Poz	1580	1.31	14.3
ATTACHMENTS										
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES										
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER					<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN					
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)					<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER					
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)					<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP					
NAME Danielle Piernot				TITLE Regulatory Analyst			PHONE 720 929-6156			
SIGNATURE				DATE 05/24/2012			EMAIL danielle.piernot@anadarko.com			
API NUMBER ASSIGNED 43047527490000				APPROVAL <div style="text-align: center;">  Permit Manager </div>						

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 921-23P1CS**

Surface: 381 FSL / 1175 FEL SESE
 BHL: 907 FSL / 494 FEL SESE

Section 23 T9S R21E

Unitah County, Utah
 Mineral Lease: UTU 0149075

ONSHORE ORDER NO. 1**DRILLING PROGRAM**

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

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,523'	
Birds Nest	1,816'	Water
Mahogany	2,327'	Water
Wasatch	4,815'	Gas
Mesaverde	7,575'	Gas
Sego	9,815'	Gas
Castlegate	9,833'	Gas
MN5	10,258'	Gas
TVD =	10,858'	
TD =	10,989'	

- 2.c Kerr McGee Oil & Gas Onshore LP (Kerr McGee) will either drill to the the Blackhawk formation, which is part of the Mesaverde formation, or the Wasatch/Mesaverde formation. If Kerr McGee drills to the Blackhawk formation (part of the Mesaverde formation), please refer to MN5 as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr McGee drills to the Wasatch/Mesaverde formation please refer to Segoe as the bottom formation. The attached Wasatch/Mesaverde Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the depths the Wasatch/Mesaverde formations are found.

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

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

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

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

6. **Evaluation Program:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

7. **Abnormal Conditions:**7.a **Blackhawk (Part of Mesaverde Formation) Target Formation**

Maximum anticipated bottom hole pressure calculated at 10858' TVD, approximately equals
7,166 psi (0.66 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 4,827 psi (bottom hole pressure
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

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

7.b **Wasach/Mesaverde Target Formation**

Maximum anticipated bottom hole pressure calculated at 9815' TVD, approximately equals
6,282 psi (0.64 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 4,109 psi (bottom hole pressure
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

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

8. **Anticipated Starting Dates:**

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

9. **Variiances:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program
Onshore Order #2 – Air Drilling Variance

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

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

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

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

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

Background

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

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

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

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

Variance for BOPE Requirements

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

Variance for Mud Material Requirements

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

Variance for Special Drilling Operation (surface equipment placement) Requirements

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

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

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

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

Variance for FIT Requirements

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

Conclusion

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

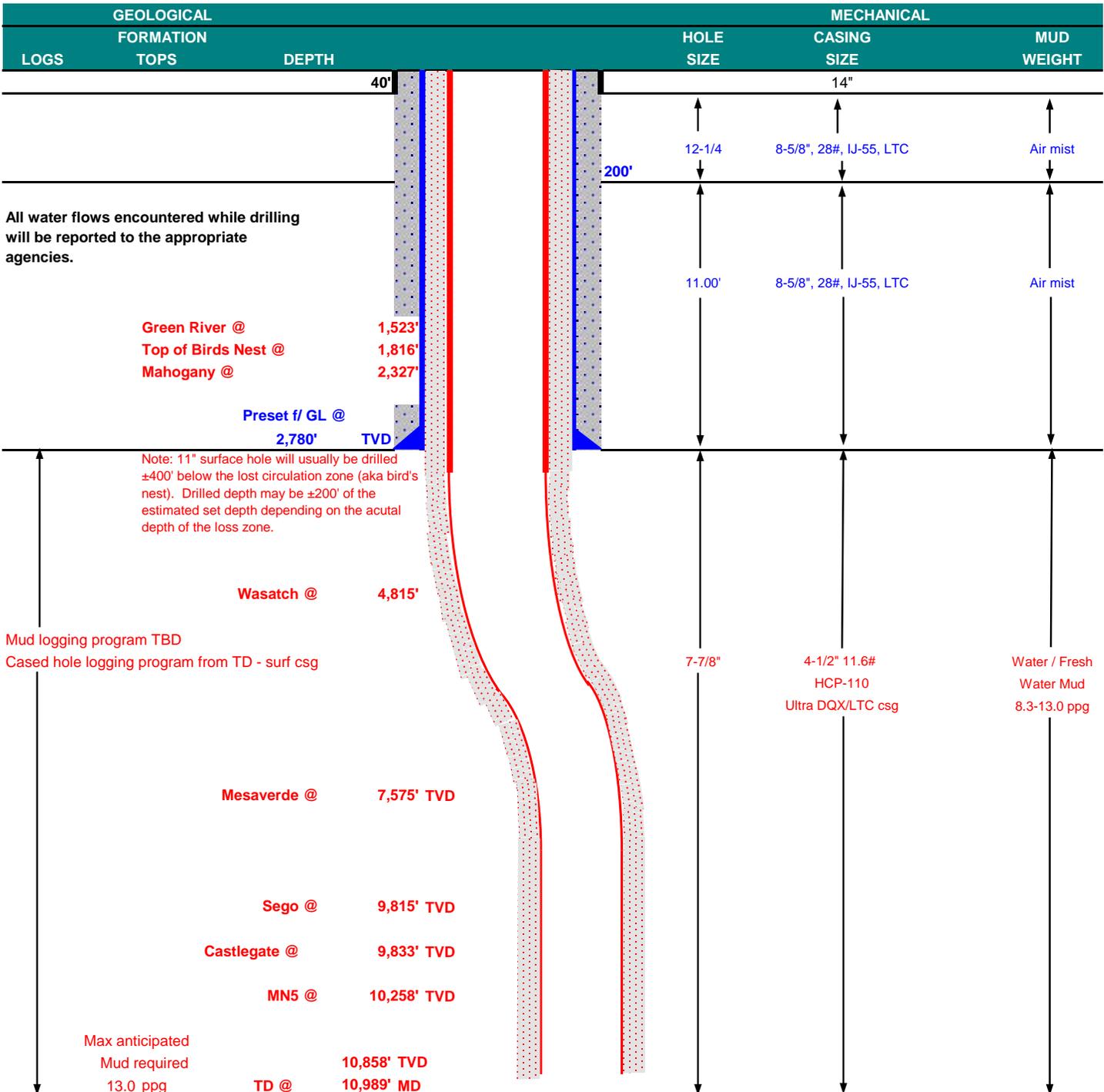
10. Other Information:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program



KERR-McGEE OIL & GAS ONSHORE LP BLACKHAWK DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	December 30, 2011		
WELL NAME	NBU 921-23P1CS	TD	10,858'	TVD	10,989' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah
				FINISHED ELEVATION	4,897'
SURFACE LOCATION	SESE	381 FSL	1175 FEL	Sec 23 T 9S R 21E	
	Latitude:	40.015277	Longitude:	-109.513712	NAD 83
BTM HOLE LOCATION	SESE	907 FSL	494 FEL	Sec 23 T 9S R 21E	
	Latitude:	40.016723	Longitude:	-109.511284	NAD 83
OBJECTIVE ZONE(S)	BLACKHAWK				
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), Ute Indian Tribe (Surface), UDOGM Tri-County Health Dept.				





KERR-McGEE OIL & GAS ONSHORE LP
BLACKHAWK DRILLING PROGRAM

CASING PROGRAM

							DESIGN FACTORS			
	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	LTC	DQX
		TENSION								
CONDUCTOR	14"	0-40'					3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to 2,780	28.00	IJ-55	LTC	1.94	1.44	5.11	N/A
PRODUCTION	4-1/2"	0	to 5,000	11.60	HCP-110	DQX	1.19	1.18	279,000	367,174
	4-1/2"	5,000	to 10,989'	11.60	HCP-110	LTC	1.19	1.18	5.01	

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
NOTE: If well will circulate water to surface, option 2 will be utilized							
SURFACE	LEAD	2,280'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	210	35%	11.00	3.82
Option 2	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,309'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	340	35%	12.00	3.38
	TAIL	6,680'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,580	35%	14.30	1.31

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained
 *Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

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

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER:

Nick Spence / Danny Showers / Chad Loesel

DATE:

DRILLING SUPERINTENDENT:

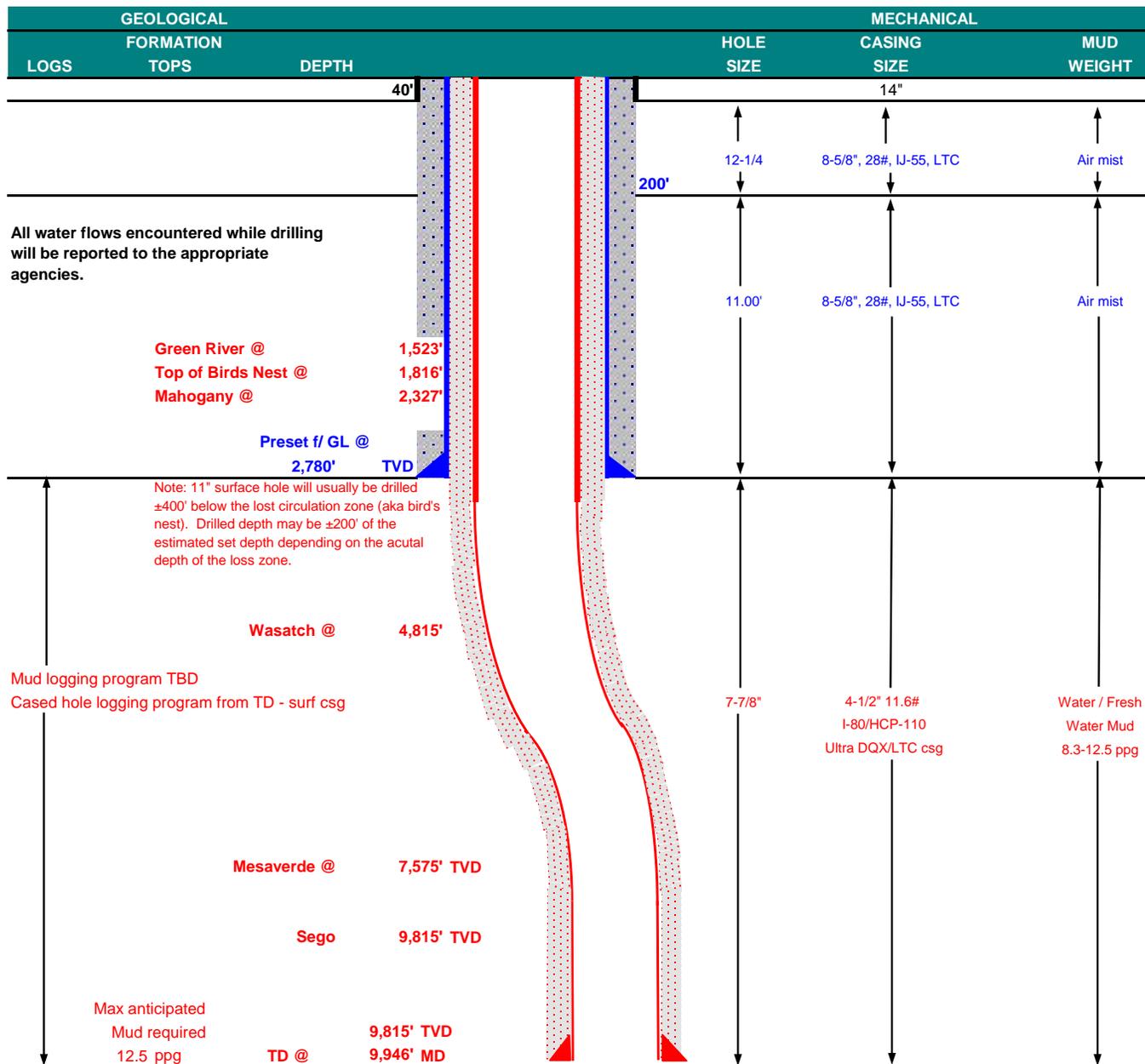
Kenny Gathings / Lovel Young

DATE:



KERR-McGEE OIL & GAS ONSHORE LP WASATCH/MESAVERDE DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	December 30, 2011			
WELL NAME	NBU 921-23P1CS		TD	9,815'	TVD	9,946' MD	
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	FINISHED ELEVATION	4,897'
SURFACE LOCATION	SESE	381 FSL	1175 FEL	Sec 23	T 9S	R 21E	
	Latitude:	40.015277	Longitude:	-109.513712		NAD 83	
BTM HOLE LOCATION	SESE	907 FSL	494 FEL	Sec 23	T 9S	R 21E	
	Latitude:	40.016723	Longitude:	-109.511284		NAD 83	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde						
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), Ute Indian Tribe (Surface), UDOGM Tri- County Health Dept.						





KERR-McGEE OIL & GAS ONSHORE LP

WASATCH/MESAVERDE DRILLING PROGRAM

CASING PROGRAM

							DESIGN FACTORS			
	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	LTC	DQX
		TENSION								
CONDUCTOR	14"	0-40'								
						3,390	1,880	348,000	N/A	
SURFACE	8-5/8"	0	to 2,780	28.00	IJ-55	LTC	1.94	1.44	5.11	N/A
							7,780	6,350		267,035
PRODUCTION	4-1/2"	0	to 5,000	11.60	I-80	DQX	1.11	1.00		2.86
							10,690	8,650	223,000	
	4-1/2"	5,000	to 9,946'	11.60	HCP-110	LTC	1.53	1.36	4.80	

Surface casing:

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

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

Production casing:

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

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

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
			+ 0.25 pps flocele				
Option 1	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
			+ 2% CaCl + 0.25 pps flocele				
NOTE: If well will circulate water to surface, option 2 will be utilized							
SURFACE	LEAD	2,280'	65/35 Poz + 6% Gel + 10 pps gilsonite	210	35%	11.00	3.82
			+ 0.25 pps Flocele + 3% salt BWOW				
Option 2	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,306'	Premium Lite II +0.25 pps	340	35%	12.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	5,640'	50/50 Poz/G + 10% salt + 2% gel	1,330	35%	14.30	1.31
			+ 0.1% R-3				

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

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

FLOAT EQUIPMENT & CENTRALIZERS

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

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

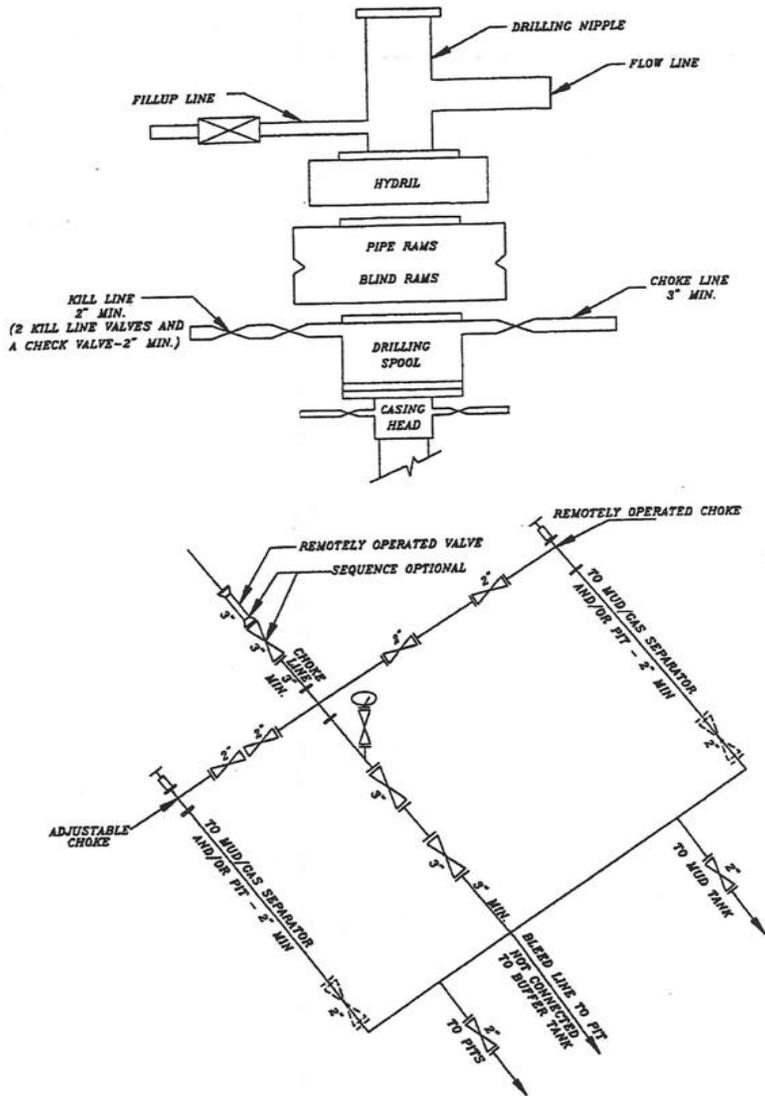
DRILLING ENGINEER: _____
Nick Spence / Danny Showers / Chad Loesel

DATE: _____

DRILLING SUPERINTENDENT: _____
Kenny Gathings / Lovel Young

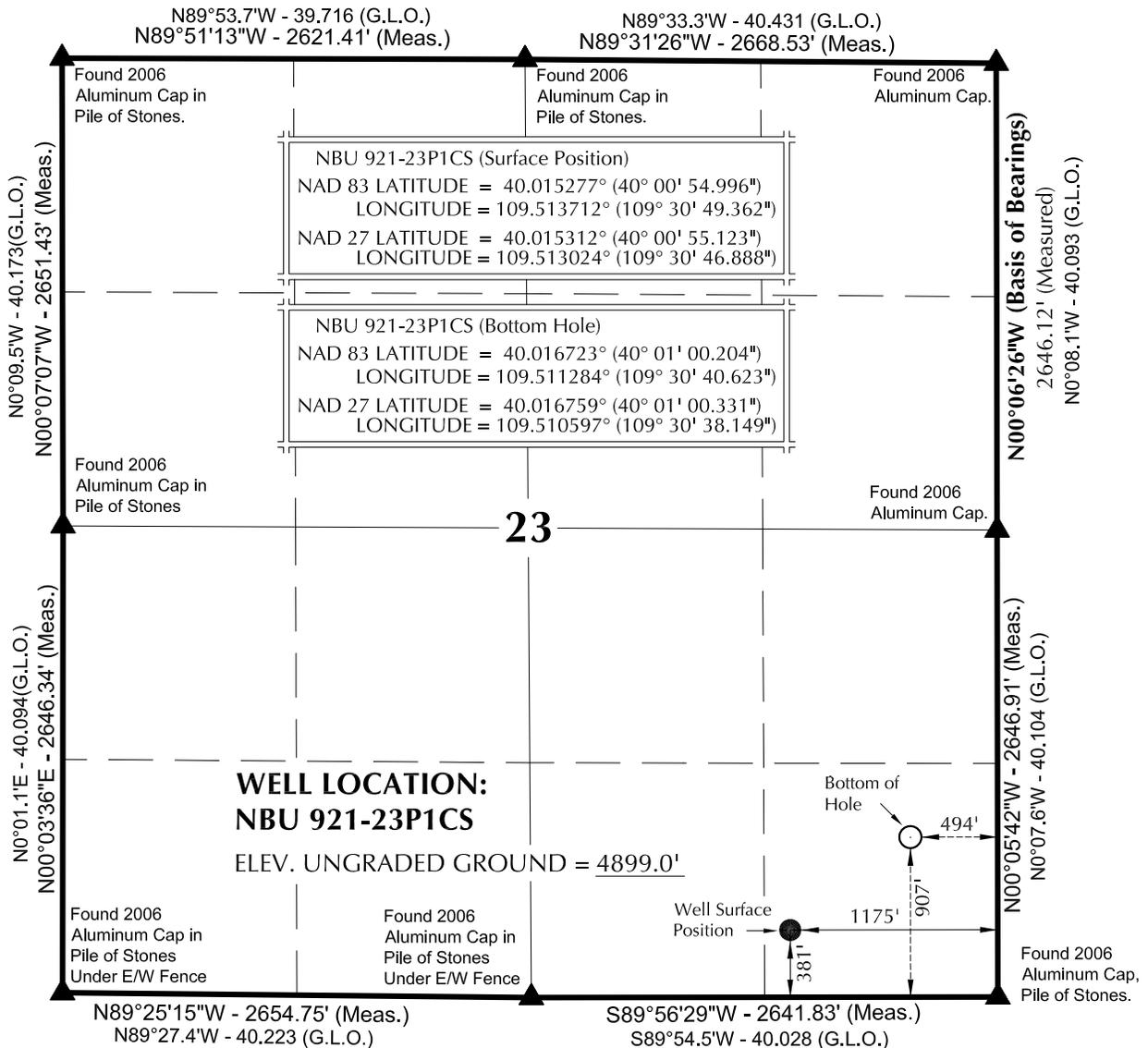
DATE: _____

EXHIBIT A
NBU 921-23P1CS



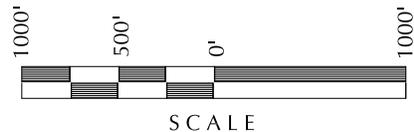
SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

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



NOTES:

- ▲ = Section Corners Located
- 1. Well footages are measured at right angles to the Section Lines.
- 2. G.L.O. distances are shown in feet or chains.
1 chain = 66 feet.
- 3. The Bottom of hole bears N52°15'09"E 860.53' from the Surface Position.
- 4. Bearings are based on Global Positioning Satellite observations.
- 5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SURVEYOR'S CERTIFICATE

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

9-12-11
 No. 6028691
 JOHN R SAUGH
 PROFESSIONAL LAND SURVEYOR
 REGISTRATION No. 6028691
 STATE OF UTAH

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

WELL PAD: NBU 921-23P

**NBU 921-23P1CS
 WELL PLAT**

**907' FSL, 494' FEL (Bottom Hole)
 SE ¼ SE ¼ OF SECTION 23, 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

TIMBERLINE

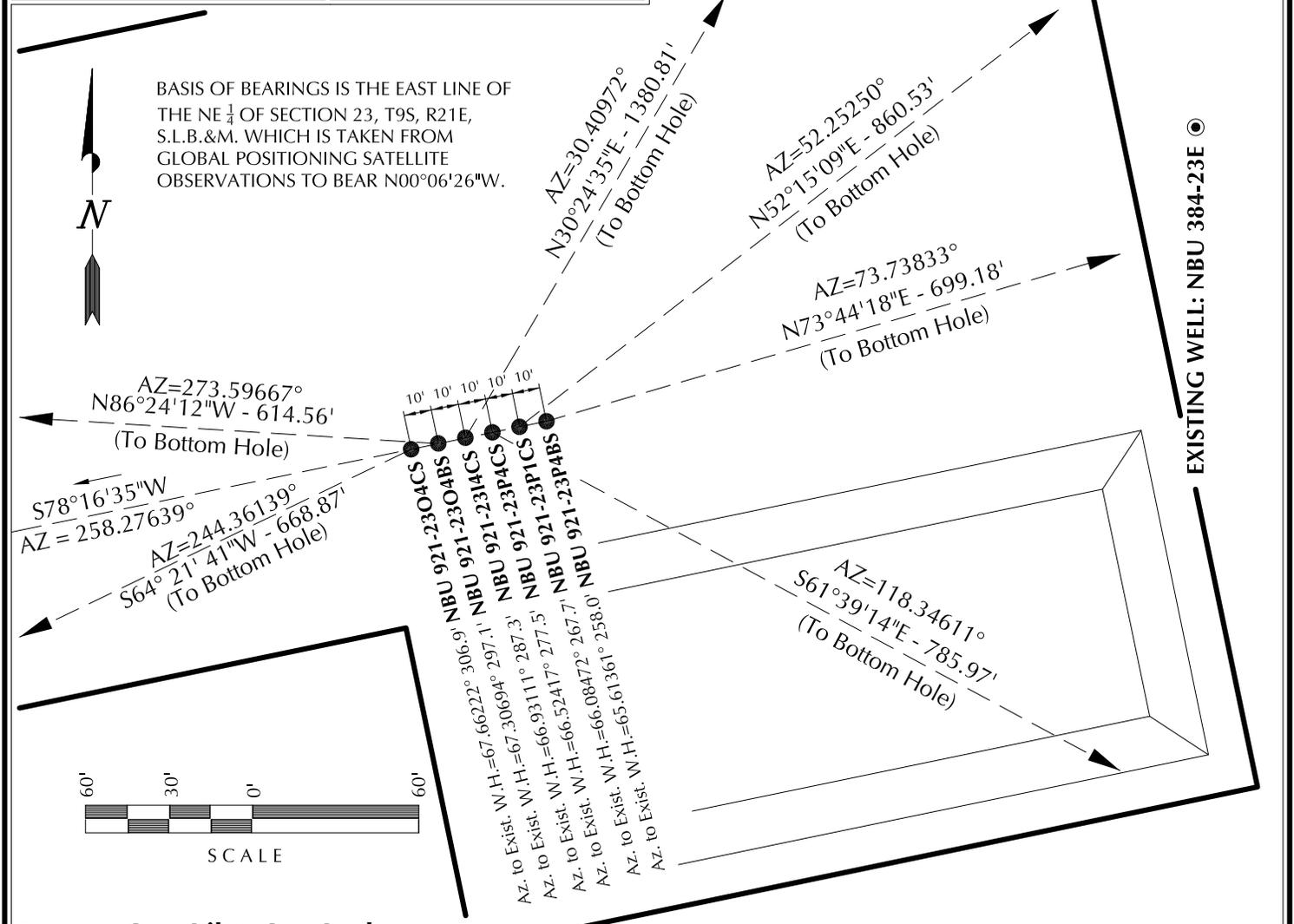
ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 7-19-11	SURVEYED BY: W.W.	SHEET NO: 2
DATE DRAWN: 8-19-11	DRAWN BY: T.J.R.	
SCALE: 1" = 1000'		2 OF 18

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
NBU 921-23P4BS	40°00'55.016"	109°30'49.237"	40°00'55.143"	109°30'46.763"	383' FSL	40°00'56.954"	109°30'40.613"	40°00'57.081"	109°30'38.140"	578' FSL
NBU 921-23P1CS	40.015282°	109.513677°	40.015317°	109.512990°	1166' FEL	40.015821°	109.511281°	40.015856°	109.510594°	494' FEL
NBU 921-23P4CS	40°00'54.996"	109°30'49.362"	40°00'55.123"	109°30'46.888"	381' FSL	40°01'00.204"	109°30'40.623"	40°01'00.331"	109°30'38.149"	907' FSL
NBU 921-23O4BS	40.015277°	109.513712°	40.015312°	109.513024°	1175' FEL	40.016723°	109.511284°	40.016759°	109.510597°	494' FEL
NBU 921-23O4CS	40°00'54.976"	109°30'49.488"	40°00'55.103"	109°30'47.014"	379' FSL	40°00'51.293"	109°30'40.597"	40°00'51.419"	109°30'38.124"	5' FSL
NBU 921-23I4CS	40.015271°	109.513747°	40.015306°	109.513059°	1185' FEL	40.014248°	109.511277°	40.014283°	109.510590°	494' FEL
NBU 921-23O4BS	40°00'54.956"	109°30'49.614"	40°00'55.082"	109°30'47.140"	377' FSL	40°01'06.725"	109°30'40.641"	40°01'06.852"	109°30'38.167"	1567' FSL
NBU 921-23O4CS	40.015266°	109.513782°	40.015301°	109.513094°	1195' FEL	40.018535°	109.511289°	40.018570°	109.510602°	494' FEL
NBU 921-23O4BS	40°00'54.935"	109°30'49.740"	40°00'55.062"	109°30'47.266"	375' FSL	40°00'55.313"	109°30'57.621"	40°00'55.440"	109°30'55.147"	414' FSL
NBU 921-23O4CS	40.015260°	109.513817°	40.015295°	109.513129°	1205' FEL	40.015365°	109.516006°	40.015400°	109.515319°	1818' FEL
NBU 921-23O4CS	40°00'54.915"	109°30'49.866"	40°00'55.042"	109°30'47.392"	373' FSL	40°00'52.053"	109°30'57.612"	40°00'52.179"	109°30'55.137"	84' FSL
NBU 384-23E	40.015254°	109.513852°	40.015289°	109.513164°	1215' FEL	40.014459°	109.516003°	40.014494°	109.515316°	1818' FEL
NBU 384-23E	40°00'56.069"	109°30'46.219"	40°00'56.196"	109°30'43.745"	489' FSL					
NBU 384-23E	40.015575°	109.512839°	40.015610°	109.512151°	930' FEL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 921-23P4BS	195.8'	671.2'	NBU 921-23P1CS	526.8'	680.4'	NBU 921-23P4CS	-373.2'	691.7'	NBU 921-23I4CS	1190.8'	698.9'
NBU 921-23O4BS	38.6'	-613.3'	NBU 921-23O4CS	-289.4'	-603.0'						



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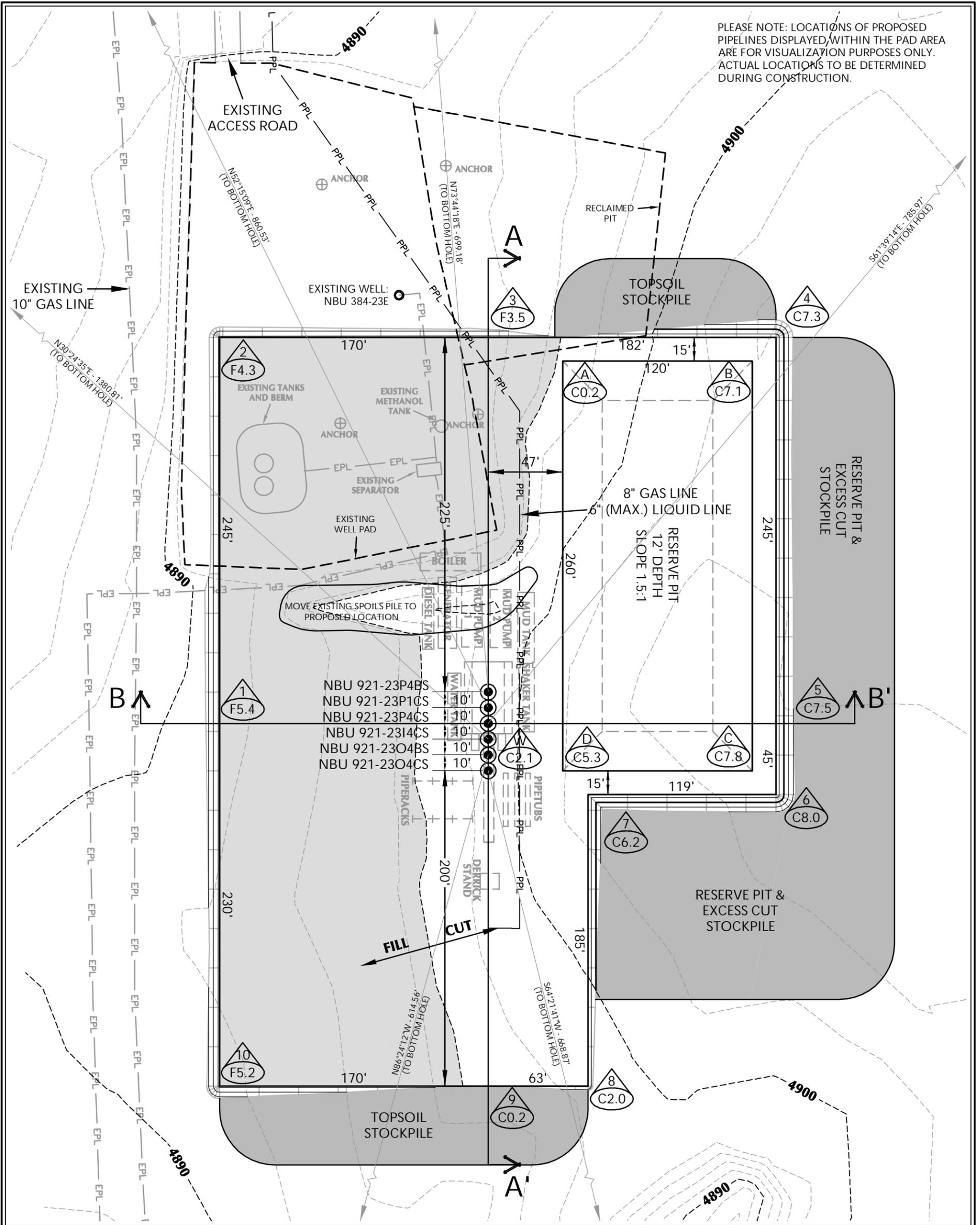
WELL PAD - NBU 921-23P

WELL PAD INTERFERENCE PLAT
WELLS - NBU 921-23P4BS, NBU 921-23P1CS, NBU 921-23P4CS, NBU 921-23I4CS, NBU 921-23O4BS & NBU 921-23O4CS LOCATED IN SECTION 23, T9S, R21E, S.L.B.&M., UTAH COUNTY, UTAH.

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

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

DATE SURVEYED: 7-19-11	SURVEYED BY: W.W.	SHEET NO: 7
DATE DRAWN: 8-20-11	DRAWN BY: T.J.R.	
SCALE: 1" = 60'	Date Last Revised:	7 OF 18



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

WELL PAD - NBU 921-23P DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 4898.7'
 FINISHED GRADE ELEVATION = 4896.6'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.61 ACRES
 TOTAL DISTURBANCE AREA = 4.92 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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WELL PAD - NBU 921-23P
 WELL PAD - LOCATION LAYOUT
 NBU 921-23P4BS, NBU 921-23P1CS,
 NBU 921-23P4CS, NBU 921-23I4CS,
 NBU 921-23O4BS & NBU 921-23O4CS
 LOCATED IN SECTION 23, T9S, R21E,
 S.L.B.&M., Uintah County, Utah



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 Sheridan, WY 82801
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WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 10,519 C.Y.
 TOTAL FILL FOR WELL PAD = 9,715 C.Y.
 TOPSOIL @ 6" DEPTH = 2,453 C.Y.
 EXCESS MATERIAL = 804 C.Y.

RESERVE PIT QUANTITIES

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

WELL PAD LEGEND

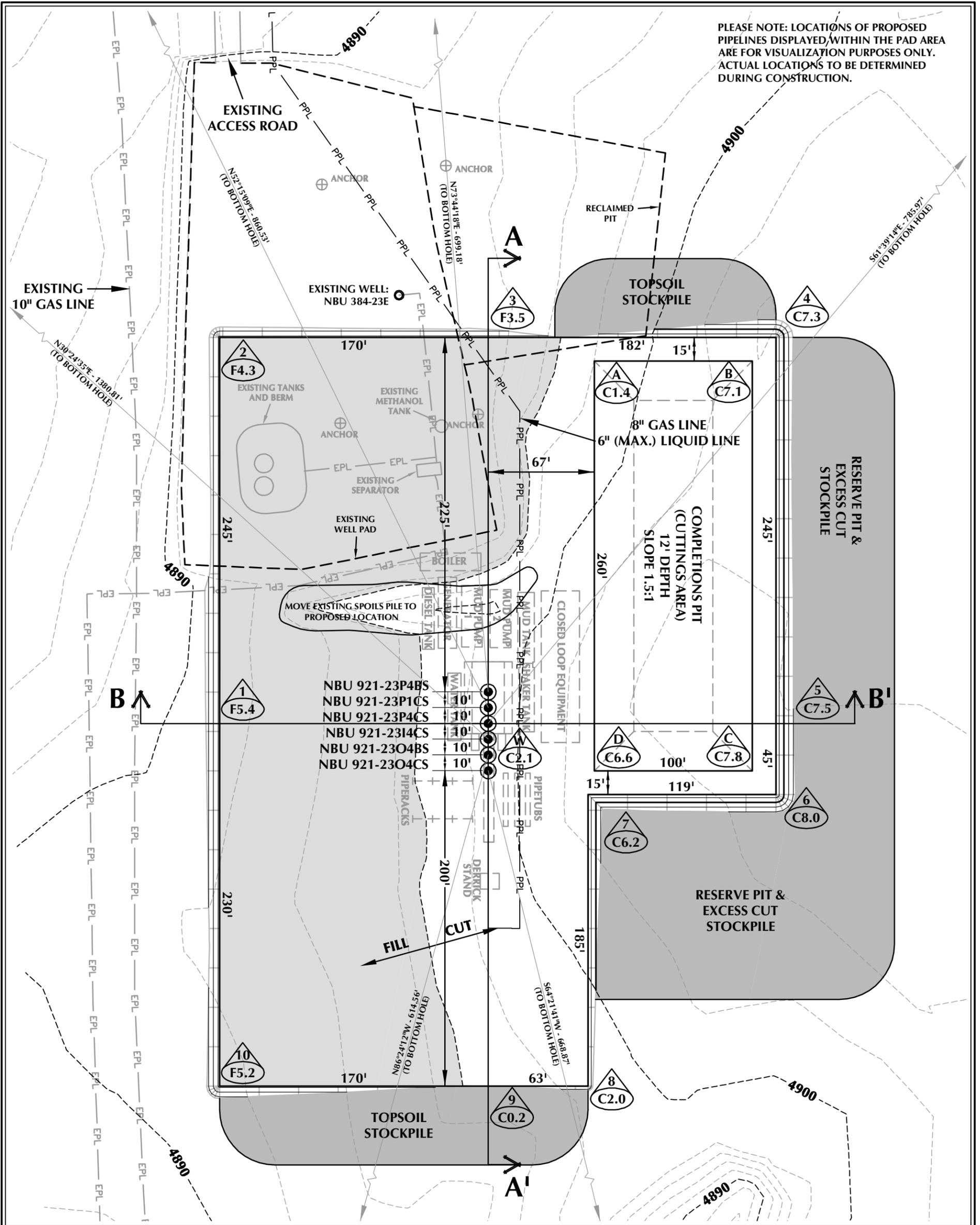
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL - PROPOSED PIPELINE
- EPL - EXISTING PIPELINE



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

TIMBERLINE (435) 789-1365
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 209 NORTH 300 WEST - VERNAL, UTAH 84078

SCALE: 1"=60' DATE: 9/9/11 SHEET NO:
 REVISED: **8** 8 OF 18



WELL PAD - NBU 921-23P (CLOSED LOOP) DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 4898.7'
 FINISHED GRADE ELEVATION = 4896.6'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.61 ACRES
 TOTAL DISTURBANCE AREA = 4.92 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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WELL PAD - NBU 921-23P
 WELL PAD - LOCATION LAYOUT
 NBU 921-23P4BS, NBU 921-23P1CS,
 NBU 921-23P4CS, NBU 921-23I4CS,
 NBU 921-23O4BS & NBU 921-23O4CS
 LOCATED IN SECTION 23, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH



609 CONSULTING, LLC
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 Phone 307-674-0609
 Fax 307-674-0182

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 10,519 C.Y.
 TOTAL FILL FOR WELL PAD = 9,715 C.Y.
 TOPSOIL @ 6" DEPTH = 2,453 C.Y.
 EXCESS MATERIAL = 804 C.Y.

COMPLETIONS PIT QUANTITIES

TOTAL CUT FOR COMPLETIONS PIT
 +/- 8,870 C.Y.
 COMPLETIONS PIT CAPACITY
 (2' OF FREEBOARD)
 +/- 33,770 BARRELS

WELL PAD LEGEND

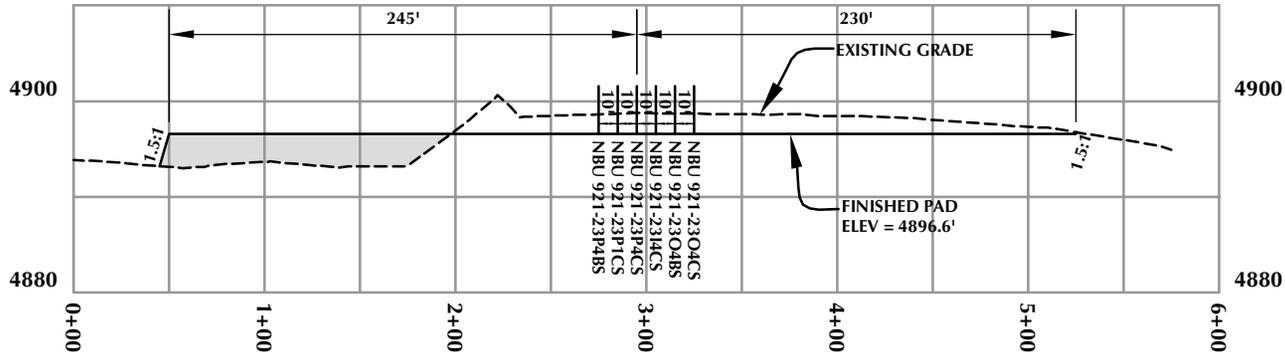
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PROPOSED PIPELINE
- EXISTING PIPELINE



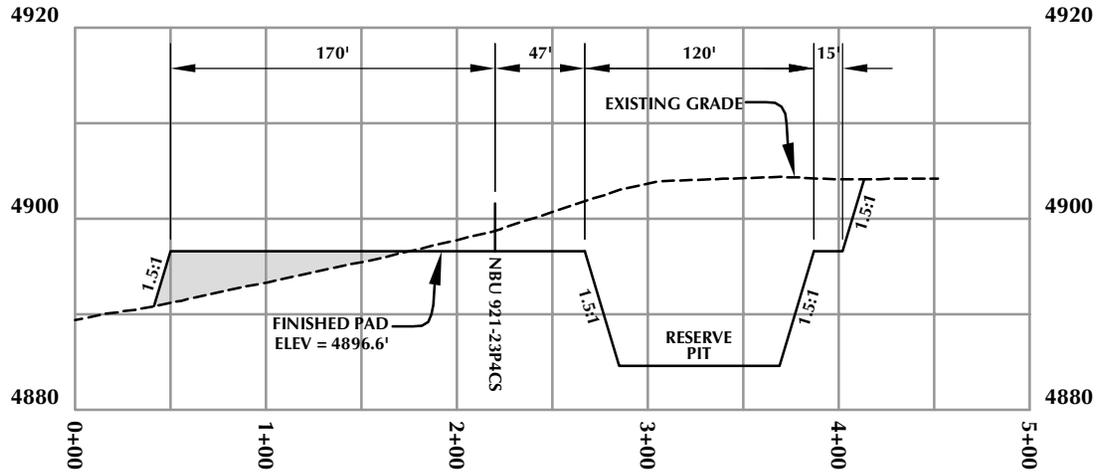
HORIZONTAL 0 30' 60' 1" = 60'
 2' CONTOURS

SCALE: 1"=60' DATE: 11/23/11 SHEET NO:
 REVISED: **8B** 8B OF 18

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CROSS SECTION A-A'



CROSS SECTION B-B'

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WELL PAD - NBU 921-23P

WELL PAD - CROSS SECTIONS
NBU 921-23P4BS, NBU 921-23P1CS,
NBU 921-23P4CS, NBU 921-23I4CS,
NBU 921-23O4BS & NBU 921-23O4CS
LOCATED IN SECTION 23, T9S, R21E,
S.L.B.&M., UTAH COUNTY, UTAH



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Sheridan, WY 82801
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Scale: 1"=100'

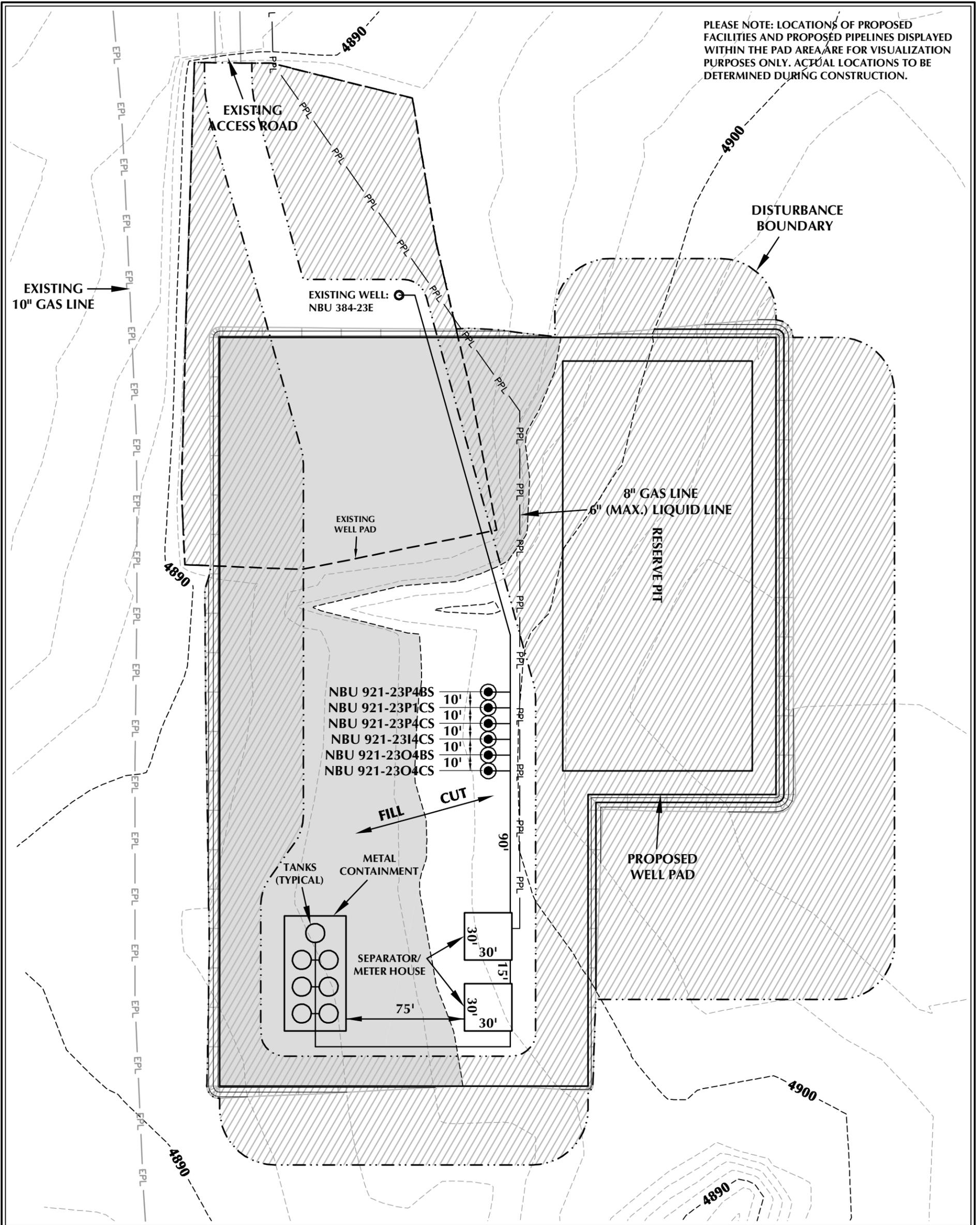
Date: 9/9/11

SHEET NO:

REVISED:

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9 OF 18



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

WELL PAD - NBU 921-23P DESIGN SUMMARY

TOTAL DISTURBANCE AREA = 5.54 ACRES (INCLUDING EXISTING)
 RECLAMATION AREA = 3.88 ACRES
 TOTAL WELL PAD AREA AFTER RECLAMATION = 1.66 ACRES

WELL PAD LEGEND

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



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

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WELL PAD - NBU 921-23P

WELL PAD - RECLAMATION LAYOUT
 NBU 921-23P4BS, NBU 921-23P1CS,
 NBU 921-23P4CS, NBU 921-23I4CS,
 NBU 921-23O4BS & NBU 921-23O4CS
 LOCATED IN SECTION 23, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH



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SCALE: 1"=60' DATE: 11/29/11 SHEET NO:

REVISED:

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K:\ANDRKO\2011\2011_42_NBU_FOCLIS_921-23P\NBU 921-23P.dwg, 11/29/2011 2:38:17 PM, gmy

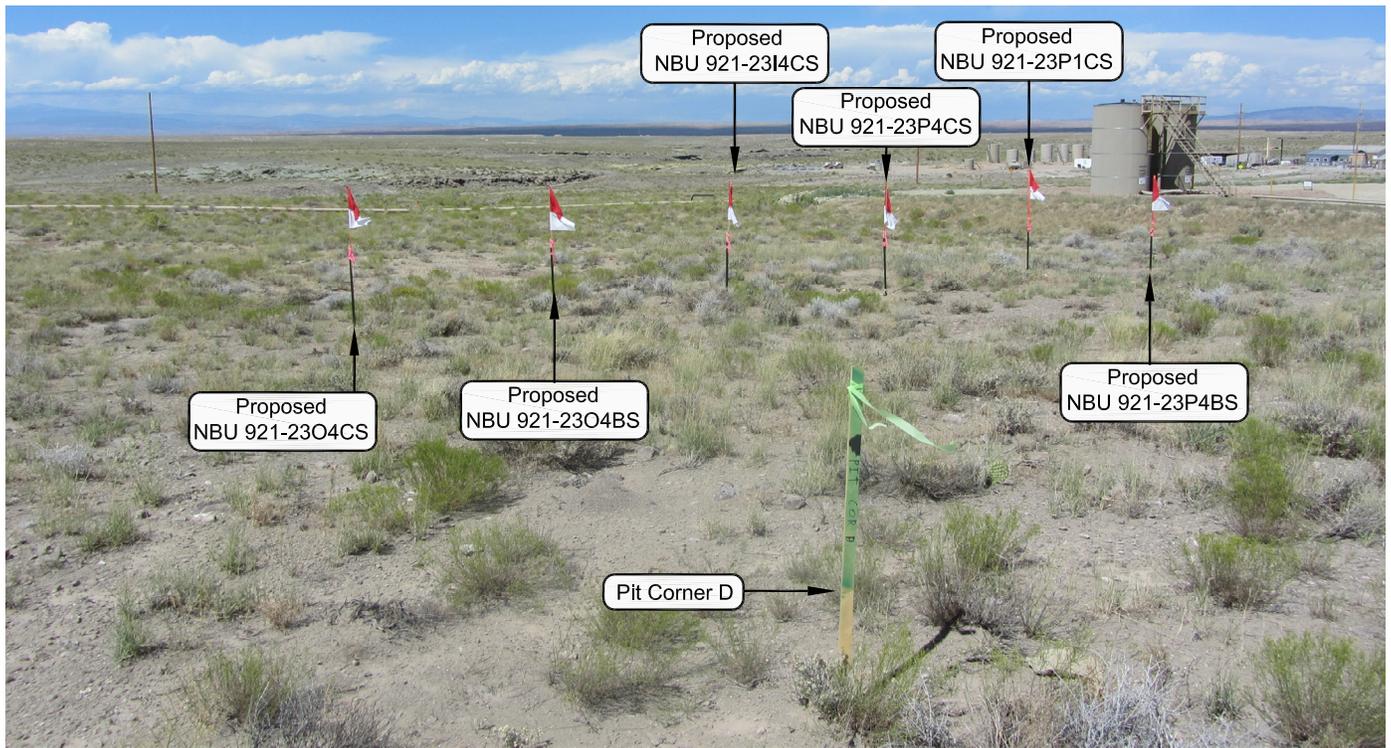


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHERLY

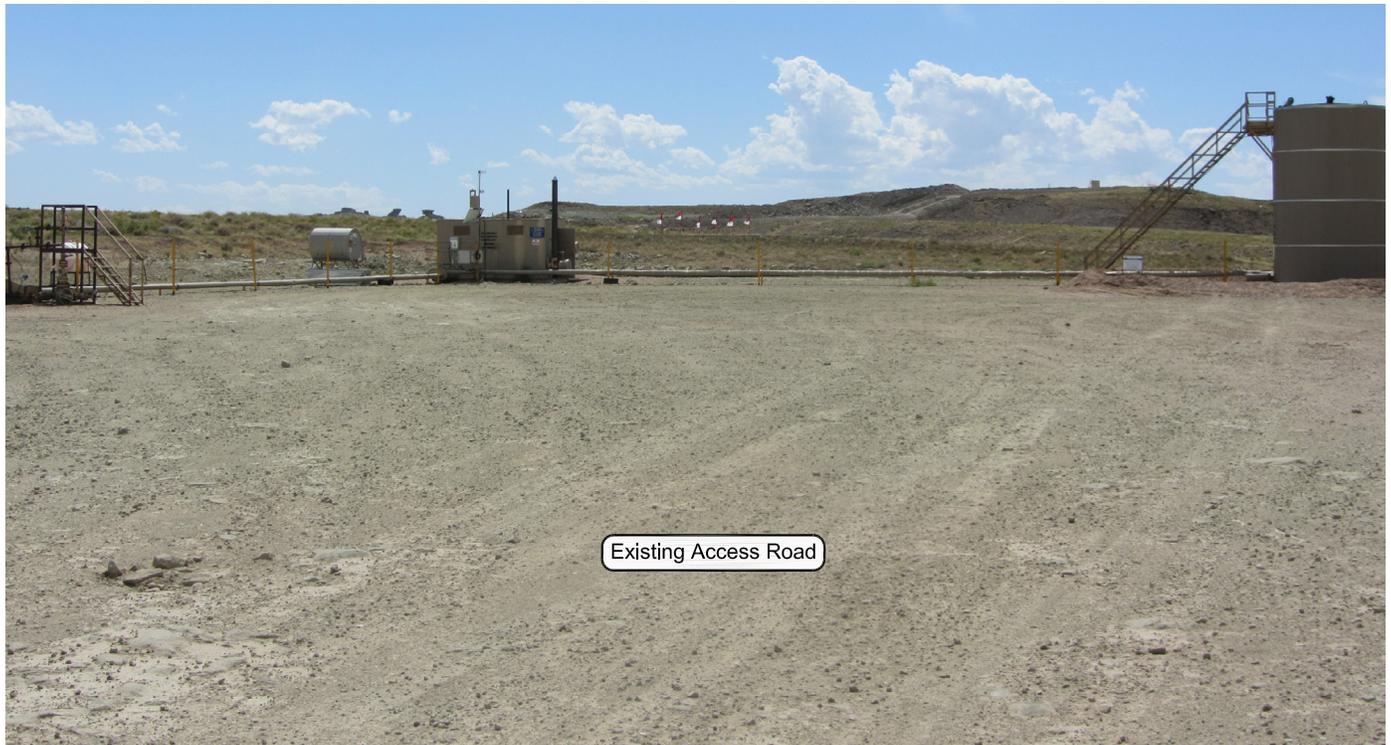


PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: SOUTHERLY

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WELL PAD - NBU 921-23P

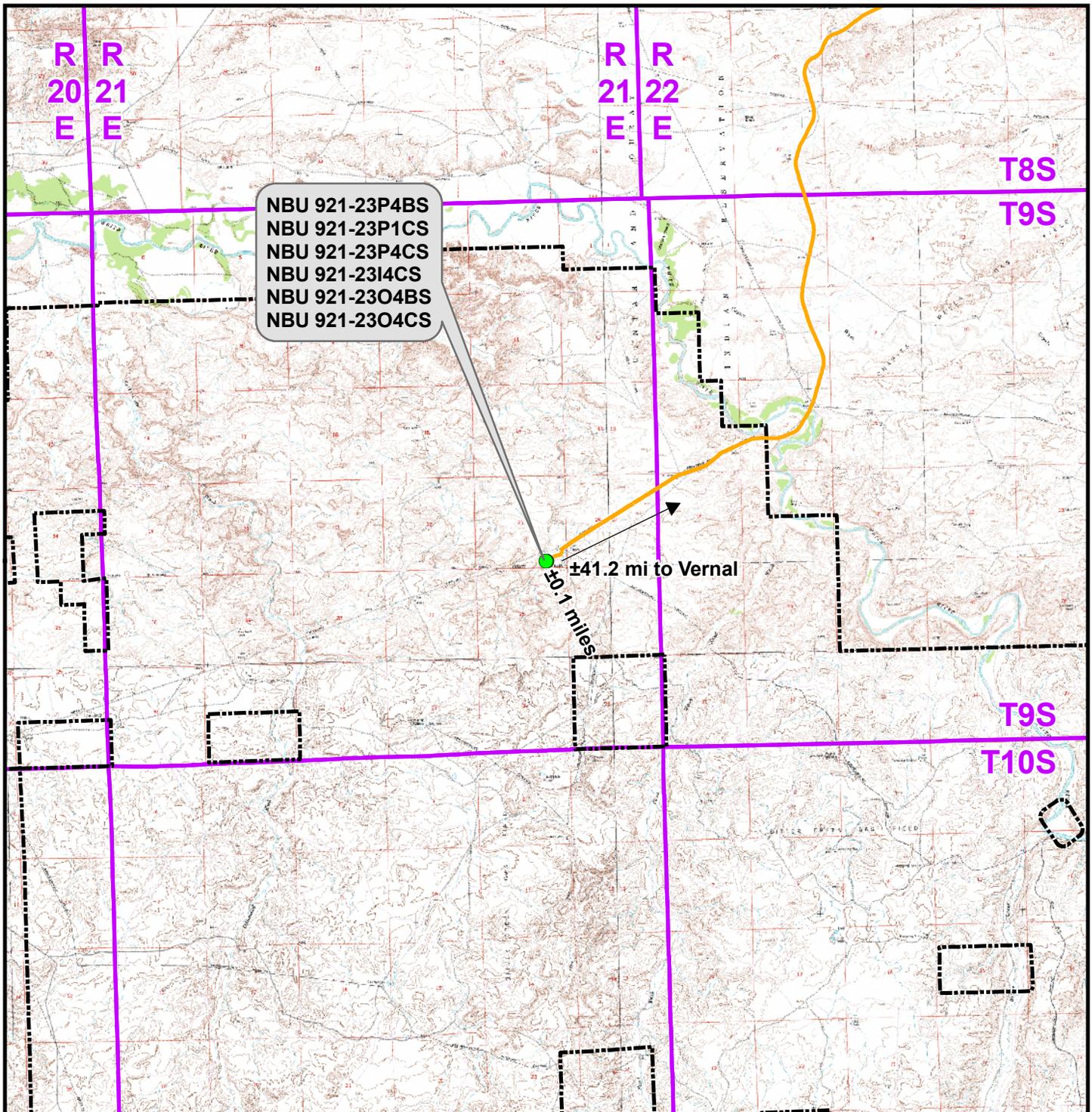
LOCATION PHOTOS
 NBU 921-23P4BS, NBU 921-23P1CS,
 NBU 921-23P4CS, NBU 921-2314CS,
 NBU 921-23O4BS& NBU 921-23O4CS
 LOCATED IN SECTION 23, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH.



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 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 7-19-11	PHOTOS TAKEN BY: W.W.	SHEET NO: 11
DATE DRAWN: 8-19-11	DRAWN BY: T.J.R.	
Date Last Revised:		11 OF 18



Legend

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

Distance From Well Pad - NBU 921-23P To Unit Boundary: ±5,800ft

WELL PAD - NBU 921-23P

TOPO A
 NBU 921-23P4BS, NBU 921-23P1CS,
 NBU 921-23P4CS, NBU 921-23I4CS,
 NBU 921-23O4BS & NBU 921-23O4CS
 LOCATED IN SECTION 23, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH

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

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 Denver, Colorado 80202



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SCALE: 1:100,000

NAD83 USP Central

SHEET NO:

DRAWN: TL

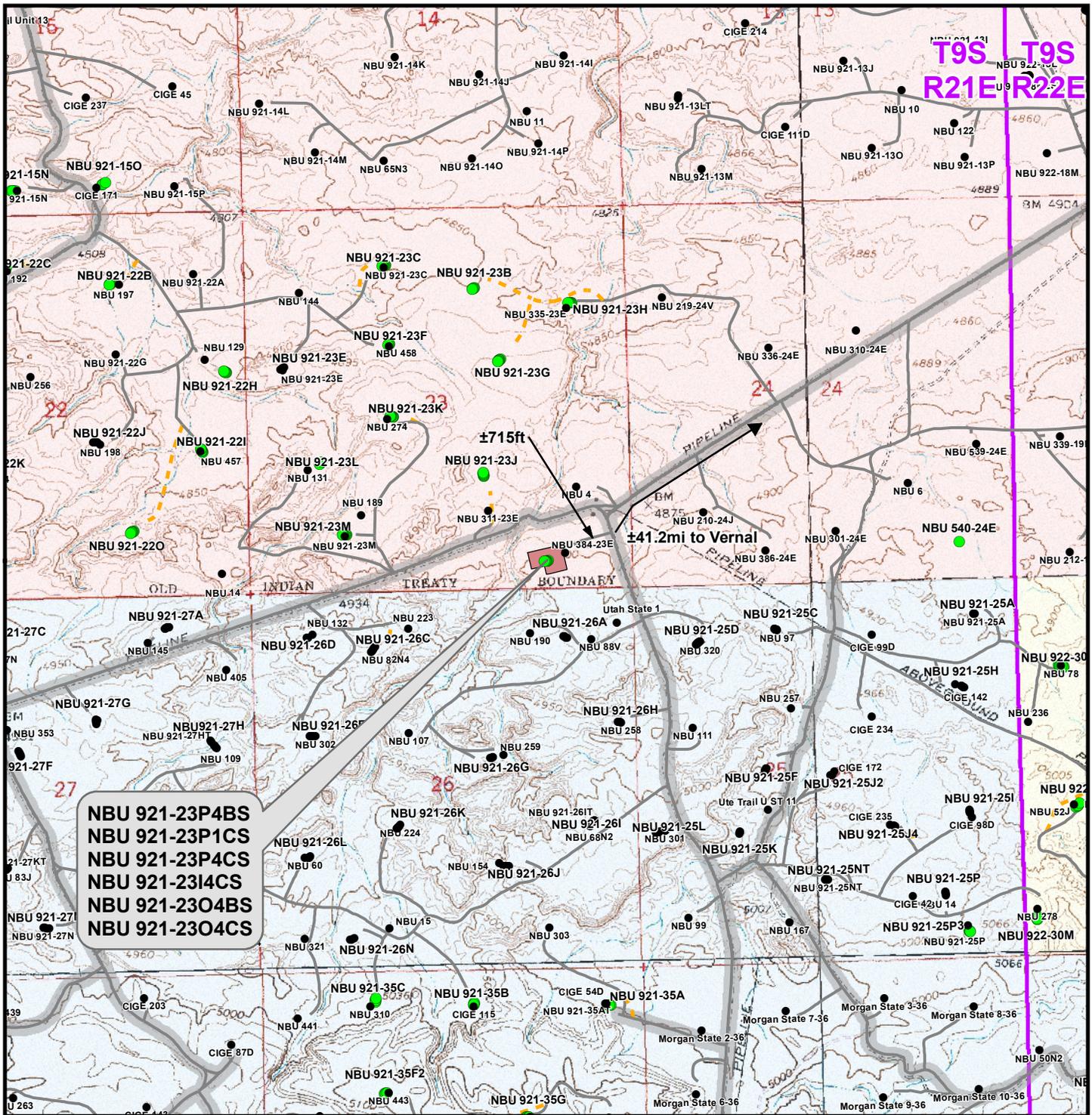
DATE: 9 Sept 2011

12

REVISED:

DATE:

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**NBU 921-23P4BS
 NBU 921-23P1CS
 NBU 921-23P4CS
 NBU 921-23I4CS
 NBU 921-23O4BS
 NBU 921-23O4CS**

±715ft
±1.2mi to Vernal

T9S R21E R22E

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

WELL PAD - NBU 921-23P

TOPO B
 NBU 921-23P4BS, NBU 921-23P1CS,
 NBU 921-23P4CS, NBU 921-23I4CS,
 NBU 921-23O4BS & NBU 921-23O4CS
 LOCATED IN SECTION 23, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH

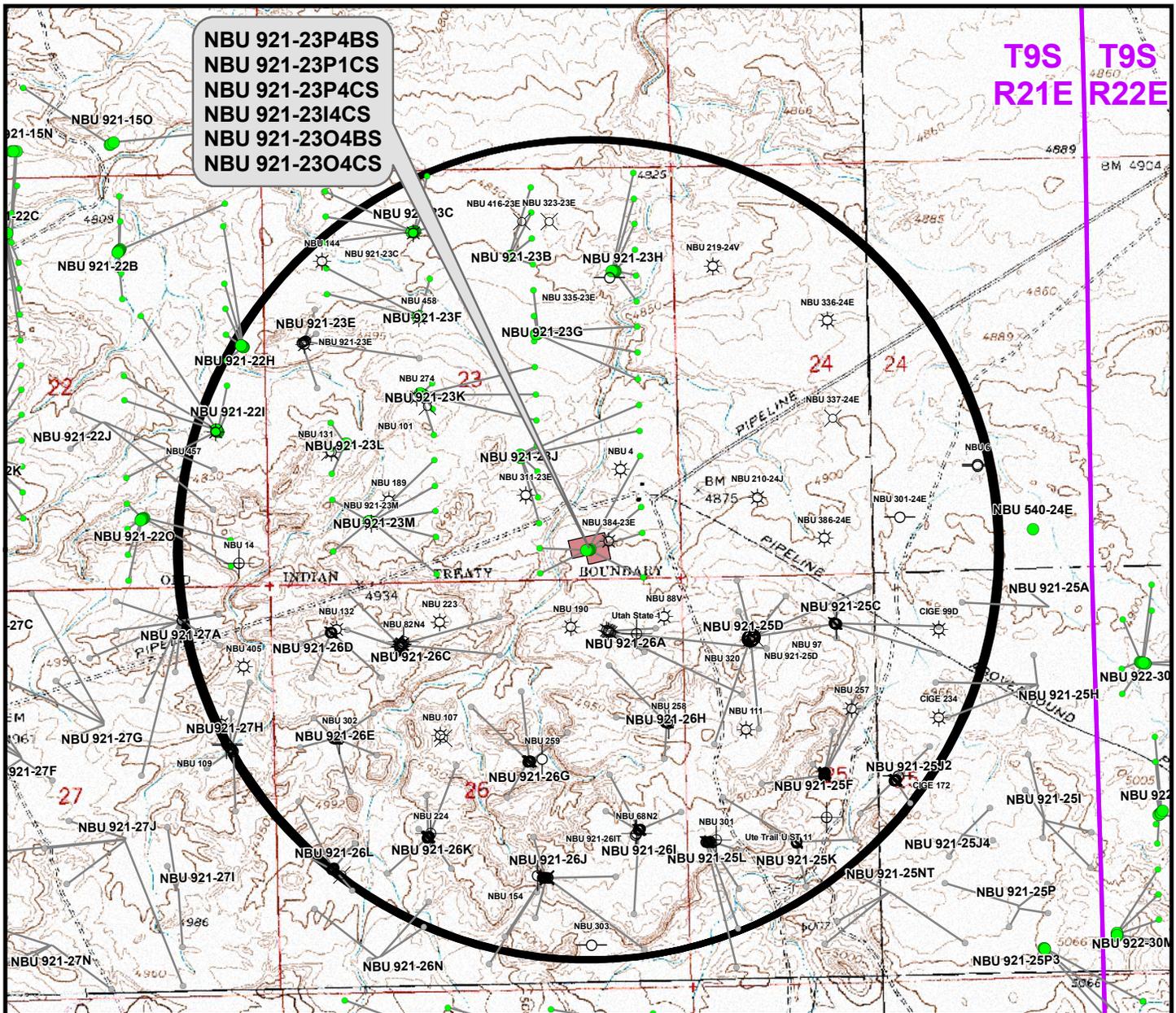
**Kerr-McGee Oil &
 Gas Onshore L.P.**

**1099 18th Street
 Denver, Colorado 80202**



CONSULTING, LLC
 2155 North Main Street
 Sheridan, Wyoming 82801
 Phone 307-674-0609
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SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO:
DRAWN: TL	DATE: 9 Sept 2011	13
REVISED:	DATE:	



**NBU 921-23P4BS
 NBU 921-23P1CS
 NBU 921-23P4CS
 NBU 921-23I4CS
 NBU 921-23O4BS
 NBU 921-23O4CS**

**T9S T9S
 R21E R22E**

Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

Proposed Well	Nearest Well Bore	Footage
NBU 921-23P4BS	NBU 384-23E	445ft
NBU 921-23P1CS	NBU 4	557ft
NBU 921-23P4CS	NBU 88V	572ft
NBU 921-23I4CS	NBU 4	307ft
NBU 921-23O4BS	NBU 311-23E	703ft
NBU 921-23O4CS	NBU 190	795ft

Legend

- Well - Proposed
- Well Path
- ☀ Producing
- ⊕ Deferred
- Bottom Hole - Proposed
- Well Pad
- ☺ Spudded
- ⊗ Cancelled
- APD Approved
- ⊖ Well - 1 Mile Radius
- ⊗ Preliminary Location
- ⊖ Temporarily Abandoned
- ⊖ Shut-In
- ⊖ Plugged & Abandoned
- ⊖ Location Abandoned
- ⊖ Active Injector

WELL PAD - NBU 921-23P
 TOPO C
 NBU 921-23P4BS, NBU 921-23P1CS,
 NBU 921-23P4CS, NBU 921-23I4CS,
 NBU 921-23O4BS & NBU 921-23O4CS
 LOCATED IN SECTION 23, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH

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

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SCALE: 1" = 2,000ft

DRAWN: TL

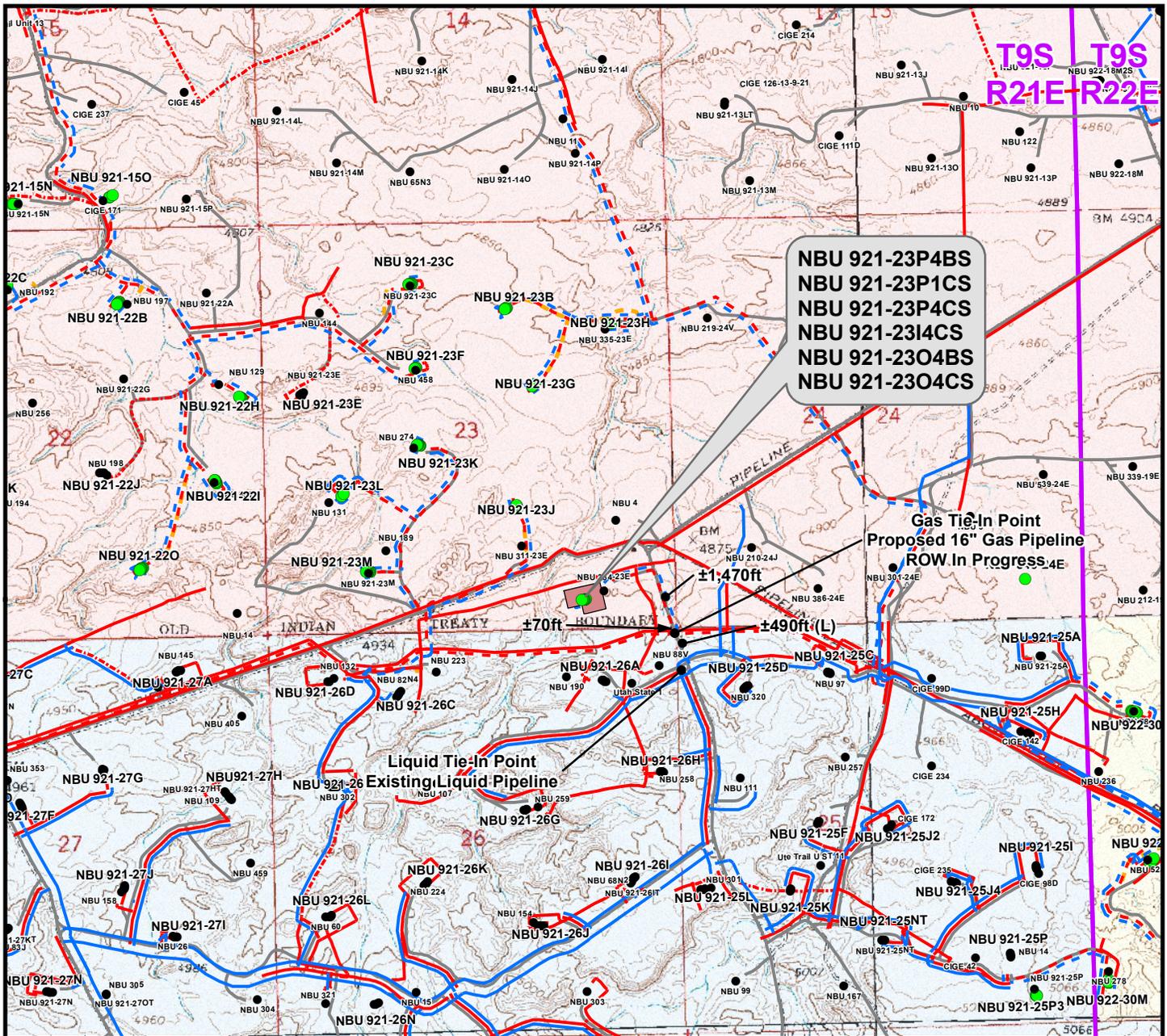
REVISED:

NAD83 USP Central

DATE: 9 Sept 2011

DATE:

SHEET NO:
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**NBU 921-23P4BS
 NBU 921-23P1CS
 NBU 921-23P4CS
 NBU 921-23I4CS
 NBU 921-23O4BS
 NBU 921-23O4CS**

**Gas Tie-In Point
 Proposed 16" Gas Pipeline
 ROW In Progress**

**Liquid Tie-In Point
 Existing Liquid Pipeline**

Proposed Liquid Pipeline	Length
Buried 6" (Max.) (Meter House to Edge of Pad)	±390ft
Buried 6" (Max.) (Edge of Pad to Existing Liquid Pipeline)	±2,030ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±2,420ft

Proposed Gas Pipeline	Length
Buried 8" (Meter House to Edge of Pad)	±390ft
Buried 8" (Edge of Pad to Proposed 16" Pipeline ROW In Progress)	±1,540ft
TOTAL PROPOSED BURIED GAS PIPELINE =	±1,930ft

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

WELL PAD - NBU 921-23P
 TOPO D
 NBU 921-23P4BS, NBU 921-23P1CS,
 NBU 921-23P4CS, NBU 921-23I4CS,
 NBU 921-23O4BS & NBU 921-23O4CS
 LOCATED IN SECTION 23, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH

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 Gas Onshore L.P.**
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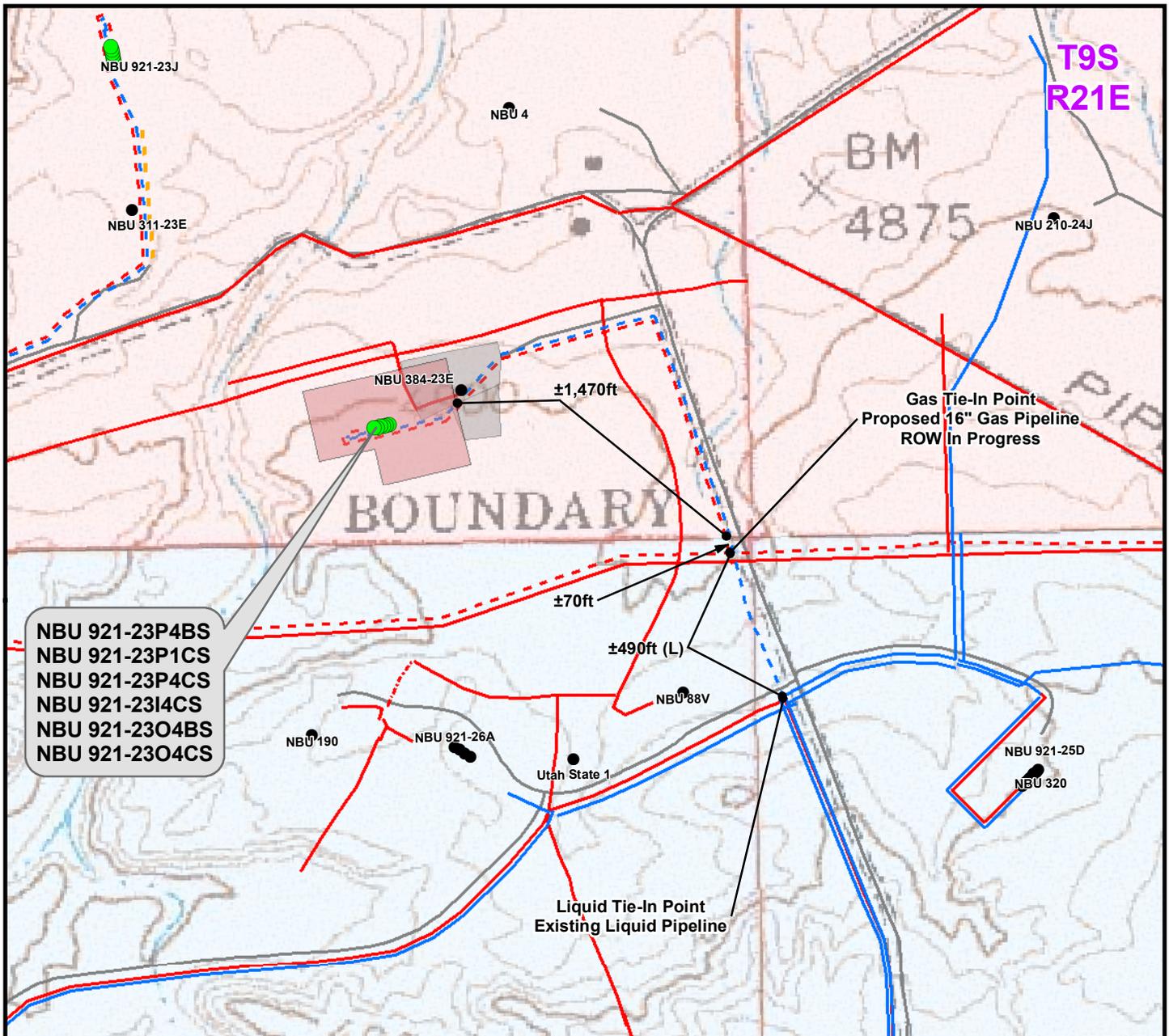


CONSULTING, LLC
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 Sheridan, Wyoming 82801
 Phone 307-674-0609
 Fax 307-674-0182

SCALE: 1" = 2,000ft
 DRAWN: TL
 REVISED:

NAD83 USP Central
 DATE: 9 Sept 2011
 DATE:

SHEET NO:
15
 15 OF 18



NBU 921-23P4BS
 NBU 921-23P1CS
 NBU 921-23P4CS
 NBU 921-23I4CS
 NBU 921-23O4BS
 NBU 921-23O4CS

Proposed Liquid Pipeline	Length
Buried 6" (Max.) (Meter House to Edge of Pad)	±390ft
Buried 6" (Max.) (Edge of Pad to Existing Liquid Pipeline)	±2,030ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±2,420ft

Proposed Gas Pipeline	Length
Buried 8" (Meter House to Edge of Pad)	±390ft
Buried 8" (Edge of Pad to Proposed 16" Pipeline ROW In Progress)	±1,540ft
TOTAL PROPOSED BURIED GAS PIPELINE =	±1,930ft

Legend

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

WELL PAD - NBU 921-23P

TOPO D2 (PAD & PIPELINE DETAIL)
 NBU 921-23P4BS, NBU 921-23P1CS,
 NBU 921-23P4CS, NBU 921-23I4CS,
 NBU 921-23O4BS & NBU 921-23O4CS
 LOCATED IN SECTION 23, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH

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

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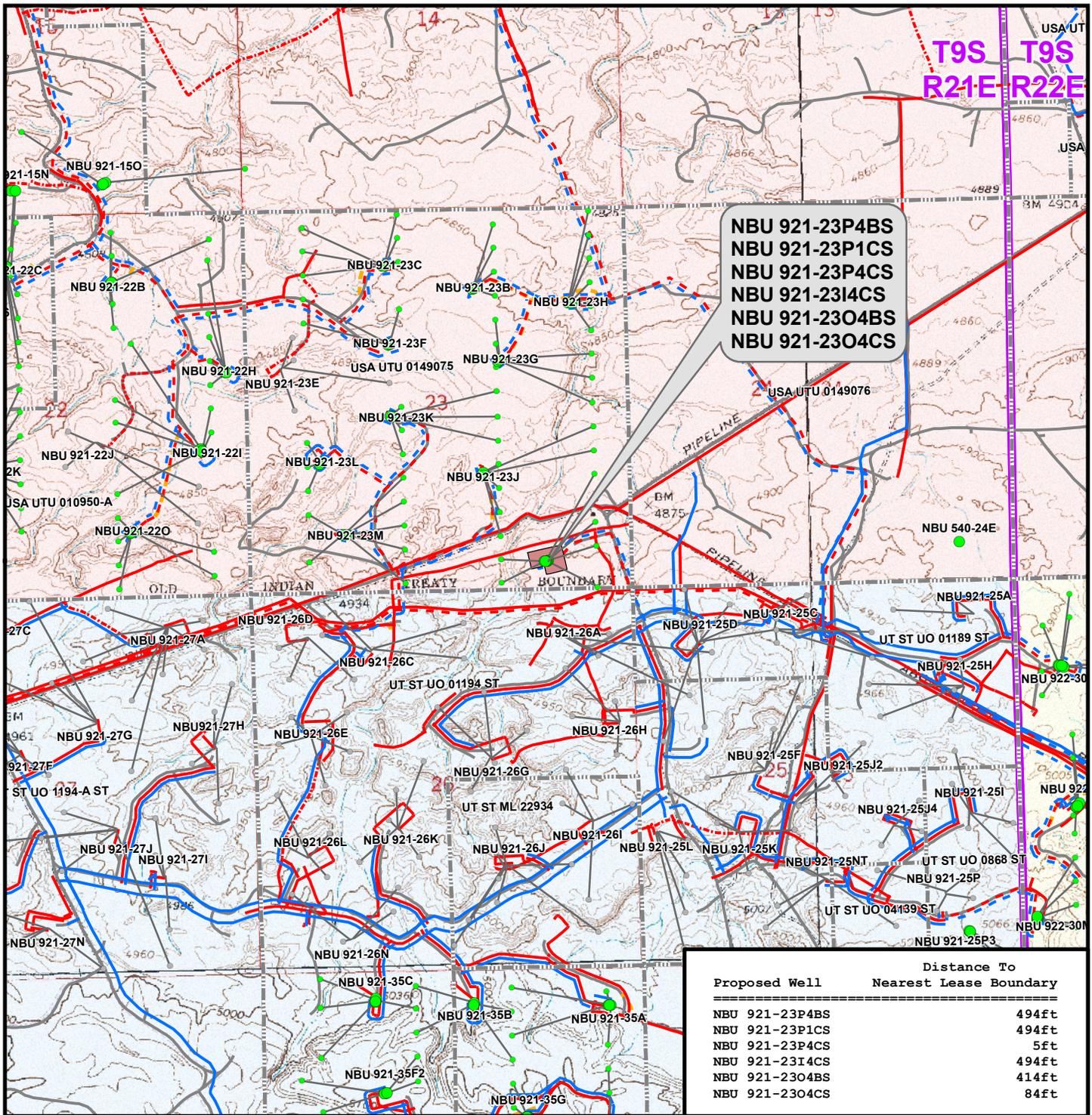


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SCALE: 1" = 500ft	NAD83 USP Central	16
DRAWN: TL	DATE: 9 Sept 2011	
REVISED:	DATE:	

SHEET NO:
16 OF 18



**NBU 921-23P4BS
 NBU 921-23P1CS
 NBU 921-23P4CS
 NBU 921-23I4CS
 NBU 921-23O4BS
 NBU 921-23O4CS**

Proposed Well	Distance To Nearest Lease Boundary
NBU 921-23P4BS	494ft
NBU 921-23P1CS	494ft
NBU 921-23P4CS	5ft
NBU 921-23I4CS	494ft
NBU 921-23O4BS	414ft
NBU 921-23O4CS	84ft

Legend

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

WELL PAD - NBU 921-23P

TOPO E

NBU 921-23P4BS, NBU 921-23P1CS,
 NBU 921-23P4CS, NBU 921-23I4CS,
 NBU 921-23O4BS & NBU 921-23O4CS
 LOCATED IN SECTION 23, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH

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

1099 18th Street
 Denver, Colorado 80202

609 CONSULTING, LLC

2155 North Main Street
 Sheridan, Wyoming 82801
 Phone 307-674-0609
 Fax 307-674-0182

N

SCALE: 1" = 2,000ft	NAD83 USP Central	17
DRAWN: TL	DATE: 9 Sept 2011	
REVISED:	DATE:	

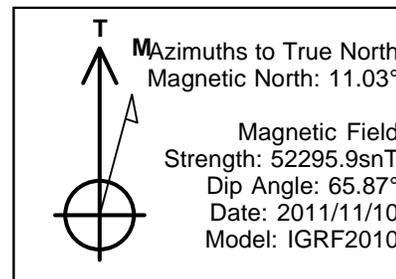
SHEET NO:
17 OF 18

**Kerr-McGee Oil & Gas Onshore, LP
WELL PAD - NBU 921-23P
WELLS - NBU 921-23P4BS, NBU 921-23P1CS,
NBU 921-23P4CS, NBU 921-23I4CS,
NBU 921-23O4BS & NBU 921-23O4CS
Section 23, T9S, R21E, S.L.B.&M.**

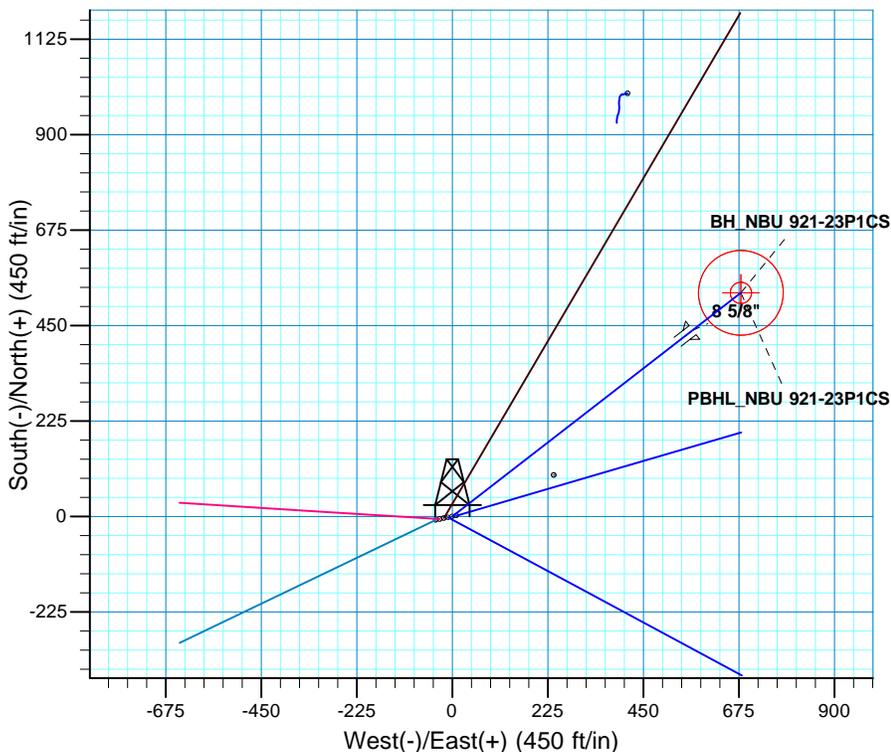
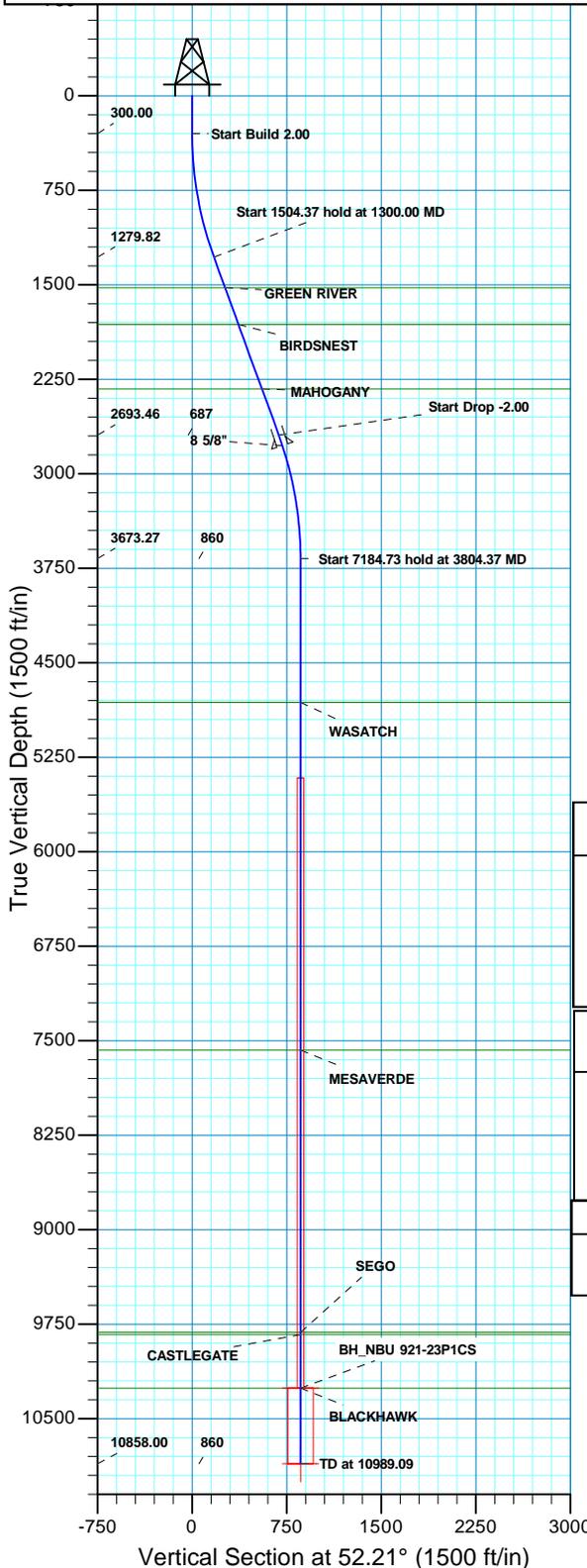
From the intersection of U.S. Highway 40 and 500 East street in Vernal, Utah, proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles 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 17.7 miles to a service road to the Southwest. Exit right and proceed in a southwesterly direction approximately 715 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 41.3 miles in a southerly direction.

WELL DETAILS: NBU 921-23P1CS					
GL 4897 & KB 4 @ 4901.00ft (ASSUMED)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14535094.36	2056771.81	40° 0' 55.123 N	109° 30' 46.886 W



DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BH	10258.00	527.02	679.67	14535632.64	2057442.59	40° 1' 0.332 N	09° 30' 38.149 W	Circle (Radius: 25.00)
- plan hits target center								
PBHL	10858.00	527.02	679.67	14535632.64	2057442.59	40° 1' 0.332 N	09° 30' 38.149 W	Circle (Radius: 100.00)
- plan hits target center								



SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00		
1300.00	20.00	52.21	1279.82	105.87	136.53	2.00	52.21	172.77		
2804.37	20.00	52.21	2693.46	421.15	543.14	0.00	0.00	687.29		
3804.37	0.00	0.00	3673.27	527.02	679.67	2.00	180.00	860.06		
10989.09	0.00	0.00	10858.00	527.02	679.67	0.00	0.00	860.06	PBHL_NBU 921-23P1CS	

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N		FORMATION TOP DETAILS		
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 23 T9S R21E System Datum: Mean Sea Level	TVDPath	MDPath	Formation	
	1523.00	1558.79	GREEN RIVER	
	1816.00	1870.60	BIRDSNEST	
	2327.00	2414.39	MAHOGANY	
	4815.00	4946.09	WASATCH	
	7575.00	7706.09	MESAVERDE	
	9815.00	9946.09	SEGO	
	9833.00	9964.09	CASTLEGATE	
10258.00	10389.09	BLACKHAWK		

CASING DETAILS			
TVD	MD	Name	Size
2777.00	2892.79	8 5/8"	8.625

RECEIVED



Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

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

NBU 921-23P PAD

NBU 921-23P1CS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

10 November, 2011





SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 921-23P1CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4897 & KB 4 @ 4901.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4897 & KB 4 @ 4901.00ft (ASSUMED)
Site:	NBU 921-23P PAD	North Reference:	True
Well:	NBU 921-23P1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

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	NBU 921-23P PAD, SECTION 23 T9S R21E				
Site Position:		Northing:	14,535,094.36 usft	Latitude:	40° 0' 55.123 N
From:	Lat/Long	Easting:	2,056,771.81 usft	Longitude:	109° 30' 46.886 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.96 °

Well	NBU 921-23P1CS, 381 FSL 1175 FEL					
Well Position	+N/-S	0.00 ft	Northing:	14,535,094.36 usft	Latitude:	40° 0' 55.123 N
	+E/-W	0.00 ft	Easting:	2,056,771.81 usft	Longitude:	109° 30' 46.886 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,897.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2011/11/10	11.03	65.87	52,296

Design	PLAN #1 PRELIMINARY			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	52.21

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	20.00	52.21	1,279.82	105.87	136.53	2.00	2.00	0.00	52.21	
2,804.37	20.00	52.21	2,693.46	421.15	543.14	0.00	0.00	0.00	0.00	
3,804.37	0.00	0.00	3,673.27	527.02	679.67	2.00	-2.00	0.00	180.00	
10,989.09	0.00	0.00	10,858.00	527.02	679.67	0.00	0.00	0.00	0.00	PBHL_NBU 921-23P



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 921-23P1CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4897 & KB 4 @ 4901.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4897 & KB 4 @ 4901.00ft (ASSUMED)
Site:	NBU 921-23P PAD	North Reference:	True
Well:	NBU 921-23P1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00										
400.00	2.00	52.21	399.98	1.07	1.38	1.75	2.00	2.00	2.00	0.00
500.00	4.00	52.21	499.84	4.28	5.51	6.98	2.00	2.00	2.00	0.00
600.00	6.00	52.21	599.45	9.62	12.40	15.69	2.00	2.00	2.00	0.00
700.00	8.00	52.21	698.70	17.08	22.03	27.88	2.00	2.00	2.00	0.00
800.00	10.00	52.21	797.47	26.67	34.39	43.52	2.00	2.00	2.00	0.00
900.00	12.00	52.21	895.62	38.36	49.47	62.60	2.00	2.00	2.00	0.00
1,000.00	14.00	52.21	993.06	52.14	67.25	85.10	2.00	2.00	2.00	0.00
1,100.00	16.00	52.21	1,089.64	68.00	87.70	110.98	2.00	2.00	2.00	0.00
1,200.00	18.00	52.21	1,185.27	85.92	110.80	140.21	2.00	2.00	2.00	0.00
1,300.00	20.00	52.21	1,279.82	105.87	136.53	172.77	2.00	2.00	2.00	0.00
Start 1504.37 hold at 1300.00 MD										
1,400.00	20.00	52.21	1,373.78	126.82	163.56	206.97	0.00	0.00	0.00	0.00
1,500.00	20.00	52.21	1,467.75	147.78	190.59	241.17	0.00	0.00	0.00	0.00
1,558.79	20.00	52.21	1,523.00	160.10	206.48	261.28	0.00	0.00	0.00	0.00
GREEN RIVER										
1,600.00	20.00	52.21	1,561.72	168.74	217.62	275.37	0.00	0.00	0.00	0.00
1,700.00	20.00	52.21	1,655.69	189.70	244.65	309.58	0.00	0.00	0.00	0.00
1,800.00	20.00	52.21	1,749.66	210.66	271.67	343.78	0.00	0.00	0.00	0.00
1,870.60	20.00	52.21	1,816.00	225.45	290.76	367.92	0.00	0.00	0.00	0.00
BIRDSNEST										
1,900.00	20.00	52.21	1,843.63	231.61	298.70	377.98	0.00	0.00	0.00	0.00
2,000.00	20.00	52.21	1,937.60	252.57	325.73	412.18	0.00	0.00	0.00	0.00
2,100.00	20.00	52.21	2,031.57	273.53	352.76	446.38	0.00	0.00	0.00	0.00
2,200.00	20.00	52.21	2,125.54	294.49	379.79	480.59	0.00	0.00	0.00	0.00
2,300.00	20.00	52.21	2,219.51	315.45	406.82	514.79	0.00	0.00	0.00	0.00
2,400.00	20.00	52.21	2,313.48	336.40	433.85	548.99	0.00	0.00	0.00	0.00
2,414.39	20.00	52.21	2,327.00	339.42	437.74	553.91	0.00	0.00	0.00	0.00
MAHOGANY										
2,500.00	20.00	52.21	2,407.45	357.36	460.87	583.19	0.00	0.00	0.00	0.00
2,600.00	20.00	52.21	2,501.42	378.32	487.90	617.39	0.00	0.00	0.00	0.00
2,700.00	20.00	52.21	2,595.39	399.28	514.93	651.60	0.00	0.00	0.00	0.00
2,800.00	20.00	52.21	2,689.35	420.24	541.96	685.80	0.00	0.00	0.00	0.00
2,804.37	20.00	52.21	2,693.46	421.15	543.14	687.29	0.00	0.00	0.00	0.00
Start Drop -2.00										
2,892.79	18.23	52.21	2,777.00	438.89	566.02	716.25	2.00	-2.00	0.00	0.00
8 5/8"										
2,900.00	18.09	52.21	2,783.85	440.27	567.80	718.49	2.00	-2.00	0.00	0.00
3,000.00	16.09	52.21	2,879.43	458.28	591.02	747.88	2.00	-2.00	0.00	0.00
3,100.00	14.09	52.21	2,975.98	474.22	611.59	773.90	2.00	-2.00	0.00	0.00
3,200.00	12.09	52.21	3,073.38	488.10	629.48	796.55	2.00	-2.00	0.00	0.00
3,300.00	10.09	52.21	3,171.51	499.88	644.68	815.78	2.00	-2.00	0.00	0.00
3,400.00	8.09	52.21	3,270.25	509.56	657.16	831.57	2.00	-2.00	0.00	0.00
3,500.00	6.09	52.21	3,369.48	517.12	666.91	843.91	2.00	-2.00	0.00	0.00
3,600.00	4.09	52.21	3,469.08	522.55	673.91	852.77	2.00	-2.00	0.00	0.00
3,700.00	2.09	52.21	3,568.93	525.85	678.17	858.16	2.00	-2.00	0.00	0.00
3,800.00	0.09	52.21	3,668.91	527.02	679.67	860.06	2.00	-2.00	0.00	0.00
3,804.37	0.00	0.00	3,673.27	527.02	679.67	860.06	2.00	-2.00	0.00	0.00
Start 7184.73 hold at 3804.37 MD										



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 921-23P1CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4897 & KB 4 @ 4901.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4897 & KB 4 @ 4901.00ft (ASSUMED)
Site:	NBU 921-23P PAD	North Reference:	True
Well:	NBU 921-23P1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,900.00	0.00	0.00	3,768.91	527.02	679.67	860.06	0.00	0.00	0.00
4,000.00	0.00	0.00	3,868.91	527.02	679.67	860.06	0.00	0.00	0.00
4,100.00	0.00	0.00	3,968.91	527.02	679.67	860.06	0.00	0.00	0.00
4,200.00	0.00	0.00	4,068.91	527.02	679.67	860.06	0.00	0.00	0.00
4,300.00	0.00	0.00	4,168.91	527.02	679.67	860.06	0.00	0.00	0.00
4,400.00	0.00	0.00	4,268.91	527.02	679.67	860.06	0.00	0.00	0.00
4,500.00	0.00	0.00	4,368.91	527.02	679.67	860.06	0.00	0.00	0.00
4,600.00	0.00	0.00	4,468.91	527.02	679.67	860.06	0.00	0.00	0.00
4,700.00	0.00	0.00	4,568.91	527.02	679.67	860.06	0.00	0.00	0.00
4,800.00	0.00	0.00	4,668.91	527.02	679.67	860.06	0.00	0.00	0.00
4,900.00	0.00	0.00	4,768.91	527.02	679.67	860.06	0.00	0.00	0.00
4,946.09	0.00	0.00	4,815.00	527.02	679.67	860.06	0.00	0.00	0.00
WASATCH									
5,000.00	0.00	0.00	4,868.91	527.02	679.67	860.06	0.00	0.00	0.00
5,100.00	0.00	0.00	4,968.91	527.02	679.67	860.06	0.00	0.00	0.00
5,200.00	0.00	0.00	5,068.91	527.02	679.67	860.06	0.00	0.00	0.00
5,300.00	0.00	0.00	5,168.91	527.02	679.67	860.06	0.00	0.00	0.00
5,400.00	0.00	0.00	5,268.91	527.02	679.67	860.06	0.00	0.00	0.00
5,500.00	0.00	0.00	5,368.91	527.02	679.67	860.06	0.00	0.00	0.00
5,600.00	0.00	0.00	5,468.91	527.02	679.67	860.06	0.00	0.00	0.00
5,700.00	0.00	0.00	5,568.91	527.02	679.67	860.06	0.00	0.00	0.00
5,800.00	0.00	0.00	5,668.91	527.02	679.67	860.06	0.00	0.00	0.00
5,900.00	0.00	0.00	5,768.91	527.02	679.67	860.06	0.00	0.00	0.00
6,000.00	0.00	0.00	5,868.91	527.02	679.67	860.06	0.00	0.00	0.00
6,100.00	0.00	0.00	5,968.91	527.02	679.67	860.06	0.00	0.00	0.00
6,200.00	0.00	0.00	6,068.91	527.02	679.67	860.06	0.00	0.00	0.00
6,300.00	0.00	0.00	6,168.91	527.02	679.67	860.06	0.00	0.00	0.00
6,400.00	0.00	0.00	6,268.91	527.02	679.67	860.06	0.00	0.00	0.00
6,500.00	0.00	0.00	6,368.91	527.02	679.67	860.06	0.00	0.00	0.00
6,600.00	0.00	0.00	6,468.91	527.02	679.67	860.06	0.00	0.00	0.00
6,700.00	0.00	0.00	6,568.91	527.02	679.67	860.06	0.00	0.00	0.00
6,800.00	0.00	0.00	6,668.91	527.02	679.67	860.06	0.00	0.00	0.00
6,900.00	0.00	0.00	6,768.91	527.02	679.67	860.06	0.00	0.00	0.00
7,000.00	0.00	0.00	6,868.91	527.02	679.67	860.06	0.00	0.00	0.00
7,100.00	0.00	0.00	6,968.91	527.02	679.67	860.06	0.00	0.00	0.00
7,200.00	0.00	0.00	7,068.91	527.02	679.67	860.06	0.00	0.00	0.00
7,300.00	0.00	0.00	7,168.91	527.02	679.67	860.06	0.00	0.00	0.00
7,400.00	0.00	0.00	7,268.91	527.02	679.67	860.06	0.00	0.00	0.00
7,500.00	0.00	0.00	7,368.91	527.02	679.67	860.06	0.00	0.00	0.00
7,600.00	0.00	0.00	7,468.91	527.02	679.67	860.06	0.00	0.00	0.00
7,700.00	0.00	0.00	7,568.91	527.02	679.67	860.06	0.00	0.00	0.00
7,706.09	0.00	0.00	7,575.00	527.02	679.67	860.06	0.00	0.00	0.00
MESAVERDE									
7,800.00	0.00	0.00	7,668.91	527.02	679.67	860.06	0.00	0.00	0.00
7,900.00	0.00	0.00	7,768.91	527.02	679.67	860.06	0.00	0.00	0.00
8,000.00	0.00	0.00	7,868.91	527.02	679.67	860.06	0.00	0.00	0.00
8,100.00	0.00	0.00	7,968.91	527.02	679.67	860.06	0.00	0.00	0.00
8,200.00	0.00	0.00	8,068.91	527.02	679.67	860.06	0.00	0.00	0.00
8,300.00	0.00	0.00	8,168.91	527.02	679.67	860.06	0.00	0.00	0.00
8,400.00	0.00	0.00	8,268.91	527.02	679.67	860.06	0.00	0.00	0.00
8,500.00	0.00	0.00	8,368.91	527.02	679.67	860.06	0.00	0.00	0.00
8,600.00	0.00	0.00	8,468.91	527.02	679.67	860.06	0.00	0.00	0.00
8,700.00	0.00	0.00	8,568.91	527.02	679.67	860.06	0.00	0.00	0.00
8,800.00	0.00	0.00	8,668.91	527.02	679.67	860.06	0.00	0.00	0.00



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 921-23P1CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4897 & KB 4 @ 4901.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4897 & KB 4 @ 4901.00ft (ASSUMED)
Site:	NBU 921-23P PAD	North Reference:	True
Well:	NBU 921-23P1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,900.00	0.00	0.00	8,768.91	527.02	679.67	860.06	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,868.91	527.02	679.67	860.06	0.00	0.00	0.00	
9,100.00	0.00	0.00	8,968.91	527.02	679.67	860.06	0.00	0.00	0.00	
9,200.00	0.00	0.00	9,068.91	527.02	679.67	860.06	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,168.91	527.02	679.67	860.06	0.00	0.00	0.00	
9,400.00	0.00	0.00	9,268.91	527.02	679.67	860.06	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,368.91	527.02	679.67	860.06	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,468.91	527.02	679.67	860.06	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,568.91	527.02	679.67	860.06	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,668.91	527.02	679.67	860.06	0.00	0.00	0.00	
9,900.00	0.00	0.00	9,768.91	527.02	679.67	860.06	0.00	0.00	0.00	
9,946.09	0.00	0.00	9,815.00	527.02	679.67	860.06	0.00	0.00	0.00	
SEGO										
9,964.09	0.00	0.00	9,833.00	527.02	679.67	860.06	0.00	0.00	0.00	
CASTLEGATE										
10,000.00	0.00	0.00	9,868.91	527.02	679.67	860.06	0.00	0.00	0.00	
10,100.00	0.00	0.00	9,968.91	527.02	679.67	860.06	0.00	0.00	0.00	
10,200.00	0.00	0.00	10,068.91	527.02	679.67	860.06	0.00	0.00	0.00	
10,300.00	0.00	0.00	10,168.91	527.02	679.67	860.06	0.00	0.00	0.00	
10,389.09	0.00	0.00	10,258.00	527.02	679.67	860.06	0.00	0.00	0.00	
BLACKHAWK - BH_NBU 921-23P1CS										
10,400.00	0.00	0.00	10,268.91	527.02	679.67	860.06	0.00	0.00	0.00	
10,500.00	0.00	0.00	10,368.91	527.02	679.67	860.06	0.00	0.00	0.00	
10,600.00	0.00	0.00	10,468.91	527.02	679.67	860.06	0.00	0.00	0.00	
10,700.00	0.00	0.00	10,568.91	527.02	679.67	860.06	0.00	0.00	0.00	
10,800.00	0.00	0.00	10,668.91	527.02	679.67	860.06	0.00	0.00	0.00	
10,900.00	0.00	0.00	10,768.91	527.02	679.67	860.06	0.00	0.00	0.00	
10,989.09	0.00	0.00	10,858.00	527.02	679.67	860.06	0.00	0.00	0.00	
TD at 10989.09 - PBHL_NBU 921-23P1CS										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
BH_NBU 921-23P1CS - hit/miss target - Shape	0.00	0.00	10,258.00	527.02	679.67	14,535,632.65	2,057,442.59	40° 1' 0.332 N	109° 30' 38.149 W	
- plan hits target center - Circle (radius 25.00)										
PBHL_NBU 921-23P1C: - plan hits target center - Circle (radius 100.00)	0.00	0.00	10,858.00	527.02	679.67	14,535,632.65	2,057,442.59	40° 1' 0.332 N	109° 30' 38.149 W	

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)		
2,892.79	2,777.00	8 5/8"	8.625	11.000		



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Site:	NBU 921-23P PAD	North Reference:	True
Well:	NBU 921-23P1CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,558.79	1,523.00	GREEN RIVER				
1,870.60	1,816.00	BIRDSNEST				
2,414.39	2,327.00	MAHOGANY				
4,946.09	4,815.00	WASATCH				
7,706.09	7,575.00	MESAVERDE				
9,946.09	9,815.00	SEGO				
9,964.09	9,833.00	CASTLEGATE				
10,389.09	10,258.00	BLACKHAWK				

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	
1,300.00	1,279.82	105.87	136.53	Start 1504.37 hold at 1300.00 MD	
2,804.37	2,693.46	421.15	543.14	Start Drop -2.00	
3,804.37	3,673.27	527.02	679.67	Start 7184.73 hold at 3804.37 MD	
10,989.09	10,858.00	527.02	679.67	TD at 10989.09	

NBU 921-2314CS/ 921-2304BS/ 921-2304CS
 NBU 921-23P1CS/ 921-23P4BS/ 921-23P4CS
 Kerr-McGee Oil Gas Onshore, L.P.

NBU 921-23P Pad
 Surface Use Plan of Operations
 1 of 12

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

NBU 921-23P Pad

<u>API #</u>	<u>NBU 921-2314CS</u>		
	Surface: 377 FSL / 1195 FEL	SESE	Lot
	BHL: 1567 FSL / 494 FEL	NESE	Lot
<u>API #</u>	<u>NBU 921-2304BS</u>		
	Surface: 375 FSL / 1205 FEL	SESE	Lot
	BHL: 414 FSL / 1818 FEL	SWSE	Lot
<u>API #</u>	<u>NBU 921-2304CS</u>		
	Surface: 373 FSL / 1215 FEL	SESE	Lot
	BHL: 84 FSL / 1818 FEL	SWSE	Lot
<u>API #</u>	<u>NBU 921-23P1CS</u>		
	Surface: 381 FSL / 1175 FEL	SESE	Lot
	BHL: 907 FSL / 494 FEL	SESE	Lot
<u>API #</u>	<u>NBU 921-23P4BS</u>		
	Surface: 383 FSL / 1166 FEL	SESE	Lot
	BHL: 578 FSL / 494 FEL	SESE	Lot
<u>API #</u>	<u>NBU 921-23P4CS</u>		
	Surface: 379 FSL / 1185 FEL	SESE	Lot
	BHL: 5 FSL / 494 FEL	SESE	Lot

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

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

An on-site meeting was held on October 3-4, 2011. Present were:

- Bucky Secakuku (10/4/2011 only) - BIA;
- LeAllen Blackhair, Rainey Longhair - Ute Indian Tribe;
- Kelly Jo Jackson - Montgomery Archeological Consultants Inc.;
- Scott Carson - Smiling Lake Consulting;
- John Slaugh, Mitch Batty - Timberline Engineering & Land Surveying, Inc.;
- Laura Abrams, Charles Chase, Raleen White, Doyle Holmes, Lovel Young, Sheila Wopsock - Kerr-McGee

A. Existing Roads:

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

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

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

Please refer to Topo B, for existing roads.

B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BIA.

Each new well pad or pad expansion may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts, bridges, low water crossings, range infrastructure, and haul routes, as per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

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

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

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

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

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

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

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

No new access road is proposed for this well pad - See Topo B.

C. Location of Existing Wells:

A) Refer to Topo Map C.

D. Location of Existing and/or Proposed Facilities:

This pad will expand the existing pad for the NBU 384-23E, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on November 10, 2011. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

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

GAS GATHERING

Please refer to Topo D2- Pad and Pipeline Detail.

The gas gathering pipeline material: Steel line pipe. Surface = Bare pipe. Buried = Coated with fusion bonded epoxy coating (or equivalent). The total gas gathering pipeline distance from the meter to the tie in point is $\pm 1,930'$ and the individual segments are broken up as follows:

The following segments will require a ROW to be submitted under a different cover to the Ute Indian Tribe and to SITLA.

$\pm 1,930'$ (0.4 miles) – Section 23 T9S R21E (SE/4) – On-lease UTU0149075 (Ute Indian Tribe) and UT ST UO 01194 (State), New 8" buried gas gathering pipeline from the meter to the proposed 16" gas pipeline- ROW in progress. Please refer to Topo D2 - Pad and Pipeline Detail.

LIQUID GATHERING

Please refer to Topo D2- Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 2,420'$ and the individual segments are broken up as follows:

The following segments will require a ROW to be submitted under a different cover to the Ute Indian Tribe and to SITLA.

$\pm 2,420'$ (0.5 miles) – Section 23 T9S R21E (SE/4) – On-lease UTU0149075 (Ute Indian Tribe) and UT ST UO 01194 (State), New 6" buried liquid gathering pipeline from the meter to the existing liquid pipeline. Please refer to Topo D2 - Pad and Pipeline Detail.

Pipeline Gathering Construction

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

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

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

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

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

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

If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface.

Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves and lateral T's will be installed at various locations for production integrity and safety purposes.

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

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

The Anadarko Completions Transportation System (ACTS) information:

Kerr-McGee will use either a closed loop drilling system that will require one pit and one storage area to be constructed on the drilling pad or a traditional drilling operation with one pit. The storage area will be used to contain only the de-watered drill cuttings and will be lined and reclaimed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit is lined and will be used for the wells drilled on the pad or used as part of our Anadarko Completions Transportation (ACTS) system which is discussed in more detail below. Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completion pit.

If Kerr-McGee does not use a closed loop system, it will construct a drilling reserve pit to contain drill cuttings and for use in completion operations. Depending on the location of the pit, its relation to future drilling locations, the reserve/completion pit will be utilized for the completion of the wells on that pad and/or be used as part of our ACTS system.

Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of frac fluids by utilizing existing reserve pits and temporary, surface-laid aluminum liquids transfer lines between frac locations. The pit will be refurbished as follows when a traditional drill pit is used: mix and pile up drill cuttings with dry dirt, bury the original liner in the pit, walk bottom of pit with cat. Kerr-McGee will reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurb will be done in a normal procedure and there will be no modification to the pit.

All four sides of the completions pit will be fenced in according to standard pit fencing procedures. Netting will be installed over all pits.

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

ACTS will require temporarily laying multiple 6" aluminum water transfer lines on the surface between either existing or refurbished reserve pits. The temporary aluminum transfer lines will be utilized to transport frac fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors.

Upon completion of the frac operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.

The temporary ACTS lines will be permitted under a separate cover to the Ute Indian Tribe.

The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee requests to keep the netted pit open for one year from first production of the first produced well on the pad. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other frac jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. If the pit is not needed for an entire year it will be backfilled and reclaimed earlier. Kerr-McGee understands that due to the temporary nature of this system, BIA considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BIA.

E. Location and Types of Water Supply:

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

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

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

No water well is to be drilled on this lease.

F. Construction Materials:

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

G. Methods for Handling Waste:

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

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit whether a closed loop system is used or not. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BIA, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil storage areas and/or construction of berms, ditches, etc.). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BIA. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

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

Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after one year 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. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

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

Materials Management

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

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

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

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities (crude oil/condensate, produced water). They may also be kept in limited quantities on drilling sites (barite, diesel fuel, cement, cottonseed hulls etc.) for short periods of time during drilling or completion activities.

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

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

RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E

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

NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E
NBU 921-34K SWD in Sec. 34 T9S R21E
NBU 921-33F SWD in Sec. 34 T9S R21E

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit (for closed loop or non-closed loop operations), 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 depending on whether a closed loop system is used. Surface distance may be less if using closed loop. But in either case, the area of disturbance will not exceed the maximum disturbance outlined in the attached exhibits.

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

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production/ Produced Liquid 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 will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BIA.

J. Plans for Surface Reclamation:

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

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

Interim Reclamation

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

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

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

Final Reclamation

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

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

Reclamation of roads will be performed at the discretion of the BIA/Tribe. All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications as proposed below in "Measures Common to Interim and Final Reclamation".

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

Measures Common to Interim and Final Reclamation

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

NBU 921-2314CS/ 921-2304BS/ 921-2304CS
 NBU 921-23P1CS/ 921-23P4BS/ 921-23P4CS
 Kerr-McGee Oil Gas Onshore, L.P.

NBU 921-23P Pad
 Surface Use Plan of Operations
 10 of 12

Seeding will occur year-round as conditions allow and will typically be accomplished through the use of a no-till rangeland style seed drill with a "picker box" in order to seed "fluffy" seed. Where drill seeding is not the preferred method, seed will be broadcast and then raked into the ground at double the rate of drill seeding. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for

re-vegetation. The seed mixes will be selected from a list provided by or approved by the BIA/Tribe or a specific seed mix will be proposed by Kerr-McGee to the BIA/Tribe and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed".

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

Indian Ricegrass (Nezpar)	3
Sandberg Bluegrass	0.75
Bottlebrush Squirreltail	1
Great Basin Wildrye	0.5
Crested Wheatgrass	1.5
Winterfat	0.25
Shadscale	1.5
Four-wing Saltbrush	0.75
Forage Kochia	0.25
Total	9.5

Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Weed Control

Noxious weeds will be controlled in all affected areas in accordance with all applicable rules and regulations.

K. Surface/Mineral Ownership:

Ute Indian Tribe	United States of America
P.O. Box 70	Bureau of Land Management
988 South 7500 East Annex Building	170 South 500 East
Fort Duchesne, UT 84026	Vernal, UT 84078
(435) 722-4307	(435)781-4400

L. Other Information:

Onsite Specifics:

- Arch monitor during construction
- Paleo monitor during construction

Cultural and Paleontological Resources

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

Resource Reports:

A Class I literature survey was completed in September, 2011 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 11-261.

A paleontological reconnaissance survey was completed on July 6, 2010 by SWCA Environmental Consultants. For additional details please refer to report UT11-14314-134.

Biological field survey was completed on August 23, 2011 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-584.

Proposed Action Annual Emissions Tables:

Table 1: Proposed Action Annual Emissions (tons/year)¹			
Pollutant	Development	Production	Total
NO _x	3.8	0.12	3.92
CO	2.2	0.11	2.31
VOC	0.1	4.9	5
SO ₂	0.005	0.0043	0.0093
PM ₁₀	1.7	0.11	1.81
PM _{2.5}	0.4	0.025	0.425
Benzene	2.2E-03	0.044	0.046
Toluene	1.6E-03	0.103	0.105
Ethylbenzene	3.4E-04	0.005	0.005
Xylene	1.1E-03	0.076	0.077
n-Hexane	1.7E-04	0.145	0.145
Formaldehyde	1.3E-02	8.64E-05	1.31E-02

¹ Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison			
Species	Proposed Action Production Emissions (ton/yr)	2012 Uintah Basin Emission Inventory^a (ton/yr)	Percentage of Proposed Action to WRAP Phase III
NO _x	23.52	16,547	0.14%
VOC	30	127,495	0.02%

^a http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html

Uintah Basin Data

NBU 921-23I4CS/ 921-23O4BS/ 921-23O4CS
NBU 921-23P1CS/ 921-23P4BS/ 921-23P4CS
Kerr-McGee Oil Gas Onshore, L.P.

NBU 921-23P Pad
Surface Use Plan of Operations
12 of 12

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

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

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

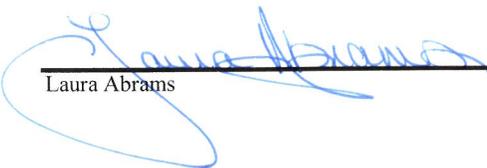
Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

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

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

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

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



Laura Abrams

December 28, 2011

Date



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

October 10, 2011

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

Re: Directional Drilling R649-3-11
NBU 921-23P1CS
T9S-R21E
Section 23 SESE (Surface and Bottom Hole)
Surface: 381' FSL, 1175' FEL
Bottom Hole: 907' FSL, 494' FEL
Uintah County, Utah

Dear Ms. Mason:

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

- Kerr-McGee's NBU 921-23P1CS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing roads and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

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

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

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

Joe Matney
Sr. Staff Landman

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:

3160

(UT-922)

May 30, 2012

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2012 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 2012 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
WELL PAD - NBU 922-32D1		
43-047-52691	NBU 922-30P1BS	Sec 32 T09S R22E 0243 FNL 0813 FWL
	BHL	Sec 30 T09S R22E 1246 FSL 0525 FEL
43-047-52693	NBU 922-30P4BS	Sec 32 T09S R22E 0255 FNL 0797 FWL
	BHL	Sec 30 T09S R22E 0576 FSL 0601 FEL
43-047-52694	NBU 922-30P1CS	Sec 32 T09S R22E 0249 FNL 0805 FWL
	BHL	Sec 30 T09S R22E 0908 FSL 0574 FEL
43-047-52695	NBU 922-30P3DS	Sec 32 T09S R22E 0261 FNL 0789 FWL
	BHL	Sec 30 T09S R22E 0229 FSL 0778 FEL
WELL PAD - NBU 921-23B		
43-047-52696	NBU 921-23B1BS	Sec 23 T09S R21E 1133 FNL 2116 FEL
	BHL	Sec 23 T09S R21E 0247 FNL 1816 FEL
43-047-52706	NBU 921-23B4BS	Sec 23 T09S R21E 1124 FNL 2098 FEL
	BHL	Sec 23 T09S R21E 0907 FNL 1816 FEL
43-047-52716	NBU 921-23B1CS	Sec 23 T09S R21E 1128 FNL 2107 FEL
	BHL	Sec 23 T09S R21E 0577 FNL 1816 FEL
43-047-52723	NBU 921-23B4CS	Sec 23 T09S R21E 1137 FNL 2125 FEL
	BHL	Sec 23 T09S R21E 1238 FNL 1816 FEL
WELL PAD - NBU 921-23G		
43-047-52700	NBU 921-23G1CS	Sec 23 T09S R21E 2126 FNL 1774 FEL
	BHL	Sec 23 T09S R21E 1898 FNL 1817 FEL
43-047-52701	NBU 921-23G4BS	Sec 23 T09S R21E 2144 FNL 1799 FEL
	BHL	Sec 23 T09S R21E 2228 FNL 1817 FEL

RECEIVED: May 30, 2012

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-52702	NBU 921-23H4BS	Sec 23 T09S R21E 2115 FNL 1758 FEL
	BHL	Sec 23 T09S R21E 2061 FNL 0493 FEL
43-047-52703	NBU 921-23H4CS	Sec 23 T09S R21E 2132 FNL 1782 FEL
	BHL	Sec 23 T09S R21E 2391 FNL 0493 FEL
43-047-52732	NBU 921-23I1BS	Sec 23 T09S R21E 2138 FNL 1790 FEL
	BHL	Sec 23 T09S R21E 2556 FSL 0494 FEL
43-047-52739	NBU 921-23G1BS	Sec 23 T09S R21E 2120 FNL 1766 FEL
	BHL	Sec 23 T09S R21E 1568 FNL 1816 FEL
WELL PAD - NBU 921-23H		
43-047-52704	NBU 921-23H1CS	Sec 23 T09S R21E 1343 FNL 0762 FEL
	BHL	Sec 23 T09S R21E 1731 FNL 0493 FEL
43-047-52705	NBU 921-23A1BS	Sec 23 T09S R21E 1344 FNL 0802 FEL
	BHL	Sec 23 T09S R21E 0082 FNL 0493 FEL
43-047-52711	NBU 921-23H1BS	Sec 23 T09S R21E 1343 FNL 0752 FEL
	BHL	Sec 23 T09S R21E 1401 FNL 0493 FEL
43-047-52714	NBU 921-23A4CS	Sec 23 T09S R21E 1343 FNL 0772 FEL
	BHL	Sec 23 T09S R21E 1071 FNL 0493 FEL
43-047-52722	NBU 921-23A1CS	Sec 23 T09S R21E 1343 FNL 0792 FEL
	BHL	Sec 23 T09S R21E 0412 FNL 0493 FEL
43-047-52724	NBU 921-23A4BS	Sec 23 T09S R21E 1343 FNL 0782 FEL
	BHL	Sec 23 T09S R21E 0741 FNL 0493 FEL
WELL PAD - NBU 921-23J		
43-047-52707	NBU 921-23J4BS	Sec 23 T09S R21E 1628 FSL 2036 FEL
	BHL	Sec 23 T09S R21E 1734 FSL 1817 FEL
43-047-52713	NBU 921-23I1CS	Sec 23 T09S R21E 1618 FSL 2034 FEL
	BHL	Sec 23 T09S R21E 2227 FSL 0494 FEL
43-047-52717	NBU 921-23O1BS	Sec 23 T09S R21E 1589 FSL 2029 FEL
	BHL	Sec 23 T09S R21E 1074 FSL 1818 FEL
43-047-52719	NBU 921-23J4CS	Sec 23 T09S R21E 1599 FSL 2031 FEL
	BHL	Sec 23 T09S R21E 1404 FSL 1818 FEL
43-047-52720	NBU 921-23O1CS	Sec 23 T09S R21E 1579 FSL 2028 FEL
	BHL	Sec 23 T09S R21E 0743 FSL 1818 FEL
43-047-52731	NBU 921-23I4BS	Sec 23 T09S R21E 1608 FSL 2032 FEL
	BHL	Sec 23 T09S R21E 1897 FSL 0494 FEL
WELL PAD - NBU 921-23K		
43-047-52708	NBU 921-23K1BS	Sec 23 T09S R21E 2431 FSL 1995 FWL
	BHL	Sec 23 T09S R21E 2563 FSL 2147 FWL
43-047-52709	NBU 921-23J1BS	Sec 23 T09S R21E 2419 FSL 2022 FWL
	BHL	Sec 23 T09S R21E 2395 FSL 1817 FEL

API #	WELL NAME			LOCATION						
(Proposed PZ WASATCH-MESA VERDE)										
43-047-52710	NBU 921-23J1CS	Sec	23	T09S	R21E	2415	FSL	2032	FWL	
	BHL	Sec	23	T09S	R21E	2064	FSL	1817	FEL	
43-047-52712	NBU 921-23G4CS	Sec	23	T09S	R21E	2423	FSL	2013	FWL	
	BHL	Sec	23	T09S	R21E	2559	FNL	1817	FEL	
43-047-52726	NBU 921-23K4BS	Sec	23	T09S	R21E	2435	FSL	1986	FWL	
	BHL	Sec	23	T09S	R21E	1901	FSL	2148	FWL	
43-047-52740	NBU 921-23K1CS	Sec	23	T09S	R21E	2427	FSL	2004	FWL	
	BHL	Sec	23	T09S	R21E	2232	FSL	2147	FWL	
WELL PAD - NBU 921-23C										
43-047-52715	NBU 921-23C1CS	Sec	23	T09S	R21E	0790	FNL	1963	FWL	
	BHL	Sec	23	T09S	R21E	0413	FNL	2145	FWL	
43-047-52725	NBU 921-23C4BS	Sec	23	T09S	R21E	0789	FNL	1973	FWL	
	BHL	Sec	23	T09S	R21E	0743	FNL	2145	FWL	
43-047-52727	NBU 921-23D4BS	Sec	23	T09S	R21E	0794	FNL	1924	FWL	
	BHL	Sec	23	T09S	R21E	0910	FNL	0823	FWL	
43-047-52730	NBU 921-23D1BS	Sec	23	T09S	R21E	0792	FNL	1944	FWL	
	BHL	Sec	23	T09S	R21E	0249	FNL	0823	FWL	
43-047-52741	NBU 921-23C1BS	Sec	23	T09S	R21E	0791	FNL	1954	FWL	
	BHL	Sec	23	T09S	R21E	0083	FNL	2145	FWL	
43-047-52743	NBU 921-23D1CS	Sec	23	T09S	R21E	0793	FNL	1934	FWL	
	BHL	Sec	23	T09S	R21E	0579	FNL	0823	FWL	
WELL PAD - NBU 921-23F										
43-047-52721	NBU 921-23E1BS	Sec	23	T09S	R21E	1888	FNL	1982	FWL	
	BHL	Sec	23	T09S	R21E	1572	FNL	0823	FWL	
43-047-52728	NBU 921-23D4CS	Sec	23	T09S	R21E	1885	FNL	1992	FWL	
	BHL	Sec	23	T09S	R21E	1241	FNL	0823	FWL	
43-047-52729	NBU 921-23F1BS	Sec	23	T09S	R21E	1882	FNL	2002	FWL	
	BHL	Sec	23	T09S	R21E	1405	FNL	2146	FWL	
43-047-52742	NBU 921-23F1CS	Sec	23	T09S	R21E	1879	FNL	2011	FWL	
	BHL	Sec	23	T09S	R21E	1735	FNL	2146	FWL	
WELL PAD - NBU 921-23L										
43-047-52738	NBU 921-23L4BS	Sec	23	T09S	R21E	1782	FSL	0991	FWL	
	BHL	Sec	23	T09S	R21E	1739	FSL	0824	FWL	
43-047-52754	NBU 921-23L4CS	Sec	23	T09S	R21E	1788	FSL	0999	FWL	
	BHL	Sec	23	T09S	R21E	1408	FSL	0824	FWL	
43-047-52758	NBU 921-23L1CS	Sec	23	T09S	R21E	1794	FSL	1007	FWL	
	BHL	Sec	23	T09S	R21E	2070	FSL	0824	FWL	

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

WELL PAD - NBU 921-23P

43-047-52744	NBU 921-23P4BS	Sec 23 T09S R21E 0383 FSL 1166 FEL
	BHL	Sec 23 T09S R21E 0578 FSL 0494 FEL

43-047-52746	NBU 921-23O4BS	Sec 23 T09S R21E 0375 FSL 1205 FEL
	BHL	Sec 23 T09S R21E 0414 FSL 1818 FEL

43-047-52747	NBU 921-23I4CS	Sec 23 T09S R21E 0377 FSL 1195 FEL
	BHL	Sec 23 T09S R21E 1567 FSL 0494 FEL

43-047-52748	NBU 921-23O4CS	Sec 23 T09S R21E 0373 FSL 1215 FEL
	BHL	Sec 23 T09S R21E 0084 FSL 1818 FEL

43-047-52749	NBU 921-23P1CS	Sec 23 T09S R21E 0381 FSL 1175 FEL
	BHL	Sec 23 T09S R21E 0907 FSL 0494 FEL

43-047-52751	NBU 921-23P4CS	Sec 23 T09S R21E 0379 FSL 1185 FEL
	BHL	Sec 23 T09S R21E 0005 FSL 0494 FEL

WELL PAD - NBU 921-23M

43-047-52745	NBU 921-23N4CS	Sec 23 T09S R21E 0791 FSL 1329 FWL
	BHL	Sec 23 T09S R21E 0105 FSL 2149 FWL

43-047-52750	NBU 921-23N1CS	Sec 23 T09S R21E 0790 FSL 1339 FWL
	BHL	Sec 23 T09S R21E 0910 FSL 2148 FWL

43-047-52752	NBU 921-23K4CS	Sec 23 T09S R21E 0794 FSL 1310 FWL
	BHL	Sec 23 T09S R21E 1571 FSL 2148 FWL

43-047-52753	NBU 921-23M4BS	Sec 23 T09S R21E 0795 FSL 1300 FWL
	BHL	Sec 23 T09S R21E 0415 FSL 0824 FWL

43-047-52755	NBU 921-23N1BS	Sec 23 T09S R21E 0792 FSL 1319 FWL
	BHL	Sec 23 T09S R21E 1240 FSL 2148 FWL

43-047-52756	NBU 921-23M1BS	Sec 23 T09S R21E 0796 FSL 1290 FWL
	BHL	Sec 23 T09S R21E 1077 FSL 0824 FWL

43-047-52759	NBU 921-23N4BS	Sec 23 T09S R21E 0788 FSL 1349 FWL
	BHL	Sec 23 T09S R21E 0495 FSL 2158 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: 2012.05.30 10:20:35 -0600

RECEIVED: May 30, 2012

API Well Number: 43047527490000

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

MCoulthard:mc:5-30-12

RECEIVED: May 30, 2012

API	Well Name	Surface Location
43-047-52691	NBU 922-30P1BS	Sec 32 T09S R22E 0243 FNL 0813 FWL
43-047-52693	NBU 922-30P4BS	Sec 32 T09S R22E 0255 FNL 0797 FWL
43-047-52694	NBU 922-30P1CS	Sec 32 T09S R22E 0249 FNL 0805 FWL
43-047-52695	NBU 922-30P3DS	Sec 32 T09S R22E 0261 FNL 0789 FWL
43-047-52696	NBU 921-23B1BS	Sec 23 T09S R21E 1133 FNL 2116 FEL
43-047-52700	NBU 921-23G1CS	Sec 23 T09S R21E 2126 FNL 1774 FEL
43-047-52701	NBU 921-23G4BS	Sec 23 T09S R21E 2144 FNL 1799 FEL
43-047-52702	NBU 921-23H4BS	Sec 23 T09S R21E 2115 FNL 1758 FEL
43-047-52703	NBU 921-23H4CS	Sec 23 T09S R21E 2132 FNL 1782 FEL
43-047-52704	NBU 921-23H1CS	Sec 23 T09S R21E 1343 FNL 0762 FEL
43-047-52705	NBU 921-23A1BS	Sec 23 T09S R21E 1344 FNL 0802 FEL
43-047-52706	NBU 921-23B4BS	Sec 23 T09S R21E 1124 FNL 2098 FEL
43-047-52707	NBU 921-23J4BS	Sec 23 T09S R21E 1628 FSL 2036 FEL
43-047-52708	NBU 921-23K1BS	Sec 23 T09S R21E 2431 FSL 1995 FWL
43-047-52709	NBU 921-23J1BS	Sec 23 T09S R21E 2419 FSL 2022 FWL
43-047-52710	NBU 921-23J1CS	Sec 23 T09S R21E 2415 FSL 2032 FWL
43-047-52711	NBU 921-23H1BS	Sec 23 T09S R21E 1343 FNL 0752 FEL
43-047-52712	NBU 921-23G4CS	Sec 23 T09S R21E 2423 FSL 2013 FWL
43-047-52713	NBU 921-23I1CS	Sec 23 T09S R21E 1618 FSL 2034 FEL
43-047-52714	NBU 921-23A4CS	Sec 23 T09S R21E 1343 FNL 0772 FEL
43-047-52715	NBU 921-23C1CS	Sec 23 T09S R21E 0790 FNL 1963 FWL
43-047-52716	NBU 921-23B1CS	Sec 23 T09S R21E 1128 FNL 2107 FEL
43-047-52717	NBU 921-23O1BS	Sec 23 T09S R21E 1589 FSL 2029 FEL
43-047-52719	NBU 921-23J4CS	Sec 23 T09S R21E 1599 FSL 2031 FEL
43-047-52720	NBU 921-23O1CS	Sec 23 T09S R21E 1579 FSL 2028 FEL
43-047-52721	NBU 921-23E1BS	Sec 23 T09S R21E 1888 FNL 1982 FWL
43-047-52722	NBU 921-23A1CS	Sec 23 T09S R21E 1343 FNL 0792 FEL
43-047-52723	NBU 921-23B4CS	Sec 23 T09S R21E 1137 FNL 2125 FEL
43-047-52724	NBU 921-23A4BS	Sec 23 T09S R21E 1343 FNL 0782 FEL
43-047-52725	NBU 921-23C4BS	Sec 23 T09S R21E 0789 FNL 1973 FWL
43-047-52726	NBU 921-23K4BS	Sec 23 T09S R21E 2435 FSL 1986 FWL
43-047-52727	NBU 921-23D4BS	Sec 23 T09S R21E 0794 FNL 1924 FWL
43-047-52728	NBU 921-23D4CS	Sec 23 T09S R21E 1885 FNL 1992 FWL
43-047-52729	NBU 921-23F1BS	Sec 23 T09S R21E 1882 FNL 2002 FWL
43-047-52730	NBU 921-23D1BS	Sec 23 T09S R21E 0792 FNL 1944 FWL
43-047-52731	NBU 921-23I4BS	Sec 23 T09S R21E 1608 FSL 2032 FEL
43-047-52732	NBU 921-23I1BS	Sec 23 T09S R21E 2138 FNL 1790 FEL
43-047-52738	NBU 921-23L4BS	Sec 23 T09S R21E 1782 FSL 0991 FWL
43-047-52739	NBU 921-23G1BS	Sec 23 T09S R21E 2120 FNL 1766 FEL
43-047-52740	NBU 921-23K1CS	Sec 23 T09S R21E 2427 FSL 2004 FWL
43-047-52741	NBU 921-23C1BS	Sec 23 T09S R21E 0791 FNL 1954 FWL
43-047-52742	NBU 921-23F1CS	Sec 23 T09S R21E 1879 FNL 2011 FWL
43-047-52743	NBU 921-23D1CS	Sec 23 T09S R21E 0793 FNL 1934 FWL
43-047-52744	NBU 921-23P4BS	Sec 23 T09S R21E 0383 FSL 1166 FEL
43-047-52745	NBU 921-23N4CS	Sec 23 T09S R21E 0791 FSL 1329 FWL
43-047-52746	NBU 921-23O4BS	Sec 23 T09S R21E 0375 FSL 1205 FEL

API	Well Name	Surface Location
43-047-52747	NBU 921-23I4CS	Sec 23 T09S R21E 0377 FSL 1195 FEL
43-047-52748	NBU 921-23O4CS	Sec 23 T09S R21E 0373 FSL 1215 FEL
43-047-52749	NBU 921-23P1CS	Sec 23 T09S R21E 0381 FSL 1175 FEL
43-047-52750	NBU 921-23N1CS	Sec 23 T09S R21E 0790 FSL 1339 FWL
43-047-52751	NBU 921-23P4CS	Sec 23 T09S R21E 0379 FSL 1185 FEL
43-047-52752	NBU 921-23K4CS	Sec 23 T09S R21E 0794 FSL 1310 FWL
43-047-52753	NBU 921-23M4BS	Sec 23 T09S R21E 0795 FSL 1300 FWL
43-047-52754	NBU 921-23L4CS	Sec 23 T09S R21E 1788 FSL 0999 FWL
43-047-52755	NBU 921-23N1BS	Sec 23 T09S R21E 0792 FSL 1319 FWL
43-047-52756	NBU 921-23M1BS	Sec 23 T09S R21E 0796 FSL 1290 FWL
43-047-52758	NBU 921-23L1CS	Sec 23 T09S R21E 1794 FSL 1007 FWL
43-047-52759	NBU 921-23N4BS	Sec 23 T09S R21E 0788 FSL 1349 FWL

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 5/24/2012

API NO. ASSIGNED: 43047527490000

WELL NAME: NBU 921-23P1CS

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

PHONE NUMBER: 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: SESE 23 090S 210E

Permit Tech Review:

SURFACE: 0381 FSL 1175 FEL

Engineering Review:

BOTTOM: 0907 FSL 0494 FEL

Geology Review:

COUNTY: UINTAH

LATITUDE: 40.01527

LONGITUDE: -109.51365

UTM SURF EASTINGS: 626849.00

NORTHINGS: 4430510.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU 0149075

PROPOSED PRODUCING FORMATION(S): BLACKHAWK

SURFACE OWNER: 2 - Indian

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

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

Commingling Approved

LOCATION AND SITING:

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

Comments: Presite Completed

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



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 921-23P1CS
API Well Number: 43047527490000
Lease Number: UTU 0149075
Surface Owner: INDIAN
Approval Date: 8/22/2012

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 BLACKHAWK Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

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

Commingle:

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

General:

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

Conditions of Approval:

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

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

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil

shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Notification Requirements:

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

- Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at <http://oilgas.ogm.utah.gov>

Reporting Requirements:

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

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

Approved By:



For John Rogers
Associate Director, Oil & Gas

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JAN 10 2012

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU0149075
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator KERR MCGEE OIL&GAS ONSHORE, LP Contact: LAURA ABRAMS Laura.Abrams@anadarko.com		7. If Unit or CA Agreement, Name and No. UTU63047A
3a. Address PO BOX 173779 DENVER, CO 80202-3779		8. Lease Name and Well No. NBU 921-23P1CS
3b. Phone No. (include area code) Ph: 720-929-6356 Fx: 720-929-7356		9. API Well No. U3-047-52749
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESE 381FSL 1175FEL 40.015277 N Lat, 109.513712 W Lon At proposed prod. zone SESE 907FSL 494FEL 40.016723 N Lat, 109.511284 W Lon		10. Field and Pool, or Exploratory NATURAL BUTTES
14. Distance in miles and direction from nearest town or post office* APPROXIMATELY 41.3 MILES SOUTH OF VERNAL, UT		11. Sec., T., R., M., or Blk. and Survey or Area Sec 23 T9S R21E Mer SLB
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 494'	16. No. of Acres in Lease 640.00	12. County or Parish UINTAH COUNTY
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 557'	19. Proposed Depth 10989 MD 10858 TVD	13. State UT
21. Elevations (Show whether DF, KB, RT, GL, etc.) 4899 GL	22. Approximate date work will start 06/30/2012	17. Spacing Unit dedicated to this well
		20. BLM/BIA Bond No. on file WYB000291
		23. Estimated duration 60-90 DAYS

24. Attachments

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

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

25. Signature (Electronic Submission)	Name (Printed/Typed) LAURA ABRAMS Ph: 720-929-6356	Date 12/30/2011
Title REGULATORY ANALYST II		
Approved by (Signature) 	Name (Printed/Typed) Jerry Kenczka	Date OCT 29 2012
Title Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFICE	

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

CONDITIONS OF APPROVAL ATTACHED

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

Additional Operator Remarks (see next page)

Electronic Submission #127124 verified by the BLM Well Information System
For KERR MCGEE OIL&GAS ONSHORE, LP, sent to [redacted]

NOTICE OF APPROVAL

RECEIVED
NOV 06 2012

DIV. OF OIL, GAS & MINING

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

ZUBR 0220AE

APD Posted 11/9/12.

006mm
NO NOS



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

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Kerr McGee Oil & Gas Onshore, LP Location: SESE, Sec. 23, T9S, R21E
Well No: NBU 921-23P1CS Lease No: UTU-0149075
API No: 43-047-52749 Agreement: Natural Buttes

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

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

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

NOTIFICATION REQUIREMENTS

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

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

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.
- Paint facilities "Shadow Gray"
- Conduct a raptor survey prior to construction operations if such activities would take place during raptor nesting season (January 1 through September 30). If active raptor nests are identified during the survey, operations shall be conducted according to the seasonal restrictions detailed in the Uinta Basin-specific RMP guidelines and spatial offsets specified by the USFWS Utah Raptor Guidelines.
-
- If constructed and/or drilling operations have not been initiated prior to August 24, 2012, conduct a biological survey to determine the presence of Uintah Basin hookless cactus in accordance with the guidelines specified in the USFWS Rare Plant Conservation Measures and the BLM RMP ROD. KMG will implement commitments contained in the GNB BO.
- Monitor construction operations with a permitted archeologist.
- Monitor construction operations with a permitted paleontologist.

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

SITE SPECIFIC DOWNHOLE COAs:

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

Variances Granted:

Air Drilling

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

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

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or

abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.

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

OPERATING REQUIREMENT REMINDERS:

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

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

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

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075	
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: Ute In	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-23P1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047527490000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0381 FSL 1175 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 23 Township: 09.0S Range: 21.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
	COUNTY: UINTAH
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 8/22/2013	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input 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 checked="" 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.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

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

Date: July 31, 2013

By:

NAME (PLEASE PRINT) Teena Paulo	PHONE NUMBER 720 929-6236	TITLE Staff Regulatory Specialist
SIGNATURE N/A	DATE 7/29/2013	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047527490000

API: 43047527490000

Well Name: NBU 921-23P1CS

Location: 0381 FSL 1175 FEL QTR SESE SEC 23 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 8/22/2012

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes No

- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes No

- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes No

- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? Yes No

- Has the approved source of water for drilling changed? Yes No

- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No

- Is bonding still in place, which covers this proposed well? Yes No

Signature: Teena Paulo

Date: 7/29/2013

Title: Staff Regulatory Specialist Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute In
		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: NBU 921-23P1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		9. API NUMBER: 43047527490000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0381 FSL 1175 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 23 Township: 09.0S Range: 21.0E Meridian: S		PHONE NUMBER: 720 929-6511
		COUNTY: Uintah
		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 12/26/2013	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input 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	
	OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Spud well 12/26/2013 @ 13:00. Drill 24" conductor hole to 40', run 14" X .250 wall conductor pipe, cement with 81 sacks ready mix. Anticipated surface spud date and surface casing cement 01/13/2014.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY December 31, 2013		
NAME (PLEASE PRINT) Doreen Green	PHONE NUMBER 435 781-9758	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 12/30/2013	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES	8. WELL NAME and NUMBER: NBU 921-23P1CS
1. TYPE OF WELL Gas Well	9. API NUMBER: 43047527490000
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6111
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0381 FSL 1175 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 23 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 type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 4/2/2014	<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
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	<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.

Drilled to 2,875 ft. in Quarter 1 of 2014.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 April 08, 2014**

NAME (PLEASE PRINT) Teena Paulo	PHONE NUMBER 720 929-6236	TITLE Staff Regulatory Specialist
SIGNATURE N/A	DATE 4/2/2014	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075	
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: UTE	
7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES	
1. TYPE OF WELL Gas Well	
8. WELL NAME and NUMBER: NBU 921-23P1CS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	
9. API NUMBER: 43047527490000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 PHONE NUMBER: 720 929-6100	
9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0381 FSL 1175 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 23 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 type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 6/26/2014	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

No activity for Quarter 2 of 2014. Well TD at Drilled to 2,875 ft.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY**
 June 27, 2014

NAME (PLEASE PRINT) Doreen Green	PHONE NUMBER 435 781-9758	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 6/26/2014	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 921-23P1CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0381 FSL 1175 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 23 Township: 09.0S Range: 21.0E Meridian: S		9. API NUMBER: 43047527490000
10. PHONE NUMBER: 720 929-6111		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 9/12/2014	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> CONVERT WELL TYPE	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> NEW CONSTRUCTION	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> PLUG BACK	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
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	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. No activity for Quarter 3 of 2014. Well TD at 2,875 ft. Thank you.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY September 15, 2014		
NAME (PLEASE PRINT) Kay E. Kelly	PHONE NUMBER 720 929 6582	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 9/12/2014	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075	
SUNDRY NOTICES AND REPORTS ON WELLS	
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6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
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3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6111
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0381 FSL 1175 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 23 Township: 09.0S Range: 21.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
	COUNTY: Uintah
	STATE: UTAH

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TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 12/17/2014	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

THE SURFACE TD IS AT 2,875. WAITING ON PRODUCTION RIG. THANK YOU.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 December 17, 2014

NAME (PLEASE PRINT) Kay E. Kelly	PHONE NUMBER 720 929 6582	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 12/17/2014	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075
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: UTE 7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-23P1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047527490000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6111 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0381 FSL 1175 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 23 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 type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 3/30/2015	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width:100px;" type="text"/>

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

No activity for Quarter 1 of 2015. Well drilled to TD at 2,875 ft.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 March 31, 2015

NAME (PLEASE PRINT) Jennifer Thomas	PHONE NUMBER 720 929-6808	TITLE Regulatory Specialist
SIGNATURE N/A	DATE 3/30/2015	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075
SUNDRY NOTICES AND REPORTS ON WELLS		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
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
		8. WELL NAME and NUMBER: NBU 921-23P1CS
1. TYPE OF WELL Gas Well	9. API NUMBER: 43047527490000	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6111	COUNTY: UINTAH
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0381 FSL 1175 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 23 Township: 09.0S Range: 21.0E Meridian: S	STATE: UTAH	
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 6/30/2015	<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.		
No activity for Quarter 2 of 2015. Well drilled to 2,845 ft. Thank you.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY July 06, 2015		
NAME (PLEASE PRINT) Kristina Geno	PHONE NUMBER 720 929-6824	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 6/30/2015	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075	
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: UTE	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-23P1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047527490000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6111
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0381 FSL 1175 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 23 Township: 09.0S Range: 21.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
	COUNTY: UINTAH
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 9/30/2015	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

No activity for Quarter 3 of 2015. Well TD at 2,875 ft. Thank you.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 September 30, 2015

NAME (PLEASE PRINT) Jennifer Thomas	PHONE NUMBER 720 929-6808	TITLE Regulatory Specialist
SIGNATURE N/A	DATE 9/30/2015	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075
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: UTE 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-23P1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047527490000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6100 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0381 FSL 1175 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 23 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: 11/1/2015 <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 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.

Kerr-McGee respectfully requests permission to use an oil based mud (OBM) system as needed or a water based mud (WBM) system for the drilling of this well. All wells on the pad will be drilled using a closed loop system. If oil based mud is used Kerr-McGee will place two felt liners and two 30 mil liners under the footprint of the rig to contain any small discharges of oil based mud during drilling operations. The de-watered oil based cuttings will be stored on location in an area that will be lined and bermed, or they will be stored in 3 sided containers to ensure there will be no release of oil based fluids. Once the well is completed the oil based cuttings will be hauled to an approved disposal facility.

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

Date: October 21, 2015
 By: Derek Duff

NAME (PLEASE PRINT) Joel Malefyt	PHONE NUMBER 720 929-6828	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 10/21/2015	

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 921-23P1CS**

Surface:	381 FSL / 1175 FEL	SESE
BHL:	907 FSL / 494 FEL	SESE

Section 23 T9S R21E

Unitah County, Utah
Mineral Lease: UTU 0149075

ONSHORE ORDER NO. 1**DRILLING PROGRAM**

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

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,523'	
Birds Nest	1,816'	Water
Mahogany	2,327'	Water
Wasatch	4,815'	Gas
Mesaverde	7,575'	Gas
Sego	9,815'	Gas
Castlegate	9,833'	Gas
MN5	10,258'	Gas
TVD =	10,858'	
TD =	10,989'	

- 2.C Kerr McGee Oil & Gas Onshore LP (Kerr McGee) will either drill to the the Blackhawk formation, which is part of the Mesaverde formation, or the Wasatch/Mesaverde formation. If Kerr McGee drills to the Blackhawk formation (part of the Mesaverde formation), please refer to MN5 as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr McGee drills to the Wasatch/Mesaverde formation please refer to Segoe as the bottom formation. The attached Wasatch/Mesaverde Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the depths the Wasatch/Mesaverde formations are found.

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

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

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

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

6. **Evaluation Program:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

7. **Abnormal Conditions:**7.a **Blackhawk (Part of Mesaverde Formation) Target Formation**

Maximum anticipated bottom hole pressure calculated at 10858' TVD, approximately equals
7,166 psi (0.66 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 4,827 psi (bottom hole pressure
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

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

7.b **Wasach/Mesaverde Target Formation**

Maximum anticipated bottom hole pressure calculated at 9815' TVD, approximately equals
6,282 psi (0.64 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 4,109 psi (bottom hole pressure
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

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

8. **Anticipated Starting Dates:**

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

9. **Variances:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program
Onshore Order #2 – Air Drilling Variance

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

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

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

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

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

Background

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

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

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

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

Variance for BOPE Requirements

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

Variance for Mud Material Requirements

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

Variance for Special Drilling Operation (surface equipment placement) Requirements

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

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

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

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

Variance for FIT Requirements

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

Conclusion

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

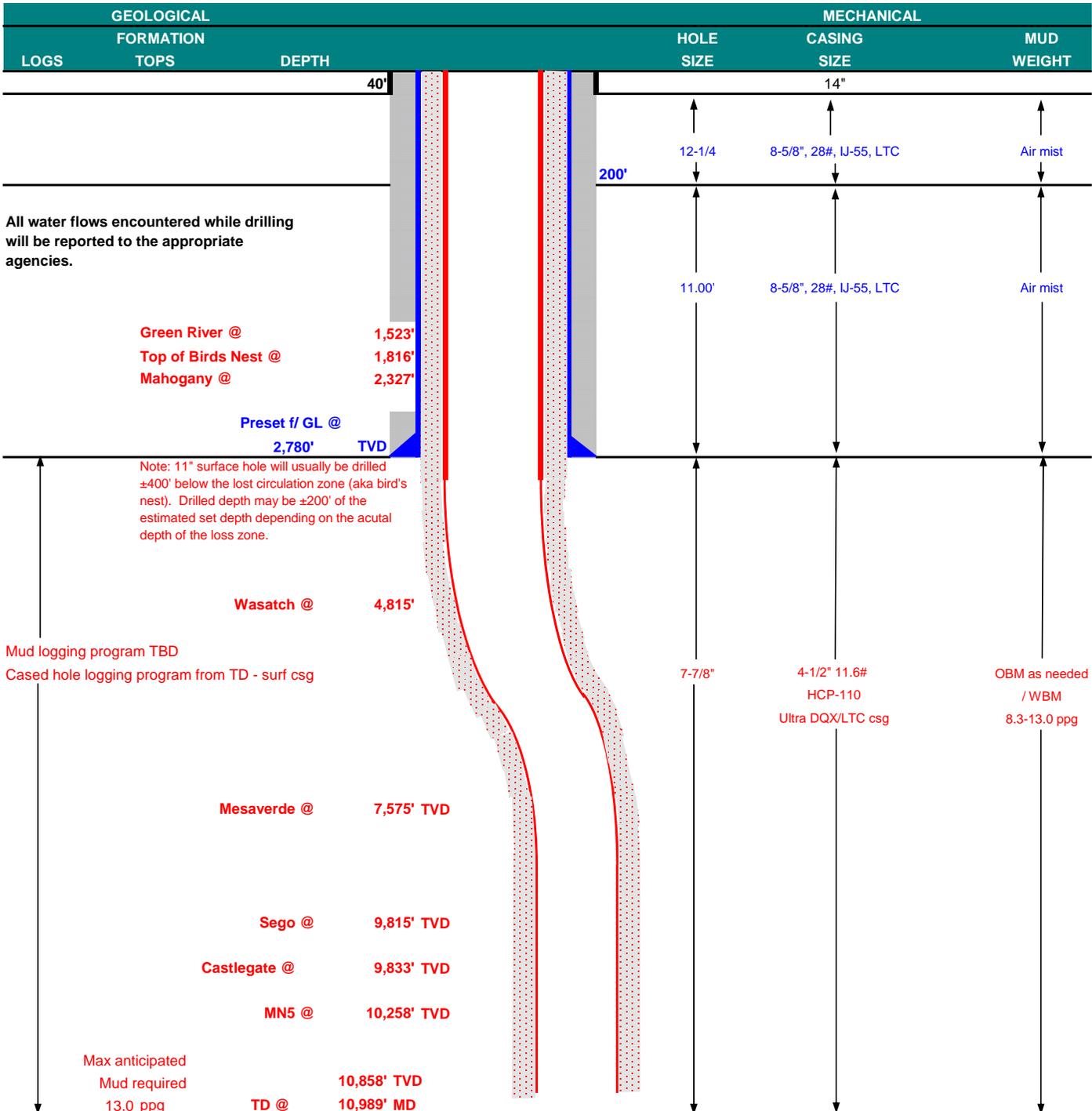
10. **Other Information:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program



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

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP			DATE	October 21, 2015		
WELL NAME	NBU 921-23P1CS			TD	10,858' TVD	10,989' MD	
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	FINISHED ELEVATION	4,897'
SURFACE LOCATION	SESE	381 FSL	1175 FEL	Sec 23	T 9S	R 21E	
	Latitude:	40.015277	Longitude:	-109.513712			NAD 83
BTM HOLE LOCATION	SESE	907 FSL	494 FEL	Sec 23	T 9S	R 21E	
	Latitude:	40.016723	Longitude:	-109.511284			NAD 83
OBJECTIVE ZONE(S)	BLACKHAWK						
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), Ute Indian Tribe (Surface), UDOGM Tri-County Health Dept.						





KERR-McGEE OIL & GAS ONSHORE LP
BLACKHAWK DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	COLLAPSE	LTC	DQX
								TENSION	
CONDUCTOR	14"	0-40'							
SURFACE	8-5/8"	0 to 2,780	28.00	IJ-55	LTC	3,390	1,880	348,000	N/A
						1.94	1.44	5.11	N/A
PRODUCTION	4-1/2"	0 to 5,000	11.60	HCP-110	DQX	10,690	8,650	279,000	367,174
						1.19	1.18		3.59
	4-1/2"	5,000 to 10,989'	11.60	HCP-110	LTC	1.19	1.18	5.01	

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
NOTE: If well will circulate water to surface, option 2 will be utilized							
SURFACE	LEAD	2,280'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	210	35%	11.00	3.82
Option 2	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,309'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	340	35%	12.00	3.38
	TAIL	6,680'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,580	35%	14.30	1.31

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

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

FLOAT EQUIPMENT & CENTRALIZERS

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

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER:

Nick Spence / Danny Showers / Chad Loesel

DATE:

DRILLING SUPERINTENDENT:

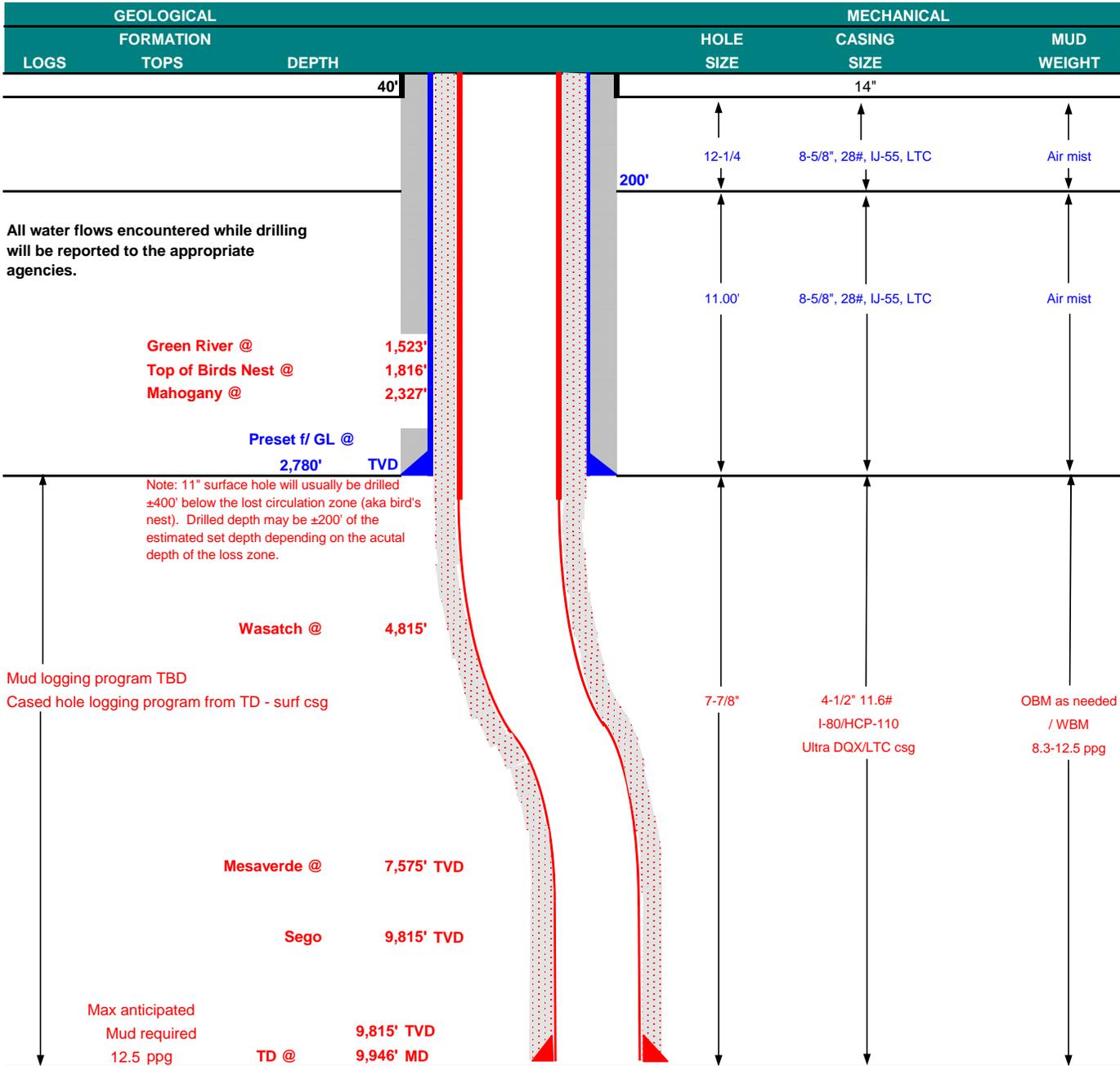
Kenny Gathings / Lovel Young

DATE:



KERR-McGEE OIL & GAS ONSHORE LP WASATCH/MESAVERDE DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	October 21, 2015	
WELL NAME	NBU 921-23P1CS		TD	9,815' TVD	9,946' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah
SURFACE LOCATION	SESE	381 FSL	1175 FEL	Sec 23 T 9S R 21E	FINISHED ELEVATION 4,897'
BTM HOLE LOCATION	SESE	907 FSL	494 FEL	Sec 23 T 9S R 21E	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), Ute Indian Tribe (Surface), UDOGM Tri- County Health Dept.				





KERR-McGEE OIL & GAS ONSHORE LP

WASATCH/MESAVERDE DRILLING PROGRAM

CASING PROGRAM

	DESIGN FACTORS								
								LTC	DQX
	SIZE	INTERVAL	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION	
CONDUCTOR	14"	0-40'				3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0 to 2,780	28.00	IJ-55	LTC	1.94	1.44	5.11	N/A
PRODUCTION	4-1/2"	0 to 5,000	11.60	I-80	DQX	1.11	1.00		267,035
						10,690	8,650	223,000	2.86
	4-1/2"	5,000 to 9,946'	11.60	HCP-110	LTC	1.53	1.36	4.80	

Surface Casing:

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

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

(Collapse Assumption: Fully Evacuated Casing, Max MW)

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

Production casing:

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

(Collapse Assumption: Fully Evacuated Casing, Max MW)

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

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
Option 1	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
NOTE: If well will circulate water to surface, option 2 will be utilized							
SURFACE	LEAD	2,280'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	210	35%	11.00	3.82
Option 2	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,306'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	340	35%	12.00	3.38
	TAIL	5,640'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,330	35%	14.30	1.31

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

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

FLOAT EQUIPMENT & CENTRALIZERS

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

ADDITIONAL INFORMATION

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

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

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

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

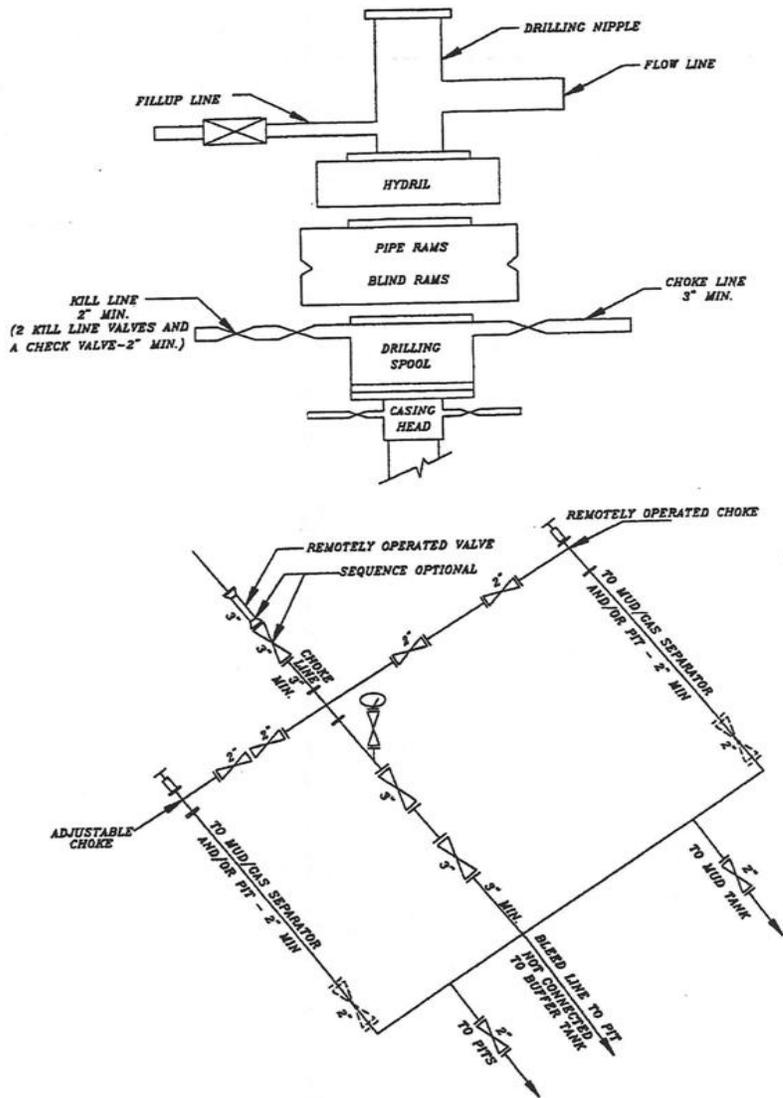
DRILLING ENGINEER: _____
Nick Spence / Danny Showers / Chad Loesel

DATE: _____

DRILLING SUPERINTENDENT: _____
Kenny Gathings / Lovel Young

DATE: _____

EXHIBIT A
NBU 921-23P1CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

OBM as needed
/ WBM

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075	
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: UTE	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-23P1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047527490000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6507
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0381 FSL 1175 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 23 Township: 09.0S Range: 21.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
	COUNTY: UINTAH
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 11/30/2015	<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.

11/30/2015, drilling operations have resumed on the NBU 921-23P PAD. The following wells on this pad will be drilled to TD: NBU 921-23I4CS, NBU 921-23O4CS, NBU 921-23P1CS, NBU 921-23P4BS, NBU 921-23P4CS. THE NBU 921-23O4BS WILL REMAIN IN A DEFERRED STATUS.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 December 08, 2015

NAME (PLEASE PRINT) Doreen Green	PHONE NUMBER 435 781-9758	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 12/4/2015	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
1. TYPE OF WELL Gas Well	5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0381 FSL 1175 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 23 Township: 09.0S Range: 21.0E Meridian: S	8. WELL NAME and NUMBER: NBU 921-23P1CS
PHONE NUMBER: 720 929-6507	9. API NUMBER: 43047527490000
9. FIELD and POOL or WILDCAT: NATURAL BUTTES	COUNTY: Uintah
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 1/5/2016	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

The NBU 921-23P1CS well was drilled to 8,410 ft in December 2015. Please see the attached operations summary for a description of operations conducted on the well during the month. Thank you.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 January 06, 2016

NAME (PLEASE PRINT) Jennifer Thomas	PHONE NUMBER 720 929-6808	TITLE Regulatory Specialist
SIGNATURE N/A	DATE 1/5/2016	

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date:

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
1/21/2014	16:30 - 17:30	1.00	MIRU	01	E	P	53	CUT OFF ROTATING HEAD AND CONDUCTOR
	17:30 - 18:00	0.50	MIRU	01	E	P	53	RIG DOWN
	18:00 - 18:30	0.50	MIRU	23		P	53	PRE SKID SAFETY MEETING
	18:30 - 20:30	2.00	MIRU	01	C	P	53	CONDUCT JSA WITH TRUCKS TO SKID RIG / SKID RIG TO THE NBU 921-23P1CS, WELL 4 OF 6. HOWCROFT FIELD SERVICES HAD 2 TRUCKS 1 SWAMPER 1 PUSHER/SAFETY MAN
	20:00 - 22:30	2.50	MIRU	01	B	P	53	WELD ON CONDUCTOR AND ROTATING HEAD / RIG UP FLOW LINE
	22:30 - 23:30	1.00	MIRU	09	A	P	53	SLIP AND CUT DRILLING LINE
	23:30 - 0:00	0.50	MIRU	23		P	53	PRE SPUD SAFETY MEETING
1/22/2014	0:00 - 1:30	1.50	MIRU	01	B	P	53	PICK UP BHA / MAUP BIT / AIR OUT PUMPS
	1:30 - 2:30	1.00	DRLSUR	02	B	P	53	DRILL 12 1/4" SURFACE HOLE F/ 49' TO 200' , 151' @ 100.6 FPH WOB = 8 TO 12K ROTARY RPM = 65 MUD MOTOR RPM = 111 TOTAL = 166 PUMPING 650 GPM @ 200 SPM STAND PIPE PRESSURE ON/OFF = 850/650 TORQUE ON/OFF = 2100/1500 PU = 28/ SO = 16 / ROT = 26 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 NO HOLE ISSUES.
	2:30 - 4:30	2.00	DRLSUR	06	A	P	204	TRIP OUT OF HOLE LAY DOWN 12 1/4" PICK UP 11" BIT AND DIRECTIONAL TOOLS / SCRIB AND TRIP IN HOLE
	4:30 - 6:30	2.00	DRLSUR	02	B	P	204	DRILL 11" SURFACE HOLE F/ 200' TO 420', 220' @ 138.7 FPH WOB = 15 TO 20K ROTARY RPM = 60 / MUD MOTOR RPM = 111 / TOTAL = 171 PUMPING 650 GPM @ 200 SPM STAND PIPE PRESSURE ON/OFF = 900/650 TORQUE ON/OFF = 2,530/450 PU = 44 / SO = 40 / ROT = 42 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 SLID 280' = 12.79% 1.5' ABOVE & .9' RIGHT OF THE LINE NO HOLE ISSUES
	6:30 - 7:00	0.50	DRLSUR	07	C	P	424	CHANGE ROTATING HEAD RUBBER

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date:

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	7:00 - 12:00	5.00	DRLSUR	02	B	P	424	DRILL 11" SURFACE HOLE F/ 420' TO 960', 540' @ 108 FPH WOB = 15 TO 20K ROTARY RPM = 60 / MUD MOTOR RPM = 81 / TOTAL = 141 PUMPING 650 GPM @ 200 SPM STAND PIPE PRESSURE ON/OFF = 900/650 TORQUE ON/OFF = 2,530/450 PU = 48 / SO = 42 / ROT = 44 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 SLID 134' = 23.26% 3.79' ABOVE & .16' RIGHT OF THE LINE NO HOLE ISSUES
	12:00 - 16:00	4.00	DRLSUR	02	B	P	964	DRILL 11" SURFACE HOLE F/ 960' TO 1,420', 460' @ 115 FPH WOB = 15 TO 20K ROTARY RPM = 60 / MUD MOTOR RPM = 81 / TOTAL = 141 PUMPING 650 GPM @ 200 SPM STAND PIPE PRESSURE ON/OFF = 900/650 TORQUE ON/OFF = 2,900/2000 PU = 68 / SO = 58 / ROT = 62 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 SLID 25' = 4.37% 6.63' ABOVE & 1.35' RIGHT OF THE LINE NO HOLE ISSUES
	16:00 - 16:30	0.50	DRLSUR	07	A	P	1424	RIG SERVICE
	16:30 - 0:00	7.50	DRLSUR	02	B	P	1424	DRILL 11" SURFACE HOLE F/ 1,420' TO 2017', 597' @ 79.6 FPH WOB = 15 TO 20K ROTARY RPM = 60 / MUD MOTOR RPM = 81 / TOTAL = 141 PUMPING 650 GPM @ 200 SPM STAND PIPE PRESSURE ON/OFF = 900/650 TORQUE ON/OFF = 2,900/1500 PU = 78 / SO = 65 / ROT = 70 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 SLID 39' = 8.11% 8.30' ABOVE & 3.33' RIGHT OF THE LINE NO HOLE ISSUES

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date:

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
1/23/2014	0:00 - 6:00	6.00	DRLSUR	02	B	P	2021	DRILL 11" SURFACE HOLE F/ 2,017' TO 2,380', 363' @ 60.5 FPH WOB = 15 TO 20K ROTORY RPM = 60 / MUD MOTOR RPM = 81 / TOTAL = 141 PUMPING 650 GPM @ 200 SPM STAND PIPE PRESSURE ON/OFF = 900/650 TORQUE ON/OFF = 2,900/1500 PU = 85 / SO = 70 / ROT = 77 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 SLID 133' = 34.46% 5.23' ABOVE & 5.19' RIGHT OF THE LINE NO HOLE ISSUES
	6:00 - 12:00	6.00	DRLSUR	02	B	P	2384	DRILL 11" SURFACE HOLE F/ 2,380' TO 2,706', 326' @ 54.3 FPH WOB = 15 TO 20K ROTORY RPM = 60 / MUD MOTOR RPM = 81 / TOTAL = 141 PUMPING 510 GPM @ 155 SPM STAND PIPE PRESSURE ON/OFF = 900/650 TORQUE ON/OFF = 2,900/1500 PU = 89 / SO = 74 / ROT = 80 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 SLID 55' = 16.98% 5.44' ABOVE & 5.15' RIGHT OF THE LINE NO HOLE ISSUES
	12:00 - 16:00	4.00	DRLSUR	02	B	P	2710	DRILL 11" SURFACE HOLE F/ 2,706' TO 2,875', 169' @ 54.3 FPH WOB = 15 TO 20K ROTORY RPM = 60 / MUD MOTOR RPM = 81 / TOTAL = 141 PUMPING 510 GPM @ 155 SPM STAND PIPE PRESSURE ON/OFF = 900/650 TORQUE ON/OFF = 2,900/1500 PU = 100 / SO = 85 / ROT = 91 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 SLID 60' = 35.29% 2.18' ABOVE & 2.57' RIGHT OF THE LINE NO HOLE ISSUES
	16:00 - 17:00	1.00	CSGSUR	05	A	P	2879	CIRCULATE AND CONDITION HOLE
	17:00 - 20:30	3.50	CSGSUR	06	D	P	2879	LAY DOWN DRILL PIPE AND BHA
	20:30 - 23:30	3.00	CSGSUR	12	C	P	2879	PREJOB SAFETY WITH RIG CREW. RAN 62 JTS OF 8 5/8", 28#, J-55, LT&C CASING WITH CTE FLOAT GUIDE SHOE AND BAFFLE PLATE LOCATED 1 JOINT ABOVE THE SHOE. 5 CENTRALIZERS SPACED 10' ABOVE THE SHOE, 2ND & 3RD COLLARS, AND EVERY THIRD COLLAR TO 2,434'. LANDED CASING SHOE AT 2,848'. BAFFLE PLATE @ 2,800'
	23:30 - 0:00	0.50	CSGSUR	12	B	P	2879	RIG UP PRO PETRO

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS		Spud date: 1/22/2014	
Project: UTAH-UINTAH		Site: NBU 921-23P PAD	Rig name no.: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING		Start date: 1/21/2014	End date:
Active datum: RKB @4,911.00usft (above Mean Sea Level)		UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
1/24/2014	0:00 - 2:30	2.50	CSGSUR	12	E	P	2879	<p>PREJOB SAFETY MEETING WITH PRO PETRO CEMENTERS & RIG CREW.</p> <p>RAN 200' OF 1" PIPE DOWN BACKSIDE OF CASING TESTED LINES TO 1500 PSI</p> <p>PUMPED 20 BBL FRESH WATER CLEARING SHOE RETURNS TO SURFACE</p> <p>MIXED AND PUMPED 20 BBL GELLED WATER FLUSH AHEAD OF CEMENT</p> <p>MIXED AND PUMPED 300 SX OF PREMIUM LEAD CEMENT WITH 2% CACL2 & 1/4 LB/SX FLOCELE. 152.8 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX.</p> <p>MIXED AND PUMPED 175 SX OF PREMIUM TAIL CEMENT WITH 2% CACL2 & 1/4 LB/SX FLOCELE. 35.8 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX.</p> <p>DROP PLUG ON FLY.</p> <p>DISPLACE CEMENT WITH 173.8 BBL FRESH WATER. NO RETURNS THROUGH OUT DISPLACEMENT. FINAL LIFT OF 600 PSI @ 3 BBL/MINUTE.</p> <p>BUMP PLUG WITH 600 PSI. HELD 880 PSI FOR 5 MINUTES. 15 BBL CEMENT TO SURFACE, FELL BACK</p> <p>CHECK FLOAT. FLOAT HELD.</p> <p>TOP JOB # 1: PUMP CEMENT DOWN 1" PIPE WITH 135 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR-3, & 1/4 LB/SX FLOCELE. 27.6 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. CEMENT TO SURFACE STOOD FULL</p> <p>RELEASE RIG @ 02:30 1/24/2014</p>
12/24/2015	19:00 - 19:30	0.50	MIRU3	01	E	P	2879	<p>RELEASE CEMENTERS @ 02:30 1/24/2014</p> <p>RIG DOWN FOR RIG SKID, REMOVE 90' OF FLOWLINE, UNPLUG ELECTRICAL AAND HYDRAULIC FROM CATWALK, PULLED GROUND RODS, STRING OUT HOSES FOR WALK BACKWARDS</p>
	19:30 - 22:00	2.50	MIRU3	01	C	P	2879	<p>WALK RIG 30' BACKWARDS TO THE NBU 921-23P1CS</p>
	22:00 - 23:00	1.00	PRSPD	14	A	P	2879	<p>UN-PIN BOP FROM TROLLEY, INSTALL NEW GASKETS, HAMMER UP BOTTOM WINGS, INSTALL TURNBUCKLES, 2" LINE AN TRIP TANK LINE, BOP HANDLES AND CURTAIN AROUND KATCH CAN</p>
	23:00 - 23:30	0.50	PRSPD	14	B	P	2879	<p>INSTALL CAP OVER THE NBU 921-23O4CS WELL TO INSURE SAFETY WITH CATWALK OVER THE TOP OF IT</p>
	23:30 - 0:00	0.50	PRSPD	14	B	P	2879	<p>FINISH SETTING IN CATWALK, UNABLE TO PULL CATWALK WHEN SKIDDING BACKWARDS DO TO WELL HEADS, HAD TO SET AFTERWARDS</p>
12/25/2015	0:00 - 1:30	1.50	PRSPD	01	C	P	2879	<p>FINISH SETTING IN RIG. SET CATWALK OVER TA CAP. SET IN CAREFULLY NOT TO DAMAGE WELL HEAD. TA CAP SETTING UP AN EXTRA 7 INCHES.</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

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UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	1:30 - 10:00	8.50	CSGSUR	15	A	P	2879	HOLD SAFETY MEETINGS WITH A-1 TESTING. RIG UP TESTER AND TEST BOPE. TEST ANNULAR TO 250 PSI LOW/ 5 MIN 2500 PSI HIGH 10 MIN, PIPE & BLIND RAMS, FLOOR VALVES, IBOP, HCR VALVE, KILL LINE VALVES, TEST BOPS, CHOKES AND CHOKE MANIFOLD VALVES TO 250 PSI LOW / 5 MIN - 5000 PSI HIGH / 10 MIN. HOLD ACCUMULATOR FUNCTION TEST, & TEST SURFACE CASING 1500 PSI FOR 30 MINS. PRESSURE TEST MUD LINES TO 4500 PSI. RIG DOWN TESTER. FUNCTION TEST BOPE
	10:00 - 10:30	0.50	CSGSUR	14	B	P	2879	SET WEAR BUSHING. WITNESSED BY WELL SITE CONSULTANT.
	10:30 - 12:30	2.00	CSGSUR	09	A	P	2879	SLIP AND CUT 130' OF DRILL LINE.
	12:30 - 13:00	0.50	CSGSUR	07	A	P	2879	RIG SERVICE. SERVICE TOP DRIVE, BLOCKS AND CROWN. CHECK BOLTS IN TOP DRIVE, MAKE SURE BOLTS ARE SECURED AND WIRE TIED.
	13:00 - 13:30	0.50	CSGSUR	06	A	P	2879	CHANGE OUT SAVER SUB. CHANGE ROTATING RUBBER ON BEARING PACK.
	13:30 - 15:30	2.00	CSGSUR	06	A	P	2879	MAKE UP HUGHES T506F W 6-16'S ONTO A WENZEL 7:8 3.0STG .2 REV / 1.5 BH FIXED. -.007 FIT. PICK UP DIRECTIONAL MONELS AND TOOLS. PROGRAM TOOL AND SCRIBE. TRIP IN HOLE WITH HWDP. DIVERT 20 BBLS OF WATER INTO MUD SYSTEM. DIVERT REST FOR MAKE UP. TRIP IN HOLE TO 2780'. INSTALL ROTATING HEAD RUBBER.
	15:30 - 18:00	2.50	CSGSUR	06	A	P	2879	TRIP IN THE HOLE F/ BHA 116' T/ 2,691' TAG CEMENT
	18:00 - 18:30	0.50	CSGSUR	05	G	P	2879	DISPLACE SURFACE CASING WATER WITH OBM, 60 SPM
	18:30 - 20:00	1.50	DRLPRC	02	F	P	2879	DRILL OUT SHOE TRACK WITH BAFFLE PLATE @ 2787' AND SHOE @ 2834' WITH NEW HOLE @ 2879', WOB - 5-10 RPM - 15 GPM- 300-400
	20:00 - 0:00	4.00	DRLPRC	02	D	P	2879	DIRECTIONAL DRILL F/ 2,879' T/ 3,300' (421' / 4 HRS @ 105.25 ' / FPH) TOTAL BIT HRS 3, TOTAL CIRC HRS 5.8 HRS WEIGHT ON BIT = 15/20 K STROKES PER MINUTE - 131 GALLONS PER MINUTE = 500 MUD MOTOR RPM = 100 TOP DRIVE RPM = 50 TOTAL RPM = 150 FT/LBS TORQUE = 5 - 10.5K STPP = 2,205 OFF BOTTOM = 1,670 STRING WEIGHT UP/DOWN/ROTATING = 82 / 74 / 76 BIT POSISTION:3.36' Left / 2.37' Below Slide 121' @ 28.34% Depth/ 65.37% Time = 2.23 Hrs. - Rot 306' @ 71.66% Depth/ 3463% Time = 1.18Hrs. / Bit Hrs. = 3.0 / D&C Hrs. = 5.8 MUD WEIGHT OBM = 9.3 PPG VISCOSITY = 64 SECONDS

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date:

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
12/26/2015	0:00 - 13:30	13.50	DRLPRC	02	D	P	3300	DIRECTIONAL DRILL 3,300'- 4440' (1140' / 10.7 HRS @ 107' /FPH) TOTAL BIT HRS 10.7, TOTAL CIRC HRS 18.4 HRS WEIGHT ON BIT = 15/20 K STROKES PER MINUTE - 131 GALLONS PER MINUTE = 550 MUD MOTOR RPM = 110 TOP DRIVE RPM = 50 TOTAL RPM = 150 FT/LBS TORQUE = 8 - 9.8K STPP = 2225 OFF BOTTOM = 1860 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 82 / 74 / 76 MUD WEIGHT OBM = 8.9 PPG VISCOSITY = 52 SECONDS
	13:30 - 14:00	0.50	DRLPRC	07	A	P	4440	RIG SERVICE, SERVICE TOP DRIVE BLOCKS AND CROWN. CHECK BRAKES AND E-STOP. PERFORM BOP DRILL.
	14:00 - 0:00	10.00	DRLPRO	02	D	P	4440	DIRECTIONAL DRILL 4,440'- 5463' (1023' / 10 HRS @ 102.3' /FPH) TOTAL BIT HRS 22.4, TOTAL CIRC HRS 28.1 HRS WEIGHT ON BIT = 15/20 K STROKES PER MINUTE - 131 GALLONS PER MINUTE = 550 MUD MOTOR RPM = 110 TOP DRIVE RPM = 50 TOTAL RPM = 150 FT/LBS TORQUE = 8 - 9.8K STPP = 2350 OFF BOTTOM = 1950 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 143 / 126 / 136 MUD WEIGHT OBM = 9 PPG VISCOSITY = 51 SECONDS
12/27/2015	0:00 - 8:00	8.00	DRLPRO	02	D	P	5463	DIRECTIONAL DRILL 5463'- 6011' (548' / 7 HRS @ 78' /FPH) TOTAL BIT HRS 29.4, TOTAL CIRC HRS 35.7 HRS WEIGHT ON BIT = 15/22 K STROKES PER MINUTE - 138 GALLONS PER MINUTE = 530 MUD MOTOR RPM = 106 TOP DRIVE RPM = 50 TOTAL RPM = 150 FT/LBS TORQUE = 8 - 10.2K STPP = 2375 OFF BOTTOM = 2000 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 156 / 136 / 142 MUD WEIGHT OBM = 9.1 PPG VISCOSITY = 49 SECONDS LOST PARTIAL RETURNS. LOSSING 200/BBLs HR AFTER DROPPING PUMPS 200 GPM. (PUMP 100# BBL LCM SWEEP IN PILL TANK)
	8:00 - 9:00	1.00	DRLPRO	22	G	X	6011	DROP PUMPS TO 119 GPM, CIRCULATE AT 10 BBL HR LOSS. PUMP 26 BBL DIAMOND SEAL PILL (2 BUCKETS DAIMOND SEAL, 15#/BBL CEDER, 15 #LBS PER BBL GEL, 15# PER BBL OPTISEAL)
	9:00 - 9:30	0.50	DRLPRO	22	G	X	6011	TRIP OUT OF HOLE 6 STANDS, LEAVING 431' OF DIAMOND SEAL PILL BELOW DRILL BIT.

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date:

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	9:30 - 11:00	1.50	DRLPRO	22	G	X	6011	STAGE PUMP UP FOR DIAMOND SEAL TO BE INJECTED INTO FORMATION. PUMP AT 400-575 GPM TO INJECT 15 BBLS OF PILL INTO FORMATION. CIRCULATE AT 425 GPM W/ NO LOSSES OR GAINS TO ALLOW DIAMOND SEAL TO EXPAND IN LOSS ZONE.
	11:00 - 12:00	1.00	DRLPRO	22	G	P	6011	WASH BACK DOWN THROUGH HOLE WITH 415 GPM FROM 5700'- 6011', PUMP 20 BBL 100#/BBL LCM SWEEP TIME TO DRILL CONTINUE DRILLING. WASH DOWN WITH NO LOSSES. LOSS APPROX 100-120 BBLS OF OBM.
	12:00 - 17:30	5.50	DRLPRO	02	D	P	6011	DIRECTIONAL DRILL 6011'-6323 (312' 5.2 HRS @ 60'/HR) TOTAL BIT HRS 34.6, TOTAL CIRC HRS 44 HRS WEIGHT ON BIT = 15/20 K STROKES PER MINUTE - 138 GALLONS PER MINUTE = 425-450 MUD MOTOR RPM = 90 TOP DRIVE RPM = 50 TOTAL RPM = 150 FT/LBS TORQUE = 9 - 11.8K STPP = 2375 OFF BOTTOM = 2000 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 159 / 132 / 144 MUD WEIGHT OBM = 9.2 PPG VISCOSITY = 57 SECONDS
	17:30 - 18:00	0.50	DRLPRO	07	A	P	6323	RIG SERVICE. SERVICE TOP DRIVE BLOCKS AND CROWN. CHECK BRAKES AND E-STOP
	18:00 - 0:00	6.00	DRLPRO	02	D	P	6323	DIRECTIONAL DRILL 6323'- 6710'(387' 6 HRS @ 64.5'/HR) TOTAL BIT HRS 40.2, TOTAL CIRC HRS 50.3HRS WEIGHT ON BIT = 15/20 K STROKES PER MINUTE - 119 GALLONS PER MINUTE = 425-450 MUD MOTOR RPM = 90 TOP DRIVE RPM = 55 TOTAL RPM = 155 FT/LBS TORQUE = 8.7 - 16K STPP = 2115 OFF BOTTOM = 1700 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 154 / 140 / 148 MUD WEIGHT OBM = 9.3 PPG VISCOSITY = 57 SECONDS

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date:

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
12/28/2015	0:00 - 3:00	3.00	DRLPRO	02	D	P	6710	DIRECTIONAL DRILL 6710'- 6812' (102' 2.6HRS @ 39/HR) TOTAL BIT HRS 42.8 TOTAL CIRC HRS 53.1HRS WEIGHT ON BIT = 20/28 K STROKES PER MINUTE - 119 GALLONS PER MINUTE = 425-450 MUD MOTOR RPM = 90 TOP DRIVE RPM = 55 TOTAL RPM = 155 FT/LBS TORQUE = 9800- 13000K STPP = 2115 OFF BOTTOM = 1700 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 175 / 143 / 159 MUD WEIGHT OBM = 9.3 PPG VISCOSITY = 57 SECONDS PENETRATION RATES FELL OFF TO LESS THE 15 ROP, SOME MEDIUM PRESSURE SPIKING (MAX 2300'-1950 PSI) POSSIBLTY BIT WAS BAD. DRILLER TRIED RUNNING IT AT 28K.
	3:00 - 4:00	1.00	DRLPRO	05	A	P	6812	CIRCULATE AROUND SWEEP TO CLEAN HOLE. CIRCULATE AT 441GPM. 15% INCREASE IN CUTTINGS ON BOTTOMS UP. MUD WT 9.3 VIS 54.
	4:00 - 7:30	3.50	DRLPRO	05	D	P	6812	LOST COMPLETE CIRCULATION. WHILE MIXING DRY JOB. SHUT DOWN PUMPING WHILE WAITING TO TRANSFER OUT MUD AND PLACE 15 BBLs OF WATER INTO PILL TANK, MIX IN LCM AND DIAMOND SEAL SWEEP. MIX UP DRY JOB. PUMP DIAMOND SEAL PILL. PUMP 1100 STROKES THEN PUMP DRY JOB TO SPOT DIAMOND SEAL PILL ABOVE AT LOSS ZONE AT 6000'. (REGAINED CIRCULATION @ 250 GPM) (LOST APPROX 150 BBLs) (NO FLOW ON FLOW CHECK)
	7:30 - 12:30	5.00	DRLPRO	06	A	P	6812	TRIP OUT OF HOLE PULLING MAX PULL OF 173K, HOLE PULLED SLICK WITH NO TIGHT HOLES ON TRIP OUT. HOLE TOOK 5 BBLs OVER FILL WHILE TRIPPING OUT OF HOLE. PULL ROTATING HEAD RUBBER AT HWDP. STAND BACK EM TOOL. BREAK BIT AND LAY DOWN MUD MOTOR. NO FLOW ON FLOW CHECK.
	12:30 - 18:00	5.50	DRLPRO	06	A	P	6812	PICK UP WENZEL MUD MOTOR 7:8/3.0stg/.20rev/1.5°fix/-.005fit SER# 650-M5-072/ AND MAKE UP SMITH MDSI 616 SN JJ4675) W/ 6-16'S. MAKE UP DIRECTIONAL TOOLS. PROGRAM TOOL AND SCRIBE MOTOR. TEST MUD MOTOR. TRIP IN HWDP AND INSTALL ROTATING HEAD RUBBER. TRIP IN HOLE BREAKING CIRCULATION AT 2900' 5000' AND 6600'. (GOOD HOLD DISPLACEMENT ON TRIP IN, NO LOSSES WHILE TRYING TO CIRCULATE.)
	18:00 - 18:30	0.50	DRLPRO	03	D	P	6812	WASH DOWN THROUGH DIAMOND SEAL SWEEP AT 400 GPM. PUMP 20 BBL 100#/BBL SWEEP. WASH DOWN 6400'-6812'. NO TIGHT HOLE.

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date:

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	18:30 - 20:15	1.75	DRLPRO	02	D	P	6812	DIRECTIONAL DRILL F/ 6,812' T/ 6,863' (51' 1.75 HRS @ 29.14/HR) TOTAL BIT HRS 1.5 TOTAL CIRC HRS 2.0HRS WEIGHT ON BIT = 15/20 K STROKES PER MINUTE - 110 GALLONS PER MINUTE = 425 MUD MOTOR RPM = 80 TOP DRIVE RPM = 55 TOTAL RPM = 130 FT/LBS TORQUE = 9800- 13000K STPP = 2115 OFF BOTTOM = 1700 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 175 / 143 / 159 MUD WEIGHT OBM = 9.4 PPG VISCOSITY = 59 SECONDS
	20:15 - 23:30	3.25	DRLPRO	05	F	P	6863	LOST COMPLETE CIRCULATION AT 110 SPM, 420GPM. LOSE ZONE INDICATES SHOW LOSES RIGHT AT THE BIT @ 6,863' UP TO 6,000', BUILD AN PUMP 1105 STROKES AND SPOT 35 BBL PILL @ 6,000' TO 6,863', THEN PULLED ABOVE IT. KILLED PUMPS AND WAITED 20 MINS WHILE BUILDING 2ND PILL, 20 PPB OPTISEAL, 15 PPB TUFF PLUG COARSE, 10 PPB TUFF PLUG MEDIUM, 20 PPB GEL, 20 PPB CIDER FIBER, ONCE PUMPING AGAIN FOR 2ND SWEEP RETURNS WHERE ESTABLISH AT 20 SPM, SLOWLY INCREASED PUMP RATE AS 2ND SWEEP NEARED THE BIT, ONCE 2ND SWEEP EXITED THE BIT, WE WERE ABLE TO PUMP A 400 GPM
	23:30 - 0:00	0.50	DRLPRO	02	D	P	6863	DIRECTIONAL DRILL F/ 6,863' T/ 6,875' (12' .5 HRS @ 24/HR) TOTAL BIT HRS 1.8 TOTAL CIRC HRS 5.3HRS WEIGHT ON BIT = 15/20 K STROKES PER MINUTE - 110 GALLONS PER MINUTE = 425 MUD MOTOR RPM = 80 TOP DRIVE RPM = 55 TOTAL RPM = 130 FT/LBS TORQUE = 9800- 13000K STPP = 2115 OFF BOTTOM = 1700 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 175 / 143 / 159 MUD WEIGHT OBM = 9.4 PPG VISCOSITY = 59 SECONDS
12/29/2015	0:00 - 23:30	23.50	DRLPRO	02	D	P	6875	DIRECTIONAL DRILL 6,875'- (12' .5 HRS @ 24/HR) TOTAL BIT HRS 1.8 TOTAL CIRC HRS 5.3HRS WEIGHT ON BIT = 15/20 K STROKES PER MINUTE - 110 GALLONS PER MINUTE = 425 MUD MOTOR RPM = 80 TOP DRIVE RPM = 55 TOTAL RPM = 130 FT/LBS TORQUE = 9800- 13000K STPP = 2115 OFF BOTTOM = 1700 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 175 / 143 / 159 MUD WEIGHT OBM = 9.4 PPG VISCOSITY = 59 SECONDS
	23:30 - 0:00	0.50	DRLPRO	07	A	P	7378	LUBRICATE RIG AND TOP DRIVE, GREASE BLOCKS

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date:

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
12/30/2015	0:00 - 7:00	7.00	DRLPRO	02	D	P	7378	DIRECTIONAL DRILL F/ 7,378' - T/ 7,469' (91' 4.8 HRS @ 18.9FPH) TOTAL BIT HRS 27.0 TOTAL CIRC HRS 35.6 WEIGHT ON BIT = 15/20 K STROKES PER MINUTE = 110 GALLONS PER MINUTE = 425 MUD MOTOR RPM = 80 TOP DRIVE RPM = 55 TOTAL RPM = 130 FT/LBS TORQUE = 9800- 13000K STPP = 2115 OFF BOTTOM = 1700 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 175 / 143 / 159 MUD WEIGHT OBM = 9.3 PPG VISCOSITY = 79 SECONDS
	7:00 - 7:30	0.50	DRLPRO	05	C	P	7469	CIRCULATE WHILE BUILDING SLUG - CHECK FLOW - NEG - PUMP SLUG
	7:30 - 11:30	4.00	DRLPRO	06	A	P	7469	TOOH F/ 7,469' - T/ 118' - TRIP OUT DUE TOO LOW ROP NOTE: WORK TIGHT HOLE F/ 4,930' - T/ 4,850'
	11:30 - 12:00	0.50	DRLPRO	06	A	P	7469	HANDLE BHA - BREAK BIT AND L/D MUD MOTOR
	12:00 - 13:00	1.00	DRLPRO	06	A	P	7469	P/U NEW BAKER HUGHES MUD MOTOR 5:6/3.0stg/.16rev/1.5°fix/.004fit SN# 10354781 AND M/U SMITH MDiS 713 SN# JK2854 W/ 6-16'S (TFA 1.178). MAKE UP DIRECTIONAL TOOLS. PROGRAM TOOL AND SCRIBE MOTOR. TEST MUD MOTOR - GOOD TEST.
	13:00 - 17:30	4.50	DRLPRO	06	A	P	7469	TIH F/ 118' - T/ 6,283' - WASHED & REAMED TIGHT HOLE F/ 4,850' - T/ 4,930' W/ 45 RPM, 105 SPM @ 1,215psi
	17:30 - 18:00	0.50	DRLPRO	07	A	P	7469	RIG SERVICE
	18:00 - 19:00	1.00	DRLPRO	05	C	Z	7469	CIRCULATE WHILE BUILDING SLUG - CHECK FLOW - NEG - PUMP SLUG
	19:00 - 22:00	3.00	DRLPRO	06	A	Z	7469	TOOH F/ 6,283' - T/ 118' - DUE TOO FLOAT NOT HOLDING
	22:00 - 22:30	0.50	DRLPRO	06	A	Z	7469	HANDLE BHA - BREAK BIT AND L/D MUD MOTOR
	22:30 - 23:30	1.00	DRLPRO	06	A	Z	7469	P/U NEW BAKER HUGHES MUD MOTOR 5:6/3.0stg/.16rev/1.5°fix/.003fit SN# 9473 AND M/U SMITH MDiS 713RR SN# JK2854 W/ 6-16'S (TFA 1.178). MAKE UP DIRECTIONAL TOOLS. PROGRAM TOOL AND SCRIBE MOTOR. TEST MUD MOTOR - GOOD TEST.
	23:30 - 0:00	0.50	DRLPRO	06	A	Z	7469	TIH F/ 118' - T/ 430'
12/31/2015	0:00 - 5:00	5.00	DRLPRO	06	A	Z	7469	TIH F/ 430' - T/ 7,469' - NO ISSUES

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date:

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	5:00 - 13:00	8.00	DRLPRO	02	D	P	7469	DIRECTIONAL DRILL F/ 7,469' - T/ 7,838' (369' 7.3 HRS @ 50.5 FPH) TOTAL BIT HRS 7.3 TOTAL CIRC HRS 11.4 WEIGHT ON BIT = 17/22K STROKES PER MINUTE - 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 60 TOP DRIVE RPM = 55 TOTAL RPM = 115 FT/LBS TORQUE = 11-15K STPP = 2075 OFF BOTTOM = 1640 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 209 / 172 / 189 MUD WEIGHT OBM = 9.6 PPG VISCOSITY = 54 SECONDS STARTED WEIGHT UP @ 08:00 HRS 7,607' @ 7,838' W/ 9.5 PPG
	13:00 - 13:30	0.50	DRLPRO	07	A	P	7838	SERVICE RIG, LUBRICATE TOP DRIVE, CROWN AND BLOCKS. INSPECT WIRE ROPES AND FLUID LEVELS.
	13:30 - 0:00	10.50	DRLPRO	02	D	P	7838	DIRECTIONAL DRILL F/ 7,838' T/8,410' (572' 9.9 HRS @ 57.7 FPH) TOTAL BIT HRS 17.2 TOTAL CIRC HRS 22 WEIGHT ON BIT = 17/22K STROKES PER MINUTE - 108 GALLONS PER MINUTE = 415 MUD MOTOR RPM = 66 TOP DRIVE RPM = 55 TOTAL RPM = 121 FT/LBS TORQUE = 11-14K STPP = 2175 OFF BOTTOM = 1640 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 210 / 175 / 188 MUD WEIGHT OBM = 10.1 PPG VISCOSITY = 55 SECONDS STARTED WEIGHT UP @ 08:00 HRS 7,607' @ 7,838' W/ 9.5 PPG
1/1/2016	0:00 - 16:00	16.00	DRLPRO	02	D	P	8410	DIRECTIONAL DRILL F/ 8,410' - T/ 8,965' (555' 14.4 HRS @ 38.5 FPH) TOTAL BIT HRS 31.6 TOTAL CIRC HRS 37.6 WEIGHT ON BIT = 13/17K STROKES PER MINUTE - 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 11-14K STPP = 2250 OFF BOTTOM = 2000 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 195 MUD WEIGHT OBM = 10.7 PPG VISCOSITY = 57 SECONDS
	16:00 - 16:30	0.50	DRLPRO	07	A	P	8965	RIG SERVICE

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date:

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	16:30 - 0:00	7.50	DRLPRO	02	D	P	8965	DIRECTIONAL DRILL F/ 8,965' - T/ 9,126' (161' 7.2 HRS @ 22.4 FPH) TOTAL BIT HRS 38.8 TOTAL CIRC HRS 45.4 WEIGHT ON BIT = 10/15K STROKES PER MINUTE = 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 11-14K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 197 MUD WEIGHT OBM = 10.6 PPG VISCOSITY = 58 SECONDS
1/2/2016	0:00 - 4:00	4.00	DRLPRO	02	D	P	9126	DIRECTIONAL DRILL F/ 9,126' - T/ 9,197' (71' 3.8 HRS @ 18.6 FPH) TOTAL BIT HRS 42.6 TOTAL CIRC HRS 49.3 WEIGHT ON BIT = 10/15K STROKES PER MINUTE = 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 11-14K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 197 MUD WEIGHT OBM = 10.6 PPG VISCOSITY = 58 SECONDS
	4:00 - 5:00	1.00	DRLPRO	05	C	Z	9197	CIRCULATE WHILE BUILDING SLUG - CHECK FLOW - NEG - PUMP SLUG
	5:00 - 12:00	7.00	DRLPRO	06	A	Z	9197	TOOH F/ 9,197' - T/ 118' - TRIP OUT DUE TOO LOW ROP. L/D MOTOR AND BIT. BIT GRADED 3-1 MOTOR WAS TIGHT. P/U 6.5" BAKER ULTRA XL/LS MOTOR AND A 7 7/8" SECURITY MM64D DRILL BIT. PULLED MWD TOOL REPLACED 1 BATTERY PACK AND SURFACE TESTED SAME. HOLE TOOK 12 BBL'S MORE THEN CALCULATED FILL.
	12:00 - 15:30	3.50	DRLPRO	06	A	Z	9197	INSTALLED ROTATING HEAD ON FIRST STAND HWP TRIPPED IN HOLE F/ 118' TO 9,115' FILLED PIPE & BROKE CIRC JUST OUTSIDE SHOE 2,900' FILLED PIPE 5,500' & 8,000' THEN WASHED LAST 82' TOZ BOTTOM. MUD WEIGHT 10.6 PPG AND VISCOSITY 59 NO TIGHT HOLE ISSUE TRIPPING 40 BBL'S LOST ON TRIP IN
	15:30 - 16:00	0.50	DRLPRO	07	A	P	9197	RIG SERVICE

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date:

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	16:00 - 17:30	1.50	DRLPRO	02	D	P	9197	DIRECTIONAL DRILL F/ 9,197' - T/ 9,207' (10' 1.5 HRS @ 6.6 FPH) TOTAL BIT HRS 1.5 TOTAL CIRC HRS 1.5 WEIGHT ON BIT = 10/15K STROKES PER MINUTE - 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 11-14K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 197 MUD WEIGHT OBM = 10.7 PPG VISCOSITY = 67 SECONDS
	17:30 - 19:30	2.00	DRLPRO	22	N	X	9207	WHILE DRILLING AHEAD AFTER TRIPPING BACK ON BOTTOM, TRIP GAS CAME TO SURFACE BRINGING FLOW TO 100% - DRILLER SPACED OUT SHUT DOWN PUMPS AND CLOSED WELL IN. GAINED 26 BBL'S DURING SHUT IN PROCEDURE. MONITORED SICP 270 PSI / SIDP 0 PSI. ROLLED PUMP AND OPENED FLOATS WITH 60 PSI. CIRCULATED GAS OUT THUR CHOKE W/ 60 SPM (230GPM) @ 760PSI - MUD WT# GAS CUT F/ 10.8# - T/ 10.6#, MAX GAS 9690 UNITS W/ NO FLARE.
	19:30 - 20:30	1.00	DRLPRO	08	B	Z	9207	CHANGED OUT ROTATING HEAD RUBBER.
	20:30 - 0:00	3.50	DRLPRO	02	D	P	9207	DIRECTIONAL DRILL F/ 9,207' - T/ 9,290' (83' 1.7 HRS @ 49 FPH) TOTAL BIT HRS 3.2 TOTAL CIRC HRS 3.5 WEIGHT ON BIT = 10/15K STROKES PER MINUTE - 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 11-14K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 197 MUD WEIGHT OBM = 10.8 PPG VISCOSITY = 60 SECONDS
1/3/2016	0:00 - 9:00	9.00	DRLPRO	02	D	P	9290	DIRECTIONAL DRILL F/ 9,290' - T/ 9,484' (194' 8 HRS @ 24 FPH) TOTAL BIT HRS 11.2 TOTAL CIRC HRS 13.5 WEIGHT ON BIT = 10/15K STROKES PER MINUTE - 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 9-12K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 197 MUD WEIGHT OBM = 11.1 PPG VISCOSITY = 65 SECONDS

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date:

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	9:00 - 10:00	1.00	DRLPRO	22	G	X	9484	PULLED OFF BOTTOM AND SLOWED PUMPS TO 250 GPM DUE TO HEAVY LOSSES (50 BBL'S IN 25 MIN). MIXED DIAMOND SEAL SWEEP AND PUMPED SAME. ONCE SWEEP CLEARED BIT WE WENT BACK TO FULL PUMP 400 GPM AND HAD FULL RETURNS. FOLLOWED DIAMOND SEAL WITH 100 PPB LCM SWEEP 20 BBL'S.
	10:00 - 0:00	14.00	DRLPRO	02	D	P	9484	DIRECTIONAL DRILL F/ 9,484' - T/ 9,775' (291' 13.1 HRS @ 22 FPH) TOTAL BIT HRS 24.3 TOTAL CIRC HRS 27.1 WEIGHT ON BIT = 10/15K STROKES PER MINUTE = 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 10 - 13.5K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 225 / 195 / 200 MUD WEIGHT OBM = 11.2 PPG VISCOSITY = 59 SECONDS
1/4/2016	0:00 - 4:00	4.00	DRLPRO	02	D	P	9775	DIRECTIONAL DRILL F/ 9,775' - T/ 9,854' (79' 3.6 HRS @ 22 FPH) TOTAL BIT HRS 27.9 TOTAL CIRC HRS 31.8 WEIGHT ON BIT = 10/15K STROKES PER MINUTE = 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 10 - 13.5K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 225 / 195 / 200 MUD WEIGHT OBM = 11.3 PPG VISCOSITY = 58 SECONDS
	4:00 - 10:00	6.00	EVALPR	05	A	P	9854	CIRCULATE AT 400 GPM (PUMP 2- 20 BBL 100#/BBL LCM SWEEPS) FIRST SWEEP RETURNED WITH 40% INCREASE. 15% INCREASE ON SECOND SWEEP. CONTINUED CIRCULATING INCREASING MUD WT F/ 11.3 TO 11.5 VIS 62 RECIPROCATATE PIPE 90' WHILE ROTATING AT 32 RPM @ 2350 PSI AND 7900 FT/LBS TORQUE. ONCE MUD WAS AT 11.5 PPG SENT 2 10 BBL 100 PPB LCM SWEEPS DUE TO LOSSES. AFTER SWEEPS CAME AROUND LOSSES WERE MINIMAL AT 6-8 BBL'S PER/HR. BOTTOMS UP GAS- 670 UNITS, BACKGROUND GAS- 82 UNITS NO FLARE. CHECK FLOW - BALLOONED BACK 10 BBL'S
	10:00 - 15:30	5.50	EVALPR	06	A	P	9854	PULLED 10 STANDS FLOW CHECKED WELL STATIC. PUMPED 25 BBL 1.5 # OVER SLUG. CONTINUED TRIPPING OUT HOLE TAKING PROPER FILL. WORKED TIGHT SPOT AT 7,750' 5 TIMES CLEARED UP W/ 8-10K OVER PULL. CONTINUED OUT TO BHA HOLE SLICK.

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date:

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	15:30 - 17:30	2.00	EVALPR	06	A	P	9854	L/D ALL 6.5" BHA, MOTOR DRAINED GOOD, BIT GRADED 2-1 AND HAD 2 PLUGGED NOZZLES (LCM).
	17:30 - 18:00	0.50	EVALPR	07	A	P	9854	SERVICED RIG, CLEANED RIG FLOOR, PREP FOR LOGS
	18:00 - 0:00	6.00	EVALPR	11	D	P	9854	HELD PJSM W/ SCHLUMBERGER, RIG CREW, RIG MANAGER AND COMPANY REPS. STAGED IN TRUCK AND OFFLOADED TOOLS AND RIGGED UP SAME. PICK UP TRIPLE COMBO TOOLS W/ TEMPERATURE SENSOR. LOGGING TOOLS WENT TO BOTTOM WITH NO ISSUES 9,854' (WIRELINE DEPTH 9,856'), AN LOGGED BACKED TO SURFACE WITH NO ISSUES. L/D TOOLS - WELL TOOK 6BBLs IN 6HRS
1/5/2016	0:00 - 12:00	12.00	EVALPR	11	D	P	9854	PICK UP LOGGING TOOLS 2ND RUN - ADT, LITHO SCANNER AND CMR TOOL. LOGGING TOOLS WENT TO BOTTOM WITH NO ISSUES 9,854' (WIRELINE DEPTH 9,856'), AN LOGGED BACKED TO SURFACE WITH NO ISSUES LOGGING @ 500' +/- PER HR. LAY DOWN WIRELINE TOOLS. HOLD SAFETY MEETING AND RIG DOWN SCHLUMBERGER WIRELINE COMPANY. - WELL TOOK XXBBLs IN X HRS
	12:00 - 12:30	0.50	CSGPRO	12	A	P	9854	PICK UP JT AND PULL WEAR BUSHING. MONITOR WEAR BUSHING BEING PULLED. LAY DOWN TOOL JT.
	12:30 - 13:30	1.00	CSGPRO	12	A	P	9854	HOLD SAFETY MEETING WITH FRANKS CASING. RIG UP 6' EXTENSION BALES AND CASING ELEVATORS. RIG UP HYDRAULING CASING TONGS, AND SLIPS. RIG UP TORQUE TURN.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 921-23P1CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0381 FSL 1175 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 23 Township: 09.0S Range: 21.0E Meridian: S		9. API NUMBER: 43047527490000
PHONE NUMBER: 720 929-6507		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 2/2/2016	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> CHANGE WELL NAME	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> CONVERT WELL TYPE	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> NEW CONSTRUCTION	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> PLUG BACK	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TEMPORARY ABANDON	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<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 NBU 921-23P1CS well was drilled to a TD of 9,854 ft in January 2016. Please see the attached operations summary report for a detailed description of operations conducted on the well during the month. Thank you.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY February 02, 2016		
NAME (PLEASE PRINT) Kristina Geno	PHONE NUMBER 720 929-6824	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 2/2/2016	

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	5:00 - 13:00	8.00	DRLPRO	02	D	P	7469	DIRECTIONAL DRILL F/ 7,469' - T/ 7,838' (369' 7.3 HRS @ 50.5 FPH) TOTAL BIT HRS 7.3 TOTAL CIRC HRS 11.4 WEIGHT ON BIT = 17/22K STROKES PER MINUTE - 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 60 TOP DRIVE RPM = 55 TOTAL RPM = 115 FT/LBS TORQUE = 11-15K STPP = 2075 OFF BOTTOM = 1640 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 209 / 172 / 189 MUD WEIGHT OBM = 9.6 PPG VISCOSITY = 54 SECONDS STARTED WEIGHT UP @ 08:00 HRS 7,607' @ 7,838' W/ 9.5 PPG
	13:00 - 13:30	0.50	DRLPRO	07	A	P	7838	SERVICE RIG, LUBRICATE TOP DRIVE, CROWN AND BLOCKS. INSPECT WIRE ROPES AND FLUID LEVELS.
	13:30 - 0:00	10.50	DRLPRO	02	D	P	7838	DIRECTIONAL DRILL F/ 7,838' T/8,410' (572' 9.9 HRS @ 57.7 FPH) TOTAL BIT HRS 17.2 TOTAL CIRC HRS 22 WEIGHT ON BIT = 17/22K STROKES PER MINUTE - 108 GALLONS PER MINUTE = 415 MUD MOTOR RPM = 66 TOP DRIVE RPM = 55 TOTAL RPM = 121 FT/LBS TORQUE = 11-14K STPP = 2175 OFF BOTTOM = 1640 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 210 / 175 / 188 MUD WEIGHT OBM = 10.1 PPG VISCOSITY = 55 SECONDS STARTED WEIGHT UP @ 08:00 HRS 7,607' @ 7,838' W/ 9.5 PPG
1/1/2016	0:00 - 16:00	16.00	DRLPRO	02	D	P	8410	DIRECTIONAL DRILL F/ 8,410' - T/ 8,965' (555' 14.4 HRS @ 38.5 FPH) TOTAL BIT HRS 31.6 TOTAL CIRC HRS 37.6 WEIGHT ON BIT = 13/17K STROKES PER MINUTE - 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 11-14K STPP = 2250 OFF BOTTOM = 2000 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 195 MUD WEIGHT OBM = 10.7 PPG VISCOSITY = 57 SECONDS
	16:00 - 16:30	0.50	DRLPRO	07	A	P	8965	RIG SERVICE

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	16:30 - 0:00	7.50	DRLPRO	02	D	P	8965	DIRECTIONAL DRILL F/ 8,965' - T/ 9,126' (161' 7.2 HRS @ 22.4 FPH) TOTAL BIT HRS 38.8 TOTAL CIRC HRS 45.4 WEIGHT ON BIT = 10/15K STROKES PER MINUTE = 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 11-14K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 197 MUD WEIGHT OBM = 10.6 PPG VISCOSITY = 58 SECONDS
1/2/2016	0:00 - 4:00	4.00	DRLPRO	02	D	P	9126	DIRECTIONAL DRILL F/ 9,126' - T/ 9,197' (71' 3.8 HRS @ 18.6 FPH) TOTAL BIT HRS 42.6 TOTAL CIRC HRS 49.3 WEIGHT ON BIT = 10/15K STROKES PER MINUTE = 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 11-14K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 197 MUD WEIGHT OBM = 10.6 PPG VISCOSITY = 58 SECONDS
	4:00 - 5:00	1.00	DRLPRO	05	C	Z	9197	CIRCULATE WHILE BUILDING SLUG - CHECK FLOW - NEG - PUMP SLUG
	5:00 - 12:00	7.00	DRLPRO	06	A	Z	9197	TOOH F/ 9,197' - T/ 118' - TRIP OUT DUE TOO LOW ROP. L/D MOTOR AND BIT. BIT GRADED 3-1 MOTOR WAS TIGHT. P/U 6.5" BAKER ULTRA XL/LS MOTOR AND A 7 7/8" SECURITY MM64D DRILL BIT. PULLED MWD TOOL REPLACED 1 BATTERY PACK AND SURFACE TESTED SAME. HOLE TOOK 12 BBL'S MORE THEN CALCULATED FILL.
	12:00 - 15:30	3.50	DRLPRO	06	A	Z	9197	INSTALLED ROTATING HEAD ON FIRST STAND HWP TRIPPED IN HOLE F/ 118' TO 9,115' FILLED PIPE & BROKE CIRC JUST OUTSIDE SHOE 2,900' FILLED PIPE 5,500' & 8,000' THEN WASHED LAST 82' TOZ BOTTOM. MUD WEIGHT 10.6 PPG AND VISCOSITY 59 NO TIGHT HOLE ISSUE TRIPPING 40 BBL'S LOST ON TRIP IN
	15:30 - 16:00	0.50	DRLPRO	07	A	P	9197	RIG SERVICE

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	16:00 - 17:30	1.50	DRLPRO	02	D	P	9197	DIRECTIONAL DRILL F/ 9,197' - T/ 9,207' (10' 1.5 HRS @ 6.6 FPH) TOTAL BIT HRS 1.5 TOTAL CIRC HRS 1.5 WEIGHT ON BIT = 10/15K STROKES PER MINUTE - 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 11-14K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 197 MUD WEIGHT OBM = 10.7 PPG VISCOSITY = 67 SECONDS
	17:30 - 19:30	2.00	DRLPRO	22	N	X	9207	WHILE DRILLING AHEAD AFTER TRIPPING BACK ON BOTTOM, TRIP GAS CAME TO SURFACE BRINGING FLOW TO 100% - DRILLER SPACED OUT SHUT DOWN PUMPS AND CLOSED WELL IN. GAINED 26 BBL'S DURING SHUT IN PROCEDURE. MONITORED SICP 270 PSI / SIDP 0 PSI. ROLLED PUMP AND OPENED FLOATS WITH 60 PSI. CIRCULATED GAS OUT THUR CHOKE W/ 60 SPM (230GPM) @ 760PSI - MUD WT# GAS CUT F/ 10.8# - T/ 10.6#, MAX GAS 9690 UNITS W/ NO FLARE.
	19:30 - 20:30	1.00	DRLPRO	08	B	Z	9207	CHANGED OUT ROTATING HEAD RUBBER.
	20:30 - 0:00	3.50	DRLPRO	02	D	P	9207	DIRECTIONAL DRILL F/ 9,207' - T/ 9,290' (83' 1.7 HRS @ 49 FPH) TOTAL BIT HRS 3.2 TOTAL CIRC HRS 3.5 WEIGHT ON BIT = 10/15K STROKES PER MINUTE - 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 11-14K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 197 MUD WEIGHT OBM = 10.8 PPG VISCOSITY = 60 SECONDS
1/3/2016	0:00 - 9:00	9.00	DRLPRO	02	D	P	9290	DIRECTIONAL DRILL F/ 9,290' - T/ 9,484' (194' 8 HRS @ 24 FPH) TOTAL BIT HRS 11.2 TOTAL CIRC HRS 13.5 WEIGHT ON BIT = 10/15K STROKES PER MINUTE - 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 9-12K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 197 MUD WEIGHT OBM = 11.1 PPG VISCOSITY = 65 SECONDS

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	9:00 - 10:00	1.00	DRLPRO	22	G	X	9484	PULLED OFF BOTTOM AND SLOWED PUMPS TO 250 GPM DUE TO HEAVY LOSSES (50 BBL'S IN 25 MIN). MIXED DIAMOND SEAL SWEEP AND PUMPED SAME. ONCE SWEEP CLEARED BIT WE WENT BACK TO FULL PUMP 400 GPM AND HAD FULL RETURNS. FOLLOWED DIAMOND SEAL WITH 100 PPB LCM SWEEP 20 BBL'S.
	10:00 - 0:00	14.00	DRLPRO	02	D	P	9484	DIRECTIONAL DRILL F/ 9,484' - T/ 9,775' (291' 13.1 HRS @ 22 FPH) TOTAL BIT HRS 24.3 TOTAL CIRC HRS 27.1 WEIGHT ON BIT = 10/15K STROKES PER MINUTE = 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 10 - 13.5K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 225 / 195 / 200 MUD WEIGHT OBM = 11.2 PPG VISCOSITY = 59 SECONDS
1/4/2016	0:00 - 4:00	4.00	DRLPRO	02	D	P	9775	DIRECTIONAL DRILL F/ 9,775' - T/ 9,854' (79' 3.6 HRS @ 22 FPH) TOTAL BIT HRS 27.9 TOTAL CIRC HRS 31.8 WEIGHT ON BIT = 10/15K STROKES PER MINUTE = 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 10 - 13.5K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 225 / 195 / 200 MUD WEIGHT OBM = 11.3 PPG VISCOSITY = 58 SECONDS
	4:00 - 10:00	6.00	EVALPR	05	A	P	9854	CIRCULATE AT 400 GPM (PUMP 2- 20 BBL 100#/BBL LCM SWEEPS) FIRST SWEEP RETURNED WITH 40% INCREASE. 15% INCREASE ON SECOND SWEEP. CONTINUED CIRCULATING INCREASING MUD WT F/ 11.3 TO 11.5 VIS 62 RECIPROCATATE PIPE 90' WHILE ROTATING AT 32 RPM @ 2350 PSI AND 7900 FT/LBS TORQUE. ONCE MUD WAS AT 11.5 PPG SENT 2 10 BBL 100 PPB LCM SWEEPS DUE TO LOSSES. AFTER SWEEPS CAME AROUND LOSSES WERE MINIMAL AT 6-8 BBL'S PER/HR. BOTTOMS UP GAS- 670 UNITS, BACKGROUND GAS- 82 UNITS NO FLARE. CHECK FLOW - BALLOONED BACK 10 BBL'S
	10:00 - 15:30	5.50	EVALPR	06	A	P	9854	PULLED 10 STANDS FLOW CHECKED WELL STATIC. PUMPED 25 BBL 1.5 # OVER SLUG. CONTINUED TRIPPING OUT HOLE TAKING PROPER FILL. WORKED TIGHT SPOT AT 7,750' 5 TIMES CLEARED UP W/ 8-10K OVER PULL. CONTINUED OUT TO BHA HOLE SLICK.

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	15:30 - 17:30	2.00	EVALPR	06	A	P	9854	L/D ALL 6.5" BHA, MOTOR DRAINED GOOD, BIT GRADED 2-1 AND HAD 2 PLUGGED NOZZLES (LCM).
	17:30 - 18:00	0.50	EVALPR	07	A	P	9854	SERVICED RIG, CLEANED RIG FLOOR, PREP FOR LOGS
	18:00 - 0:00	6.00	EVALPR	11	D	P	9854	HELD PJSM W/ SCHLUMBERGER, RIG CREW, RIG MANAGER AND COMPANY REPS. STAGED IN TRUCK AND OFFLOADED TOOLS AND RIGGED UP SAME. PICK UP TRIPLE COMBO TOOLS W/ TEMPERATURE SENSOR. LOGGING TOOLS WENT TO BOTTOM WITH NO ISSUES 9,854' (WIRELINE DEPTH 9,856'), AN LOGGED BACKED TO SURFACE WITH NO ISSUES. L/D TOOLS - WELL TOOK 6BBLs IN 6HRS
1/5/2016	0:00 - 13:30	13.50	EVALPR	11	D	P	9854	PICK UP LOGGING TOOLS 2ND RUN - ADT, LITHO SCANNER AND CMR TOOL. LOGGING TOOLS WENT TO BOTTOM WITH NO ISSUES 9,854' (WIRELINE DEPTH 9,856'), AN LOGGED BACKED TO SURFACE WITH NO ISSUES LOGGING @ 500' PER HR. LAY DOWN WIRELINE TOOLS. HOLD SAFETY MEETING AND RIG DOWN SCHLUMBERGER WIRELINE COMPANY.
	13:30 - 14:00	0.50	CSGPRO	12	A	P	9854	PICK UP JT AND PULL WEAR BUSHING. MONITOR WEAR BUSHING BEING PULLED. LAY DOWN TOOL JT.
	14:00 - 15:30	1.50	CSGPRO	12	A	P	9854	HOLD SAFETY MEETING WITH FRANKS CASING. RIG UP 6' EXTENSION BALES AND CASING ELEVATORS. RIG UP HYDRAULING CASING TONGS, AND SLIPS. RIG UP TORQUE TURN. FUNCTION TEST ALL EQUIPMENT.
	15:30 - 0:00	8.50	CSGPRO	12	C	P	9854	MAKE UP 4.5" P-110 WEATHERFORD FLOAT SHOE AND COLLAR WITH THREAD LOCK WITH SHOE JT. RUN IN HOLE WITH 7-7/8" BOW SPRING CENTRALIZERS ON FIRST 3 JTS AND EVERY 3 JT FOR A TOTAL OF 25 CENTRALIZERS WAS RUN. RUN 4.5" P-110 11.6# LT&C CASING T/ 4,863' TOTAL OF 109JTS LT&C. P/U 4.5" CROSSOVER TO DQX, (TOP OF CROSSOVER 4,979' SET DEPTH) CONTINUE TO RUN DQX F/ 4,929 - T/ 8,016' TOTAL OF 71 JTS DQX. NOTE: MESA MARKER JT BETWEEN JT 47 AND 48, TOP OF MARKER 7,734' - STAGE TOOL BETWEEN JT 97 AND 98, TOP OF STAGE TOOL 5,512'. RAN THREE TOTAL CEMENT BASKETS WITH LOCKING BANDS AROUND STAGE TOOL.
1/6/2016	0:00 - 2:30	2.50	CSGPRO	12	C	P	9854	CONTINUE TO RUN 4.5" P-110 11.6# DQX CASING F/ 8,016' - T/ 9,826' TOTAL OF 112 JTS DQX. MAKE UP CAMERON LANDING MANDREL AND LAND CASING @ 9,843' W/ 105K NOTE: SHOE SET @ 9,843', FLOAT SET @ 9,796, MESA MAKER JT @ 7,734', STAGE TOOL SET @ 5,512'
	2:30 - 3:00	0.50	CSGPRO	12	A	P	9854	R/D FRANKS CASING CREW

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	3:00 - 6:30	3.50	CSGPRO	12	B	P	9854	R/U SCHLUMBERGER CEMENTERS WHILE CIRCULATING B/U STAGGING MUD PUMP UP SLOWLY F/ 20 SPM (75 GPM) - T/ 65 SPM (250 GPM) @ 435PSI. MAX UNITS 497 W/ NO FLARE AND LOSSES WERE MINIMAL. HELD PRE JOB SAFETY MEETING WITH NEW RIG CREW AND CEMENT CREW, SHUT PUMPS DOWN AND R/U CEMENT HEAD.
	6:30 - 7:30	1.00	CSGPRO	12	B	P	9854	PUMP 5 BBLS AHEAD FRESH WATER AND ISOLATED WELL AT HEAD FOR PRESSURE TEST. COULD NOT GET A GOOD TEST, MULTIPLE ATTEMPTS TRIED BEFORE LEAK WAS FOUND. REPLACED VALVE ON BLEED OFF SIDE OF PUMP.
	7:30 - 16:30	9.00	CSGPRO	12	E	P	9854	PRESSURE TESTED LINES (GOOD). START PUMPING MUD PUSH 2.5BPM 600PSI (PUMPED 30BBLS 12.3#) START 14.5# TAIL CEMENT 3.7BPM @341PSI (TOTAL OF 211.5BBL) SHUT DOWN/DROP LATCH IN FLEX PLUG BY HAND TO MAKE SURE PLUG WENT WAIT ON CEMENTERS TO WASH UP PUMP TRUCK START DISPLACEMENT 6BPM @200 PSI TOTAL OF 152.26BBLS (80BBLS FRESH 72BBLS MUD) LAND PLUG @2BPM 1800PSI WENT TO 2750 TO MAKE SURE LATCH IN PLUG WAS LATCHED CHECKED PLUG AND FLOATS HELD. WHICH THEY DID. BLEED 1-1/4 TO PUMP TRUCK DROPPED OPENING CONE AND WAIT 38MINS FOR CONE TO LAND IN STAGETOOL OPENED DV TOOL @847PSI TURN OVER TO RIG TO CIRCULATE 4 HRS @ 190 GPM (250 PSI) JSA WITH CEMENT CREW AND RIG CREW START 30BBLS OF MUD PUSH 12.3# 3BPM 156PSI START PUMPING LEAD CEMENT 160BBLS 4.5BPM 400PSI 12.5# 45 BBL'S SHORT START PUMPING TAIL CEMENT 80BBLS 4.3BPM 288PSI 14.5# START PUMPING TAIL CEMENT 14.6BBLS .1BPM 42PSI 15.8# DROP CLOSEING PLUG BY HAND START DISPLACEMENT 6BPM 600PSI TOTAL DISPLACEMENT 85.6BBLS SLOW RATE TO 4BPM 75BBLS GONE 1330PSI LAND PLUG AND CLOSE DV TOOL 1450PSI-2942PSI BLEED BACK 1-1/4BBL TO SURFACE. WASH SURFACE LINES UP.
	16:30 - 17:30	1.00	RDMO	12	B	P	9854	RIG DOWN SCHLUMBERGER CEMENT EQUIPMENT.
	17:30 - 18:00	0.50	RDMO	12	C	P	9854	SET PACK OFF WITH CAMERON REP. NO ISSUES. RELEASED RIG @ 18:00 HRS

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: NBU 921-23P1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		9. API NUMBER: 43047527490000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0381 FSL 1175 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 23 Township: 09.0S Range: 21.0E Meridian: S		PHONE NUMBER: 720 929-6507
		COUNTY: UINTAH
		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 3/30/2016	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> CHANGE WELL NAME	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> CONVERT WELL TYPE	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> NEW CONSTRUCTION	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> PLUG BACK	
	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> TEMPORARY ABANDON	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<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. Drilled production to 9,854 ft. in Quarter 1 of 2016. Waiting for completion. Thank you.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY March 31, 2016		
NAME (PLEASE PRINT) Jennifer Thomas	PHONE NUMBER 720 929-6808	TITLE Regulatory Specialist
SIGNATURE N/A	DATE 3/30/2016	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 921-23P1CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0381 FSL 1175 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 23 Township: 09.0S Range: 21.0E Meridian: S		9. API NUMBER: 43047527490000
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
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"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PLUG BACK <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> OTHER	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> APD EXTENSION	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 6/30/2016		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. No activity for Quarter 2 of 2016. Well TD at 9,854 ft. Thank you.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY June 30, 2016		
NAME (PLEASE PRINT) Jennifer Thomas	PHONE NUMBER 720 929-6808	TITLE Regulatory Specialist
SIGNATURE N/A	DATE 6/30/2016	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075
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2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047527490000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6456 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0381 FSL 1175 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 23 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
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<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 9/29/2016	<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
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	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

No activity for Quarter 3 of 2016. Well drilled to 9,854 ft. Thank you.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 October 04, 2016

NAME (PLEASE PRINT) Candice Barber	PHONE NUMBER 435 781-9749	TITLE HSE Representative
SIGNATURE N/A	DATE 9/29/2016	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9																														
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TYPE OF SUBMISSION <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 11/23/2016 <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	TYPE OF ACTION <table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top; padding: 2px;"><input type="checkbox"/> ACIDIZE</td> <td style="width: 33%; vertical-align: top; padding: 2px;"><input type="checkbox"/> ALTER CASING</td> <td style="width: 33%; vertical-align: top; padding: 2px;"><input type="checkbox"/> CASING REPAIR</td> </tr> <tr> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> CHANGE TO PREVIOUS PLANS</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> CHANGE TUBING</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> CHANGE WELL NAME</td> </tr> <tr> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> CHANGE WELL STATUS</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> CONVERT WELL TYPE</td> </tr> <tr> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> DEEPEN</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> FRACTURE TREAT</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> NEW CONSTRUCTION</td> </tr> <tr> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> OPERATOR CHANGE</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> PLUG AND ABANDON</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> PLUG BACK</td> </tr> <tr> <td style="vertical-align: top; padding: 2px;"><input checked="" type="checkbox"/> PRODUCTION START OR RESUME</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> RECLAMATION OF WELL SITE</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION</td> </tr> <tr> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> REPERFORATE CURRENT FORMATION</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> SIDETRACK TO REPAIR WELL</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> TEMPORARY ABANDON</td> </tr> <tr> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> TUBING REPAIR</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> VENT OR FLARE</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> WATER DISPOSAL</td> </tr> <tr> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> WATER SHUTOFF</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> SI TA STATUS EXTENSION</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> APD EXTENSION</td> </tr> <tr> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> WILDCAT WELL DETERMINATION</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> OTHER</td> <td style="vertical-align: top; padding: 2px;">OTHER: <input style="width: 100px;" type="text"/></td> </tr> </table>		<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK	<input checked="" type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>
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<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME																														
<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE																														
<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION																														
<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK																														
<input checked="" type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION																														
<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON																														
<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL																														
<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION																														
<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>																														
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. The NBU 921-23P1CS well was placed on production on 11/23/2016 after a new well completion that is now producing from the Wasatch/Mesaverde zones.																																
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY November 29, 2016																																
NAME (PLEASE PRINT) Candice Barber	PHONE NUMBER 435 781-9749	TITLE HSE Representative																														
SIGNATURE N/A	DATE 11/28/2016																															

Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
UTU0149075

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

6. If Indian, Allottee or Tribe Name _____

7. Unit or CA Agreement Name and No.
UTU63047A

2. Name of Operator
KERR-MCGEE OIL AND GAS ONSHORE
Contact: CANDICE M BARBER
Email: candice.barber@anadarko.com

8. Lease Name and Well No.
NBU 921-23P1CS

3. Address PO BOX 173779
DENVER, CO 80217

3a. Phone No. (include area code)
Ph: 435-781-9749

9. API Well No.
43-047-52749

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
 At surface SESE 381FSL 1175FEL
 At top prod interval reported below SESE 911FSL 509FEL
 At total depth SESE 891FSL 506FEL

10. Field and Pool, or Exploratory
NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey
or Area Sec 23 T9S R21E Mer SLB

12. County or Parish
UINTAH

13. State
UT

14. Date Spudded
12/26/2013

15. Date T.D. Reached
01/04/2015

16. Date Completed
 D & A Ready to Prod.
11/23/2016

17. Elevations (DF, KB, RT, GL)*
4911 KB

18. Total Depth: MD 9854
TVD 9750

19. Plug Back T.D.: MD 9796
TVD

20. Depth Bridge Plug Set: MD
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
CBL/TRIPLE COMBO

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

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

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
24.000	14.000 STL	36.7	0	40		81			
11.000	8.625 J55	28.0	13	2852		610		0	
7.875	4.500 P110	11.6	13	9843		1914		1550	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	9226							

25. Producing Intervals

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) WASATCH	4934	7802	7672 TO 7727	0.410	9	OPEN
B) MESAVERDE	7802	9854	7785 TO 9760	0.410	159	OPEN
C)						
D)						

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

Depth Interval	Amount and Type of Material
7672 TO 9760	PUMP 114,027 BBLs SLICKWATER, 43 BBLs 15% HCL ACID, 233,280 LBS 30/50 MESH SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
11/23/2016	12/15/2016	24		44.0	2341.0	0.0			FLOWS FROM WELL
Choke Size	Tbg. Press. Flwg. 1317 SI	Csg. Press. 2737.0	24 Hr. Rate	Oil BBL 44	Gas MCF 2341	Water BBL 0	Gas:Oil Ratio	Well Status PGW	

28a. Production - Interval B

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

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

ELECTRONIC SUBMISSION #361631 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

28b. Production - Interval C									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

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

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

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
				GREEN RIVER	1523
				BIRD'S NEST	1816
				MAHOGANY	2327
				WASATCH	4934
				MESAVERDE	7802

32. Additional remarks (include plugging procedure):

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

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

**Electronic Submission #361631 Verified by the BLM Well Information System.
 For KERR-MCGEE OIL AND GAS ONSHORE, sent to the Vernal**

Name (please print) CANDICE M BARBER Title REGULATORY ANALYST

Signature _____ (Electronic Submission) Date 12/20/2016

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

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

RECEIVED: Dec. 20, 2016

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
1/21/2014	16:30 - 17:30	1.00	MIRU	01	E	P	53	CUT OFF ROTATING HEAD AND CONDUCTOR
	17:30 - 18:00	0.50	MIRU	01	E	P	53	RIG DOWN
	18:00 - 18:30	0.50	MIRU	23		P	53	PRE SKID SAFETY MEETING
	18:30 - 20:30	2.00	MIRU	01	C	P	53	CONDUCT JSA WITH TRUCKS TO SKID RIG / SKID RIG TO THE NBU 921-23P1CS, WELL 4 OF 6. HOWCROFT FIELD SERVICES HAD 2 TRUCKS 1 SWAMPER 1 PUSHER/SAFETY MAN
	20:00 - 22:30	2.50	MIRU	01	B	P	53	WELD ON CONDUCTOR AND ROTATING HEAD / RIG UP FLOW LINE
1/21/2014	22:30 - 23:30	1.00	MIRU	09	A	P	53	SLIP AND CUT DRILLING LINE
	23:30 - 0:00	0.50	MIRU	23		P	53	PRE SPUD SAFETY MEETING
	0:00 - 1:30	1.50	MIRU	01	B	P	53	PICK UP BHA / MAUP BIT / AIR OUT PUMPS
1/22/2014	1:30 - 2:30	1.00	DRLSUR	02	B	P	53	DRILL 12 1/4" SURFACE HOLE F/ 49' TO 200' , 151' @ 100.6 FPH WOB = 8 TO 12K ROTARY RPM = 65 MUD MOTOR RPM = 111 TOTAL = 166 PUMPING 650 GPM @ 200 SPM STAND PIPE PRESSURE ON/OFF = 850/650 TORQUE ON/OFF = 2100/1500 PU = 28/ SO = 16 / ROT = 26 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 NO HOLE ISSUES.
	2:30 - 4:30	2.00	DRLSUR	06	A	P	204	TRIP OUT OF HOLE LAY DOWN 12 1/4" PICK UP 11" BIT AND DIRECTIONAL TOOLS / SCRIB AND TRIP IN HOLE
	4:30 - 6:30	2.00	DRLSUR	02	B	P	204	DRILL 11" SURFACE HOLE F/ 200' TO 420', 220' @ 138.7 FPH WOB = 15 TO 20K ROTARY RPM = 60 / MUD MOTOR RPM = 111 / TOTAL = 171 PUMPING 650 GPM @ 200 SPM STAND PIPE PRESSURE ON/OFF = 900/650 TORQUE ON/OFF = 2,530/450 PU = 44 / SO = 40 / ROT = 42 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 SLID 280' = 12.79% 1.5' ABOVE & .9' RIGHT OF THE LINE NO HOLE ISSUES
1/22/2014	6:30 - 7:00	0.50	DRLSUR	07	C	P	424	CHANGE ROTATING HEAD RUBBER

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	7:00 - 12:00	5.00	DRLSUR	02	B	P	424	DRILL 11" SURFACE HOLE F/ 420' TO 960', 540' @ 108 FPH WOB = 15 TO 20K ROTARY RPM = 60 / MUD MOTOR RPM = 81 / TOTAL = 141 PUMPING 650 GPM @ 200 SPM STAND PIPE PRESSURE ON/OFF = 900/650 TORQUE ON/OFF = 2,530/450 PU = 48 / SO = 42 / ROT = 44 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 SLID 134' = 23.26% 3.79' ABOVE & .16' RIGHT OF THE LINE NO HOLE ISSUES
	12:00 - 16:00	4.00	DRLSUR	02	B	P	964	DRILL 11" SURFACE HOLE F/ 960' TO 1,420', 460' @ 115 FPH WOB = 15 TO 20K ROTARY RPM = 60 / MUD MOTOR RPM = 81 / TOTAL = 141 PUMPING 650 GPM @ 200 SPM STAND PIPE PRESSURE ON/OFF = 900/650 TORQUE ON/OFF = 2,900/2000 PU = 68 / SO = 58 / ROT = 62 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 SLID 25' = 4.37% 6.63' ABOVE & 1.35' RIGHT OF THE LINE NO HOLE ISSUES
	16:00 - 16:30	0.50	DRLSUR	07	A	P	1424	RIG SERVICE
	16:30 - 0:00	7.50	DRLSUR	02	B	P	1424	DRILL 11" SURFACE HOLE F/ 1,420' TO 2017', 597' @ 79.6 FPH WOB = 15 TO 20K ROTARY RPM = 60 / MUD MOTOR RPM = 81 / TOTAL = 141 PUMPING 650 GPM @ 200 SPM STAND PIPE PRESSURE ON/OFF = 900/650 TORQUE ON/OFF = 2,900/1500 PU = 78 / SO = 65 / ROT = 70 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 SLID 39' = 8.11% 8.30' ABOVE & 3.33' RIGHT OF THE LINE NO HOLE ISSUES

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS BLUE		Spud date: 1/22/2014	
Project: UTAH-UINTAH		Site: NBU 921-23P PAD	Rig name no.: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING		Start date: 1/21/2014	End date: 1/7/2016
Active datum: RKB @4,911.00usft (above Mean Sea Level)		UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
1/23/2014	0:00 - 6:00	6.00	DRLSUR	02	B	P	2021	DRILL 11" SURFACE HOLE F/ 2,017' TO 2,380', 363' @ 60.5 FPH WOB = 15 TO 20K ROTORY RPM = 60 / MUD MOTOR RPM = 81 / TOTAL = 141 PUMPING 650 GPM @ 200 SPM STAND PIPE PRESSURE ON/OFF = 900/650 TORQUE ON/OFF = 2,900/1500 PU = 85 / SO = 70 / ROT = 77 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 SLID 133' = 34.46% 5.23' ABOVE & 5.19' RIGHT OF THE LINE NO HOLE ISSUES
	6:00 - 12:00	6.00	DRLSUR	02	B	P	2384	DRILL 11" SURFACE HOLE F/ 2,380' TO 2,706', 326' @ 54.3 FPH WOB = 15 TO 20K ROTORY RPM = 60 / MUD MOTOR RPM = 81 / TOTAL = 141 PUMPING 510 GPM @ 155 SPM STAND PIPE PRESSURE ON/OFF = 900/650 TORQUE ON/OFF = 2,900/1500 PU = 89 / SO = 74 / ROT = 80 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 SLID 55' = 16.98% 5.44' ABOVE & 5.15' RIGHT OF THE LINE NO HOLE ISSUES
	12:00 - 16:00	4.00	DRLSUR	02	B	P	2710	DRILL 11" SURFACE HOLE F/ 2,706' TO 2,875', 169' @ 54.3 FPH WOB = 15 TO 20K ROTORY RPM = 60 / MUD MOTOR RPM = 81 / TOTAL = 141 PUMPING 510 GPM @ 155 SPM STAND PIPE PRESSURE ON/OFF = 900/650 TORQUE ON/OFF = 2,900/1500 PU = 100 / SO = 85 / ROT = 91 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 SLID 60' = 35.29% 2.18' ABOVE & 2.57' RIGHT OF THE LINE NO HOLE ISSUES
	16:00 - 17:00	1.00	CSGSUR	05	A	P	2879	CIRCULATE AND CONDITION HOLE
	17:00 - 20:30	3.50	CSGSUR	06	D	P	2879	LAY DOWN DRILL PIPE AND BHA
	20:30 - 23:30	3.00	CSGSUR	12	C	P	2879	PREJOB SAFETY WITH RIG CREW. RAN 62 JTS OF 8 5/8", 28#, J-55, LT&C CASING WITH CTE FLOAT GUIDE SHOE AND BAFFLE PLATE LOCATED 1 JOINT ABOVE THE SHOE. 5 CENTRALIZERS SPACED 10' ABOVE THE SHOE, 2ND & 3RD COLLARS, AND EVERY THIRD COLLAR TO 2,434'. LANDED CASING SHOE AT 2,848'. BAFFLE PLATE @ 2,800'
	23:30 - 0:00	0.50	CSGSUR	12	B	P	2879	RIG UP PRO PETRO

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS BLUE		Spud date: 1/22/2014	
Project: UTAH-UINTAH		Site: NBU 921-23P PAD	Rig name no.: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING		Start date: 1/21/2014	End date: 1/7/2016
Active datum: RKB @4,911.00usft (above Mean Sea Level)		UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
1/24/2014	0:00 - 2:30	2.50	CSGSUR	12	E	P	2879	<p>PREJOB SAFETY MEETING WITH PRO PETRO CEMENTERS & RIG CREW.</p> <p>RAN 200' OF 1" PIPE DOWN BACKSIDE OF CASING TESTED LINES TO 1500 PSI</p> <p>PUMPED 20 BBL FRESH WATER CLEARING SHOE RETURNS TO SURFACE</p> <p>MIXED AND PUMPED 20 BBL GELLED WATER FLUSH AHEAD OF CEMENT</p> <p>MIXED AND PUMPED 300 SX OF PREMIUM LEAD CEMENT WITH 2% CACL2 & 1/4 LB/SX FLOCELE. 152.8 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX.</p> <p>MIXED AND PUMPED 175 SX OF PREMIUM TAIL CEMENT WITH 2% CACL2 & 1/4 LB/SX FLOCELE. 35.8 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX.</p> <p>DROP PLUG ON FLY.</p> <p>DISPLACE CEMENT WITH 173.8 BBL FRESH WATER. NO RETURNS THROUGH OUT DISPLACEMENT. FINAL LIFT OF 600 PSI @ 3 BBL/MINUTE.</p> <p>BUMP PLUG WITH 600 PSI. HELD 880 PSI FOR 5 MINUTES. 15 BBL CEMENT TO SURFACE, FELL BACK</p> <p>CHECK FLOAT. FLOAT HELD.</p> <p>TOP JOB # 1: PUMP CEMENT DOWN 1" PIPE WITH 135 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR-3, & 1/4 LB/SX FLOCELE. 27.6 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. CEMENT TO SURFACE STOOD FULL</p> <p>RELEASE RIG @ 02:30 1/24/2014</p>
12/24/2015	19:00 - 19:30	0.50	MIRU3	01	E	P	2879	<p>RELEASE CEMENTERS @ 02:30 1/24/2014</p> <p>RIG DOWN FOR RIG SKID, REMOVE 90' OF FLOWLINE, UNPLUG ELECTRICAL AAND HYDRAULIC FROM CATWALK, PULLED GROUND RODS, STRING OUT HOSES FOR WALK BACKWARDS</p>
	19:30 - 22:00	2.50	MIRU3	01	C	P	2879	<p>WALK RIG 30' BACKWARDS TO THE NBU 921-23P1CS</p>
	22:00 - 23:00	1.00	PRSPD	14	A	P	2879	<p>UN-PIN BOP FROM TROLLEY, INSTALL NEW GASKETS, HAMMER UP BOTTOM WINGS, INSTALL TURNBUCKLES, 2" LINE AN TRIP TANK LINE, BOP HANDLES AND CURTAIN AROUND KATCH CAN</p>
	23:00 - 23:30	0.50	CSGSUR	14	B	P	2879	<p>INSTALL CAP OVER THE NBU 921-23O4CS WELL TO INSURE SAFETY WITH CATWALK OVER THE TOP OF IT</p>
	23:30 - 0:00	0.50	CSGSUR	14	B	P	2879	<p>FINISH SETTING IN CATWALK, UNABLE TO PULL CATWALK WHEN SKIDDING BACKWARDS DO TO WELL HEADS, HAD TO SET AFTERWARDS</p>
12/25/2015	0:00 - 1:30	1.50	CSGSUR	01	C	P	2879	<p>FINISH SETTING IN RIG. SET CATWALK OVER TA CAP. SET IN CAREFULLY NOT TO DAMAGE WELL HEAD. TA CAP SETTING UP AN EXTRA 7 INCHES.</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	1:30 - 10:00	8.50	CSGSUR	15	A	P	2879	HOLD SAFETY MEETINGS WITH A-1 TESTING. RIG UP TESTER AND TEST BOPE. TEST ANNULAR TO 250 PSI LOW/ 5 MIN 2500 PSI HIGH 10 MIN, PIPE & BLIND RAMS, FLOOR VALVES, IBOP, HCR VALVE, KILL LINE VALVES, TEST BOPS, CHOKES AND CHOKE MANIFOLD VALVES TO 250 PSI LOW / 5 MIN - 5000 PSI HIGH / 10 MIN. HOLD ACCUMULATOR FUNCTION TEST, & TEST SURFACE CASING 1500 PSI FOR 30 MINS. PRESSURE TEST MUD LINES TO 4500 PSI. RIG DOWN TESTER. FUNCTION TEST BOPE
	10:00 - 10:30	0.50	CSGSUR	14	B	P	2879	SET WEAR BUSHING. WITNESSED BY WELL SITE CONSULTANT.
	10:30 - 12:30	2.00	CSGSUR	09	A	P	2879	SLIP AND CUT 130' OF DRILL LINE.
	12:30 - 13:00	0.50	CSGSUR	07	A	P	2879	RIG SERVICE. SERVICE TOP DRIVE, BLOCKS AND CROWN. CHECK BOLTS IN TOP DRIVE, MAKE SURE BOLTS ARE SECURED AND WIRE TIED.
	13:00 - 13:30	0.50	CSGSUR	06	A	P	2879	CHANGE OUT SAVER SUB. CHANGE ROTATING RUBBER ON BEARING PACK.
	13:30 - 15:30	2.00	CSGSUR	06	A	P	2879	MAKE UP HUGHES T506F W 6-16'S ONTO A WENZEL 7:8 3.0STG .2 REV / 1.5 BH FIXED. -.007 FIT. PICK UP DIRECTIONAL MONELS AND TOOLS. PROGRAM TOOL AND SCRIBE. TRIP IN HOLE WITH HWDP. DIVERT 20 BBLS OF WATER INTO MUD SYSTEM. DIVERT REST FOR MAKE UP. TRIP IN HOLE TO 2780'. INSTALL ROTATING HEAD RUBBER.
	15:30 - 18:00	2.50	CSGSUR	06	A	P	2879	TRIP IN THE HOLE F/ BHA 116' T/ 2,691' TAG CEMENT
	18:00 - 18:30	0.50	CSGSUR	05	G	P	2879	DISPLACE SURFACE CASING WATER WITH OBM, 60 SPM
	18:30 - 20:00	1.50	DRLPRC	02	F	P	2879	DRILL OUT SHOE TRACK WITH BAFFLE PLATE @ 2787' AND SHOE @ 2834' WITH NEW HOLE @ 2879', WOB - 5-10 RPM - 15 GPM- 300-400
	20:00 - 0:00	4.00	DRLPRC	02	D	P	2879	DIRECTIONAL DRILL F/ 2,879' T/ 3,300' (421' / 4 HRS @ 105.25 'FPH) TOTAL BIT HRS 3, TOTAL CIRC HRS 5.8 HRS WEIGHT ON BIT = 15/20 K STROKES PER MINUTE - 131 GALLONS PER MINUTE = 500 MUD MOTOR RPM = 100 TOP DRIVE RPM = 50 TOTAL RPM = 150 FT/LBS TORQUE = 5 - 10.5K STPP = 2,205 OFF BOTTOM = 1,670 STRING WEIGHT UP/DOWN/ROTATING = 82 / 74 / 76 BIT POSISTION:3.36' Left / 2.37' Below Slide 121' @ 28.34% Depth/ 65.37% Time = 2.23 Hrs. - Rot 306' @ 71.66% Depth/ 3463% Time = 1.18Hrs. / Bit Hrs. = 3.0 / D&C Hrs. = 5.8 MUD WEIGHT OBM = 9.3 PPG VISCOSITY = 64 SECONDS

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

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UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
12/26/2015	0:00 - 13:30	13.50	DRLPRC	02	D	P	3300	DIRECTIONAL DRILL 3,300'- 4440' (1140' / 10.7 HRS @ 107' /FPH) TOTAL BIT HRS 10.7, TOTAL CIRC HRS 18.4 HRS WEIGHT ON BIT = 15/20 K STROKES PER MINUTE - 131 GALLONS PER MINUTE = 550 MUD MOTOR RPM = 110 TOP DRIVE RPM = 50 TOTAL RPM = 150 FT/LBS TORQUE = 8 - 9.8K STPP = 2225 OFF BOTTOM = 1860 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 82 / 74 / 76 MUD WEIGHT OBM = 8.9 PPG VISCOSITY = 52 SECONDS
	13:30 - 14:00	0.50	DRLPRC	07	A	P	4440	RIG SERVICE, SERVICE TOP DRIVE BLOCKS AND CROWN. CHECK BRAKES AND E-STOP. PERFORM BOP DRILL.
	14:00 - 0:00	10.00	DRLPRO	02	D	P	4440	DIRECTIONAL DRILL 4,440'- 5463' (1023' / 10 HRS @ 102.3' /FPH) TOTAL BIT HRS 22.4, TOTAL CIRC HRS 28.1 HRS WEIGHT ON BIT = 15/20 K STROKES PER MINUTE - 131 GALLONS PER MINUTE = 550 MUD MOTOR RPM = 110 TOP DRIVE RPM = 50 TOTAL RPM = 150 FT/LBS TORQUE = 8 - 9.8K STPP = 2350 OFF BOTTOM = 1950 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 143 / 126 / 136 MUD WEIGHT OBM = 9 PPG VISCOSITY = 51 SECONDS
12/27/2015	0:00 - 8:00	8.00	DRLPRO	02	D	P	5463	DIRECTIONAL DRILL 5463'- 6011' (548' / 7 HRS @ 78' /FPH) TOTAL BIT HRS 29.4, TOTAL CIRC HRS 35.7 HRS WEIGHT ON BIT = 15/22 K STROKES PER MINUTE - 138 GALLONS PER MINUTE = 530 MUD MOTOR RPM = 106 TOP DRIVE RPM = 50 TOTAL RPM = 150 FT/LBS TORQUE = 8 - 10.2K STPP = 2375 OFF BOTTOM = 2000 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 156 / 136 / 142 MUD WEIGHT OBM = 9.1 PPG VISCOSITY = 49 SECONDS LOST PARTIAL RETURNS. LOSSING 200/BBLs HR AFTER DROPPING PUMPS 200 GPM. (PUMP 100# BBL LCM SWEEP IN PILL TANK)
	8:00 - 9:00	1.00	DRLPRO	22	G	X	6011	DROP PUMPS TO 119 GPM, CIRCULATE AT 10 BBL HR LOSS. PUMP 26 BBL DIAMOND SEAL PILL (2 BUCKETS DAIMOND SEAL, 15#/BBL CEDER, 15 #LBS PER BBL GEL, 15# PER BBL OPTISEAL)
	9:00 - 9:30	0.50	DRLPRO	22	G	X	6011	TRIP OUT OF HOLE 6 STANDS, LEAVING 431' OF DIAMOND SEAL PILL BELOW DRILL BIT.

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	9:30 - 11:00	1.50	DRLPRO	22	G	X	6011	STAGE PUMP UP FOR DIAMOND SEAL TO BE INJECTED INTO FORMATION. PUMP AT 400-575 GPM TO INJECT 15 BBLs OF PILL INTO FORMATION. CIRCULATE AT 425 GPM W/ NO LOSSES OR GAINS TO ALLOW DIAMOND SEAL TO EXPAND IN LOSS ZONE.
	11:00 - 12:00	1.00	DRLPRO	22	G	X	6011	WASH BACK DOWN THROUGH HOLE WITH 415 GPM FROM 5700'- 6011', PUMP 20 BBL 100#/BBL LCM SWEEP TIME TO DRILL CONTINUE DRILLING. WASH DOWN WITH NO LOSSES. LOSS APPROX 100-120 BBLs OF OBM.
	12:00 - 17:30	5.50	DRLPRO	02	D	P	6011	DIRECTIONAL DRILL 6011'-6323 (312' 5.2 HRS @ 60'/HR) TOTAL BIT HRS 34.6, TOTAL CIRC HRS 44 HRS WEIGHT ON BIT = 15/20 K STROKES PER MINUTE - 138 GALLONS PER MINUTE = 425-450 MUD MOTOR RPM = 90 TOP DRIVE RPM = 50 TOTAL RPM = 150 FT/LBS TORQUE = 9 - 11.8K STPP = 2375 OFF BOTTOM = 2000 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 159 / 132 / 144 MUD WEIGHT OBM = 9.2 PPG VISCOSITY = 57 SECONDS
	17:30 - 18:00	0.50	DRLPRO	07	A	P	6323	RIG SERVICE. SERVICE TOP DRIVE BLOCKS AND CROWN. CHECK BRAKES AND E-STOP
	18:00 - 0:00	6.00	DRLPRO	02	D	P	6323	DIRECTIONAL DRILL 6323'- 6710'(387' 6 HRS @ 64.5'/HR) TOTAL BIT HRS 40.2, TOTAL CIRC HRS 50.3HRS WEIGHT ON BIT = 15/20 K STROKES PER MINUTE - 119 GALLONS PER MINUTE = 425-450 MUD MOTOR RPM = 90 TOP DRIVE RPM = 55 TOTAL RPM = 155 FT/LBS TORQUE = 8.7 - 16K STPP = 2115 OFF BOTTOM = 1700 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 154 / 140 / 148 MUD WEIGHT OBM = 9.3 PPG VISCOSITY = 57 SECONDS

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
12/28/2015	0:00 - 3:00	3.00	DRLPRO	02	D	P	6710	DIRECTIONAL DRILL 6710'- 6812' (102' 2.6HRS @ 39/HR) TOTAL BIT HRS 42.8 TOTAL CIRC HRS 53.1HRS WEIGHT ON BIT = 20/28 K STROKES PER MINUTE - 119 GALLONS PER MINUTE = 425-450 MUD MOTOR RPM = 90 TOP DRIVE RPM = 55 TOTAL RPM = 155 FT/LBS TORQUE = 9800- 13000K STPP = 2115 OFF BOTTOM = 1700 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 175 / 143 / 159 MUD WEIGHT OBM = 9.3 PPG VISCOSITY = 57 SECONDS PENETRATION RATES FELL OFF TO LESS THE 15 ROP, SOME MEDIUM PRESSURE SPIKING (MAX 2300'-1950 PSI) POSSIBLTY BIT WAS BAD. DRILLER TRIED RUNNING IT AT 28K.
	3:00 - 4:00	1.00	DRLPRO	05	A	P	6812	CIRCULATE AROUND SWEEP TO CLEAN HOLE. CIRCULATE AT 441GPM. 15% INCREASE IN CUTTINGS ON BOTTOMS UP. MUD WT 9.3 VIS 54.
	4:00 - 7:30	3.50	DRLPRO	05	D	P	6812	LOST COMPLETE CIRCULATION. WHILE MIXING DRY JOB. SHUT DOWN PUMPING WHILE WAITING TO TRANSFER OUT MUD AND PLACE 15 BBLs OF WATER INTO PILL TANK, MIX IN LCM AND DIAMOND SEAL SWEEP. MIX UP DRY JOB. PUMP DIAMOND SEAL PILL. PUMP 1100 STROKES THEN PUMP DRY JOB TO SPOT DIAMOND SEAL PILL ABOVE AT LOSS ZONE AT 6000'. (REGAINED CIRCULATION @ 250 GPM) (LOST APPROX 150 BBLs) (NO FLOW ON FLOW CHECK)
	7:30 - 12:30	5.00	DRLPRO	06	A	P	6812	TRIP OUT OF HOLE PULLING MAX PULL OF 173K, HOLE PULLED SLICK WITH NO TIGHT HOLES ON TRIP OUT. HOLE TOOK 5 BBLs OVER FILL WHILE TRIPPING OUT OF HOLE. PULL ROTATING HEAD RUBBER AT HWDP. STAND BACK EM TOOL. BREAK BIT AND LAY DOWN MUD MOTOR. NO FLOW ON FLOW CHECK.
	12:30 - 18:00	5.50	DRLPRO	06	A	P	6812	PICK UP WENZEL MUD MOTOR 7:8/3.0stg/.20rev/1.5°fix/-.005fit SER# 650-M5-072/ AND MAKE UP SMITH MDSI 616 SN JJ4675) W/ 6-16'S. MAKE UP DIRECTIONAL TOOLS. PROGRAM TOOL AND SCRIBE MOTOR. TEST MUD MOTOR. TRIP IN HWDP AND INSTALL ROTATING HEAD RUBBER. TRIP IN HOLE BREAKING CIRCULATION AT 2900' 5000' AND 6600'. (GOOD HOLD DISPLACEMENT ON TRIP IN, NO LOSSES WHILE TRYING TO CIRCULATE.)
	18:00 - 18:30	0.50	DRLPRO	03	D	P	6812	WASH DOWN THROUGH DIAMOND SEAL SWEEP AT 400 GPM. PUMP 20 BBL 100#/BBL SWEEP. WASH DOWN 6400'-6812'. NO TIGHT HOLE.

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	18:30 - 20:15	1.75	DRLPRO	02	D	P	6812	DIRECTIONAL DRILL F/ 6,812' T/ 6,863' (51' 1.75 HRS @ 29.14/HR) TOTAL BIT HRS 1.5 TOTAL CIRC HRS 2.0HRS WEIGHT ON BIT = 15/20 K STROKES PER MINUTE - 110 GALLONS PER MINUTE = 425 MUD MOTOR RPM = 80 TOP DRIVE RPM = 55 TOTAL RPM = 130 FT/LBS TORQUE = 9800- 13000K STPP = 2115 OFF BOTTOM = 1700 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 175 / 143 / 159 MUD WEIGHT OBM = 9.4 PPG VISCOSITY = 59 SECONDS
	20:15 - 23:30	3.25	DRLPRO	05	F	P	6863	LOST COMPLETE CIRCULATION AT 110 SPM, 420GPM. LOSE ZONE INDICATES SHOW LOSES RIGHT AT THE BIT @ 6,863' UP TO 6,000', BUILD AN PUMP 1105 STROKES AND SPOT 35 BBL PILL @ 6,000' TO 6,863', THEN PULLED ABOVE IT. KILLED PUMPS AND WAITED 20 MINS WHILE BUILDING 2ND PILL, 20 PPB OPTISEAL, 15 PPB TUFF PLUG COARSE, 10 PPB TUFF PLUG MEDIUM, 20 PPB GEL, 20 PPB CIDER FIBER, ONCE PUMPING AGAIN FOR 2ND SWEEP RETURNS WHERE ESTABLISH AT 20 SPM, SLOWLY INCREASED PUMP RATE AS 2ND SWEEP NEARED THE BIT, ONCE 2ND SWEEP EXITED THE BIT, WE WERE ABLE TO PUMP A 400 GPM
	23:30 - 0:00	0.50	DRLPRO	02	D	P	6863	DIRECTIONAL DRILL F/ 6,863' T/ 6,875' (12' .5 HRS @ 24/HR) TOTAL BIT HRS 1.8 TOTAL CIRC HRS 5.3HRS WEIGHT ON BIT = 15/20 K STROKES PER MINUTE - 110 GALLONS PER MINUTE = 425 MUD MOTOR RPM = 80 TOP DRIVE RPM = 55 TOTAL RPM = 130 FT/LBS TORQUE = 9800- 13000K STPP = 2115 OFF BOTTOM = 1700 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 175 / 143 / 159 MUD WEIGHT OBM = 9.4 PPG VISCOSITY = 59 SECONDS
12/29/2015	0:00 - 23:30	23.50	DRLPRO	02	D	P	6875	DIRECTIONAL DRILL 6,875'- (12' .5 HRS @ 24/HR) TOTAL BIT HRS 1.8 TOTAL CIRC HRS 5.3HRS WEIGHT ON BIT = 15/20 K STROKES PER MINUTE - 110 GALLONS PER MINUTE = 425 MUD MOTOR RPM = 80 TOP DRIVE RPM = 55 TOTAL RPM = 130 FT/LBS TORQUE = 9800- 13000K STPP = 2115 OFF BOTTOM = 1700 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 175 / 143 / 159 MUD WEIGHT OBM = 9.4 PPG VISCOSITY = 59 SECONDS
	23:30 - 0:00	0.50	DRLPRO	07	A	P	7378	LUBRICATE RIG AND TOP DRIVE, GREASE BLOCKS

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
12/30/2015	0:00 - 7:00	7.00	DRLPRO	02	D	P	7378	DIRECTIONAL DRILL F/ 7,378' - T/ 7,469' (91' 4.8 HRS @ 18.9FPH) TOTAL BIT HRS 27.0 TOTAL CIRC HRS 35.6 WEIGHT ON BIT = 15/20 K STROKES PER MINUTE = 110 GALLONS PER MINUTE = 425 MUD MOTOR RPM = 80 TOP DRIVE RPM = 55 TOTAL RPM = 130 FT/LBS TORQUE = 9800- 13000K STPP = 2115 OFF BOTTOM = 1700 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 175 / 143 / 159 MUD WEIGHT OBM = 9.3 PPG VISCOSITY = 79 SECONDS
	7:00 - 7:30	0.50	DRLPRO	05	C	P	7469	CIRCULATE WHILE BUILDING SLUG - CHECK FLOW - NEG - PUMP SLUG
	7:30 - 11:30	4.00	DRLPRO	06	A	P	7469	TOOH F/ 7,469' - T/ 118' - TRIP OUT DUE TOO LOW ROP NOTE: WORK TIGHT HOLE F/ 4,930' - T/ 4,850'
	11:30 - 12:00	0.50	DRLPRO	06	A	P	7469	HANDLE BHA - BREAK BIT AND L/D MUD MOTOR
	12:00 - 13:00	1.00	DRLPRO	06	A	P	7469	P/U NEW BAKER HUGHES MUD MOTOR 5:6/3.0stg/.16rev/1.5°fix/.004fit SN# 10354781 AND M/U SMITH MDiS 713 SN# JK2854 W/ 6-16'S (TFA 1.178). MAKE UP DIRECTIONAL TOOLS. PROGRAM TOOL AND SCRIBE MOTOR. TEST MUD MOTOR - GOOD TEST.
	13:00 - 17:30	4.50	DRLPRO	06	A	P	7469	TIH F/ 118' - T/ 6,283' - WASHED & REAMED TIGHT HOLE F/ 4,850' - T/ 4,930' W/ 45 RPM, 105 SPM @ 1,215psi
	17:30 - 18:00	0.50	DRLPRO	07	A	P	7469	RIG SERVICE
	18:00 - 19:00	1.00	DRLPRO	05	C	Z	7469	CIRCULATE WHILE BUILDING SLUG - CHECK FLOW - NEG - PUMP SLUG
	19:00 - 22:00	3.00	DRLPRO	06	A	Z	7469	TOOH F/ 6,283' - T/ 118' - DUE TOO FLOAT NOT HOLDING
	22:00 - 22:30	0.50	DRLPRO	06	A	Z	7469	HANDLE BHA - BREAK BIT AND L/D MUD MOTOR
	22:30 - 23:30	1.00	DRLPRO	06	A	Z	7469	P/U NEW BAKER HUGHES MUD MOTOR 5:6/3.0stg/.16rev/1.5°fix/.003fit SN# 9473 AND M/U SMITH MDiS 713RR SN# JK2854 W/ 6-16'S (TFA 1.178). MAKE UP DIRECTIONAL TOOLS. PROGRAM TOOL AND SCRIBE MOTOR. TEST MUD MOTOR - GOOD TEST.
	23:30 - 0:00	0.50	DRLPRO	06	A	Z	7469	TIH F/ 118' - T/ 430'
12/31/2015	0:00 - 5:00	5.00	DRLPRO	06	A	Z	7469	TIH F/ 430' - T/ 7,469' - NO ISSUES

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	5:00 - 13:00	8.00	DRLPRO	02	D	P	7469	DIRECTIONAL DRILL F/ 7,469' - T/ 7,838' (369' 7.3 HRS @ 50.5 FPH) TOTAL BIT HRS 7.3 TOTAL CIRC HRS 11.4 WEIGHT ON BIT = 17/22K STROKES PER MINUTE - 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 60 TOP DRIVE RPM = 55 TOTAL RPM = 115 FT/LBS TORQUE = 11-15K STPP = 2075 OFF BOTTOM = 1640 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 209 / 172 / 189 MUD WEIGHT OBM = 9.6 PPG VISCOSITY = 54 SECONDS STARTED WEIGHT UP @ 08:00 HRS 7,607' @ 7,838' W/ 9.5 PPG
	13:00 - 13:30	0.50	DRLPRO	07	A	P	7838	SERVICE RIG, LUBRICATE TOP DRIVE, CROWN AND BLOCKS. INSPECT WIRE ROPES AND FLUID LEVELS.
	13:30 - 0:00	10.50	DRLPRO	02	D	P	7838	DIRECTIONAL DRILL F/ 7,838' T/8,410' (572' 9.9 HRS @ 57.7 FPH) TOTAL BIT HRS 17.2 TOTAL CIRC HRS 22 WEIGHT ON BIT = 17/22K STROKES PER MINUTE - 108 GALLONS PER MINUTE = 415 MUD MOTOR RPM = 66 TOP DRIVE RPM = 55 TOTAL RPM = 121 FT/LBS TORQUE = 11-14K STPP = 2175 OFF BOTTOM = 1640 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 210 / 175 / 188 MUD WEIGHT OBM = 10.1 PPG VISCOSITY = 55 SECONDS STARTED WEIGHT UP @ 08:00 HRS 7,607' @ 7,838' W/ 9.5 PPG
1/1/2016	0:00 - 16:00	16.00	DRLPRO	02	D	P	8410	DIRECTIONAL DRILL F/ 8,410' - T/ 8,965' (555' 14.4 HRS @ 38.5 FPH) TOTAL BIT HRS 31.6 TOTAL CIRC HRS 37.6 WEIGHT ON BIT = 13/17K STROKES PER MINUTE - 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 11-14K STPP = 2250 OFF BOTTOM = 2000 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 195 MUD WEIGHT OBM = 10.7 PPG VISCOSITY = 57 SECONDS
	16:00 - 16:30	0.50	DRLPRO	07	A	P	8965	RIG SERVICE

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	16:30 - 0:00	7.50	DRLPRO	02	D	P	8965	DIRECTIONAL DRILL F/ 8,965' - T/ 9,126' (161' 7.2 HRS @ 22.4 FPH) TOTAL BIT HRS 38.8 TOTAL CIRC HRS 45.4 WEIGHT ON BIT = 10/15K STROKES PER MINUTE = 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 11-14K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 197 MUD WEIGHT OBM = 10.6 PPG VISCOSITY = 58 SECONDS
1/2/2016	0:00 - 4:00	4.00	DRLPRO	02	D	P	9126	DIRECTIONAL DRILL F/ 9,126' - T/ 9,197' (71' 3.8 HRS @ 18.6 FPH) TOTAL BIT HRS 42.6 TOTAL CIRC HRS 49.3 WEIGHT ON BIT = 10/15K STROKES PER MINUTE = 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 11-14K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 197 MUD WEIGHT OBM = 10.6 PPG VISCOSITY = 58 SECONDS
	4:00 - 5:00	1.00	DRLPRO	05	C	Z	9197	CIRCULATE WHILE BUILDING SLUG - CHECK FLOW - NEG - PUMP SLUG
	5:00 - 12:00	7.00	DRLPRO	06	A	Z	9197	TOOH F/ 9,197' - T/ 118' - TRIP OUT DUE TOO LOW ROP. L/D MOTOR AND BIT. BIT GRADED 3-1 MOTOR WAS TIGHT. P/U 6.5" BAKER ULTRA XL/LS MOTOR AND A 7 7/8" SECURITY MM64D DRILL BIT. PULLED MWD TOOL REPLACED 1 BATTERY PACK AND SURFACE TESTED SAME. HOLE TOOK 12 BBL'S MORE THEN CALCULATED FILL.
	12:00 - 15:30	3.50	DRLPRO	06	A	Z	9197	INSTALLED ROTATING HEAD ON FIRST STAND HWP TRIPPED IN HOLE F/ 118' TO 9,115' FILLED PIPE & BROKE CIRC JUST OUTSIDE SHOE 2,900' FILLED PIPE 5,500' & 8,000' THEN WASHED LAST 82' TOZ BOTTOM. MUD WEIGHT 10.6 PPG AND VISCOSITY 59 NO TIGHT HOLE ISSUE TRIPPING 40 BBL'S LOST ON TRIP IN
	15:30 - 16:00	0.50	DRLPRO	07	A	P	9197	RIG SERVICE

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	16:00 - 17:30	1.50	DRLPRO	02	D	P	9197	DIRECTIONAL DRILL F/ 9,197' - T/ 9,207' (10' 1.5 HRS @ 6.6 FPH) TOTAL BIT HRS 1.5 TOTAL CIRC HRS 1.5 WEIGHT ON BIT = 10/15K STROKES PER MINUTE - 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 11-14K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 197 MUD WEIGHT OBM = 10.7 PPG VISCOSITY = 67 SECONDS
	17:30 - 19:30	2.00	DRLPRO	22	N	X	9207	WHILE DRILLING AHEAD AFTER TRIPPING BACK ON BOTTOM, TRIP GAS CAME TO SURFACE BRINGING FLOW TO 100% - DRILLER SPACED OUT SHUT DOWN PUMPS AND CLOSED WELL IN. GAINED 26 BBL'S DURING SHUT IN PROCEDURE. MONITORED SICP 270 PSI / SIDP 0 PSI. ROLLED PUMP AND OPENED FLOATS WITH 60 PSI. CIRCULATED GAS OUT THUR CHOKE W/ 60 SPM (230GPM) @ 760PSI - MUD WT# GAS CUT F/ 10.8# - T/ 10.6#, MAX GAS 9690 UNITS W/ NO FLARE.
	19:30 - 20:30	1.00	DRLPRO	08	B	Z	9207	CHANGED OUT ROTATING HEAD RUBBER.
	20:30 - 0:00	3.50	DRLPRO	02	D	P	9207	DIRECTIONAL DRILL F/ 9,207' - T/ 9,290' (83' 1.7 HRS @ 49 FPH) TOTAL BIT HRS 3.2 TOTAL CIRC HRS 3.5 WEIGHT ON BIT = 10/15K STROKES PER MINUTE - 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 11-14K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 197 MUD WEIGHT OBM = 10.8 PPG VISCOSITY = 60 SECONDS
1/3/2016	0:00 - 9:00	9.00	DRLPRO	02	D	P	9290	DIRECTIONAL DRILL F/ 9,290' - T/ 9,484' (194' 8 HRS @ 24 FPH) TOTAL BIT HRS 11.2 TOTAL CIRC HRS 13.5 WEIGHT ON BIT = 10/15K STROKES PER MINUTE - 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 9-12K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 220 / 190 / 197 MUD WEIGHT OBM = 11.1 PPG VISCOSITY = 65 SECONDS

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	9:00 - 10:00	1.00	DRLPRO	22	G	X	9484	PULLED OFF BOTTOM AND SLOWED PUMPS TO 250 GPM DUE TO HEAVY LOSSES (50 BBL'S IN 25 MIN). MIXED DIAMOND SEAL SWEEP AND PUMPED SAME. ONCE SWEEP CLEARED BIT WE WENT BACK TO FULL PUMP 400 GPM AND HAD FULL RETURNS. FOLLOWED DIAMOND SEAL WITH 100 PPB LCM SWEEP 20 BBL'S.
	10:00 - 0:00	14.00	DRLPRO	02	D	P	9484	DIRECTIONAL DRILL F/ 9,484' - T/ 9,775' (291' 13.1 HRS @ 22 FPH) TOTAL BIT HRS 24.3 TOTAL CIRC HRS 27.1 WEIGHT ON BIT = 10/15K STROKES PER MINUTE = 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 10 - 13.5K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 225 / 195 / 200 MUD WEIGHT OBM = 11.2 PPG VISCOSITY = 59 SECONDS
1/4/2016	0:00 - 4:00	4.00	DRLPRO	02	D	P	9775	DIRECTIONAL DRILL F/ 9,775' - T/ 9,854' (79' 3.6 HRS @ 22 FPH) TOTAL BIT HRS 27.9 TOTAL CIRC HRS 31.8 WEIGHT ON BIT = 10/15K STROKES PER MINUTE = 104 GALLONS PER MINUTE = 400 MUD MOTOR RPM = 64 TOP DRIVE RPM = 55 TOTAL RPM = 119 FT/LBS TORQUE = 10 - 13.5K STPP = 2375 OFF BOTTOM = 2120 DIFF 250-450 STRING WEIGHT UP/DOWN/ROTATING = 225 / 195 / 200 MUD WEIGHT OBM = 11.3 PPG VISCOSITY = 58 SECONDS
	4:00 - 10:00	6.00	EVALPR	05	A	P	9854	CIRCULATE AT 400 GPM (PUMP 2- 20 BBL 100#/BBL LCM SWEEPS) FIRST SWEEP RETURNED WITH 40% INCREASE. 15% INCREASE ON SECOND SWEEP. CONTINUED CIRCULATING INCREASING MUD WT F/ 11.3 TO 11.5 VIS 62 RECIPROCATATE PIPE 90' WHILE ROTATING AT 32 RPM @ 2350 PSI AND 7900 FT/LBS TORQUE. ONCE MUD WAS AT 11.5 PPG SENT 2 10 BBL 100 PPB LCM SWEEPS DUE TO LOSSES. AFTER SWEEPS CAME AROUND LOSSES WERE MINIMAL AT 6-8 BBL'S PER/HR. BOTTOMS UP GAS- 670 UNITS, BACKGROUND GAS- 82 UNITS NO FLARE. CHECK FLOW - BALLOONED BACK 10 BBL'S
	10:00 - 15:30	5.50	EVALPR	06	A	P	9854	PULLED 10 STANDS FLOW CHECKED WELL STATIC. PUMPED 25 BBL 1.5 # OVER SLUG. CONTINUED TRIPPING OUT HOLE TAKING PROPER FILL. WORKED TIGHT SPOT AT 7,750' 5 TIMES CLEARED UP W/ 8-10K OVER PULL. CONTINUED OUT TO BHA HOLE SLICK.

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	15:30 - 17:30	2.00	EVALPR	06	A	P	9854	L/D ALL 6.5" BHA, MOTOR DRAINED GOOD, BIT GRADED 2-1 AND HAD 2 PLUGGED NOZZLES (LCM).
	17:30 - 18:00	0.50	EVALPR	07	A	P	9854	SERVICED RIG, CLEANED RIG FLOOR, PREP FOR LOGS
	18:00 - 0:00	6.00	EVALPR	11	D	P	9854	HELD PJSM W/ SCHLUMBERGER, RIG CREW, RIG MANAGER AND COMPANY REPS. STAGED IN TRUCK AND OFFLOADED TOOLS AND RIGGED UP SAME. PICK UP TRIPLE COMBO TOOLS W/ TEMPERATURE SENSOR. LOGGING TOOLS WENT TO BOTTOM WITH NO ISSUES 9,854' (WIRELINE DEPTH 9,856'), AN LOGGED BACKED TO SURFACE WITH NO ISSUES. L/D TOOLS - WELL TOOK 6BBLs IN 6HRS
1/5/2016	0:00 - 13:30	13.50	EVALPR	11	D	P	9854	PICK UP LOGGING TOOLS 2ND RUN - ADT, LITHO SCANNER AND CMR TOOL. LOGGING TOOLS WENT TO BOTTOM WITH NO ISSUES 9,854' (WIRELINE DEPTH 9,856'), AN LOGGED BACKED TO SURFACE WITH NO ISSUES LOGGING @ 500' PER HR. LAY DOWN WIRELINE TOOLS. HOLD SAFETY MEETING AND RIG DOWN SCHLUMBERGER WIRELINE COMPANY.
	13:30 - 14:00	0.50	CSGPRO	12	A	P	9854	PICK UP JT AND PULL WEAR BUSHING. MONITOR WEAR BUSHING BEING PULLED. LAY DOWN TOOL JT.
	14:00 - 15:30	1.50	CSGPRO	12	A	P	9854	HOLD SAFETY MEETING WITH FRANKS CASING. RIG UP 6' EXTENSION BALES AND CASING ELEVATORS. RIG UP HYDRAULING CASING TONGS, AND SLIPS. RIG UP TORQUE TURN. FUNCTION TEST ALL EQUIPMENT.
	15:30 - 0:00	8.50	CSGPRO	12	C	P	9854	MAKE UP 4.5" P-110 WEATHERFORD FLOAT SHOE AND COLLAR WITH THREAD LOCK WITH SHOE JT. RUN IN HOLE WITH 7-7/8" BOW SPRING CENTRALIZERS ON FIRST 3 JTS AND EVERY 3 JT FOR A TOTAL OF 25 CENTRALIZERS WAS RUN. RUN 4.5" P-110 11.6# LT&C CASING T/ 4,863' TOTAL OF 109JTS LT&C. P/U 4.5" CROSSOVER TO DQX, (TOP OF CROSSOVER 4,979' SET DEPTH) CONTINUE TO RUN DQX F/ 4,929 - T/ 8,016' TOTAL OF 71 JTS DQX. NOTE: MESA MARKER JT BETWEEN JT 47 AND 48, TOP OF MARKER 7,734' - STAGE TOOL BETWEEN JT 97 AND 98, TOP OF STAGE TOOL 5,512'. RAN THREE TOTAL CEMENT BASKETS WITH LOCKING BANDS AROUND STAGE TOOL.
1/6/2016	0:00 - 2:30	2.50	CSGPRO	12	C	P	9854	CONTINUE TO RUN 4.5" P-110 11.6# DQX CASING F/ 8,016' - T/ 9,826' TOTAL OF 112 JTS DQX. MAKE UP CAMERON LANDING MANDREL AND LAND CASING @ 9,843' W/ 105K NOTE: SHOE SET @ 9,843', FLOAT SET @ 9,796, MESA MAKER JT @ 7,734', STAGE TOOL SET @ 5,512'
	2:30 - 3:00	0.50	CSGPRO	12	A	P	9854	R/D FRANKS CASING CREW

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: ENSIGN 145/145, CAPSTAR 310/310

Event: DRILLING

Start date: 1/21/2014

End date: 1/7/2016

Active datum: RKB @4,911.00usft (above Mean Sea Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	3:00 - 6:30	3.50	CSGPRO	12	B	P	9854	R/U SCHLUMBERGER CEMENTERS WHILE CIRCULATING B/U STAGGING MUD PUMP UP SLOWLY F/ 20 SPM (75 GPM) - T/ 65 SPM (250 GPM) @ 435PSI. MAX UNITS 497 W/ NO FLARE AND LOSSES WERE MINIMAL. HELD PRE JOB SAFETY MEETING WITH NEW RIG CREW AND CEMENT CREW, SHUT PUMPS DOWN AND R/U CEMENT HEAD.
	6:30 - 7:30	1.00	CSGPRO	12	B	P	9854	PUMP 5 BBLS AHEAD FRESH WATER AND ISOLATED WELL AT HEAD FOR PRESSURE TEST. COULD NOT GET A GOOD TEST, MULTIPLE ATTEMPTS TRIED BEFORE LEAK WAS FOUND. REPLACED VALVE ON BLEED OFF SIDE OF PUMP.
	7:30 - 16:30	9.00	CSGPRO	12	E	P	9854	PRESSURE TESTED LINES (GOOD). START PUMPING MUD PUSH 2.5BPM 600PSI (PUMPED 30BBLS 12.3#) START 14.5# TAIL CEMENT 3.7BPM @341PSI (TOTAL OF 211.5BBL) SHUT DOWN/DROP LATCH IN FLEX PLUG BY HAND TO MAKE SURE PLUG WENT WAIT ON CEMENTERS TO WASH UP PUMP TRUCK START DISPLACEMENT 6BPM @200 PSI TOTAL OF 152.26BBLS (80BBLS FRESH 72BBLS MUD) LAND PLUG @2BPM 1800PSI WENT TO 2750 TO MAKE SURE LATCH IN PLUG WAS LATCHED CHECKED PLUG AND FLOATS HELD. WHICH THEY DID. BLED 1-1/4 TO PUMP TRUCK DROPPED OPENING CONE AND WAIT 38MINS FOR CONE TO LAND IN STAGETOOL OPENED DV TOOL @847PSI TURN OVER TO RIG TO CIRCULATE 4 HRS @ 190 GPM (250 PSI) JSA WITH CEMENT CREW AND RIG CREW START 30BBLS OF MUD PUSH 12.3# 3BPM 156PSI START PUMPING LEAD CEMENT 160BBLS 4.5BPM 400PSI 12.5# 45 BBL'S SHORT START PUMPING TAIL CEMENT 80BBLS 4.3BPM 288PSI 14.5# START PUMPING TAIL CEMENT 14.6BBLS .1BPM 42PSI 15.8# DROP CLOSEING PLUG BY HAND START DISPLACEMENT 6BPM 600PSI TOTAL DISPLACEMENT 85.6BBLS SLOW RATE TO 4BPM 75BBLS GONE 1330PSI LAND PLUG AND CLOSE DV TOOL 1450PSI-2942PSI BLED BACK 1-1/4BBL TO SURFACE. WASH SURFACE LINES UP.
	16:30 - 17:30	1.00	RDMO	12	B	P	9854	RIG DOWN SCHLUMBERGER CEMENT EQUIPMENT.
	17:30 - 18:00	0.50	RDMO	12	C	P	9854	SET PACK OFF WITH CAMERON REP. NO ISSUES. RELEASED RIG @ 18:00 HRS

ANADARKO PETROLEUM CORP

UINTAH COUNTY, UTAH (NAD 27)

SW SE SEC. 23 T9S R21E (NBU 921-23P PAD)

NBU 921-23P1CS

PRODUCTION - 2015-160-145

04 January, 2016

Survey: FINAL SURVEYS





Project: UINTAH COUNTY, UTAH (NAD 27)
 Site: SW SE SEC. 23 T9S R21E (NBU 921-23P PAD)
 Well: NBU 921-23P1CS
 Wellbore: PRODUCTION - 2015-160-145
 Design: FINAL SURVEYS - PRODUCTION



PROJECT DETAILS: UINTAH COUNTY, UTAH (NAD 27)

Geodetic System: Universal Transverse Mercator (US Survey Feet)

Datum: NAD 1927 (NADCON CONUS)

Ellipsoid: Clarke 1866

Zone: Zone 12N (114 W to 108 W)

Padsite: SW SE SEC. 23 T9S R21E (NBU 921-23P PAD)

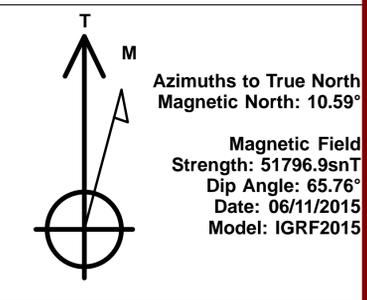
WELL DETAILS: NBU 921-23P1CS

Ground Level: 4896.6

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	14535094.36	2056771.81	40.015312	-109.513024

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BHL - NBU 921-23P1CS	9743.0	527.1	679.8	14535632.64	2057442.59	40.016759	-109.510597

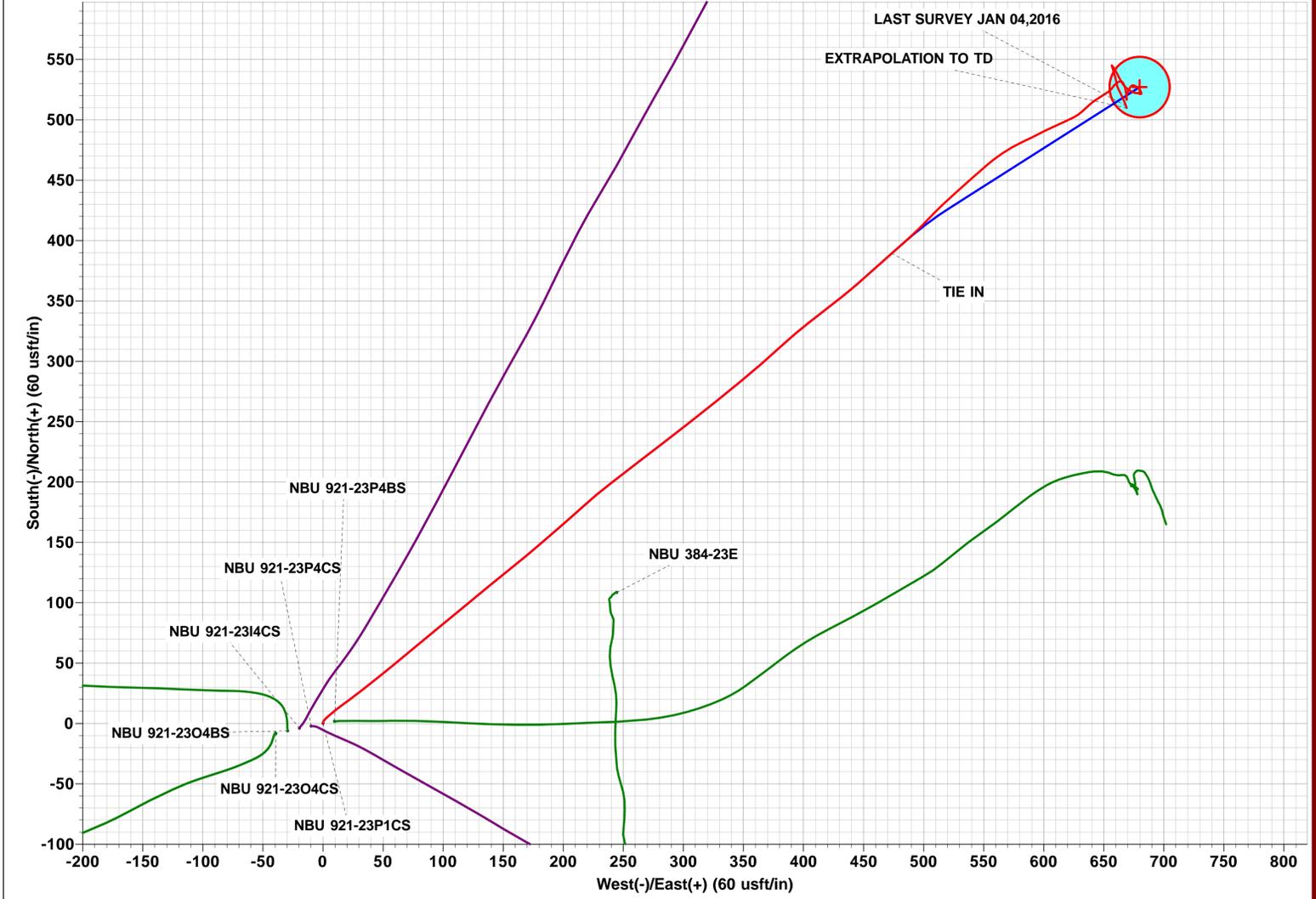
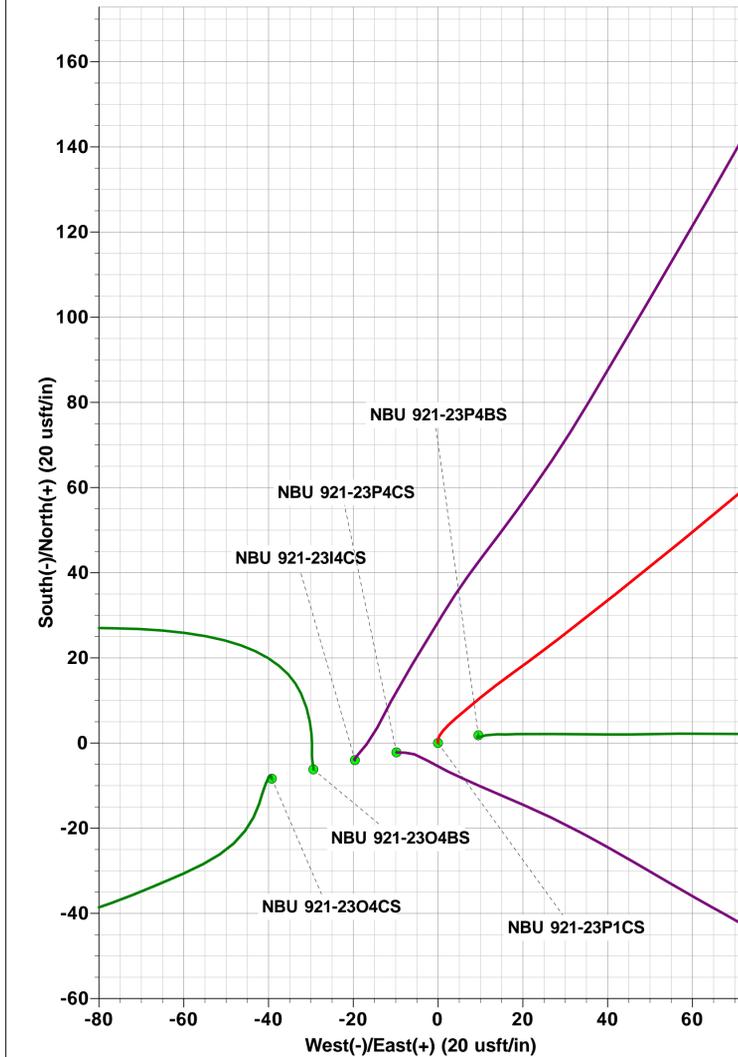


ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
2729.7	2812.6	15.74	48.89	389.4	473.5	612.9	0.0	TIE IN
9690.0	9794.0	1.85	162.47	511.6	668.4	841.7	359.1	LAST SURVEY JAN 04, 2016
9749.9	9854.0	1.85	162.47	509.8	669.0	841.1	361.0	EXTRAPOLATION TO TD

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
2729.7	2812.6	15.74	48.89	389.4	473.5	612.9	0.0	TIE IN
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9749.9	9854.0	1.85	162.47	509.8	669.0	841.1	361.0	EXTRAPOLATION TO TD



LAST SURVEY - DEC 10, 2015



Survey Report



Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well NBU 921-23P1CS
Project:	UINTAH COUNTY, UTAH (NAD 27)	TVD Reference:	kb @ 4908.6usft (ENS 145)
Site:	SW SE SEC. 23 T9S R21E (NBU 921-23F)	MD Reference:	kb @ 4908.6usft (ENS 145)
Well:	NBU 921-23P1CS	North Reference:	True
Wellbore:	PRODUCTION - 2015-160-145	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS - PRODUCTION	Database:	EDM 5000.1 Single User Db

Project	UINTAH COUNTY, UTAH (NAD 27)		
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)	Using geodetic scale factor	

Site	SW SE SEC. 23 T9S R21E (NBU 921-23P PAD)				
Site Position:		Northing:	14,535,085.33 usft	Latitude:	40.015289
From:	Lat/Long	Easting:	2,056,732.75 usft	Longitude:	-109.513164
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft	Grid Convergence:	0.96 °

Well	NBU 921-23P1CS					
Well Position	+N-S	0.0 usft	Northing:	14,535,094.36 usft	Latitude:	40.015312
	+E-W	0.0 usft	Easting:	2,056,771.81 usft	Longitude:	-109.513024
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	4,896.6 usft

Wellbore	PRODUCTION - 2015-160-145				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	06/11/2015	10.59	65.76	51,797

Design	FINAL SURVEYS - PRODUCTION				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	2,812.6
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)	
	0.0	0.0	0.0	52.21	

Survey Program	Date	04/01/2016			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
142.6	2,812.6	SURFACE SURVEYS (SURFACE)	MWD	MWD - Standard	
2,871.0	9,854.0	FINAL SURVEYS (PRODUCTION - 2015-	MWD	MWD - Standard	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
TIE IN										
2,812.6	15.74	48.89	2,729.7	-2,178.9	389.4	473.5	612.9	0.00	0.00	0.00
2,871.0	16.17	48.21	2,785.9	-2,122.7	400.1	485.6	628.9	0.80	0.74	-1.16
2,966.0	12.57	43.55	2,877.9	-2,030.7	416.4	502.6	652.3	3.98	-3.79	-4.91
3,060.0	10.68	46.71	2,969.9	-1,938.7	429.8	516.0	671.1	2.12	-2.01	3.36
3,155.0	10.11	48.38	3,063.4	-1,845.2	441.3	528.6	688.2	0.68	-0.60	1.76
3,250.0	9.98	48.82	3,156.9	-1,751.7	452.3	541.0	704.7	0.16	-0.14	0.46
3,344.0	9.14	48.91	3,249.6	-1,659.0	462.6	552.8	720.3	0.89	-0.89	0.10
3,439.0	11.21	56.55	3,343.1	-1,565.5	472.6	566.2	737.0	2.60	2.18	8.04
3,534.0	10.94	64.82	3,436.4	-1,472.2	481.6	582.0	755.0	1.69	-0.28	8.71
3,628.0	7.64	62.80	3,529.1	-1,379.5	488.2	595.7	769.9	3.53	-3.51	-2.15

Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well NBU 921-23P1CS
Project:	UINTAH COUNTY, UTAH (NAD 27)	TVD Reference:	kb @ 4908.6usft (ENS 145)
Site:	SW SE SEC. 23 T9S R21E (NBU 921-23P1CS)	MD Reference:	kb @ 4908.6usft (ENS 145)
Well:	NBU 921-23P1CS	North Reference:	True
Wellbore:	PRODUCTION - 2015-160-145	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS - PRODUCTION	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,723.0	6.20	65.08	3,623.4	-1,285.2	493.3	605.9	781.1	1.54	-1.52	2.40
3,817.0	6.55	66.40	3,716.8	-1,191.8	497.5	615.5	791.2	0.40	0.37	1.40
3,912.0	5.89	62.36	3,811.3	-1,097.3	502.0	624.7	801.3	0.83	-0.69	-4.25
4,006.0	4.83	47.68	3,904.9	-1,003.7	506.9	631.9	810.0	1.84	-1.13	-15.62
4,101.0	4.88	48.03	3,999.5	-909.1	512.3	637.9	818.0	0.06	0.05	0.37
4,195.0	3.91	57.52	4,093.3	-815.3	516.7	643.6	825.2	1.29	-1.03	10.10
4,290.0	4.09	57.08	4,188.0	-720.6	520.2	649.2	831.8	0.19	0.19	-0.46
4,385.0	2.55	57.44	4,282.9	-625.7	523.2	653.8	837.3	1.62	-1.62	0.38
4,479.0	2.86	35.73	4,376.8	-531.8	526.2	656.9	841.6	1.13	0.33	-23.10
4,574.0	1.23	41.79	4,471.7	-436.9	528.9	659.0	844.9	1.73	-1.72	6.38
4,669.0	1.63	53.74	4,566.7	-341.9	530.5	660.7	847.2	0.52	0.42	12.58
4,763.0	1.23	69.39	4,660.6	-248.0	531.6	662.8	849.5	0.59	-0.43	16.65
4,858.0	0.83	102.52	4,755.6	-153.0	531.8	664.4	850.9	0.74	-0.42	34.87
4,952.0	0.79	142.16	4,849.6	-59.0	531.2	665.5	851.4	0.59	-0.04	42.17
5,047.0	1.05	149.46	4,944.6	36.0	529.9	666.3	851.3	0.30	0.27	7.68
5,141.0	0.75	154.64	5,038.6	130.0	528.6	667.0	851.0	0.33	-0.32	5.51
5,236.0	0.75	162.03	5,133.6	225.0	527.5	667.5	850.7	0.10	0.00	7.78
5,331.0	0.79	171.43	5,228.6	320.0	526.2	667.7	850.2	0.14	0.04	9.89
5,425.0	1.10	168.09	5,322.6	414.0	524.7	668.0	849.4	0.33	0.33	-3.55
5,520.0	1.27	170.29	5,417.5	508.9	522.8	668.4	848.5	0.19	0.18	2.32
5,614.0	1.49	168.27	5,511.5	602.9	520.6	668.8	847.5	0.24	0.23	-2.15
5,709.0	2.07	178.55	5,606.5	697.9	517.6	669.1	846.0	0.69	0.61	10.82
5,804.0	0.83	352.48	5,701.4	792.8	516.6	669.1	845.3	3.05	-1.31	183.08
5,898.0	0.57	347.47	5,795.4	886.8	517.7	668.9	845.8	0.28	-0.28	-5.33
5,993.0	0.22	312.76	5,890.4	981.8	518.3	668.6	846.0	0.43	-0.37	-36.54
6,087.0	0.22	185.32	5,984.4	1,075.8	518.3	668.5	845.9	0.42	0.00	-135.57
6,182.0	2.24	14.28	6,079.4	1,170.8	519.9	668.9	847.2	2.59	2.13	-180.04
6,277.0	1.98	21.66	6,174.4	1,265.8	523.2	670.0	850.1	0.40	-0.27	7.77
6,371.0	1.67	32.12	6,268.3	1,359.7	525.9	671.3	852.8	0.48	-0.33	11.13
6,466.0	0.97	35.29	6,363.3	1,454.7	527.7	672.5	854.8	0.74	-0.74	3.34
6,561.0	0.75	77.56	6,458.3	1,549.7	528.5	673.6	856.2	0.69	-0.23	44.49
6,655.0	0.70	100.59	6,552.3	1,643.7	528.5	674.8	857.1	0.31	-0.05	24.50
6,750.0	0.97	114.83	6,647.3	1,738.7	528.1	676.1	857.9	0.36	0.28	14.99
6,842.0	1.10	125.90	6,739.2	1,830.6	527.2	677.5	858.5	0.26	0.14	12.03
6,937.0	1.23	132.58	6,834.2	1,925.6	526.0	679.0	858.9	0.20	0.14	7.03
7,031.0	1.63	145.77	6,928.2	2,019.6	524.2	680.5	859.0	0.55	0.43	14.03
7,126.0	1.63	174.77	7,023.1	2,114.5	521.8	681.4	858.2	0.86	0.00	30.53
7,221.0	1.45	323.04	7,118.1	2,209.5	521.4	680.8	857.4	3.12	-0.19	156.07
7,315.0	1.67	258.27	7,212.1	2,303.5	522.0	678.7	856.2	1.79	0.23	-68.90
7,410.0	2.15	289.12	7,307.1	2,398.5	522.3	675.7	854.0	1.18	0.51	32.47
7,509.0	2.86	299.75	7,406.0	2,497.4	524.2	671.8	852.1	0.85	0.72	10.74
7,603.0	2.33	313.02	7,499.9	2,591.3	526.6	668.3	850.9	0.85	-0.56	14.12
7,698.0	2.64	326.56	7,594.8	2,686.2	529.8	665.7	850.7	0.70	0.33	14.25
7,792.0	2.55	332.18	7,688.7	2,780.1	533.4	663.5	851.2	0.29	-0.10	5.98
7,887.0	2.20	334.64	7,783.6	2,875.0	537.0	661.8	852.0	0.38	-0.37	2.59
7,982.0	1.67	327.70	7,878.5	2,969.9	539.8	660.2	852.5	0.61	-0.56	-7.31
8,076.0	1.45	331.74	7,972.5	3,063.9	542.0	659.0	852.9	0.26	-0.23	4.30
8,171.0	1.01	318.73	8,067.5	3,158.9	543.7	657.8	853.0	0.55	-0.46	-13.69
8,265.0	0.53	319.17	8,161.5	3,252.9	544.6	657.0	852.9	0.51	-0.51	0.47
8,360.0	0.22	317.86	8,256.5	3,347.9	545.1	656.6	852.9	0.33	-0.33	-1.38
8,455.0	0.26	149.46	8,351.5	3,442.9	545.0	656.6	852.9	0.50	0.04	-177.26
8,549.0	0.92	162.64	8,445.5	3,536.9	544.1	656.9	852.6	0.71	0.70	14.02
8,644.0	1.01	162.73	8,540.5	3,631.9	542.6	657.4	852.0	0.09	0.09	0.09

Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well NBU 921-23P1CS
Project:	UINTAH COUNTY, UTAH (NAD 27)	TVD Reference:	kb @ 4908.6usft (ENS 145)
Site:	SW SE SEC. 23 T9S R21E (NBU 921-23F	MD Reference:	kb @ 4908.6usft (ENS 145)
Well:	NBU 921-23P1CS	North Reference:	True
Wellbore:	PRODUCTION - 2015-160-145	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS - PRODUCTION	Database:	EDM 5000.1 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,733.0	1.32	164.22	8,629.4	3,720.8	540.9	657.9	851.3	0.35	0.35	1.67
8,823.0	1.14	165.01	8,719.4	3,810.8	539.0	658.4	850.6	0.20	-0.20	0.88
8,912.0	1.41	160.53	8,808.4	3,899.8	537.1	659.0	849.9	0.32	0.30	-5.03
9,002.0	1.36	165.89	8,898.4	3,989.8	535.0	659.6	849.1	0.15	-0.06	5.96
9,091.0	1.63	169.41	8,987.3	4,078.7	532.8	660.1	848.1	0.32	0.30	3.96
9,175.0	1.76	170.29	9,071.3	4,162.7	530.3	660.6	847.0	0.16	0.15	1.05
9,265.0	1.71	161.32	9,161.3	4,252.7	527.7	661.2	845.9	0.31	-0.06	-9.97
9,354.0	1.80	152.80	9,250.2	4,341.6	525.2	662.3	845.2	0.31	0.10	-9.57
9,444.0	2.15	154.82	9,340.2	4,431.6	522.4	663.7	844.6	0.40	0.39	2.24
9,533.0	1.98	153.94	9,429.1	4,520.5	519.5	665.0	843.9	0.19	-0.19	-0.99
9,623.0	2.02	156.22	9,519.1	4,610.5	516.7	666.4	843.2	0.10	0.04	2.53
9,712.0	1.71	156.14	9,608.0	4,699.4	514.0	667.5	842.5	0.35	-0.35	-0.09
LAST SURVEY JAN 04,2016										
9,794.0	1.85	162.47	9,690.0	4,781.4	511.6	668.4	841.7	0.29	0.17	7.72
EXTRAPOLATION TO TD										
9,854.0	1.85	162.47	9,749.9	4,841.3	509.8	669.0	841.1	0.00	0.00	0.00

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BHL - NBU 921-23P1CS	0.00	0.00	9,743.0	527.1	679.8	14,535,632.64	2,057,442.59	40.016759	-109.510597
- hit/miss target									
- Shape									
- survey misses target center by 20.3usft at 9846.6usft MD (9742.6 TVD, 510.0 N, 668.9 E)									
- Circle (radius 25.0)									

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,812.6	2,729.7	389.4	473.5	TIE IN
9,794.0	9,690.0	511.6	668.4	LAST SURVEY JAN 04,2016
9,854.0	9,749.9	509.8	669.0	EXTRAPOLATION TO TD

Checked By: _____ Approved By: _____ Date: _____

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: WYOMING/, ROCKY MOUNTAIN
WELL SERVICE 3/3, APC GNB FOREMAN/, MILES
4/4

Event: COMPLETION

Start date: 10/10/2016

End date: 11/23/2016

Active datum: RKB @4,911.00usft (above Mean Sea
Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
10/10/2016	7:00 - 7:30	0.50	DRLOUT	48		P		HSM, PICKING UP TBG OFF TRAILOR.
	7:30 - 9:00	1.50	DRLOUT	30	A	P		RIGGED UP, ND WH NU BOPS, RU FLOOR.
	9:00 - 11:00	2.00	DRLOUT	31	I	P		PU 37/8 & 163 JTS 23/8 P-110 TAG UP @ 5369'.
	11:00 - 13:00	2.00	DRLOUT	44	D	P		RU DRLG EQUIP, BROKE CIRC, D/O CMT F/ 5369' TO 5512' D/O DV, CIRC CLN RD SWIVEL.
	13:00 - 17:00	4.00	DRLOUT	31	I	P		PU REM 129 JTS 23/8 TAG UP @ 9787', BROKE CIRC C/O TO 9796' CIRC WELL CLEAN W/ 140 BBLS T-MAC RD SWIVEL, TEST CSG & D/V TO 3,000 PSI, OK, L/D 35 JTS SWI SDFN
10/11/2016	7:00 - 7:30	0.50	DRLOUT	48		P		HSM, L/D TBG ON TBG.
	7:30 - 11:30	4.00	DRLOUT	31	I	P		3 OF 5, SICP O, L/D REM 262 JTS & BIT. FILL HOLE W/ T-MAC, ND BOPS RIG DOWN.
10/23/2016	8:00 - 9:00	1.00	PRPFRC	52	B	P		HSL-HIDG PRESSURE FILLED CSG WITH T-MAC, RU CAMEROON TEST TRUCK, TEAST CSG & FRAC VALVES 1ST PSI TEST TO 7072 PSI, HELD FOR 15 MIN LOST -42 PSI, NO MIGRATION OR COMMUNICATION W/ SURFACE, FILLED SURFACE WITH 1 BBL H2O, TEST SURFACE CSG TO 500 PSI HELD FOR 5 MIN, LOST +18 PSI. NO PSI ON SUFACE.
11/2/2016	0:00 - 0:55	0.92	FRAC	36	1	P		MIRU PRESS TEST FRAC LINES,GOOD TEST
	0:55 - 0:00	23.08	FRAC	36	H	P		FRAC STG #1)WHP 1570 PSI, BRK 3480 PSI @ 5.3 BPM. ISIP 3130 PSI, FG. 0.8 ISIP 3336 PSI, FG. 0.82, NPI 206 PSI.
11/3/2016	0:00 - 16:10	16.17	FRAC	36	H	P		SET CBP & PERF STG #2 AS DESIGNED FRAC STG #2)WHP 2569 PSI, BRK 3677 PSI @ 4.5 BPM. ISIP 2690 PSI, FG. 0.76 ISIP 3570 PSI, FG. 0.85, NPI 880 PSI.
	16:10 - 19:10	3.00	FRAC	46	E	Z		WIRELINE HAD 2 MISRUNS
	19:10 - 0:00	4.83	FRAC	36	H	P		SET CBP & PERF STG #3 AS DESIGNED
11/4/2016	0:00 - 0:00	24.00	FRAC	36	H	P		FRAC STG #3)WHP 2874 PSI, BRK 3663 PSI @ 5.5 BPM. ISIP 3148 PSI, FG. 0.82 ISIP 2939 PSI, FG. 0.8, NPI -209 PSI.
11/5/2016	0:00 - 0:00	24.00	FRAC	36	H	P		SET CBP & PERF STG #4 AS DESIGNED FRAC STG #4) WHP 2851 PSI, BRK 3497 PSI @ 6.8 BPM. ISIP 2712 PSI, FG. 0.78 ISIP 2979 PSI, FG. 0.81, NPI 267 PSI.
								SET CBP & PERF STG #5 AS DESIGNED

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: WYOMING/, ROCKY MOUNTAIN
WELL SERVICE 3/3, APC GNB FOREMAN/, MILES
4/4

Event: COMPLETION

Start date: 10/10/2016

End date: 11/23/2016

Active datum: RKB @4,911.00usft (above Mean Sea
Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
11/6/2016	0:00 - 0:00	25.00	FRAC	36	H	P		FRAC STG #5) WHP 2654 PSI, BRK 3824 PSI @ 6 BPM. ISIP 2990 PSI, FG. 0.83 ISIP 3055 PSI, FG. 0.83, NPI 65 PSI. SET CBP & PERF STG #6 AS DESIGNED. FRAC STG #6)WHP 2305 PSI, BRK 4403 PSI @ 5.5 BPM. ISIP 2521 PSI, FG. 0.78 ISIP 2751 PSI, FG. 0.81, NPI 230 PSI. SET CBP & PERF STG #7 AS DESIGNED. FRAC STG #7) START PUMPING STAGE
11/7/2016	0:00 -		FRAC	36	H	P		FRAC STG #7) WHP 1778 PSI, BRK 3326 PSI @ 4.9 BPM. ISIP 2351 PSI, FG. 0.77 ISIP 2862 PSI, FG. 0.84, NPI 511 PSI. SET KILL PLUG TOTAL FLUID- 114,027 BBLS TOTAL SAND- 233,280# 30/50 SAND HSM.
11/22/2016	6:45 - 7:00	0.25	DRLOUT	48	1	P		RD RIG OFF THE 23P4BS. RU RIG. ND WH, NU BOP. RU RIG FLOOR & TBG EQ. PREP & TALLY NEW 2 3/8 P-110 TBG. PU 3 7/8 BIT, XDART, POBS, 1.875 XN. RIH W/ 242 JTS TAG SAND @ 7612' = 10' SND ON KP. RU DRL EQ. SWIFN.
	7:00 - 15:00	8.00	DRLOUT	31	I	P		
11/23/2016	6:45 - 7:00	0.25	DRLOUT	48	1	P		HSM.

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-23P1CS BLUE

Spud date: 1/22/2014

Project: UTAH-UINTAH

Site: NBU 921-23P PAD

Rig name no.: WYOMING/, ROCKY MOUNTAIN
WELL SERVICE 3/3, APC GNB FOREMAN/, MILES
4/4

Event: COMPLETION

Start date: 10/10/2016

End date: 11/23/2016

Active datum: RKB @4,911.00usft (above Mean Sea
Level)

UWI: SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
	7:00 - 15:00	8.00	DRLOUT	44	C	P		<p>PT BOP & FL T/ 3000#, HELD FOR 15 MIIN, LOST 0#. BLEED OFF PSI. BRK CONV CIRC. BEG DRL OUT CBP'S.</p> <p>CBP #1)TAG SND @ 7612' = 10' SND, DRL OUT CBP @ 7622' IN 8 MIN, 700# INCR. CONT RIH.</p> <p>CBP #2)TAG SND @ 7892' = 25' SND, DRL OUT CBP @ 7917' IN 10 MIN, 200# INCR. CONT RIH.</p> <p>CBP #3)TAG SND @ 8177' = 20' SND, DRL OUT CBP @ 8197' IN 10 MIN, 850# INCR. CONT RIH.</p> <p>CBP #4)TAG SND @ 8609' = 20' SND, DRL OUT CBP @ 8629' IN 15 MIN, 750# INCR, CONT RIH.</p> <p>CBP #5)TAG SND @ 8881' = 20' SND, DRL OUT CBP @ 8901' IN 10 MIN, 350# INCR, CONT RIH.</p> <p>CBP #6)TAG SND @ 9199' = 25' SND, DRL OUT CBP @ 9224' IN 8 MIN, 200# INCR, CONT RIH.</p> <p>CBP #7)TAG SND @ 9488' = 25' SND, DRL OUT CBP @ 9513' IN 8 MIN, 200# INCR, CONT RIH.</p> <p>CO SND T/ PBTD @ 9796', CIRC WELL. RD DRL EQ. LD 19 JTS EXESS TBG. PU 4 1/16 TBG HNGR. LAND TBG W/ 292 JTS 2 3/8 P-110 TBG W/ 1.875 XN/NC.</p> <p>EOT @ 9225'.</p> <p>RD TBG EQ & RIG FLOOR. ND BOP, NU WH. DROP BALL. WAIT 30 MIN. PUMP BIT OFF W/ 3500#. OPEN WELL T/ PIT W/ SICP = 1878#, FTP = 180#. TURN WELL OVER T/ FBC.</p> <p>RACK OUT RIG EQ. RDMO RIG. SDFHWE.</p> <p>TTL LOAD = 114,074 BBL, RIG RECOVERD = 11,253 BBL, LEFT T/ RECOVER = 102,821 BBL.</p>

1 General**1.1 Customer Information**

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 921-23P1CS BLUE	Wellbore No.	00
Well Name	NBU 921-23P1CS	Wellbore Name	NBU 921-23P1CS
Report no.	1	Report date	10/28/2016
Project	UTAH-UINTAH	Site	NBU 921-23P PAD
Rig Name/No.		Event	COMPLETION
Start date	10/10/2016	End date	11/23/2016
Spud date	1/22/2014	Active datum	RKB @4,911.00usft (above Mean Sea Level)
UWI	SE/SE/0/9/S/21/E/23/0/0/26/PM/S/381/E/0/1175/0/0		

1.3 General

Contractor	CUTTERS WIRELINE	Job method	PERFORATE	Supervisor	DAVE DANIELS
Perforated Assembly	PRODUCTION CASING	Conveyed method	WIRELINE		

1.4 Initial Conditions

Fluid type	FRESH WATER	Fluid density	8.33 (ppg)
Surface press.		Estimate res press	
TVD fluid top	0.0 (usft)	Fluid head	4,911.0 (usft)
Hydrostatic press.	2,125.13 (psi)	Press. difference	2,125.10 (psi)
Balance Cond	OVER BALANCED		

1.5 Summary

Gross Interval	7,672.0 (usft)-9,760.0 (usft)	Start Date/Time	10/28/2016 12:00AM
No. of intervals	51	End Date/Time	10/28/2016 12:00AM
Total shots	168	Net perforation interval	56.00 (usft)
Avg. shot density	3.00 (shot/ft)	Final surface pressure	
		Final press. date	

2 Intervals**2.1 Perforated Interval**

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD top (usft)	MD base (usft)	Shot density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr type /Stage No	Carr size (in)	Phasing (°)	Charge desc. /Charge manufacturer	Charge weight (gram)	Reason	Misrun	How Guns Conveyed
10/28/2016 12:00AM	WASATCH H/			7,672.0	7,673.0	3.00		0.410	EXP/7	3.125	120.00		19.00	PRODUCTION		

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD top (usft)	MD base (usft)	Shot density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr type /Stage No	Carr size (in)	Phasing (°)	Charge desc. /Charge manufacturer	Charge weight (gram)	Reason	Misrun	How Guns Conveyed
10/28/2016 12:00AM	WASATC H/			7,691.0	7,692.0	3.00		0.410	EXP/7	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	WASATC H/			7,726.0	7,727.0	3.00		0.410	EXP/7	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	MESA VERDE/			7,785.0	7,786.0	3.00		0.410	EXP/7	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	MESA VERDE/			7,794.0	7,795.0	3.00		0.410	EXP/7	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	MESA VERDE/			7,882.0	7,883.0	3.00		0.410	EXP/7	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	MESA VERDE/			7,895.0	7,897.0	3.00		0.410	EXP/7	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	MESA VERDE/			7,982.0	7,984.0	3.00		0.410	EXP/6	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	MESA VERDE/			8,051.0	8,053.0	3.00		0.410	EXP/6	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	MESA VERDE/			8,083.0	8,085.0	3.00		0.410	EXP/6	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	MESA VERDE/			8,180.0	8,182.0	3.00		0.410	EXP/6	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	MESA VERDE/			8,321.0	8,322.0	3.00		0.410	EXP/5	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	MESA VERDE/			8,387.0	8,388.0	3.00		0.410	EXP/5	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	MESA VERDE/			8,397.0	8,398.0	3.00		0.410	EXP/5	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	MESA VERDE/			8,476.0	8,477.0	3.00		0.410	EXP/5	3.125	120.00		19.00	PRODUCTION		

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD top (usft)	MD base (usft)	Shot density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr type /Stage No	Carr size (in)	Phasing (°)	Charge desc. /Charge manufacturer	Charge weight (gram)	Reason	Misrun	How Guns Conveyed
10/28/2016 12:00AM	M E S A VERDE/			8,511.0	8,512.0	3.00		0.410	EXP/5	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			8,548.0	8,549.0	3.00		0.410	EXP/5	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			8,594.0	8,595.0	3.00		0.410	EXP/5	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			8,613.0	8,614.0	3.00		0.410	EXP/5	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			8,649.0	8,650.0	3.00		0.410	EXP/4	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			8,676.0	8,677.0	3.00		0.410	EXP/4	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			8,738.0	8,739.0	3.00		0.410	EXP/4	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			8,749.0	8,750.0	3.00		0.410	EXP/4	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			8,786.0	8,787.0	3.00		0.410	EXP/4	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			8,808.0	8,809.0	3.00		0.410	EXP/4	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			8,834.0	8,835.0	3.00		0.410	EXP/4	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			8,871.0	8,872.0	3.00		0.410	EXP/4	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			8,951.0	8,952.0	3.00		0.410	EXP/3	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			8,961.0	8,962.0	3.00		0.410	EXP/3	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			8,990.0	8,991.0	3.00		0.410	EXP/3	3.125	120.00		19.00	PRODUCTION		

2.1 Perforated Interval (Continued)

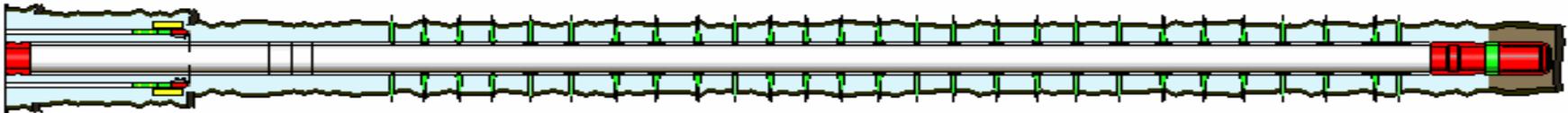
Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD top (usft)	MD base (usft)	Shot density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr type /Stage No	Carr size (in)	Phasing (°)	Charge desc. /Charge manufacturer	Charge weight (gram)	Reason	Misrun	How Guns Conveyed
10/28/2016 12:00AM	M E S A VERDE/			9,029.0	9,030.0	3.00		0.410	EXP/3	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,091.0	9,092.0	3.00		0.410	EXP/3	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,158.0	9,159.0	3.00		0.410	EXP/3	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,183.0	9,184.0	3.00		0.410	EXP/3	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,203.0	9,204.0	3.00		0.410	EXP/3	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,262.0	9,263.0	3.00		0.410	EXP/2	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,288.0	9,289.0	3.00		0.410	EXP/2	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,315.0	9,316.0	3.00		0.410	EXP/2	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,391.0	9,392.0	3.00		0.410	EXP/2	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,414.0	9,415.0	3.00		0.410	EXP/2	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,457.0	9,458.0	3.00		0.410	EXP/2	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,477.0	9,478.0	3.00		0.410	EXP/2	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,497.0	9,498.0	3.00		0.410	EXP/2	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,536.0	9,537.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		

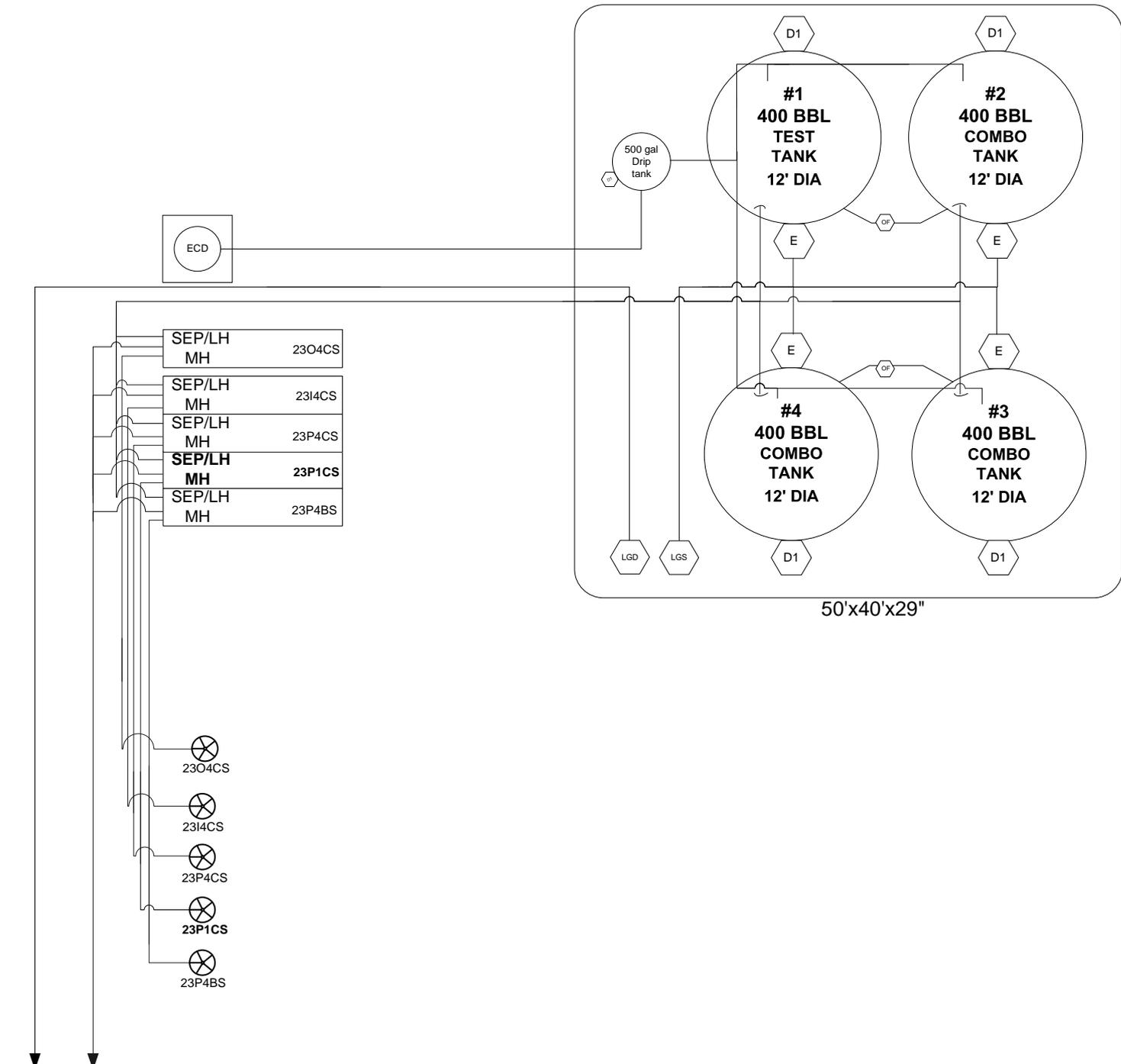
2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-TS (usft)	MD top (usft)	MD base (usft)	Shot density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr type /Stage No	Carr size (in)	Phasing (°)	Charge desc. /Charge manufacturer	Charge weight (gram)	Reason	Misrun	How Guns Conveyed
10/28/2016 12:00AM	M E S A VERDE/			9,550.0	9,551.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,567.0	9,568.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,591.0	9,592.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,614.0	9,615.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,654.0	9,655.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,732.0	9,733.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		
10/28/2016 12:00AM	M E S A VERDE/			9,759.0	9,760.0	3.00		0.410	EXP/1	3.125	120.00		19.00	PRODUCTION		

3 Plots

3.1 Wellbore Schematic





LEGEND

- BERM
- PROCESS PIPING
- MH METER HOUSE
- BBL BARREL(S)
- ⊗ WELLHEAD
- GAL GALLON(S)
- ⊙ METHANOL
- 500 GAL
- D1 DRAIN VALVE
- OF OVERFLOW
- LGD LIQUID GATHERING DISCHARGE
- LGS LIQUID GATHERING SUCTION
- E TANK EQUALIZING VALVE
- ECD EMISSION CONTROL DEVICE



POSITION OF VALVES AND USE OF SEALS DURING PRODUCTION

VALVE	LINE PURPOSE	POSITION	SEAL INSTALLED
D-1	DRAIN	CLOSED	YES
LGS	LIQUID GATHERING SUCTION	CLOSED	YES
LGD	LIQUID GATHERING DISCHARGE	CLOSED	YES
E	TANK EQUALIZING VALVE	OPEN	NO

POSITION OF VALVES AND USE OF SEALS DURING SALES

VALVE	LINE PURPOSE	POSITION	SEAL INSTALLED
D-1	DRAIN	CLOSED	YES
LGS	LIQUID GATHERING SUCTION	OPEN	NO
LGD	LIQUID GATHERING DISCHARGE	CLOSED	YES
E	TANK EQUALIZING VALVE	OPEN	NO

POSITION OF VALVES AND USE OF SEALS DURING WATER DRAIN

VALVE	LINE PURPOSE	POSITION	SEAL INSTALLED
D-1	DRAIN	CLOSED	YES
LGS	LIQUID GATHERING SUCTION	OPEN	YES
LGD	LIQUID GATHERING DISCHARGE	OPEN	NO
E	TANK EQUALIZING VALVE	OPEN	NO

Kerr McGee Oil and Gas Onshore, L.P.

Site Security / SPCC

NBU 921-23P PAD

NBU 921-23P1CS, 23P4BS, 23P4CS, 23I4CS, 23O4CS

SESE SEC 23 T9S R21E
 UINTAH COUNTY, UTAH
 LEASE #UTU0149075
 UNIT# UTU 63047A

Revisions

NOTE:
 THIS LEASE IS SUBJECT TO THE SITE SECURITY PLAN FOR THE NATURAL BUTTES/OURAY FIELD FOR KERR MCGEE OIL AND GAS ONSHORE, L.P.
 THE PLAN IS LOCATED AT: 1368 SOUTH 1200 EAST VERNAL, UT 84078

Date: GO 11-3-16 Scale: no scale