

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

FORM 3

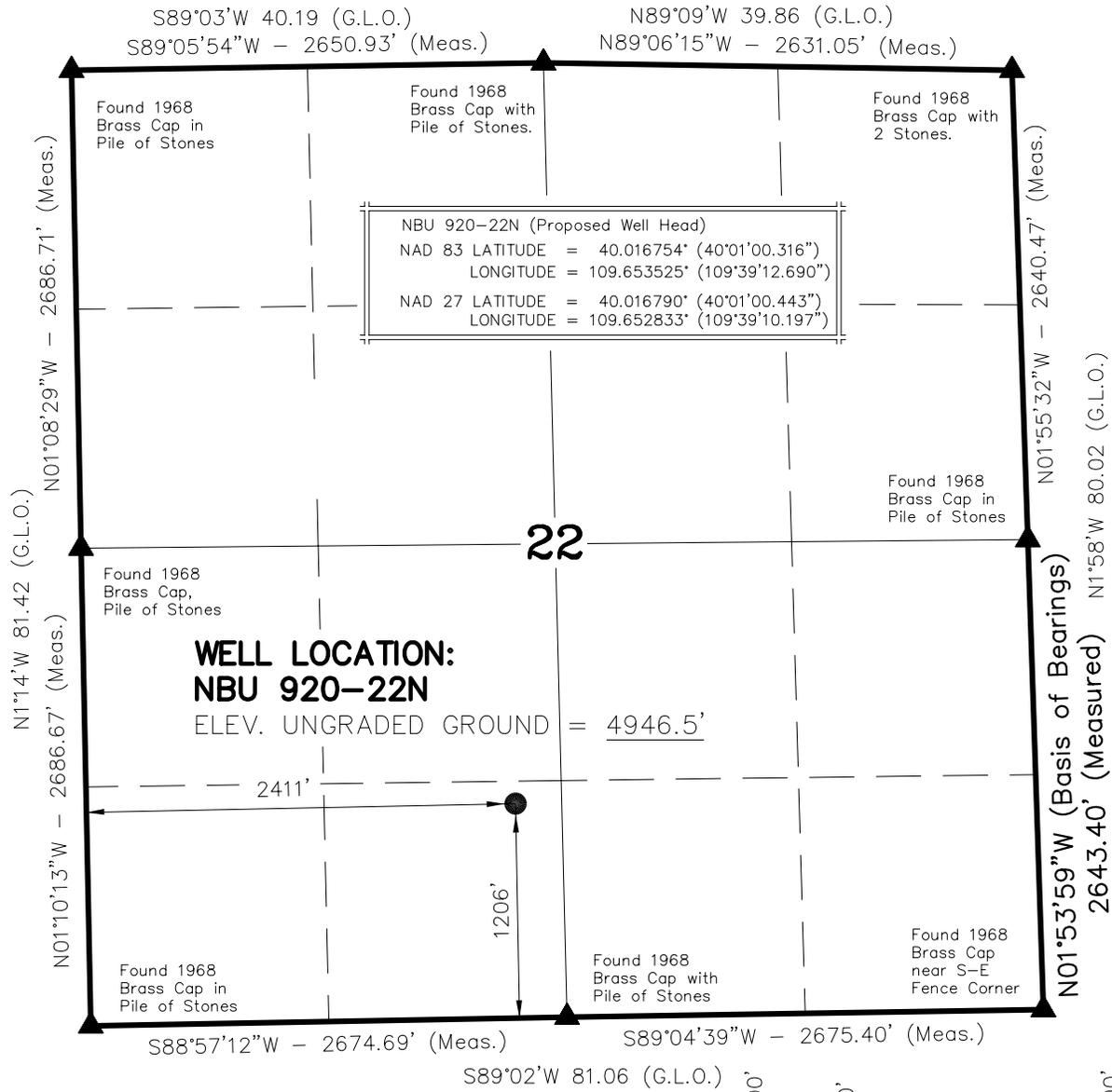
AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER NBU 920-22N	
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 720 929-6587	
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217						9. OPERATOR E-MAIL mary.mondragon@anadarko.com	
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU 0577A			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 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 checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>	
20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN	
LOCATION AT SURFACE	1206 FSL 2411 FWL	SESW	22	9.0 S	20.0 E	S	
Top of Uppermost Producing Zone	1206 FSL 2411 FWL	SESW	22	9.0 S	20.0 E	S	
At Total Depth	1206 FSL 2411 FWL	SESW	22	9.0 S	20.0 E	S	
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 1206			23. NUMBER OF ACRES IN DRILLING UNIT 2091	
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 930			26. PROPOSED DEPTH MD: 10700 TVD: 10700	
27. ELEVATION - GROUND LEVEL 4947			28. BOND NUMBER WYB000291			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Permit #43-8496	
ATTACHMENTS							
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES							
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER				<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN			
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)				<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER			
<input 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 07/15/2009			EMAIL danielle.piernot@anadarko.com	
API NUMBER ASSIGNED 4304750560000			APPROVAL  Permit Manager				

Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Prod	7.875	4.5	0	10700		
Pipe	Grade	Length	Weight			
	Grade HCP-110 LT&C	1100	11.6			
	Grade I-80 LT&C	9600	11.6			

Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	12.25	9.625	0	2745		
Pipe	Grade	Length	Weight			
	Grade J-55 LT&C	2745	36.0			

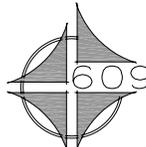
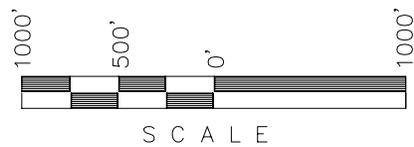
T9S, R20E, S.L.B.&M.



WELL LOCATION:
NBU 920-22N
 ELEV. UNGRADED GROUND = 4946.5'

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. Bearings are based on Global Positioning Satellite observations.
- 4. Basis of elevation is the Northwest Corner of Section 12, T9S, R20E, S.L.B.&M. The elevation of this Section Corner is shown on the Ouray SE 7.5 Min. Quadrangle as being 4676'.



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.

K. K. Kolby, R.
 No. 362251
 KOLBY R.
 REGISTERED LAND SURVEYOR
 STATE OF UTAH

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

NBU 920-22N
WELL PLAT
 1206' FSL, 2411' FWL
 SE ¼ SW ¼ OF SECTION 22, T9S, R20E,
 S.L.B.&M. UTAH COUNTY, UTAH.

CONSULTING, LLC
 371 Coffeen Avenue
 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: 01-12-09	SURVEYED BY: B.J.S.	SHEET 1 OF 9
DATE DRAWN: 02-16-09	DRAWN BY: K.K.O.	
SCALE: 1" = 1000'		Date Last Revised:

NBU 920-22N

Surface: 1,206' FSL, 2,411' FWL (SE/4SW/4)
Sec. 22 T9S R20E

Uintah, Utah
Mineral Lease: UTU 0577A

ONSHORE ORDER NO. 1

DRILLING PROGRAM

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

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 – Surface	
Green River	1,810'	
Birds Nest	2,040'	Water
Mahogany	2,543'	Water
Wasatch	5,205'	Gas
Mesaverde	8,512'	Gas
MVU2	9,479'	Gas
MVL1	9,943'	Gas
TD	10,700'	

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program.

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

6. Evaluation Program:

Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 10,700' TD, approximately equals 6,666 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 4,312 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

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

9. Variations:

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

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

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

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

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

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

Background

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

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

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

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

Variance for BOPE Requirements

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

Variance for Mud Material Requirements

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

Variance for Special Drilling Operation (surface equipment placement) Requirements

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

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

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

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

Conclusion

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

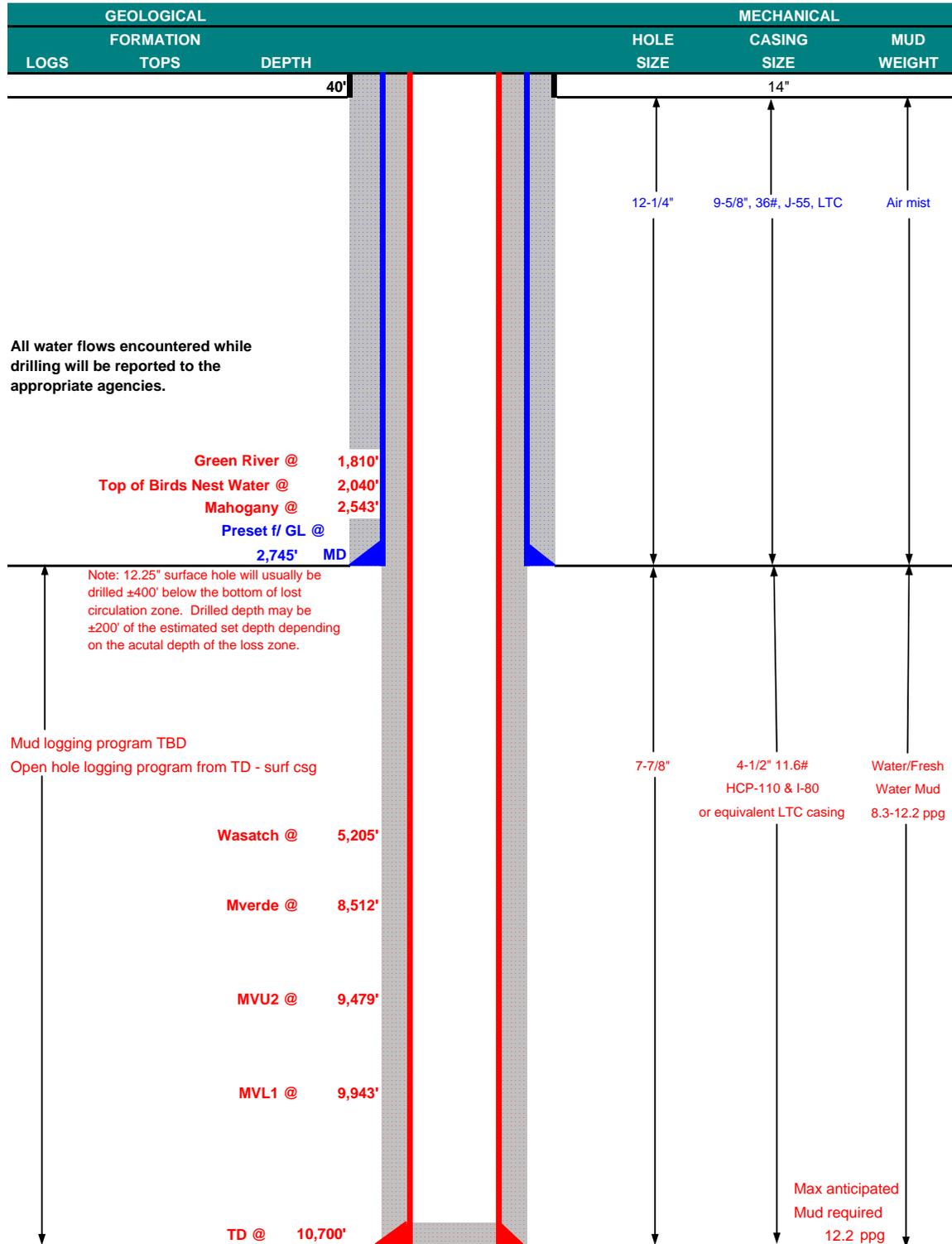
10. Other Information:

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	July 7, 2009	
WELL NAME	NBU 920-22N		TD	10,700' MD/TVD	
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah
				FINISHED ELEVATION	4,944'
SURFACE LOCATION	SE/4 SW/4	1,206' FSL	2,411' FWL	Sec 22 T 9S R 20E	BHL Straight Hole
	Latitude:	40.016754	Longitude:	-109.653525	NAD 83
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: BLM (MINERALS), Ute Tribe (SURFACE), UDOGM, Tri-County Health Dept.				





KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3,520	2,020	453,000
SURFACE	9-5/8"	0 to 2745	36.00	J-55	LTC	0.79*	1.57	4.58
PRODUCTION	4-1/2"	0 to 9600	11.60	I-80	LTC	7,780	6,350	201,000
		9600 to 10700	11.60	HCP-110	LTC	1.75	1.04	1.99
						10,690	8,650	279,000
						2.41	1.27	26.88

*Burst on surface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 2.04

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

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
 (Burst Assumptions: TD = 12.2 ppg) 0.22 psi/ft = gradient for partially evac wellbore
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 4,312 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
 (Burst Assumptions: TD = 12.2 ppg) 0.62 psi/ft = bottomhole gradient
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 6,666 psi

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	215	60%	15.60	1.18
Option 1 TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele Premium cmt + 2% CaCl	380	0%	15.60	1.18
NOTE: If well will circulate water to surface, option 2 will be utilized						
SURFACE LEAD	2,245'	Prem cmt + 16% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOC	250	35%	11.00	3.82
TAIL	500	Premium cmt + 2% CaCl + 0.25 pps flocele	180	35%	15.60	1.18
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION LEAD	4,700'	Premium Lite II + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 1% Retarder	450	40%	11.00	3.38
TAIL	6,000'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1470	40%	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

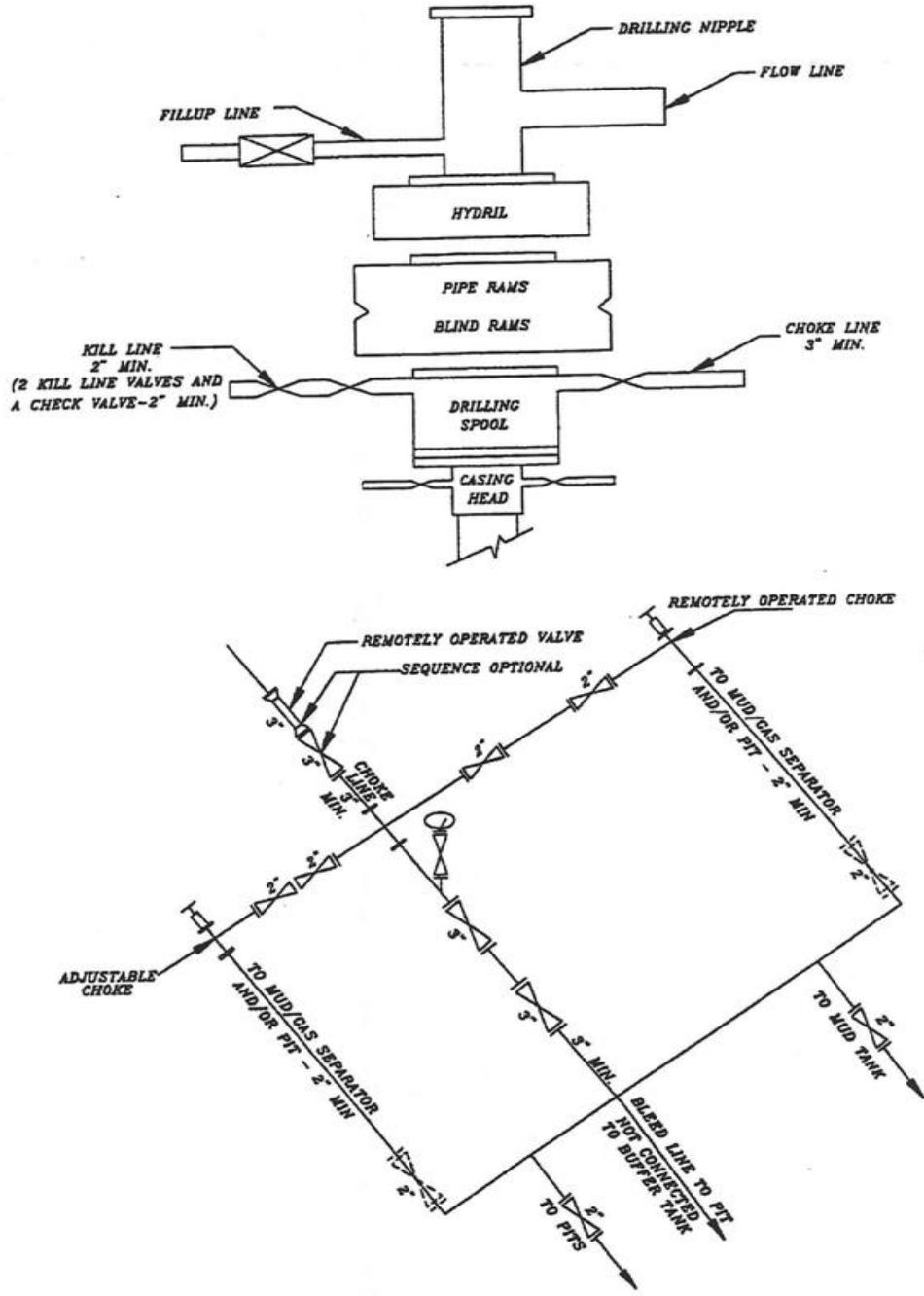
SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint for a total of 15 bow spring centralizers.

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.
 Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.
 Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ DATE: _____
 John Huycke / Emile Goodwin
 DRILLING SUPERINTENDENT: _____ DATE: _____
 John Merkel / Lovel Young

EXHIBIT A NBU 920-22N



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

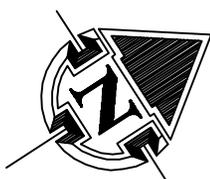
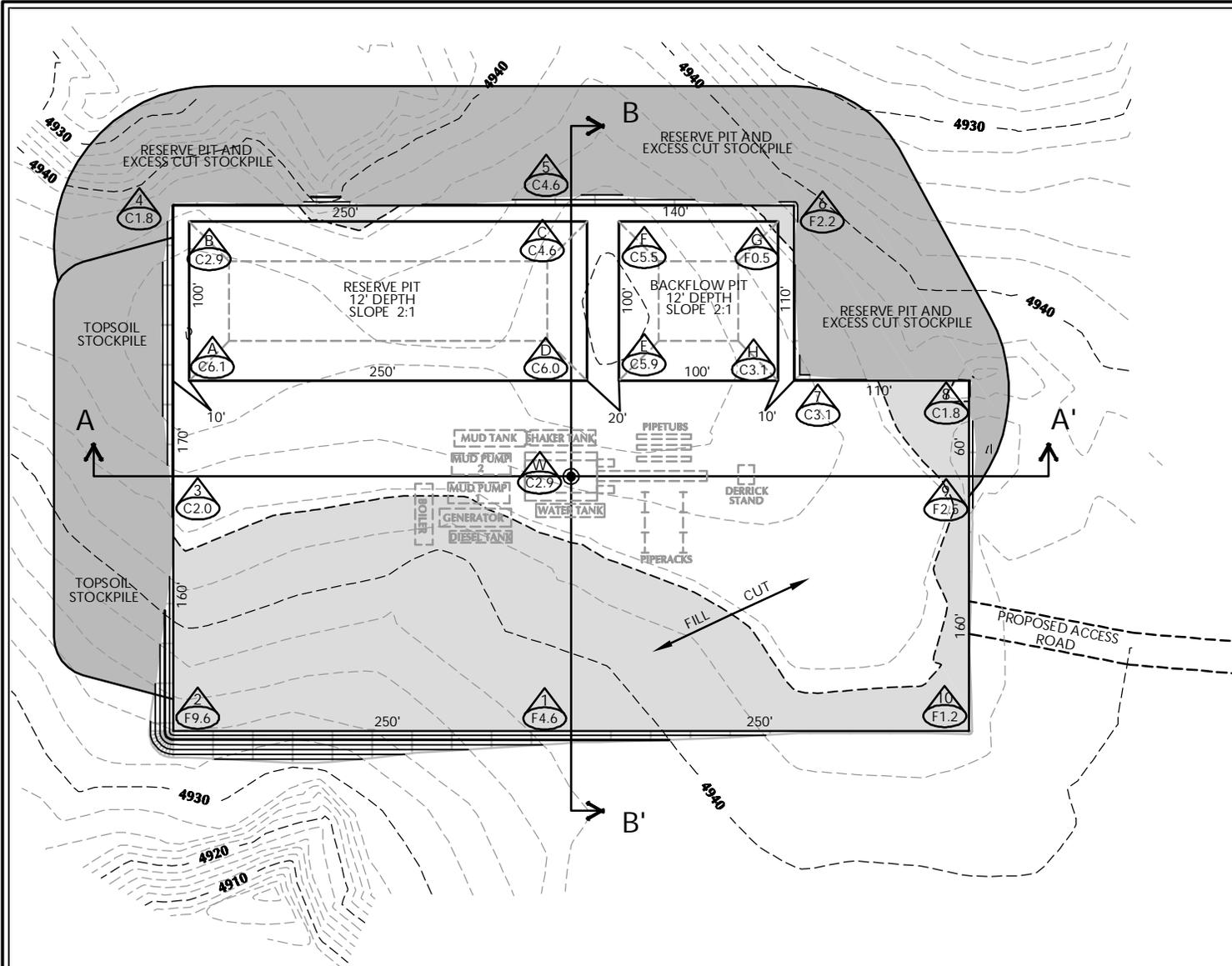
WELL PAD LEGEND

- WELL LOCATION
- - - EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)

WELL PAD NBU 920-22N QUANTITIES

EXISTING GRADE @ LOC. STAKE = 4946.5'
 FINISHED GRADE ELEVATION = 4943.6'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 9,554 C.Y.
 TOTAL FILL FOR WELL PAD = 9,292 C.Y.
 TOPSOIL @ 6" DEPTH = 2,995 C.Y.
 EXCESS MATERIAL = 262 C.Y.
 TOTAL DISTURBANCE = 3.71 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00
 RESERVE PIT CAPACITY (2' OF FREEBOARD)
 +/- 28,730 BARRELS
 RESERVE PIT VOLUME
 +/- 7,720 CY
 BACKFLOW PIT CAPACITY (2' OF FREEBOARD)
 +/- 9,490 BARRELS
 BACKFLOW PIT VOLUME
 +/- 2,660 CY



KERR-MCGEE OIL & GAS
 ONSHORE L.P.
 1099 18th Street - Denver, Colorado 80202



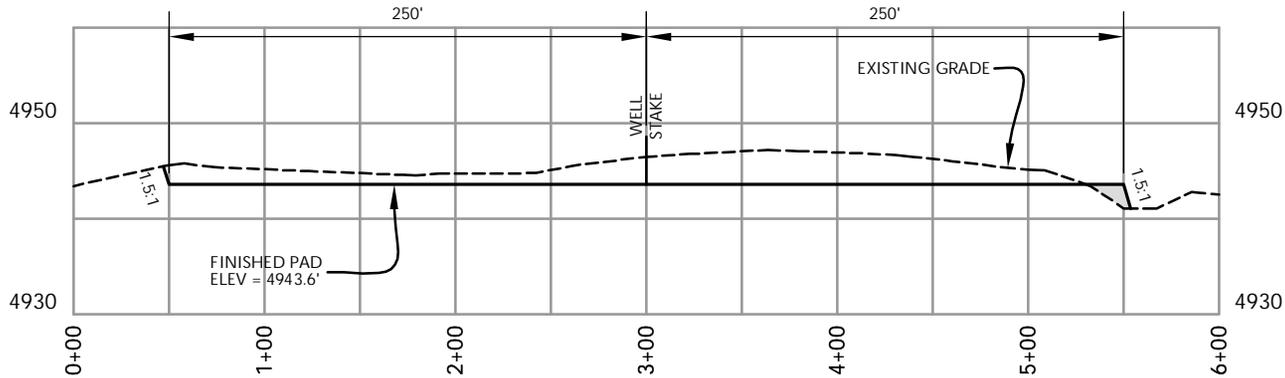
CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

NBU 920-22N
 WELL PAD - LOCATION LAYOUT
 1206' FSL, 2411' FWL
 SE1/4 SW1/4, SECTION 22, T.9S., R.20E.
 S.L.B.&M., UINTAH COUNTY, UTAH

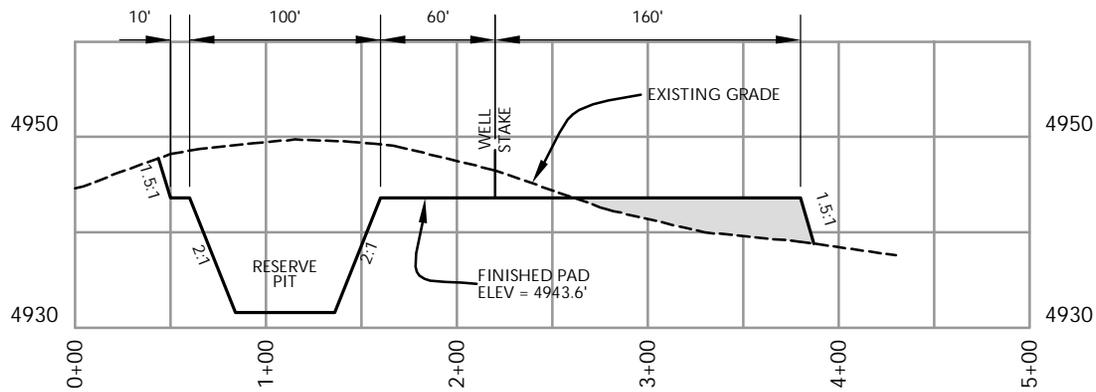
Scale: 1"=100'	Date: 2/26/09	SHEET NO:
REVISED:	BY DATE	2 OF 9

Timberline (435) 789-1365
 Engineering & Land Surveying, Inc.
 38 WEST 100 NORTH VERNAL, UTAH 84078

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CROSS SECTION A-A'



CROSS SECTION B-B'

NOTE: CROSS SECTION B-B' DEPICTS
MAXIMUM RESERVE PIT DEPTH.

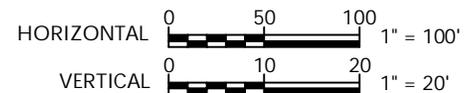
KERR-MCGEE OIL & GAS
ONSHORE L.P.
1099 18th Street - Denver, Colorado 80202

NBU 920-22N
WELL PAD - CROSS SECTIONS
1206' FSL, 2411' FWL
SE1/4 SW1/4, SECTION 22, T.9S., R.20E.
S.L.B.&M., Uintah County, Utah



CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

Scale: 1"=100'	Date: 2/26/09	SHEET NO:
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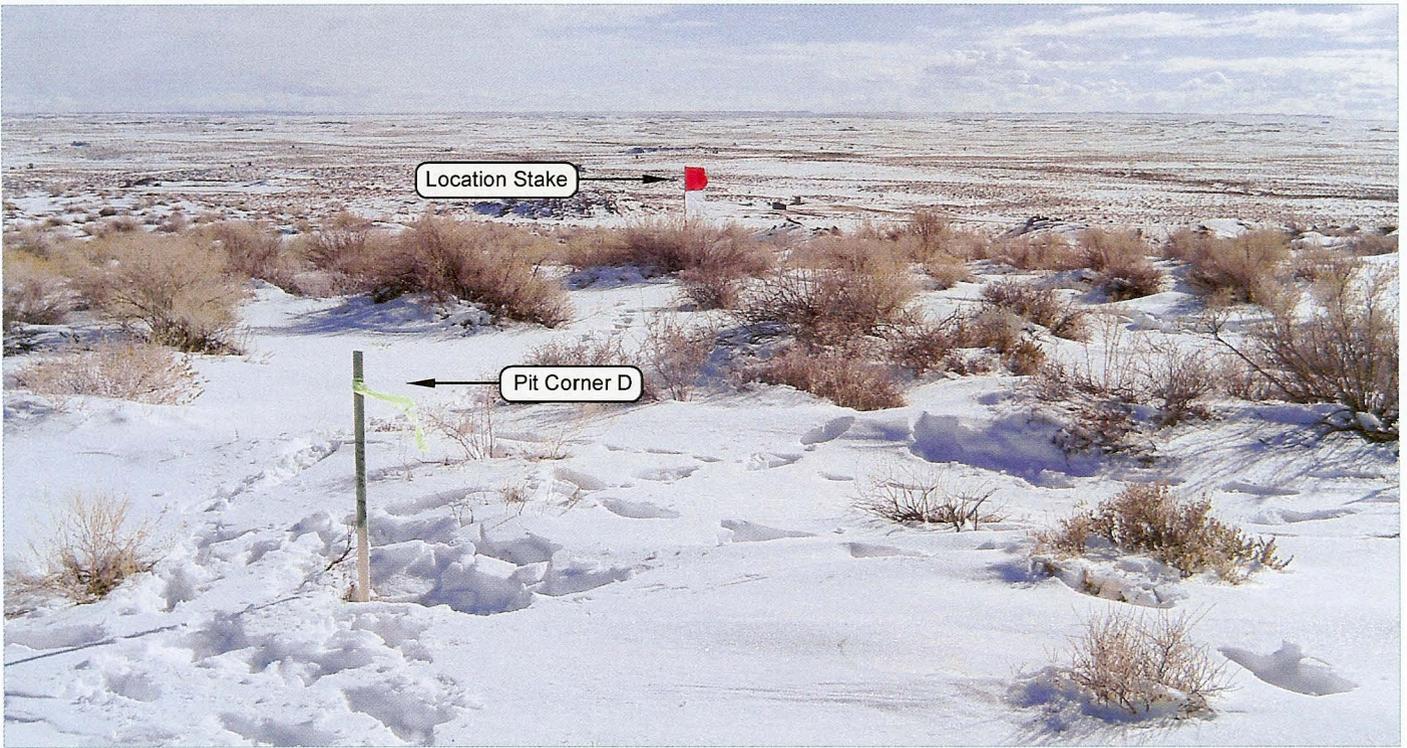


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: SOUTHEASTERLY



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: SOUTHERLY

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



CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

NBU 920-22N
 1206' FSL, 2411' FWL
 SE 1/4 SW 1/4 OF SECTION 22, T9S, R20E,
 S.L.B.&M. UINTAH COUNTY, UTAH.

LOCATION PHOTOS

DATE TAKEN: 01-12-09

DATE DRAWN: 02-16-09

TAKEN BY: B.J.S.

DRAWN BY: K.K.O.

REVISED:

Timberline (435) 789-1365
 Engineering & Land Surveying, Inc.
 209 NORTH 300 WEST VERNAL, UTAH 84078

SHEET
4
OF 9

Kerr-McGee Oil & Gas Onshore, LP
NBU 920-22N
Section 22, T9S, R20E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 5.3 MILES TO THE INTERSECTION OF A SERVICE ROAD TO THE EAST. EXIT LEFT AND PROCEED IN AN EAST BY NORTHEAST DIRECTION ALONG THE SERVICE ROAD APPROXIMATELY 0.9 MILES TO A SECOND SERVICE ROAD TO THE SOUTH. EXIT RIGHT AND PROCEED IN A SOUTHERLY, THEN EASTERLY DIRECTION ALONG THE SECOND SERVICE ROAD APPROXIMATELY 0.3 MILES TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN A SOUTHEASTERLY, THEN WESTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 2,370 FEET TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 37.6 MILES IN A SOUTHERLY DIRECTION.

NBU 920-22N

Surface: 1,206' FSL, 2,411' FWL (SE/4SW/4)

Sec. 22 T9S R20E

Uintah, Utah

Mineral Lease: UTU 0577A

Surface Owner: Ute Indian Tribe

ONSHORE ORDER NO. 1

***MULTI-POINT SURFACE USE & OPERATIONS PLAN
SUBMITTED WITH SITE-SPECIFIC INFORMATION***

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) and Bureau of Indian Affairs (BIA) documents. An NOS was submitted showing the surface location in the SE/4 SW/4 of Section 22 T9S R20E.

This Surface Use Plan of Operations (SUPO) or 13-point plan provides the site-specific information for the above-referenced wells. This information is to be incorporated by reference into the Master Development Plan (MDP) for Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee). The MDP is available upon request from the BIA-Ft Duchesne Office.

An on-site meeting was held on June 24, 2009. Present were:

- Verlyn Pindell and Dave Gordon – BLM;
- Kolby Kay and Mitch Batty – Timberline Surveying, Inc.
- Tony Kazeck, Jeff Samuels, Raleen White, David Liddell, and Hal Blanchard – Kerr-McGee
- Bucky Secakuku – BIA
- Nick Hall – Grasslands Consulting, Inc.
- Scott Carson – Smiling Lake Consulting
- Keith Montgomery – Montgomery Archaeological Consultants, Inc.

1. Existing Roads:

- A) Refer to Topo Map A for directions to the location.
- B) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

2. Planned Access Roads:

See MDP for additional details on road construction.

Approximately ± 0.14 miles ($\pm 740'$) of new access road is proposed. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site and are typically shown on the attached Exhibits and Topo maps.

3. **Location of Existing Wells Within a 1-Mile Radius:**

Please refer to Topo Map C.

4. **Location of Existing and Proposed Facilities:**

See MDP for additional details on Existing and Proposed Facilities.

The following guidelines will apply if the well is productive.

Approximately ±1,385' of pipeline is proposed. Refer to Topo D for the existing pipeline.

Appropriate surface use agreements have been or will be obtained from the Ute Indian Tribe. Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place

5. **Location and Type of Water Supply:**

See MDP for additional details on Location and Type of Water Supply.

Water for drilling purposes will be obtained from Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, Application number 53617. 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.

6. **Source of Construction Materials:**

See MDP for additional details on Source of Construction Materials.

7. **Methods of Handling Waste Materials:**

See MDP for additional details on Methods of Handling Waste Materials.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by 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

8. **Ancillary Facilities:**

See MDP for additional details on Ancillary Facilities.

None are anticipated.

9. **Well Site Layout:** (See Location Layout Diagram)

See MDP for additional details on Well Site Layout.

All pits will be fenced according to the following minimum standards:

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner 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.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

10. Plans for Reclamation of the Surface:

See MDP for additional details on Plans for Reclamation of the Surface.

Kerr-McGee shall call the BIA for the seed mixture prior to starting interim and/or final reclamation actions.

11. Surface/Mineral Ownership:

The well pad and access road are located on lands owned by:

Ute Indian Tribe
PO Box 70
Fort Duchesne, Utah 84026
435-722-5141

The mineral ownership is listed below:

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

12. Other Information:

See MDP for additional details on Other Information.

13. **Lessee's or Operators' Representative & Certification:**

Kathy Schneebeck Dulnoan
 Staff Regulatory Analyst
 Kerr-McGee Oil & Gas Onshore LP
 PO Box 173779
 Denver, CO 80217-3779
 (720) 929-6007

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.



 Kathy Schneebeck Dulnoan

July 14, 2009

 Date

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS
ONSHORE LP'S 88 PROPOSED WELL LOCATIONS
(T9S, R20E, SECS. 1, 14, 15, 20, 21, 22, 23, 27, 29, 32, 33, 34)
UINTAH COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

Ute Indian Tribe
Uintah and Ouray Agency

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 08-318

March 4, 2009

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

Paleontological Assessment for Anadarko Petroleum Corp.

NBU 920-22N
Ouray Quadrangle
Uintah County, Utah

Prepared for
Anadarko Petroleum Corp.
and
Ute Tribe
Uintah and Ouray Reservation

Prepared by
SWCA Environmental Consultants
SWCA #UT09-14314-42



Grasslands Consulting, Inc.

4800 Happy Canyon Road, Suite 110, Denver, CO 80237

(303) 759-5377 Office (303) 759-5324 Fax

SPECIAL STATUS PLANT AND WILDLIFE SPECIES REPORT

Operator: Kerr-McGee Oil & Gas Onshore LP

Wells: NBU 920-22I, NBU 920-22J, NBU 920-22K, NBU 920-22N, NBU 920-22O

Pipelines: Proposed pipelines leading to all proposed wells.

Access Roads: Access roads lead to all proposed wells.

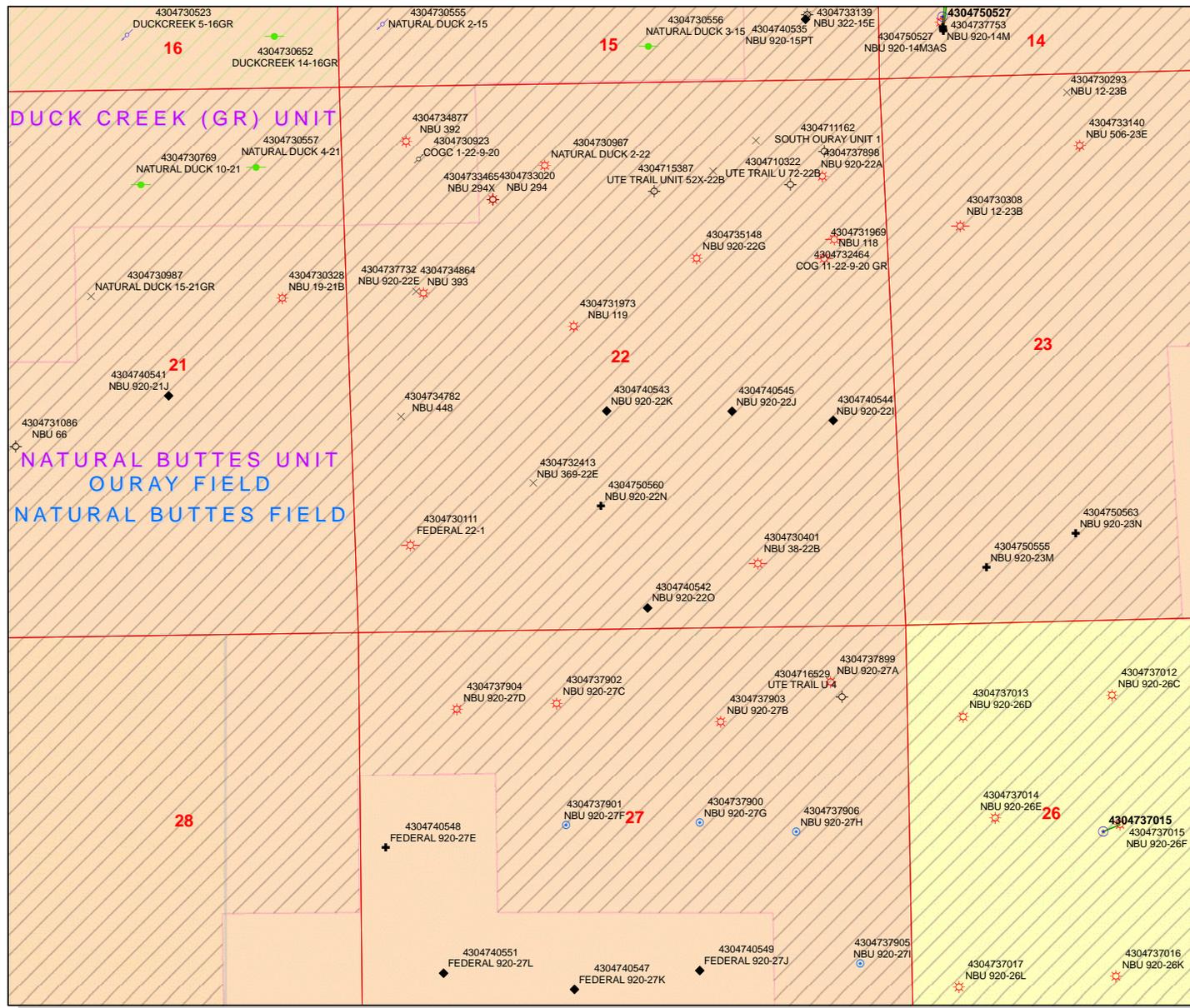
Location: Section 22, Township 9 South, Range 20 East; Uintah County, Utah

Survey-Species: Uinta Basin Hookless Cactus (*Sclerocactus wetlandicus*) and nesting raptors

Date: 06/16/2009

Observer(s): Grasslands Consulting, Inc. Biologists: Nick Hall, Jay Slocum, Dan Hamilton, Matt Kelahan, and Jonathan Sexauer. Technicians: Chad Johnson.

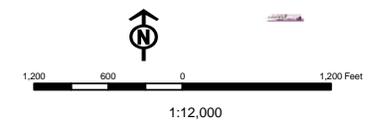
Weather: Partly cloudy, 80-85°F, 0-5 mph winds with no precipitation.



API Number: 4304750560
Well Name: NBU 920-22N
Township 09.0 S Range 20.0 E Section 22
Meridian: SLBM
 Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
 Map Produced by Diana Mason

Units	Wells Query Events
STATUS	X -Null-
ACTIVE	APD
EXPLORATORY	DRL
GAS STORAGE	GI
NF PP OIL	GS
NF SECONDARY	LA
PI OIL	NEW
PP GAS	OPS
PP GEOTHERM	PA
PP OIL	PGW
SECONDARY	POW
TERMINATED	RET
Fields	SGW
STATUS	SOW
ACTIVE	TA
COMBINED	TW
Sections	WD
	WT
	WS



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)**

July 17, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District
From: Michael Coulthard, Petroleum Engineer
Subject: 2009 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 2009 within the Natural Buttes Unit, Uintah County, Utah.

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

43-047-50555	NBU 920-23M	Sec 23 T09S R20E 0510 FSL 0821 FWL
43-047-50560	NBU 920-22N	Sec 22 T09S R20E 1206 FSL 2411 FWL
43-047-50562	NBU 920-20G3CS	Sec 20 T09S R20E 2011 FSL 0794 FEL
	BHL	Sec 20 T09S R20E 2580 FNL 2660 FEL
43-047-50563	NBU 920-23N	Sec 23 T09S R20E 0837 FSL 1702 FWL
43-047-50566	NBU 920-20H4CS	Sec 20 T09S R20E 1993 FSL 0786 FEL
	BHL	Sec 20 T09S R20E 2410 FNL 0650 FEL
43-047-50567	NBU 920-20I2AS	Sec 20 T09S R20E 2029 FSL 0803 FEL
	BHL	Sec 20 T09S R20E 2415 FSL 0925 FEL
43-047-50568	NBU 920-20L4CS	Sec 20 T09S R20E 0660 FSL 0849 FWL
	BHL	Sec 20 T09S R20E 1470 FSL 0675 FWL
43-047-50569	NBU 920-20M2AS	Sec 20 T09S R20E 0656 FSL 0829 FWL
	BHL	Sec 20 T09S R20E 1205 FSL 0650 FWL
43-047-50570	NBU 920-20M3AS	Sec 20 T09S R20E 0652 FSL 0810 FWL
	BHL	Sec 20 T09S R20E 0545 FSL 0660 FWL
43-047-50571	NBU 920-23F	Sec 23 T09S R20E 1988 FNL 2118 FWL
43-047-50572	NBU 920-23K	Sec 23 T09S R20E 1996 FSL 1939 FWL
43-047-50573	NBU 920-23L	Sec 23 T09S R20E 1491 FSL 0517 FWL
43-047-50574	NBU 920-23D	Sec 23 T09S R20E 0429 FNL 0967 FWL
43-047-50575	NBU 920-15I	Sec 15 T09S R20E 2071 FSL 0562 FEL
43-047-50576	NBU 920-14F	Sec 14 T09S R20E 2335 FNL 2412 FWL
43-047-50577	NBU 920-14C	Sec 14 T09S R20E 0477 FNL 1890 FWL
43-047-50578	NBU 920-14B	Sec 14 T09S R20E 0981 FNL 2071 FEL
43-047-50579	NBU 920-14A	Sec 14 T09S R20E 0589 FNL 0593 FEL

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

/s/ Michael L. Coulthard

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

MCoulthard:mc:7-17-09

**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 7/15/2009

API NO. ASSIGNED: 43047505600000

WELL NAME: NBU 920-22N

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

PHONE NUMBER: 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: SESW 22 090S 200E

Permit Tech Review:

SURFACE: 1206 FSL 2411 FWL

Engineering Review:

BOTTOM: 1206 FSL 2411 FWL

Geology Review:

COUNTY: UINTAH

LATITUDE: 40.01674

LONGITUDE: -109.65280

UTM SURF EASTINGS: 614974.00

NORTHINGS: 4430275.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU 0577A

PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

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:** Permit #43-8496
- RDCC Review:**
- Fee Surface Agreement**
- Intent to Commingle**

Commingle Approved

LOCATION AND SITING:

- R649-2-3.**
Unit: NATURAL BUTTES
 - R649-3-2. General**
 - R649-3-3. Exception**
 - Drilling Unit**
Board Cause No: Cause 173-14
Effective Date: 12/2/1999
Siting: 460' fr u bdry & uncomm. tract
 - R649-3-11. Directional Drill**
-

Comments: Presite Completed

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



JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
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 920-22N
API Well Number: 43047505600000
Lease Number: UTU 0577A
Surface Owner: INDIAN
Approval Date: 8/11/2009

Issued to:

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

Authority:

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

Duration:

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

Commingling:

In accordance with Cause No. 173-14 commingling 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 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

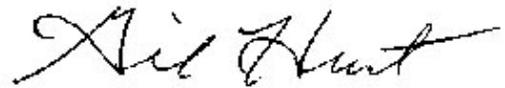
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <http://oilgas.ogm.utah.gov>

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:



Gil Hunt
Associate Director, Oil & Gas

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0577A
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 Tr 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 920-22N
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047505600000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1206 FSL 2411 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 22 Township: 09.0S Range: 20.0E 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: 4/5/2010 <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: _____

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 to change the well name for this location FROM: NBU 920-22N TO: NBU 920-22N1DS due to the well changing to a directional well. The well pad for this location will also have three additional wells added to it. Please see the attached revised plats, maps and drilling information for additional information. Please contact the undersigned with any questions and/or comments.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 March 29, 2010

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 3/29/2010	

T9S, R20E, S.L.B.&M.

Found 1968
Brass Cap in
Pile of Stones

S89°03'W - 40.19 (G.L.O.)
S89°05'54"W - 2650.93' (Meas.)

N89°09'W - 39.86 (G.L.O.)
N89°06'15"W - 2631.05' (Meas.)

Found 1968
Brass Cap with 2
Stones.

Found 1968
Brass Cap with
Pile of Stones.

NBU 920-22N1DS (Surface Position)	
NAD 83 LATITUDE =	40.016754° (40°01'00.316")
LONGITUDE =	109.653525° (109°39'12.690")
NAD 27 LATITUDE =	40.016790° (40°01'00.443")
LONGITUDE =	109.652833° (109°39'10.197")
NBU 920-22N1DS (Bottom Hole)	
NAD 83 LATITUDE =	40.015482° (40° 00' 55.737")
LONGITUDE =	109.652690° (109° 39' 09.682")
NAD 27 LATITUDE =	40.015518° (40° 00' 55.864")
LONGITUDE =	109.651997° (109° 39' 07.190")

N01°08'29"W - 2686.71' (Meas.)

2686.67' (Measured) N1°14'W - 81.42 (G.L.O.)

N01°10'13"W (Basis of Bearings)

Found 1968
Brass Cap, Pile
of Stones

22

**WELL LOCATION:
NBU 920-22N1DS**

ELEV. UNGRADED GROUND = 4946.5'

Found 1968
Brass Cap in Pile
of Stones

N01°55'32"W - 2640.47' (Meas.)

N1°58'W - 80.02 (G.L.O.)

N01°53'58"W - 2643.40' (Meas.)

Found 1968
Brass Cap in
Pile of Stones

S88°57'12"W - 2674.69' (Meas.)

S89°04'39"W - 2675.39' (Meas.)

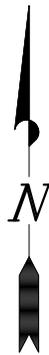
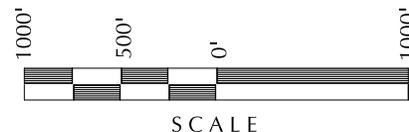
S89°02'W - 81.06 (G.L.O.)

Found 1968 Brass
Cap near S-E
Fence Corner

NOTES:

▲ = Section Corners Located

- Well footages are measured at right angles to the Section Lines.
- G.L.O. distances are shown in feet or chains.
1 chain = 66 feet.
- The Bottom of hole bears S26°46'50"E 519.15' from the Surface Position.
- Bearings are based on Global Positioning Satellite observations.
- Basis of elevation is Tri-Sta "Two Water" located in the NW 1/4 of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SURVEYOR'S CERTIFICATE

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

Kolby R. Kay
REG. LAND SURVEYOR
No. 362251
KOLBY R. KAY
REGISTRATION No. 362251
STATE OF UTAH

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

WELL PAD - NBU 920-22N

**NBU 920-22N1DS
WELL PLAT**

**738' FSL, 2635' FWL (Bottom Hole)
SE 1/4 SW 1/4 OF SECTION 22, T9S, R20E,
S.L.B.&M., UTAH COUNTY, UTAH.**



609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE

(435) 789-1365

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

DATE SURVEYED: 07-01-09	SURVEYED BY: M.S.B.	SHEET NO: 2
DATE DRAWN: 11-30-09	DRAWN BY: E.M.S.	
SCALE: 1" = 1000'		2 OF 14

RECEIVED March 29, 2010

NBU 920-22N1DS

API Number: 43-047-50560

Pad: NBU 920-22N

Surface: 1,206' FSL 2,411' FWL (SE/4SW/4)

BHL: 738' FSL 2,635' FWL (SE/4SW/4)

Sec. 22 T9S R20E

Uintah, Utah

Mineral Lease: UTU 0577A

ONSHORE ORDER NO. 1

DRILLING PROGRAM

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

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 – Surface	
Green River	1,795'	
Birds Nest	2,029'	Water
Mahogany	2,412'	Water
Wasatch	5,178'	Gas
Mesaverde	8,478'	Gas
MVU2	9,520'	Gas
MVL1	9,953'	Gas
TVD	10,691'	
TD	10,740'	

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

Please refer to the attached Drilling Program.

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

Please refer to the attached Drilling Program.

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program.

6. **Evaluation Program:**

Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 10,691' TD, approximately equals 6,772 psi (calculated at 0.63 psi/foot).

Maximum anticipated surface pressure equals approximately 4,420 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

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

9. Variances:

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

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

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

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

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

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

Background

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

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found

competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

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

Variance for BOPE Requirements

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

Variance for Mud Material Requirements

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

Variance for Special Drilling Operation (surface equipment placement) Requirements

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

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

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

attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

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

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)). The air rig operation utilizes a 5M BOPE when drilling. This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

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

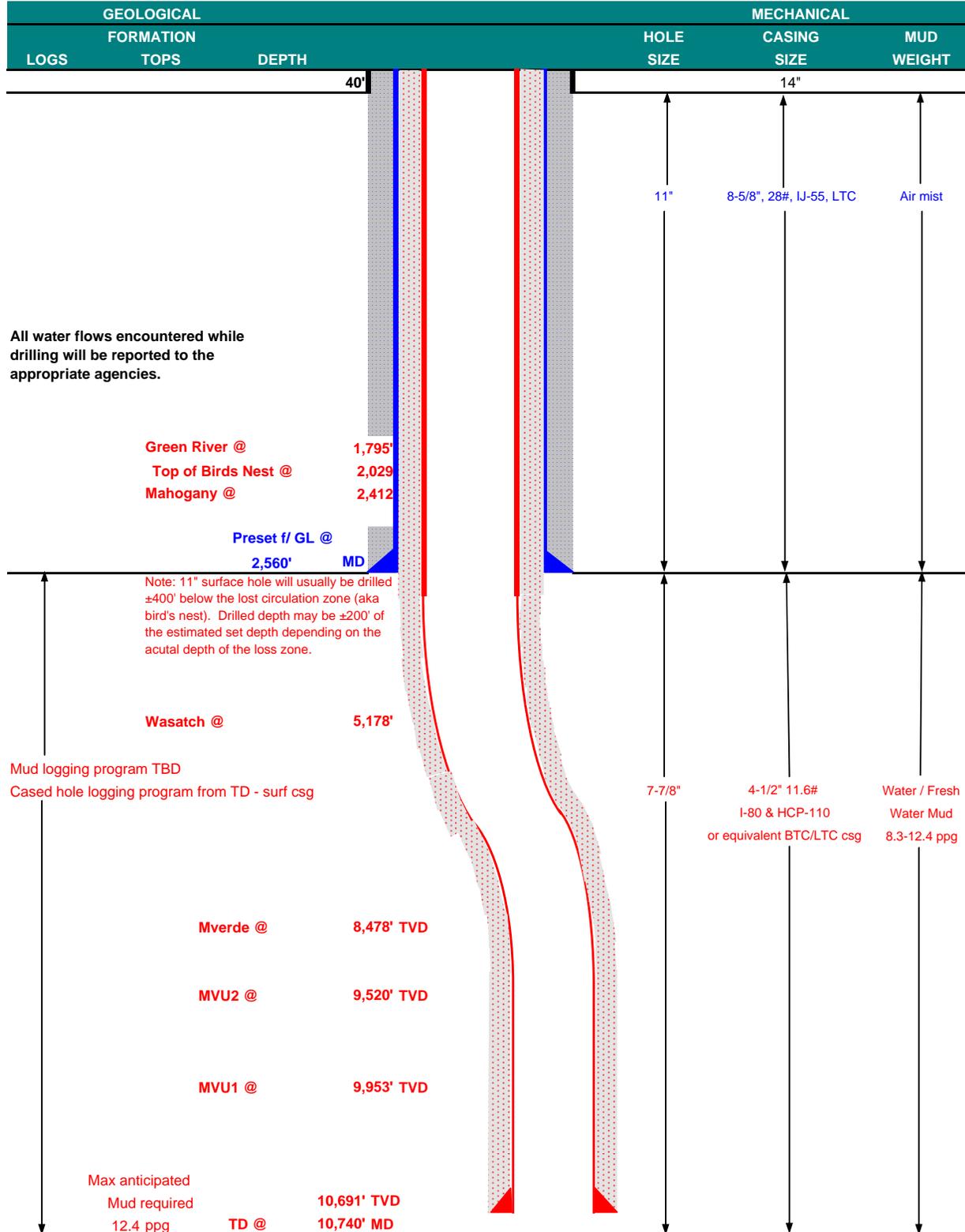
10. Other Information:

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	March 29, 2010	
WELL NAME	NBU 920-22N1DS		TD	10,691' TVD	10,740' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah
SURFACE LOCATION	SE/4 SW/4	1,206' FSL	2,411' FWL	Sec 22 T 9S R 20E	FINISHED ELEVATION 4,944'
	Latitude: 40.016754	Longitude: -109.653525		NAD 83	
BTM HOLE LOCATION	SE/4 SW/4	738' FSL	2,635' FWL	Sec 22 T 9S R 20E	
	Latitude: 40.015482	Longitude: -109.652690		NAD 83	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), Ute Tribe (Surface), UDOGM Tri-County Health Dept.				





KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						
SURFACE	8-5/8"	0 to 2,560'	28.00	IJ-55	LTC	3,390	1,880	348,000
						0.74	1.57	4.81
PRODUCTION	4-1/2"	0 to 9,699'	11.60	I-80	BTC	7,780	6,350	278,000
						1.71	1.08	2.75
						10,690	8,650	279,000
	4-1/2"	9,699' to 10,740'	11.60	HCP-110	LTC	46.68	1.25	28.51
		1,041' of HCP-110 pipe						

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

D.F. = 2.10

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

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

(Burst Assumptions: TD = 12.4 ppg)

0.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

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

MASP 4,420 psi

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

(Burst Assumptions: TD = 12.4 ppg)

0.63 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

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

MABHP 6,772 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	TAIL	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	2,060'	65/35 Poz + 6% Gel + 10 pps gilsonite	190	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	4,670'	Premium Lite II + 3% KCl + 0.25 pps	380	40%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	6,070'	50/50 Poz/G + 10% salt + 2% gel	1,490	40%	14.30	1.31
			+ 0.1% R-3				

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

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

FLOAT EQUIPMENT & CENTRALIZERS

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

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER:

John Huycke / Emile Goodwin

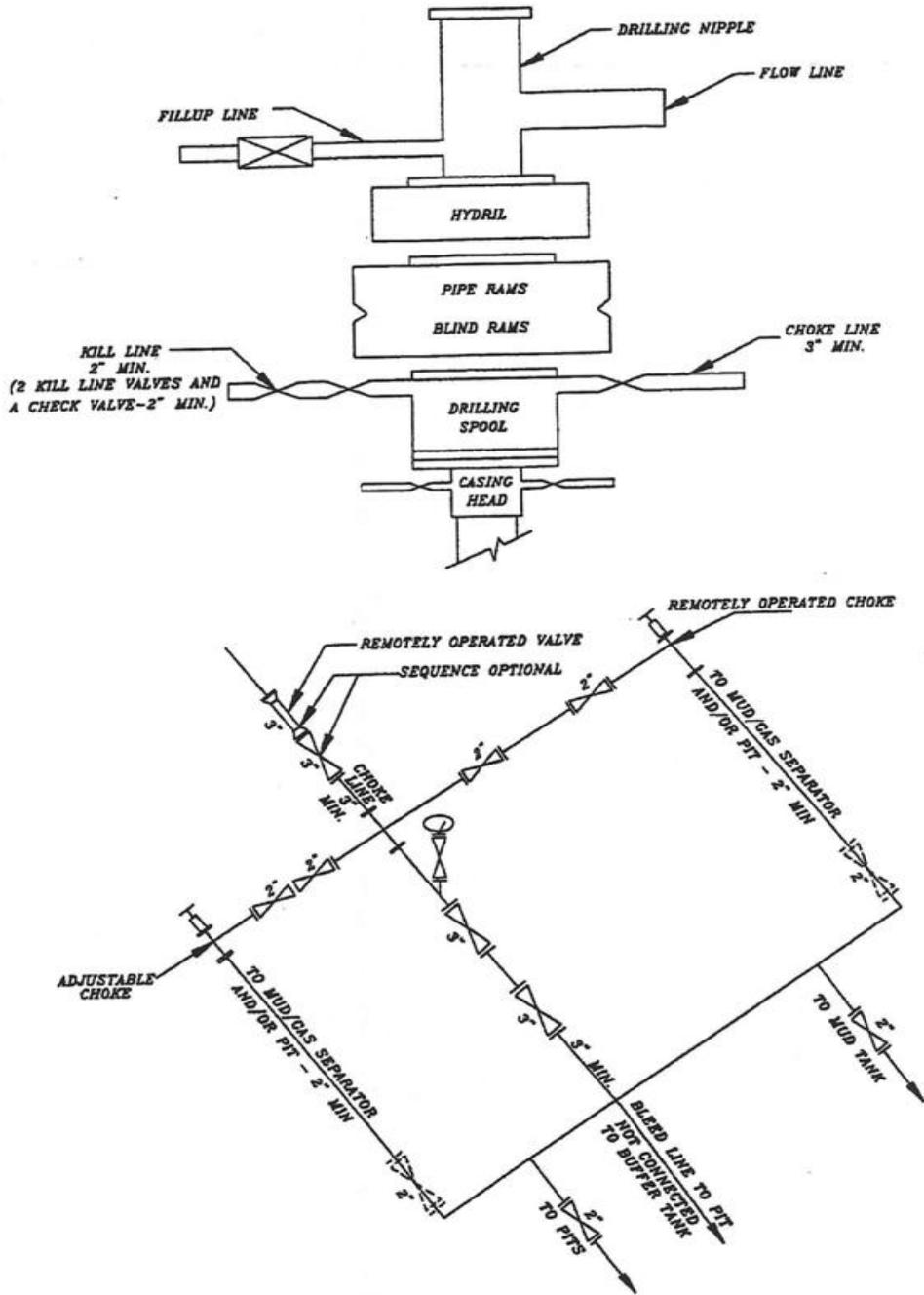
DATE:

DRILLING SUPERINTENDENT:

John Merkel / Lovel Young

DATE:

EXHIBIT A
NBU 920-22N1DS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



ANADARKO PETROLEUM CORP.

UINTAH COUNTY, UTAH (nad 27)

NBU 920-22N Pad

NBU 920-22N1DS

NBU 920-22N1DS

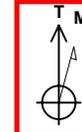
Plan: PLAN #1 3-8-10 RHS

Standard Planning Report

08 March, 2010



Project: UINTAH COUNTY, UTAH (nad 27)
 Site: NBU 920-22N Pad
 Well: NBU 920-22N1DS
 Wellbore: NBU 920-22N1DS
 Section: SECTION 22 T9S R20E
 SHL: 1206 FSL 2411 FWL
 Design: PLAN #1 3-8-10 RHS
 Latitude: 40° 1' 0.444 N
 Longitude: 109° 39' 10.199 W
 GL: 4944.00
 KB: WELL @ 4958.00ft (Original Well Elev)



Azimuths to True North
 Magnetic North: 11.33°

Magnetic Field
 Strength: 52455.7nT
 Dip Angle: 65.90°
 Date: 3/8/2010
 Model: BGGM2009

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1795.00	1821.21	GREEN RIVER
5178.00	5227.49	WASATCH
9520.00	9569.49	MESAVERDE

CASING DETAILS			
TVD	MD	Name	Size
2612.00	2655.54	8 5/8"	8.62

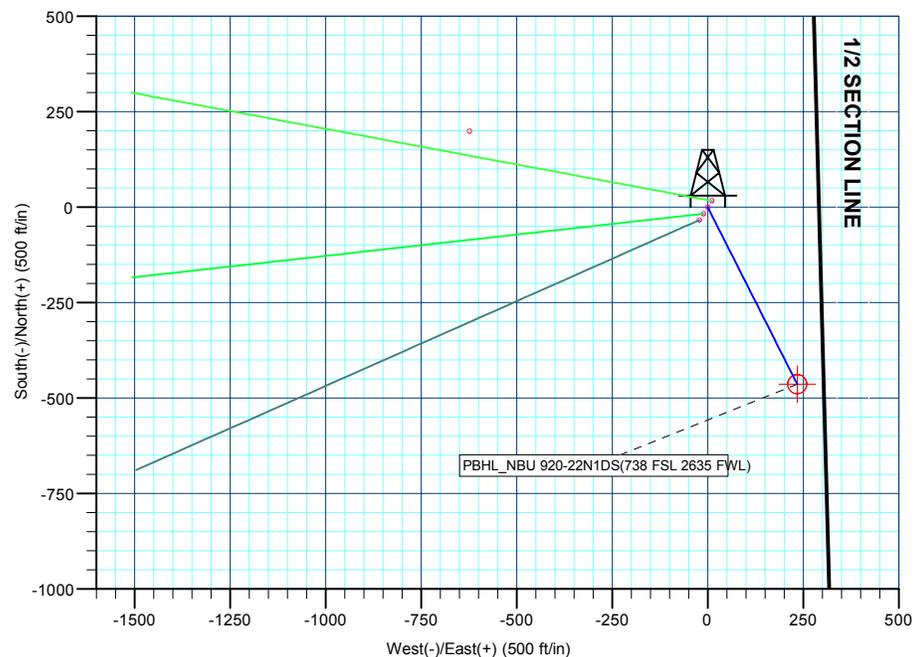
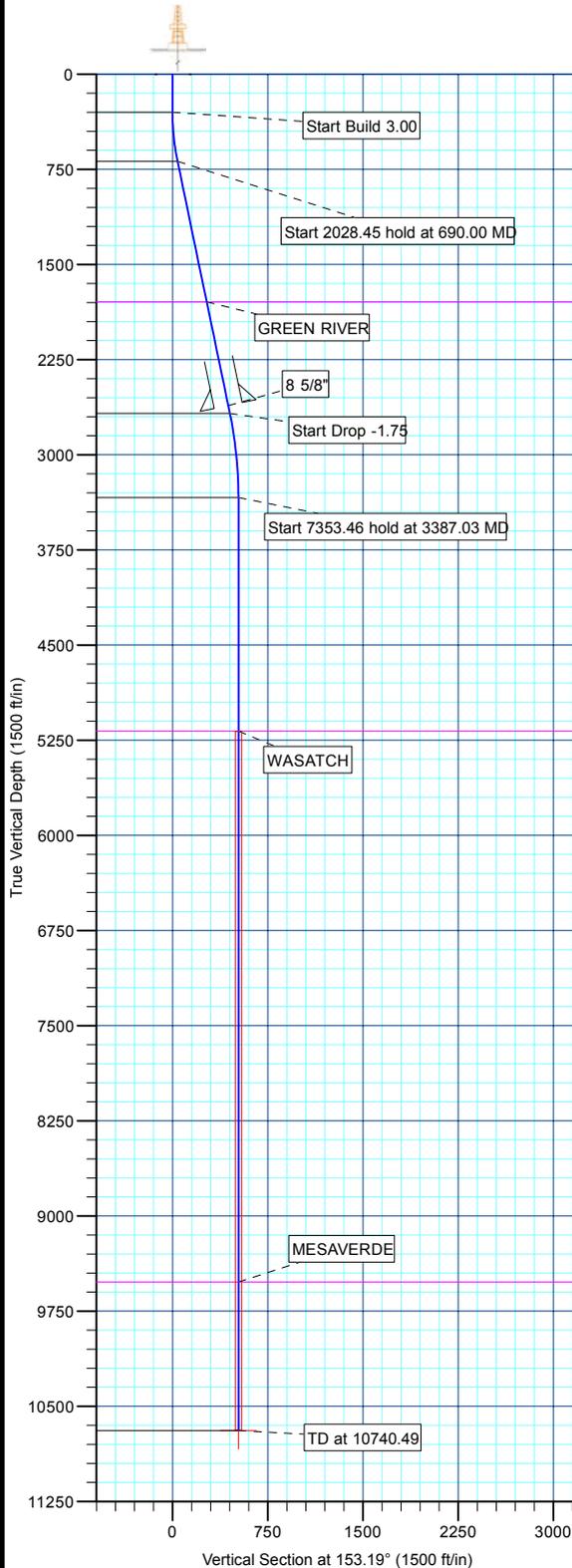
SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00	
690.00	11.70	153.19	687.30	-35.42	17.90	3.00	153.19	39.68	Start 2028.45 hold at 690.00 MD	
2718.45	11.70	153.19	2673.60	-402.54	203.43	0.00	0.00	451.03	Start Drop -1.75	
3387.03	0.00	0.00	3337.54	-463.26	234.11	1.75	180.00	519.05	Start 7353.46 hold at 3387.03 MD	
10740.49	0.00	0.00	10691.00	-463.26	234.11	0.00	0.00	519.05	TD at 10740.49	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)							
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape	
PBHL	10691.00	-463.26	234.11	40° 0' 55.865 N	109° 39' 7.189 W	Circle (Radius: 25.00)	

WELL DETAILS: NBU 920-22N1DS							
+N/-S	+E/-W	Northing	Ground Level:	4944.00	Latitude	Longitude	Slot
0.00	0.00	14535009.88	Easting	2017615.65	40° 1' 0.444 N	109° 39' 10.199 W	

LEGEND

- 369-22E EXISTING, 369-22E EXISTING, 369-22E EXISTING V0
- NBU 920-22L4CS, NBU 920-22L4CS, PLAN #1 3-8-10 RHS V0
- NBU 920-22M1BS, NBU 920-22M1BS, PLAN #1 3-8-10 RHS V0
- NBU 920-22M4BS, NBU 920-22M4BS, PLAN #1 3-8-10 RHS V0
- PLAN #1 3-8-10 RHS



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site:	NBU 920-22N Pad	North Reference:	True
Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Wellbore:	NBU 920-22N1DS		
Design:	PLAN #1 3-8-10 RHS		

Project	UINTAH COUNTY, UTAH (nad 27),		
Map System:	Universal Transverse Mercator (US Survey Fee	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 920-22N Pad, SECTION 22 T9S R20E				
Site Position:		Northing:	14,534,976.05ft	Latitude:	40° 1' 0.113 N
From:	Lat/Long	Easting:	2,017,594.59ft	Longitude:	109° 39' 10.476 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.87 °

Well	NBU 920-22N1DS					
Well Position	+N/-S	33.51 ft	Northing:	14,535,009.88 ft	Latitude:	40° 1' 0.444 N
	+E/-W	21.56 ft	Easting:	2,017,615.65 ft	Longitude:	109° 39' 10.199 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,944.00 ft

Wellbore	NBU 920-22N1DS				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2009	3/8/2010	11.33	65.90	52,456

Design	PLAN #1 3-8-10 RHS			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	153.19

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	
690.00	11.70	153.19	687.30	-35.42	17.90	3.00	3.00	0.00	153.19	
2,718.45	11.70	153.19	2,673.60	-402.54	203.43	0.00	0.00	0.00	0.00	
3,387.03	0.00	0.00	3,337.54	-463.26	234.11	1.75	-1.75	0.00	180.00	
10,740.49	0.00	0.00	10,691.00	-463.26	234.11	0.00	0.00	0.00	0.00	PBHL_NBU 920-22

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site:	NBU 920-22N Pad	North Reference:	True
Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Wellbore:	NBU 920-22N1DS		
Design:	PLAN #1 3-8-10 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
Start Build 3.00										
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	3.00	153.19	399.95	-2.34	1.18	2.62	3.00	3.00	0.00	0.00
500.00	6.00	153.19	499.63	-9.34	4.72	10.46	3.00	3.00	0.00	0.00
600.00	9.00	153.19	598.77	-20.99	10.61	23.51	3.00	3.00	0.00	0.00
Start 2028.45 hold at 690.00 MD										
690.00	11.70	153.19	687.30	-35.42	17.90	39.68	3.00	3.00	0.00	0.00
700.00	11.70	153.19	697.09	-37.23	18.81	41.71	0.00	0.00	0.00	0.00
800.00	11.70	153.19	795.01	-55.32	27.96	61.99	0.00	0.00	0.00	0.00
900.00	11.70	153.19	892.93	-73.42	37.11	82.27	0.00	0.00	0.00	0.00
1,000.00	11.70	153.19	990.85	-91.52	46.25	102.55	0.00	0.00	0.00	0.00
1,100.00	11.70	153.19	1,088.78	-109.62	55.40	122.82	0.00	0.00	0.00	0.00
1,200.00	11.70	153.19	1,186.70	-127.72	64.55	143.10	0.00	0.00	0.00	0.00
1,300.00	11.70	153.19	1,284.62	-145.82	73.69	163.38	0.00	0.00	0.00	0.00
1,400.00	11.70	153.19	1,382.54	-163.92	82.84	183.66	0.00	0.00	0.00	0.00
1,500.00	11.70	153.19	1,480.47	-182.02	91.99	203.94	0.00	0.00	0.00	0.00
1,600.00	11.70	153.19	1,578.39	-200.12	101.13	224.22	0.00	0.00	0.00	0.00
1,700.00	11.70	153.19	1,676.31	-218.21	110.28	244.50	0.00	0.00	0.00	0.00
1,800.00	11.70	153.19	1,774.23	-236.31	119.42	264.78	0.00	0.00	0.00	0.00
GREEN RIVER										
1,821.21	11.70	153.19	1,795.00	-240.15	121.36	269.08	0.00	0.00	0.00	0.00
1,900.00	11.70	153.19	1,872.15	-254.41	128.57	285.05	0.00	0.00	0.00	0.00
2,000.00	11.70	153.19	1,970.08	-272.51	137.72	305.33	0.00	0.00	0.00	0.00
2,100.00	11.70	153.19	2,068.00	-290.61	146.86	325.61	0.00	0.00	0.00	0.00
2,200.00	11.70	153.19	2,165.92	-308.71	156.01	345.89	0.00	0.00	0.00	0.00
2,300.00	11.70	153.19	2,263.84	-326.81	165.16	366.17	0.00	0.00	0.00	0.00
2,400.00	11.70	153.19	2,361.77	-344.91	174.30	386.45	0.00	0.00	0.00	0.00
2,500.00	11.70	153.19	2,459.69	-363.00	183.45	406.73	0.00	0.00	0.00	0.00
2,600.00	11.70	153.19	2,557.61	-381.10	192.60	427.01	0.00	0.00	0.00	0.00
8 5/8"										
2,655.54	11.70	153.19	2,612.00	-391.16	197.68	438.27	0.00	0.00	0.00	0.00
2,700.00	11.70	153.19	2,655.53	-399.20	201.74	447.28	0.00	0.00	0.00	0.00
Start Drop -1.75										
2,718.45	11.70	153.19	2,673.60	-402.54	203.43	451.03	0.00	0.00	0.00	0.00
2,800.00	10.27	153.19	2,753.65	-416.41	210.44	466.57	1.75	-1.75	0.00	0.00
2,900.00	8.52	153.19	2,852.31	-430.99	217.81	482.90	1.75	-1.75	0.00	0.00
3,000.00	6.77	153.19	2,951.41	-442.86	223.81	496.20	1.75	-1.75	0.00	0.00
3,100.00	5.02	153.19	3,050.88	-452.03	228.44	506.48	1.75	-1.75	0.00	0.00
3,200.00	3.27	153.19	3,150.61	-458.49	231.71	513.71	1.75	-1.75	0.00	0.00
3,300.00	1.52	153.19	3,250.52	-462.22	233.59	517.90	1.75	-1.75	0.00	0.00
Start 7353.46 hold at 3387.03 MD										
3,387.03	0.00	0.00	3,337.54	-463.26	234.11	519.05	1.75	-1.75	0.00	0.00
3,400.00	0.00	0.00	3,350.51	-463.26	234.11	519.05	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,450.51	-463.26	234.11	519.05	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,550.51	-463.26	234.11	519.05	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,650.51	-463.26	234.11	519.05	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,750.51	-463.26	234.11	519.05	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,850.51	-463.26	234.11	519.05	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	3,950.51	-463.26	234.11	519.05	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,050.51	-463.26	234.11	519.05	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,150.51	-463.26	234.11	519.05	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,250.51	-463.26	234.11	519.05	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,350.51	-463.26	234.11	519.05	0.00	0.00	0.00	0.00

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site:	NBU 920-22N Pad	North Reference:	True
Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Wellbore:	NBU 920-22N1DS		
Design:	PLAN #1 3-8-10 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,500.00	0.00	0.00	4,450.51	-463.26	234.11	519.05	0.00	0.00	0.00
4,600.00	0.00	0.00	4,550.51	-463.26	234.11	519.05	0.00	0.00	0.00
4,700.00	0.00	0.00	4,650.51	-463.26	234.11	519.05	0.00	0.00	0.00
4,800.00	0.00	0.00	4,750.51	-463.26	234.11	519.05	0.00	0.00	0.00
4,900.00	0.00	0.00	4,850.51	-463.26	234.11	519.05	0.00	0.00	0.00
5,000.00	0.00	0.00	4,950.51	-463.26	234.11	519.05	0.00	0.00	0.00
5,100.00	0.00	0.00	5,050.51	-463.26	234.11	519.05	0.00	0.00	0.00
5,200.00	0.00	0.00	5,150.51	-463.26	234.11	519.05	0.00	0.00	0.00
WASATCH									
5,227.49	0.00	0.00	5,178.00	-463.26	234.11	519.05	0.00	0.00	0.00
5,300.00	0.00	0.00	5,250.51	-463.26	234.11	519.05	0.00	0.00	0.00
5,400.00	0.00	0.00	5,350.51	-463.26	234.11	519.05	0.00	0.00	0.00
5,500.00	0.00	0.00	5,450.51	-463.26	234.11	519.05	0.00	0.00	0.00
5,600.00	0.00	0.00	5,550.51	-463.26	234.11	519.05	0.00	0.00	0.00
5,700.00	0.00	0.00	5,650.51	-463.26	234.11	519.05	0.00	0.00	0.00
5,800.00	0.00	0.00	5,750.51	-463.26	234.11	519.05	0.00	0.00	0.00
5,900.00	0.00	0.00	5,850.51	-463.26	234.11	519.05	0.00	0.00	0.00
6,000.00	0.00	0.00	5,950.51	-463.26	234.11	519.05	0.00	0.00	0.00
6,100.00	0.00	0.00	6,050.51	-463.26	234.11	519.05	0.00	0.00	0.00
6,200.00	0.00	0.00	6,150.51	-463.26	234.11	519.05	0.00	0.00	0.00
6,300.00	0.00	0.00	6,250.51	-463.26	234.11	519.05	0.00	0.00	0.00
6,400.00	0.00	0.00	6,350.51	-463.26	234.11	519.05	0.00	0.00	0.00
6,500.00	0.00	0.00	6,450.51	-463.26	234.11	519.05	0.00	0.00	0.00
6,600.00	0.00	0.00	6,550.51	-463.26	234.11	519.05	0.00	0.00	0.00
6,700.00	0.00	0.00	6,650.51	-463.26	234.11	519.05	0.00	0.00	0.00
6,800.00	0.00	0.00	6,750.51	-463.26	234.11	519.05	0.00	0.00	0.00
6,900.00	0.00	0.00	6,850.51	-463.26	234.11	519.05	0.00	0.00	0.00
7,000.00	0.00	0.00	6,950.51	-463.26	234.11	519.05	0.00	0.00	0.00
7,100.00	0.00	0.00	7,050.51	-463.26	234.11	519.05	0.00	0.00	0.00
7,200.00	0.00	0.00	7,150.51	-463.26	234.11	519.05	0.00	0.00	0.00
7,300.00	0.00	0.00	7,250.51	-463.26	234.11	519.05	0.00	0.00	0.00
7,400.00	0.00	0.00	7,350.51	-463.26	234.11	519.05	0.00	0.00	0.00
7,500.00	0.00	0.00	7,450.51	-463.26	234.11	519.05	0.00	0.00	0.00
7,600.00	0.00	0.00	7,550.51	-463.26	234.11	519.05	0.00	0.00	0.00
7,700.00	0.00	0.00	7,650.51	-463.26	234.11	519.05	0.00	0.00	0.00
7,800.00	0.00	0.00	7,750.51	-463.26	234.11	519.05	0.00	0.00	0.00
7,900.00	0.00	0.00	7,850.51	-463.26	234.11	519.05	0.00	0.00	0.00
8,000.00	0.00	0.00	7,950.51	-463.26	234.11	519.05	0.00	0.00	0.00
8,100.00	0.00	0.00	8,050.51	-463.26	234.11	519.05	0.00	0.00	0.00
8,200.00	0.00	0.00	8,150.51	-463.26	234.11	519.05	0.00	0.00	0.00
8,300.00	0.00	0.00	8,250.51	-463.26	234.11	519.05	0.00	0.00	0.00
8,400.00	0.00	0.00	8,350.51	-463.26	234.11	519.05	0.00	0.00	0.00
8,500.00	0.00	0.00	8,450.51	-463.26	234.11	519.05	0.00	0.00	0.00
8,600.00	0.00	0.00	8,550.51	-463.26	234.11	519.05	0.00	0.00	0.00
8,700.00	0.00	0.00	8,650.51	-463.26	234.11	519.05	0.00	0.00	0.00
8,800.00	0.00	0.00	8,750.51	-463.26	234.11	519.05	0.00	0.00	0.00
8,900.00	0.00	0.00	8,850.51	-463.26	234.11	519.05	0.00	0.00	0.00
9,000.00	0.00	0.00	8,950.51	-463.26	234.11	519.05	0.00	0.00	0.00
9,100.00	0.00	0.00	9,050.51	-463.26	234.11	519.05	0.00	0.00	0.00
9,200.00	0.00	0.00	9,150.51	-463.26	234.11	519.05	0.00	0.00	0.00
9,300.00	0.00	0.00	9,250.51	-463.26	234.11	519.05	0.00	0.00	0.00
9,400.00	0.00	0.00	9,350.51	-463.26	234.11	519.05	0.00	0.00	0.00
9,500.00	0.00	0.00	9,450.51	-463.26	234.11	519.05	0.00	0.00	0.00
MESAVERDE									

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site:	NBU 920-22N Pad	North Reference:	True
Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Wellbore:	NBU 920-22N1DS		
Design:	PLAN #1 3-8-10 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
9,569.49	0.00	0.00	9,520.00	-463.26	234.11	519.05	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,550.51	-463.26	234.11	519.05	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,650.51	-463.26	234.11	519.05	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,750.51	-463.26	234.11	519.05	0.00	0.00	0.00	
9,900.00	0.00	0.00	9,850.51	-463.26	234.11	519.05	0.00	0.00	0.00	
10,000.00	0.00	0.00	9,950.51	-463.26	234.11	519.05	0.00	0.00	0.00	
10,100.00	0.00	0.00	10,050.51	-463.26	234.11	519.05	0.00	0.00	0.00	
10,200.00	0.00	0.00	10,150.51	-463.26	234.11	519.05	0.00	0.00	0.00	
10,300.00	0.00	0.00	10,250.51	-463.26	234.11	519.05	0.00	0.00	0.00	
10,400.00	0.00	0.00	10,350.51	-463.26	234.11	519.05	0.00	0.00	0.00	
10,500.00	0.00	0.00	10,450.51	-463.26	234.11	519.05	0.00	0.00	0.00	
10,600.00	0.00	0.00	10,550.51	-463.26	234.11	519.05	0.00	0.00	0.00	
10,700.00	0.00	0.00	10,650.51	-463.26	234.11	519.05	0.00	0.00	0.00	
TD at 10740.49 - PBHL_NBU 920-22N1DS(738 FSL 2635 FWL)										
10,740.49	0.00	0.00	10,691.00	-463.26	234.11	519.05	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
PBHL_NBU 920-22N1 - hit/miss target - Shape - Circle (radius 25.00)	0.00	0.00	10,691.00	-463.26	234.11	14,534,550.22	2,017,856.74	40° 0' 55.865 N	109° 39' 7.189 W	

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)		
2,655.54	2,612.00	8 5/8"	8.62	11.00		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,821.21	1,795.00	GREEN RIVER				
5,227.49	5,178.00	WASATCH				
9,569.49	9,520.00	MESAVERDE				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
300.00	300.00	0.00	0.00	Start Build 3.00	
690.00	687.30	-35.42	17.90	Start 2028.45 hold at 690.00 MD	
2,718.45	2,673.60	-402.54	203.43	Start Drop -1.75	
3,387.03	3,337.54	-463.26	234.11	Start 7353.46 hold at 3387.03 MD	
10,740.49	10,691.00	-463.26	234.11	TD at 10740.49	

ANADARKO PETROLEUM CORP.

**UINTAH COUNTY, UTAH (nad 27)
NBU 920-22N Pad
NBU 920-22N1DS**

**NBU 920-22N1DS
PLAN #1 3-8-10 RHS**

Anticollision Report

08 March, 2010



Weatherford®

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Reference Site:	NBU 920-22N Pad	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 920-22N1DS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-8-10 RHS	Offset TVD Reference:	Offset Datum

Reference	PLAN #1 3-8-10 RHS		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	0.00 to 20,000.00ft	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	3/8/2010		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	10,740.49	PLAN #1 3-8-10 RHS (NBU 920-22N1DS)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
NBU 920-22N Pad						
369-22E EXISTING - 369-22E EXISTING - 369-22E EXI	300.00	286.00	654.28	644.29	65.518	CC
369-22E EXISTING - 369-22E EXISTING - 369-22E EXI	10,740.49	10,677.00	1,083.21	634.82	2.416	ES, SF
NBU 920-22L4CS - NBU 920-22L4CS - PLAN #1 3-8-10	300.00	300.00	20.05	18.96	18.354	CC
NBU 920-22L4CS - NBU 920-22L4CS - PLAN #1 3-8-10	306.50	306.53	20.05	18.93	17.904	ES
NBU 920-22L4CS - NBU 920-22L4CS - PLAN #1 3-8-10	400.00	400.18	20.89	19.37	13.774	SF
NBU 920-22M1BS - NBU 920-22M1BS - PLAN #1 3-8-10	366.58	366.25	20.09	18.72	14.678	CC
NBU 920-22M1BS - NBU 920-22M1BS - PLAN #1 3-8-10	400.00	399.45	20.19	18.69	13.411	ES
NBU 920-22M1BS - NBU 920-22M1BS - PLAN #1 3-8-10	500.00	498.59	23.42	21.49	12.127	SF
NBU 920-22M4BS - NBU 920-22M4BS - PLAN #1 3-8-10	300.00	300.00	39.84	38.75	36.476	CC, ES
NBU 920-22M4BS - NBU 920-22M4BS - PLAN #1 3-8-10	600.00	591.19	57.32	54.89	23.580	SF

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN													Offset Well Error:	0.00 ft
Reference	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-72.34	198.54	-623.43	654.43					
100.00	100.00	86.00	86.00	0.10	1.72	-72.34	198.54	-623.43	654.28	652.46	1.82	360.151		
200.00	200.00	186.00	186.00	0.32	5.44	-72.34	198.54	-623.43	654.28	648.52	5.76	113.562		
300.00	300.00	286.00	286.00	0.55	9.44	-72.34	198.54	-623.43	654.28	644.29	9.99	65.518	CC	
400.00	399.95	385.95	385.95	0.75	13.44	134.60	198.54	-623.43	656.11	641.94	14.18	46.278		
500.00	499.63	485.63	485.63	0.97	17.43	134.96	198.54	-623.43	661.65	643.32	18.33	36.097		
600.00	598.77	584.77	584.77	1.23	21.39	135.55	198.54	-623.43	670.96	648.51	22.45	29.889		
690.00	687.30	673.30	673.30	1.53	24.93	136.25	198.54	-623.43	682.67	656.56	26.11	26.149		
700.00	697.09	683.09	683.09	1.57	25.32	136.37	198.54	-623.43	684.15	657.62	26.52	25.794		
800.00	795.01	781.01	781.01	1.96	29.24	137.50	198.54	-623.43	699.11	668.41	30.70	22.772		
900.00	892.93	878.93	878.93	2.38	33.16	138.59	198.54	-623.43	714.33	679.45	34.88	20.478		
1,000.00	990.85	976.85	976.85	2.81	37.07	139.64	198.54	-623.43	729.80	690.73	39.07	18.680		
1,100.00	1,088.78	1,074.78	1,074.78	3.24	40.99	140.64	198.54	-623.43	745.50	702.25	43.25	17.237		
1,200.00	1,186.70	1,172.70	1,172.70	3.68	44.91	141.60	198.54	-623.43	761.41	713.99	47.43	16.054		
1,300.00	1,284.62	1,270.62	1,270.62	4.12	48.82	142.52	198.54	-623.43	777.53	725.93	51.60	15.068		
1,400.00	1,382.54	1,368.54	1,368.54	4.56	52.74	143.40	198.54	-623.43	793.84	738.07	55.77	14.234		
1,500.00	1,480.47	1,466.47	1,466.47	5.01	56.66	144.25	198.54	-623.43	810.33	750.40	59.94	13.520		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Reference Site:	NBU 920-22N Pad	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 920-22N1DS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-8-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor
1,600.00	1,578.39	1,564.39	1,564.39	5.45	60.58	145.07	198.54	-623.43	826.99	762.89	64.09	12.903	
1,700.00	1,676.31	1,662.31	1,662.31	5.90	64.49	145.85	198.54	-623.43	843.81	775.56	68.25	12.363	
1,800.00	1,774.23	1,760.23	1,760.23	6.35	68.41	146.60	198.54	-623.43	860.77	788.37	72.40	11.889	
1,900.00	1,872.15	1,858.15	1,858.15	6.79	72.33	147.33	198.54	-623.43	877.88	801.33	76.55	11.468	
2,000.00	1,970.08	1,956.08	1,956.08	7.24	76.24	148.02	198.54	-623.43	895.11	814.42	80.69	11.093	
2,100.00	2,068.00	2,054.00	2,054.00	7.69	80.16	148.70	198.54	-623.43	912.48	827.65	84.83	10.756	
2,200.00	2,165.92	2,151.92	2,151.92	8.14	84.08	149.34	198.54	-623.43	929.96	840.99	88.97	10.453	
2,300.00	2,263.84	2,249.84	2,249.84	8.59	87.99	149.96	198.54	-623.43	947.55	854.45	93.10	10.178	
2,400.00	2,361.77	2,347.77	2,347.77	9.04	91.91	150.56	198.54	-623.43	965.25	868.02	97.23	9.927	
2,500.00	2,459.69	2,445.69	2,445.69	9.49	95.83	151.14	198.54	-623.43	983.05	881.69	101.36	9.699	
2,600.00	2,557.61	2,543.61	2,543.61	9.94	99.74	151.70	198.54	-623.43	1,000.94	895.46	105.48	9.489	
2,700.00	2,655.53	2,641.53	2,641.53	10.39	103.66	152.24	198.54	-623.43	1,018.92	909.32	109.61	9.296	
2,718.45	2,673.60	2,659.60	2,659.60	10.47	104.38	152.33	198.54	-623.43	1,022.25	911.88	110.37	9.262	
2,800.00	2,753.65	2,739.65	2,739.65	10.78	107.59	152.84	198.54	-623.43	1,036.10	922.00	114.09	9.081	
2,900.00	2,852.31	2,838.31	2,838.31	11.06	111.53	153.37	198.54	-623.43	1,050.70	932.09	118.61	8.858	
3,000.00	2,951.41	2,937.41	2,937.41	11.31	115.50	153.78	198.54	-623.43	1,062.64	939.55	123.09	8.633	
3,100.00	3,050.88	3,036.88	3,036.88	11.54	119.48	154.09	198.54	-623.43	1,071.88	944.37	127.51	8.406	
3,200.00	3,150.61	3,136.61	3,136.61	11.72	123.46	154.31	198.54	-623.43	1,078.40	946.54	131.86	8.179	
3,300.00	3,250.52	3,236.52	3,236.52	11.88	127.46	154.43	198.54	-623.43	1,082.17	946.05	136.12	7.950	
3,387.03	3,337.54	3,323.54	3,323.54	11.99	130.94	-52.34	198.54	-623.43	1,083.21	943.45	139.76	7.751	
3,400.00	3,350.51	3,336.51	3,336.51	12.01	131.46	-52.34	198.54	-623.43	1,083.21	942.91	140.30	7.721	
3,500.00	3,450.51	3,436.51	3,436.51	12.12	135.46	-52.34	198.54	-623.43	1,083.21	938.76	144.45	7.499	
3,600.00	3,550.51	3,536.51	3,536.51	12.24	139.46	-52.34	198.54	-623.43	1,083.21	934.61	148.60	7.289	
3,700.00	3,650.51	3,636.51	3,636.51	12.35	143.46	-52.34	198.54	-623.43	1,083.21	930.45	152.76	7.091	
3,800.00	3,750.51	3,736.51	3,736.51	12.48	147.46	-52.34	198.54	-623.43	1,083.21	926.30	156.92	6.903	
3,900.00	3,850.51	3,836.51	3,836.51	12.60	151.46	-52.34	198.54	-623.43	1,083.21	922.13	161.08	6.725	
4,000.00	3,950.51	3,936.51	3,936.51	12.73	155.46	-52.34	198.54	-623.43	1,083.21	917.97	165.24	6.555	
4,100.00	4,050.51	4,036.51	4,036.51	12.86	159.46	-52.34	198.54	-623.43	1,083.21	913.80	169.41	6.394	
4,200.00	4,150.51	4,136.51	4,136.51	12.99	163.46	-52.34	198.54	-623.43	1,083.21	909.63	173.58	6.241	
4,300.00	4,250.51	4,236.51	4,236.51	13.12	167.46	-52.34	198.54	-623.43	1,083.21	905.46	177.75	6.094	
4,400.00	4,350.51	4,336.51	4,336.51	13.26	171.46	-52.34	198.54	-623.43	1,083.21	901.29	181.92	5.954	
4,500.00	4,450.51	4,436.51	4,436.51	13.40	175.46	-52.34	198.54	-623.43	1,083.21	897.12	186.10	5.821	
4,600.00	4,550.51	4,536.51	4,536.51	13.54	179.46	-52.34	198.54	-623.43	1,083.21	892.94	190.27	5.693	
4,700.00	4,650.51	4,636.51	4,636.51	13.69	183.46	-52.34	198.54	-623.43	1,083.21	888.76	194.45	5.571	
4,800.00	4,750.51	4,736.51	4,736.51	13.83	187.46	-52.34	198.54	-623.43	1,083.21	884.58	198.63	5.453	
4,900.00	4,850.51	4,836.51	4,836.51	13.98	191.46	-52.34	198.54	-623.43	1,083.21	880.40	202.81	5.341	
5,000.00	4,950.51	4,936.51	4,936.51	14.13	195.46	-52.34	198.54	-623.43	1,083.21	876.22	207.00	5.233	
5,100.00	5,050.51	5,036.51	5,036.51	14.28	199.46	-52.34	198.54	-623.43	1,083.21	872.03	211.18	5.129	
5,200.00	5,150.51	5,136.51	5,136.51	14.44	203.46	-52.34	198.54	-623.43	1,083.21	867.84	215.37	5.030	
5,300.00	5,250.51	5,236.51	5,236.51	14.59	207.46	-52.34	198.54	-623.43	1,083.21	863.66	219.55	4.934	
5,400.00	5,350.51	5,336.51	5,336.51	14.75	211.46	-52.34	198.54	-623.43	1,083.21	859.47	223.74	4.841	
5,500.00	5,450.51	5,436.51	5,436.51	14.91	215.46	-52.34	198.54	-623.43	1,083.21	855.28	227.93	4.752	
5,600.00	5,550.51	5,536.51	5,536.51	15.07	219.46	-52.34	198.54	-623.43	1,083.21	851.09	232.12	4.667	
5,700.00	5,650.51	5,636.51	5,636.51	15.23	223.46	-52.34	198.54	-623.43	1,083.21	846.90	236.32	4.584	
5,800.00	5,750.51	5,736.51	5,736.51	15.40	227.46	-52.34	198.54	-623.43	1,083.21	842.70	240.51	4.504	
5,900.00	5,850.51	5,836.51	5,836.51	15.56	231.46	-52.34	198.54	-623.43	1,083.21	838.51	244.70	4.427	
6,000.00	5,950.51	5,936.51	5,936.51	15.73	235.46	-52.34	198.54	-623.43	1,083.21	834.31	248.90	4.352	
6,100.00	6,050.51	6,036.51	6,036.51	15.90	239.46	-52.34	198.54	-623.43	1,083.21	830.12	253.09	4.280	
6,200.00	6,150.51	6,136.51	6,136.51	16.07	243.46	-52.34	198.54	-623.43	1,083.21	825.92	257.29	4.210	
6,300.00	6,250.51	6,236.51	6,236.51	16.24	247.46	-52.34	198.54	-623.43	1,083.21	821.72	261.49	4.142	
6,400.00	6,350.51	6,336.51	6,336.51	16.42	251.46	-52.34	198.54	-623.43	1,083.21	817.52	265.69	4.077	
6,500.00	6,450.51	6,436.51	6,436.51	16.59	255.46	-52.34	198.54	-623.43	1,083.21	813.33	269.89	4.014	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Reference Site:	NBU 920-22N Pad	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 920-22N1DS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-8-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor
6,600.00	6,550.51	6,536.51	6,536.51	16.76	259.46	-52.34	198.54	-623.43	1,083.21	809.13	274.09	3.952	
6,700.00	6,650.51	6,636.51	6,636.51	16.94	263.46	-52.34	198.54	-623.43	1,083.21	804.92	278.29	3.892	
6,800.00	6,750.51	6,736.51	6,736.51	17.12	267.46	-52.34	198.54	-623.43	1,083.21	800.72	282.49	3.835	
6,900.00	6,850.51	6,836.51	6,836.51	17.30	271.46	-52.34	198.54	-623.43	1,083.21	796.52	286.69	3.778	
7,000.00	6,950.51	6,936.51	6,936.51	17.48	275.46	-52.34	198.54	-623.43	1,083.21	792.32	290.89	3.724	
7,100.00	7,050.51	7,036.51	7,036.51	17.66	279.46	-52.34	198.54	-623.43	1,083.21	788.12	295.10	3.671	
7,200.00	7,150.51	7,136.51	7,136.51	17.84	283.46	-52.34	198.54	-623.43	1,083.21	783.91	299.30	3.619	
7,300.00	7,250.51	7,236.51	7,236.51	18.02	287.46	-52.34	198.54	-623.43	1,083.21	779.71	303.51	3.569	
7,400.00	7,350.51	7,336.51	7,336.51	18.21	291.46	-52.34	198.54	-623.43	1,083.21	775.50	307.71	3.520	
7,500.00	7,450.51	7,436.51	7,436.51	18.39	295.46	-52.34	198.54	-623.43	1,083.21	771.30	311.92	3.473	
7,600.00	7,550.51	7,536.51	7,536.51	18.58	299.46	-52.34	198.54	-623.43	1,083.21	767.09	316.12	3.427	
7,700.00	7,650.51	7,636.51	7,636.51	18.76	303.46	-52.34	198.54	-623.43	1,083.21	762.88	320.33	3.382	
7,800.00	7,750.51	7,736.51	7,736.51	18.95	307.46	-52.34	198.54	-623.43	1,083.21	758.68	324.54	3.338	
7,900.00	7,850.51	7,836.51	7,836.51	19.14	311.46	-52.34	198.54	-623.43	1,083.21	754.47	328.74	3.295	
8,000.00	7,950.51	7,936.51	7,936.51	19.33	315.46	-52.34	198.54	-623.43	1,083.21	750.26	332.95	3.253	
8,100.00	8,050.51	8,036.51	8,036.51	19.51	319.46	-52.34	198.54	-623.43	1,083.21	746.05	337.16	3.213	
8,200.00	8,150.51	8,136.51	8,136.51	19.71	323.46	-52.34	198.54	-623.43	1,083.21	741.85	341.37	3.173	
8,300.00	8,250.51	8,236.51	8,236.51	19.90	327.46	-52.34	198.54	-623.43	1,083.21	737.64	345.58	3.135	
8,400.00	8,350.51	8,336.51	8,336.51	20.09	331.46	-52.34	198.54	-623.43	1,083.21	733.43	349.79	3.097	
8,500.00	8,450.51	8,436.51	8,436.51	20.28	335.46	-52.34	198.54	-623.43	1,083.21	729.22	354.00	3.060	
8,600.00	8,550.51	8,536.51	8,536.51	20.47	339.46	-52.34	198.54	-623.43	1,083.21	725.01	358.21	3.024	
8,700.00	8,650.51	8,636.51	8,636.51	20.67	343.46	-52.34	198.54	-623.43	1,083.21	720.80	362.42	2.989	
8,800.00	8,750.51	8,736.51	8,736.51	20.86	347.46	-52.34	198.54	-623.43	1,083.21	716.59	366.63	2.955	
8,900.00	8,850.51	8,836.51	8,836.51	21.06	351.46	-52.34	198.54	-623.43	1,083.21	712.37	370.84	2.921	
9,000.00	8,950.51	8,936.51	8,936.51	21.25	355.46	-52.34	198.54	-623.43	1,083.21	708.16	375.05	2.888	
9,100.00	9,050.51	9,036.51	9,036.51	21.45	359.46	-52.34	198.54	-623.43	1,083.21	703.95	379.26	2.856	
9,200.00	9,150.51	9,136.51	9,136.51	21.64	363.46	-52.34	198.54	-623.43	1,083.21	699.74	383.47	2.825	
9,300.00	9,250.51	9,236.51	9,236.51	21.84	367.46	-52.34	198.54	-623.43	1,083.21	695.53	387.68	2.794	
9,400.00	9,350.51	9,336.51	9,336.51	22.04	371.46	-52.34	198.54	-623.43	1,083.21	691.32	391.90	2.764	
9,500.00	9,450.51	9,436.51	9,436.51	22.24	375.46	-52.34	198.54	-623.43	1,083.21	687.10	396.11	2.735	
9,600.00	9,550.51	9,536.51	9,536.51	22.44	379.46	-52.34	198.54	-623.43	1,083.21	682.89	400.32	2.706	
9,700.00	9,650.51	9,636.51	9,636.51	22.64	383.46	-52.34	198.54	-623.43	1,083.21	678.68	404.54	2.678	
9,800.00	9,750.51	9,736.51	9,736.51	22.83	387.46	-52.34	198.54	-623.43	1,083.21	674.46	408.75	2.650	
9,900.00	9,850.51	9,836.51	9,836.51	23.03	391.46	-52.34	198.54	-623.43	1,083.21	670.25	412.96	2.623	
10,000.00	9,950.51	9,936.51	9,936.51	23.24	395.46	-52.34	198.54	-623.43	1,083.21	666.03	417.18	2.597	
10,100.00	10,050.51	10,036.51	10,036.51	23.44	399.46	-52.34	198.54	-623.43	1,083.21	661.82	421.39	2.571	
10,200.00	10,150.51	10,136.51	10,136.51	23.64	403.46	-52.34	198.54	-623.43	1,083.21	657.61	425.61	2.545	
10,300.00	10,250.51	10,236.51	10,236.51	23.84	407.46	-52.34	198.54	-623.43	1,083.21	653.39	429.82	2.520	
10,400.00	10,350.51	10,336.51	10,336.51	24.04	411.46	-52.34	198.54	-623.43	1,083.21	649.18	434.04	2.496	
10,500.00	10,450.51	10,436.51	10,436.51	24.24	415.46	-52.34	198.54	-623.43	1,083.21	644.96	438.25	2.472	
10,600.00	10,550.51	10,536.51	10,536.51	24.45	419.46	-52.34	198.54	-623.43	1,083.21	640.75	442.47	2.448	
10,700.00	10,650.51	10,636.51	10,636.51	24.65	423.46	-52.34	198.54	-623.43	1,083.21	636.53	446.68	2.425	
10,740.49	10,691.00	10,677.00	10,677.00	24.73	425.08	-52.34	198.54	-623.43	1,083.21	634.82	448.39	2.416 ES, SF	

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Reference Site:	NBU 920-22N Pad	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 920-22N1DS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-8-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft	
Survey Program: 0-MWD												Offset Well Error:		0.00 ft
Reference				Offset			Semi Major Axis			Distance				Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	33.11	16.79	10.95	20.05					
100.00	100.00	100.00	100.00	0.10	0.10	33.11	16.79	10.95	20.05	19.86	0.19	103.722		
200.00	200.00	200.00	200.00	0.32	0.32	33.11	16.79	10.95	20.05	19.41	0.64	31.189		
300.00	300.00	300.00	300.00	0.55	0.55	33.11	16.79	10.95	20.05	18.96	1.09	18.354 CC		
306.50	306.50	306.53	306.53	0.56	0.56	-120.13	16.80	10.94	20.05	18.93	1.12	17.904 ES		
400.00	399.95	400.18	400.14	0.75	0.77	-133.04	17.28	8.37	20.89	19.37	1.52	13.774 SF		
500.00	499.63	499.05	498.69	0.97	1.00	-161.06	18.69	0.76	28.32	26.35	1.98	14.326		
600.00	598.77	595.36	594.19	1.23	1.26	179.05	20.97	-11.45	47.63	45.13	2.49	19.099		
690.00	687.30	678.95	676.46	1.53	1.55	169.76	23.66	-25.88	74.33	71.35	2.98	24.971		
700.00	697.09	688.03	685.36	1.57	1.58	169.05	24.00	-27.66	77.75	74.73	3.03	25.691		
800.00	795.01	777.19	772.24	1.96	1.96	163.60	27.67	-47.35	114.36	110.80	3.56	32.141		
900.00	892.93	863.19	855.06	2.38	2.39	159.92	31.91	-70.09	154.98	150.87	4.12	37.647		
1,000.00	990.85	945.86	933.62	2.81	2.88	157.17	36.63	-95.38	199.39	194.70	4.69	42.475		
1,100.00	1,088.78	1,028.04	1,010.61	3.24	3.42	154.95	41.89	-123.62	247.21	241.93	5.29	46.761		
1,200.00	1,186.70	1,115.06	1,091.86	3.68	4.04	153.26	47.61	-154.26	295.99	290.09	5.90	50.180		
1,300.00	1,284.62	1,202.07	1,173.10	4.12	4.68	152.05	53.32	-184.90	344.91	338.40	6.51	52.999		
1,400.00	1,382.54	1,289.09	1,254.35	4.56	5.32	151.13	59.04	-215.53	393.92	386.79	7.13	55.269		
1,500.00	1,480.47	1,376.11	1,335.59	5.01	5.96	150.42	64.75	-246.17	442.98	435.23	7.75	57.166		
1,600.00	1,578.39	1,463.13	1,416.83	5.45	6.61	149.85	70.46	-276.81	492.09	483.71	8.38	58.750		
1,700.00	1,676.31	1,550.14	1,498.08	5.90	7.26	149.39	76.18	-307.45	541.23	532.22	9.01	60.089		
1,800.00	1,774.23	1,637.16	1,579.32	6.35	7.92	149.00	81.89	-338.08	590.39	580.75	9.64	61.236		
1,900.00	1,872.15	1,724.18	1,660.57	6.79	8.57	148.67	87.61	-368.72	639.57	629.29	10.28	62.226		
2,000.00	1,970.08	1,811.19	1,741.81	7.24	9.23	148.38	93.32	-399.36	688.76	677.84	10.92	63.090		
2,100.00	2,068.00	1,898.21	1,823.06	7.69	9.89	148.14	99.04	-430.00	737.96	726.40	11.56	63.848		
2,200.00	2,165.92	1,985.23	1,904.30	8.14	10.55	147.93	104.75	-460.63	787.17	774.97	12.20	64.518		
2,300.00	2,263.84	2,072.25	1,985.55	8.59	11.20	147.74	110.46	-491.27	836.39	823.55	12.84	65.115		
2,400.00	2,361.77	2,159.26	2,066.79	9.04	11.86	147.57	116.18	-521.91	885.62	872.13	13.49	65.650		
2,500.00	2,459.69	2,246.28	2,148.04	9.49	12.52	147.42	121.89	-552.55	934.85	920.71	14.14	66.131		
2,600.00	2,557.61	2,333.30	2,229.28	9.94	13.19	147.28	127.61	-583.18	984.09	969.30	14.78	66.567		
2,700.00	2,655.53	2,420.32	2,310.53	10.39	13.85	147.16	133.32	-613.82	1,033.32	1,017.89	15.43	66.963		
2,718.45	2,673.60	2,436.37	2,325.52	10.47	13.97	147.14	134.38	-619.48	1,042.41	1,026.86	15.55	67.032		
2,800.00	2,753.65	2,507.73	2,392.15	10.78	14.51	147.44	139.06	-644.60	1,081.82	1,065.69	16.13	67.071		
2,900.00	2,852.31	2,596.29	2,474.83	11.06	15.18	147.71	144.88	-675.78	1,128.10	1,111.31	16.79	67.203		
3,000.00	2,951.41	2,685.93	2,558.52	11.31	15.87	147.87	150.76	-707.34	1,172.09	1,154.67	17.43	67.261		
3,100.00	3,050.88	2,776.57	2,643.14	11.54	16.56	147.93	156.72	-739.25	1,213.78	1,195.74	18.04	67.266		
3,200.00	3,150.61	2,868.11	2,728.62	11.72	17.25	147.91	162.73	-771.49	1,253.15	1,234.51	18.64	67.235		
3,300.00	3,250.52	2,960.48	2,814.86	11.88	17.96	147.82	168.79	-804.01	1,290.19	1,270.99	19.20	67.180		
3,387.03	3,337.54	3,041.47	2,890.48	11.99	18.57	-59.14	174.11	-832.52	1,320.54	1,300.85	19.69	67.082		
3,400.00	3,350.51	3,053.59	2,901.79	12.01	18.67	-59.21	174.91	-836.79	1,324.93	1,305.18	19.75	67.092		
3,500.00	3,450.51	3,146.95	2,988.96	12.12	19.38	-59.73	181.04	-869.66	1,358.85	1,338.63	20.22	67.212		
3,600.00	3,550.51	3,240.32	3,076.13	12.24	20.09	-60.22	187.17	-902.53	1,392.86	1,372.17	20.69	67.334		
3,700.00	3,650.51	3,333.69	3,163.30	12.35	20.80	-60.69	193.30	-935.41	1,426.96	1,405.81	21.15	67.456		
3,800.00	3,750.51	3,427.05	3,250.48	12.48	21.51	-61.14	199.43	-968.28	1,461.14	1,439.52	21.62	67.579		
3,900.00	3,850.51	3,520.42	3,337.65	12.60	22.22	-61.57	205.56	-1,001.15	1,495.40	1,473.32	22.09	67.700		
4,000.00	3,950.51	3,613.78	3,424.82	12.73	22.93	-61.98	211.69	-1,034.03	1,529.73	1,507.18	22.56	67.820		
4,100.00	4,050.51	3,707.15	3,511.99	12.86	23.65	-62.37	217.83	-1,066.90	1,564.13	1,541.11	23.02	67.937		
4,200.00	4,150.51	3,800.52	3,599.17	12.99	24.36	-62.74	223.96	-1,099.77	1,598.59	1,575.10	23.49	68.052		
4,300.00	4,250.51	3,893.88	3,686.34	13.12	25.07	-63.10	230.09	-1,132.65	1,633.11	1,609.15	23.96	68.164		
4,400.00	4,350.51	3,987.25	3,773.51	13.26	25.78	-63.45	236.22	-1,165.52	1,667.68	1,643.26	24.43	68.272		
4,500.00	4,450.51	4,080.62	3,860.68	13.40	26.49	-63.78	242.35	-1,198.39	1,702.31	1,677.41	24.90	68.378		
4,600.00	4,550.51	4,173.98	3,947.86	13.54	27.20	-64.09	248.48	-1,231.26	1,736.98	1,711.61	25.36	68.480		
4,700.00	4,650.51	4,267.35	4,035.03	13.69	27.92	-64.40	254.61	-1,264.14	1,771.70	1,745.86	25.83	68.578		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Reference Site:	NBU 920-22N Pad	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 920-22N1DS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-8-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
4,800.00	4,750.51	4,360.71	4,122.20	13.83	28.63	-64.69	260.74	-1,297.01	1,806.46	1,780.15	26.31	68.673			
4,900.00	4,850.51	4,494.07	4,246.96	13.98	29.58	-65.09	269.38	-1,343.30	1,841.00	1,814.12	26.88	68.484			
5,000.00	4,950.51	4,752.38	4,493.74	14.13	30.88	-65.68	283.32	-1,418.05	1,869.67	1,842.00	27.67	67.574			
5,100.00	5,050.51	5,023.34	4,758.84	14.28	31.84	-66.09	293.50	-1,472.64	1,889.65	1,861.25	28.39	66.551			
5,200.00	5,150.51	5,302.76	5,036.44	14.44	32.44	-66.30	299.15	-1,502.90	1,900.39	1,871.36	29.03	65.466			
5,300.00	5,250.51	5,516.94	5,250.51	14.59	32.65	-66.34	300.14	-1,508.25	1,902.27	1,872.78	29.49	64.510			
5,400.00	5,350.51	5,616.94	5,350.51	14.75	32.73	-66.34	300.14	-1,508.25	1,902.27	1,872.47	29.80	63.833			
5,500.00	5,450.51	5,716.94	5,450.51	14.91	32.81	-66.34	300.14	-1,508.25	1,902.27	1,872.15	30.12	63.163			
5,600.00	5,550.51	5,816.94	5,550.51	15.07	32.89	-66.34	300.14	-1,508.25	1,902.27	1,871.83	30.44	62.500			
5,700.00	5,650.51	5,916.94	5,650.51	15.23	32.97	-66.34	300.14	-1,508.25	1,902.27	1,871.51	30.76	61.845			
5,800.00	5,750.51	6,016.94	5,750.51	15.40	33.05	-66.34	300.14	-1,508.25	1,902.27	1,871.18	31.08	61.197			
5,900.00	5,850.51	6,116.94	5,850.51	15.56	33.13	-66.34	300.14	-1,508.25	1,902.27	1,870.85	31.41	60.557			
6,000.00	5,950.51	6,216.94	5,950.51	15.73	33.22	-66.34	300.14	-1,508.25	1,902.27	1,870.52	31.74	59.925			
6,100.00	6,050.51	6,316.94	6,050.51	15.90	33.31	-66.34	300.14	-1,508.25	1,902.27	1,870.19	32.08	59.301			
6,200.00	6,150.51	6,416.94	6,150.51	16.07	33.39	-66.34	300.14	-1,508.25	1,902.27	1,869.85	32.41	58.685			
6,300.00	6,250.51	6,516.94	6,250.51	16.24	33.48	-66.34	300.14	-1,508.25	1,902.27	1,869.51	32.75	58.077			
6,400.00	6,350.51	6,616.94	6,350.51	16.42	33.57	-66.34	300.14	-1,508.25	1,902.27	1,869.17	33.10	57.477			
6,500.00	6,450.51	6,716.94	6,450.51	16.59	33.66	-66.34	300.14	-1,508.25	1,902.27	1,868.83	33.44	56.885			
6,600.00	6,550.51	6,816.94	6,550.51	16.76	33.76	-66.34	300.14	-1,508.25	1,902.27	1,868.48	33.79	56.301			
6,700.00	6,650.51	6,916.94	6,650.51	16.94	33.85	-66.34	300.14	-1,508.25	1,902.27	1,868.13	34.14	55.725			
6,800.00	6,750.51	7,016.94	6,750.51	17.12	33.95	-66.34	300.14	-1,508.25	1,902.27	1,867.78	34.49	55.158			
6,900.00	6,850.51	7,116.94	6,850.51	17.30	34.04	-66.34	300.14	-1,508.25	1,902.27	1,867.43	34.84	54.598			
7,000.00	6,950.51	7,216.94	6,950.51	17.48	34.14	-66.34	300.14	-1,508.25	1,902.27	1,867.07	35.20	54.046			
7,100.00	7,050.51	7,316.94	7,050.51	17.66	34.24	-66.34	300.14	-1,508.25	1,902.27	1,866.71	35.55	53.503			
7,200.00	7,150.51	7,416.94	7,150.51	17.84	34.34	-66.34	300.14	-1,508.25	1,902.27	1,866.35	35.91	52.967			
7,300.00	7,250.51	7,516.94	7,250.51	18.02	34.44	-66.34	300.14	-1,508.25	1,902.27	1,865.99	36.28	52.439			
7,400.00	7,350.51	7,616.94	7,350.51	18.21	34.54	-66.34	300.14	-1,508.25	1,902.27	1,865.63	36.64	51.919			
7,500.00	7,450.51	7,716.94	7,450.51	18.39	34.65	-66.34	300.14	-1,508.25	1,902.27	1,865.26	37.00	51.406			
7,600.00	7,550.51	7,816.94	7,550.51	18.58	34.75	-66.34	300.14	-1,508.25	1,902.27	1,864.90	37.37	50.901			
7,700.00	7,650.51	7,916.94	7,650.51	18.76	34.86	-66.34	300.14	-1,508.25	1,902.27	1,864.53	37.74	50.404			
7,800.00	7,750.51	8,016.94	7,750.51	18.95	34.96	-66.34	300.14	-1,508.25	1,902.27	1,864.16	38.11	49.914			
7,900.00	7,850.51	8,116.94	7,850.51	19.14	35.07	-66.34	300.14	-1,508.25	1,902.27	1,863.78	38.48	49.432			
8,000.00	7,950.51	8,216.94	7,950.51	19.33	35.18	-66.34	300.14	-1,508.25	1,902.27	1,863.41	38.86	48.956			
8,100.00	8,050.51	8,316.94	8,050.51	19.51	35.29	-66.34	300.14	-1,508.25	1,902.27	1,863.04	39.23	48.488			
8,200.00	8,150.51	8,416.94	8,150.51	19.71	35.40	-66.34	300.14	-1,508.25	1,902.27	1,862.66	39.61	48.027			
8,300.00	8,250.51	8,516.94	8,250.51	19.90	35.51	-66.34	300.14	-1,508.25	1,902.27	1,862.28	39.99	47.573			
8,400.00	8,350.51	8,616.94	8,350.51	20.09	35.63	-66.34	300.14	-1,508.25	1,902.27	1,861.90	40.37	47.125			
8,500.00	8,450.51	8,716.94	8,450.51	20.28	35.74	-66.34	300.14	-1,508.25	1,902.27	1,861.52	40.75	46.685			
8,600.00	8,550.51	8,816.94	8,550.51	20.47	35.86	-66.34	300.14	-1,508.25	1,902.27	1,861.14	41.13	46.251			
8,700.00	8,650.51	8,916.94	8,650.51	20.67	35.97	-66.34	300.14	-1,508.25	1,902.27	1,860.75	41.51	45.824			
8,800.00	8,750.51	9,016.94	8,750.51	20.86	36.09	-66.34	300.14	-1,508.25	1,902.27	1,860.37	41.90	45.403			
8,900.00	8,850.51	9,116.94	8,850.51	21.06	36.21	-66.34	300.14	-1,508.25	1,902.27	1,859.98	42.28	44.988			
9,000.00	8,950.51	9,216.94	8,950.51	21.25	36.33	-66.34	300.14	-1,508.25	1,902.27	1,859.60	42.67	44.580			
9,100.00	9,050.51	9,316.94	9,050.51	21.45	36.45	-66.34	300.14	-1,508.25	1,902.27	1,859.21	43.06	44.178			
9,200.00	9,150.51	9,416.94	9,150.51	21.64	36.57	-66.34	300.14	-1,508.25	1,902.27	1,858.82	43.45	43.782			
9,300.00	9,250.51	9,516.94	9,250.51	21.84	36.70	-66.34	300.14	-1,508.25	1,902.27	1,858.43	43.84	43.392			
9,400.00	9,350.51	9,616.94	9,350.51	22.04	36.82	-66.34	300.14	-1,508.25	1,902.27	1,858.04	44.23	43.007			
9,500.00	9,450.51	9,716.94	9,450.51	22.24	36.94	-66.34	300.14	-1,508.25	1,902.27	1,857.64	44.62	42.629			
9,600.00	9,550.51	9,816.94	9,550.51	22.44	37.07	-66.34	300.14	-1,508.25	1,902.27	1,857.25	45.02	42.256			
9,700.00	9,650.51	9,916.94	9,650.51	22.64	37.20	-66.34	300.14	-1,508.25	1,902.27	1,856.85	45.41	41.888			
9,800.00	9,750.51	10,016.94	9,750.51	22.83	37.32	-66.34	300.14	-1,508.25	1,902.27	1,856.46	45.81	41.526			
9,900.00	9,850.51	10,116.94	9,850.51	23.03	37.45	-66.34	300.14	-1,508.25	1,902.27	1,856.06	46.21	41.170			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Reference Site:	NBU 920-22N Pad	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 920-22N1DS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-8-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft	
Survey Program: 0-MWD												Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,000.00	9,950.51	10,216.94	9,950.51	23.24	37.58	-66.34	300.14	-1,508.25	1,902.27	1,855.66	46.60	40.818		
10,100.00	10,050.51	10,316.94	10,050.51	23.44	37.71	-66.34	300.14	-1,508.25	1,902.27	1,855.27	47.00	40.472		
10,200.00	10,150.51	10,416.94	10,150.51	23.64	37.84	-66.34	300.14	-1,508.25	1,902.27	1,854.87	47.40	40.131		
10,300.00	10,250.51	10,516.94	10,250.51	23.84	37.97	-66.34	300.14	-1,508.25	1,902.27	1,854.47	47.80	39.795		
10,400.00	10,350.51	10,616.94	10,350.51	24.04	38.11	-66.34	300.14	-1,508.25	1,902.27	1,854.06	48.20	39.464		
10,500.00	10,450.51	10,716.94	10,450.51	24.24	38.24	-66.34	300.14	-1,508.25	1,902.27	1,853.66	48.61	39.137		
10,600.00	10,550.51	10,816.94	10,550.51	24.45	38.37	-66.34	300.14	-1,508.25	1,902.27	1,853.26	49.01	38.816		
10,700.00	10,650.51	10,916.94	10,650.51	24.65	38.51	-66.34	300.14	-1,508.25	1,902.27	1,852.86	49.41	38.498		
10,740.49	10,691.00	10,957.42	10,691.00	24.73	38.56	-66.34	300.14	-1,508.25	1,902.27	1,852.69	49.58	38.371		

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Reference Site:	NBU 920-22N Pad	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 920-22N1DS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-8-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference				Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	-148.13	-17.12	-10.64	20.16						
100.00	100.00	100.00	100.00	0.10	0.10	-148.13	-17.12	-10.64	20.16	19.96	0.19	104.270			
200.00	200.00	200.00	200.00	0.32	0.32	-148.13	-17.12	-10.64	20.16	19.51	0.64	31.354			
300.00	300.00	300.00	300.00	0.55	0.55	-148.13	-17.12	-10.64	20.16	19.06	1.09	18.451			
366.58	366.56	366.25	366.25	0.68	0.69	63.21	-17.20	-11.40	20.09	18.72	1.37	14.678 CC			
400.00	399.95	399.45	399.43	0.75	0.76	68.88	-17.31	-12.36	20.19	18.69	1.51	13.411 ES			
500.00	499.63	498.59	498.45	0.97	0.97	95.18	-17.83	-17.07	23.42	21.49	1.93	12.127 SF			
600.00	598.77	597.34	597.07	1.23	1.19	120.59	-18.41	-22.21	32.96	30.54	2.42	13.644			
690.00	687.30	685.45	685.06	1.53	1.40	136.09	-18.92	-26.79	47.69	44.82	2.87	16.617			
700.00	697.09	695.20	694.79	1.57	1.42	137.44	-18.97	-27.30	49.64	46.73	2.92	17.009			
800.00	795.01	792.61	792.08	1.96	1.65	146.67	-19.54	-32.36	70.20	66.80	3.40	20.643			
900.00	892.93	890.03	889.36	2.38	1.89	151.67	-20.10	-37.43	91.71	87.83	3.88	23.620			
1,000.00	990.85	987.45	986.64	2.81	2.12	154.77	-20.67	-42.50	113.64	109.27	4.37	26.011			
1,100.00	1,088.78	1,084.87	1,083.93	3.24	2.36	156.86	-21.23	-47.57	135.79	130.93	4.86	27.944			
1,200.00	1,186.70	1,182.28	1,181.21	3.68	2.59	158.36	-21.80	-52.63	158.05	152.70	5.35	29.527			
1,300.00	1,284.62	1,279.70	1,278.49	4.12	2.83	159.50	-22.36	-57.70	180.40	174.55	5.85	30.843			
1,400.00	1,382.54	1,377.12	1,375.78	4.56	3.07	160.38	-22.93	-62.77	202.79	196.44	6.35	31.948			
1,500.00	1,480.47	1,474.53	1,473.06	5.01	3.31	161.09	-23.49	-67.83	225.23	218.38	6.85	32.891			
1,600.00	1,578.39	1,571.95	1,570.35	5.45	3.54	161.67	-24.06	-72.90	247.69	240.34	7.35	33.703			
1,700.00	1,676.31	1,669.37	1,667.63	5.90	3.78	162.15	-24.62	-77.97	270.17	262.31	7.85	34.409			
1,800.00	1,774.23	1,766.79	1,764.91	6.35	4.02	162.56	-25.19	-83.03	292.66	284.31	8.36	35.027			
1,900.00	1,872.15	1,864.20	1,862.20	6.79	4.26	162.91	-25.75	-88.10	315.17	306.31	8.86	35.574			
2,000.00	1,970.08	1,961.62	1,959.48	7.24	4.50	163.21	-26.32	-93.17	337.69	328.32	9.36	36.059			
2,100.00	2,068.00	2,059.04	2,056.76	7.69	4.74	163.48	-26.88	-98.24	360.21	350.34	9.87	36.494			
2,200.00	2,165.92	2,156.46	2,154.05	8.14	4.98	163.71	-27.45	-103.30	382.74	372.37	10.38	36.886			
2,300.00	2,263.84	2,253.87	2,251.33	8.59	5.22	163.92	-28.01	-108.37	405.28	394.40	10.88	37.239			
2,400.00	2,361.77	2,351.29	2,348.62	9.04	5.45	164.11	-28.57	-113.44	427.82	416.43	11.39	37.561			
2,500.00	2,459.69	2,448.71	2,445.90	9.49	5.69	164.28	-29.14	-118.50	450.37	438.47	11.90	37.854			
2,600.00	2,557.61	2,546.12	2,543.18	9.94	5.93	164.43	-29.70	-123.57	472.92	460.51	12.41	38.123			
2,700.00	2,655.53	2,643.54	2,640.47	10.39	6.17	164.57	-30.27	-128.64	495.47	482.56	12.91	38.370			
2,718.45	2,673.60	2,661.52	2,658.42	10.47	6.22	164.59	-30.37	-129.57	499.63	486.63	13.01	38.414			
2,800.00	2,753.65	2,739.39	2,736.18	10.78	6.41	164.74	-30.83	-133.66	517.09	503.67	13.42	38.538			
2,900.00	2,852.31	2,823.73	2,820.25	11.06	6.64	164.63	-31.58	-140.39	537.45	523.58	13.88	38.725			
3,000.00	2,951.41	2,907.41	2,903.27	11.31	6.88	164.14	-32.73	-150.71	557.48	543.13	14.35	38.845			
3,100.00	3,050.88	2,990.14	2,984.83	11.54	7.16	163.34	-34.26	-164.45	577.29	562.45	14.84	38.907			
3,200.00	3,150.61	3,071.68	3,064.55	11.72	7.47	162.27	-36.15	-181.42	597.03	581.70	15.33	38.934			
3,300.00	3,250.52	3,151.80	3,142.11	11.88	7.80	160.97	-38.38	-201.37	616.92	601.08	15.84	38.956			
3,387.03	3,337.54	3,220.22	3,207.63	11.99	8.12	-47.11	-40.56	-220.95	634.53	618.25	16.28	38.967			
3,400.00	3,350.51	3,230.31	3,217.23	12.01	8.17	-47.33	-40.91	-224.04	637.22	620.86	16.36	38.960			
3,500.00	3,450.51	3,309.79	3,292.28	12.12	8.58	-49.10	-43.80	-250.04	659.84	642.92	16.91	39.014			
3,600.00	3,550.51	3,403.76	3,380.57	12.24	9.11	-51.14	-47.37	-281.98	684.25	666.70	17.55	38.994			
3,700.00	3,650.51	3,497.72	3,468.87	12.35	9.65	-53.04	-50.93	-313.93	709.48	691.30	18.18	39.036			
3,800.00	3,750.51	3,591.69	3,557.17	12.48	10.21	-54.82	-54.49	-345.87	735.43	716.64	18.79	39.132			
3,900.00	3,850.51	3,685.66	3,645.47	12.60	10.79	-56.49	-58.05	-377.82	762.03	742.63	19.40	39.278			
4,000.00	3,950.51	3,779.63	3,733.77	12.73	11.38	-58.04	-61.61	-409.76	789.22	769.23	20.00	39.467			
4,100.00	4,050.51	3,873.60	3,822.07	12.86	11.98	-59.50	-65.17	-441.71	816.94	796.36	20.58	39.692			
4,200.00	4,150.51	3,967.56	3,910.37	12.99	12.59	-60.86	-68.74	-473.65	845.13	823.98	21.16	39.947			
4,300.00	4,250.51	4,061.53	3,998.67	13.12	13.20	-62.14	-72.30	-505.60	873.75	852.03	21.72	40.227			
4,400.00	4,350.51	4,155.50	4,086.97	13.26	13.82	-63.34	-75.86	-537.54	902.77	880.49	22.27	40.528			
4,500.00	4,450.51	4,249.47	4,175.27	13.40	14.45	-64.47	-79.42	-569.49	932.13	909.31	22.82	40.846			
4,600.00	4,550.51	4,343.43	4,263.57	13.54	15.08	-65.53	-82.98	-601.43	961.81	938.45	23.36	41.177			
4,700.00	4,650.51	4,437.40	4,351.87	13.69	15.72	-66.53	-86.54	-633.38	991.79	967.90	23.89	41.518			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Reference Site:	NBU 920-22N Pad	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 920-22N1DS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-8-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
4,800.00	4,750.51	4,531.37	4,440.17	13.83	16.36	-67.47	-90.11	-665.32	1,022.03	997.62	24.41	41.866			
4,900.00	4,850.51	4,625.34	4,528.47	13.98	17.00	-68.36	-93.67	-697.27	1,052.51	1,027.58	24.93	42.219			
5,000.00	4,950.51	4,719.31	4,616.77	14.13	17.65	-69.20	-97.23	-729.21	1,083.22	1,057.78	25.44	42.576			
5,100.00	5,050.51	4,813.27	4,705.07	14.28	18.30	-69.99	-100.79	-761.16	1,114.13	1,088.18	25.95	42.934			
5,200.00	5,150.51	4,907.24	4,793.36	14.44	18.95	-70.74	-104.35	-793.10	1,145.22	1,118.77	26.45	43.292			
5,300.00	5,250.51	5,001.21	4,881.66	14.59	19.61	-71.45	-107.91	-825.05	1,176.49	1,149.54	26.95	43.650			
5,400.00	5,350.51	5,095.18	4,969.96	14.75	20.26	-72.13	-111.48	-856.99	1,207.92	1,180.47	27.45	44.005			
5,500.00	5,450.51	5,189.14	5,058.26	14.91	20.92	-72.77	-115.04	-888.94	1,239.50	1,211.56	27.94	44.357			
5,600.00	5,550.51	5,283.11	5,146.56	15.07	21.58	-73.38	-118.60	-920.88	1,271.21	1,242.78	28.44	44.706			
5,700.00	5,650.51	5,377.08	5,234.86	15.23	22.24	-73.97	-122.16	-952.83	1,303.05	1,274.12	28.92	45.050			
5,800.00	5,750.51	5,471.05	5,323.16	15.40	22.90	-74.52	-125.72	-984.77	1,335.00	1,305.59	29.41	45.390			
5,900.00	5,850.51	5,565.01	5,411.46	15.56	23.57	-75.05	-129.28	-1,016.72	1,367.07	1,337.17	29.90	45.725			
6,000.00	5,950.51	5,658.98	5,499.76	15.73	24.23	-75.56	-132.85	-1,048.66	1,399.23	1,368.85	30.38	46.055			
6,100.00	6,050.51	5,752.95	5,588.06	15.90	24.90	-76.04	-136.41	-1,080.61	1,431.50	1,400.63	30.87	46.379			
6,200.00	6,150.51	5,846.92	5,676.36	16.07	25.57	-76.50	-139.97	-1,112.55	1,463.84	1,432.50	31.35	46.697			
6,300.00	6,250.51	5,940.89	5,764.66	16.24	26.23	-76.94	-143.53	-1,144.49	1,496.28	1,464.45	31.83	47.009			
6,400.00	6,350.51	6,034.85	5,852.96	16.42	26.90	-77.37	-147.09	-1,176.44	1,528.78	1,496.47	32.31	47.315			
6,500.00	6,450.51	6,128.82	5,941.26	16.59	27.57	-77.77	-150.65	-1,208.38	1,561.37	1,528.57	32.79	47.615			
6,600.00	6,550.51	6,222.79	6,029.56	16.76	28.24	-78.16	-154.22	-1,240.33	1,594.02	1,560.74	33.27	47.909			
6,700.00	6,650.51	6,316.76	6,117.86	16.94	28.91	-78.54	-157.78	-1,272.27	1,626.73	1,592.98	33.75	48.197			
6,800.00	6,750.51	6,410.72	6,206.16	17.12	29.59	-78.90	-161.34	-1,304.22	1,659.50	1,625.27	34.23	48.478			
6,900.00	6,850.51	6,510.82	6,300.22	17.30	30.29	-79.26	-165.13	-1,338.23	1,692.32	1,657.60	34.73	48.733			
7,000.00	6,950.51	6,734.01	6,512.96	17.48	31.46	-79.94	-172.59	-1,405.11	1,721.34	1,685.88	35.46	48.549			
7,100.00	7,050.51	6,967.13	6,740.05	17.66	32.35	-80.44	-178.39	-1,457.18	1,742.99	1,706.86	36.13	48.243			
7,200.00	7,150.51	7,207.60	6,977.96	17.84	33.00	-80.75	-182.22	-1,491.49	1,756.83	1,720.07	36.76	47.792			
7,300.00	7,250.51	7,452.28	7,222.13	18.02	33.38	-80.88	-183.83	-1,505.93	1,762.56	1,725.23	37.33	47.212			
7,400.00	7,350.51	7,580.66	7,350.51	18.21	33.51	-80.88	-183.87	-1,506.32	1,762.72	1,725.00	37.72	46.733			
7,500.00	7,450.51	7,680.66	7,450.51	18.39	33.61	-80.88	-183.87	-1,506.32	1,762.72	1,724.66	38.06	46.311			
7,600.00	7,550.51	7,780.66	7,550.51	18.58	33.71	-80.88	-183.87	-1,506.32	1,762.72	1,724.31	38.41	45.893			
7,700.00	7,650.51	7,880.66	7,650.51	18.76	33.81	-80.88	-183.87	-1,506.32	1,762.72	1,723.96	38.76	45.481			
7,800.00	7,750.51	7,980.66	7,750.51	18.95	33.92	-80.88	-183.87	-1,506.32	1,762.72	1,723.61	39.11	45.074			
7,900.00	7,850.51	8,080.66	7,850.51	19.14	34.02	-80.88	-183.87	-1,506.32	1,762.72	1,723.26	39.46	44.672			
8,000.00	7,950.51	8,180.66	7,950.51	19.33	34.13	-80.88	-183.87	-1,506.32	1,762.72	1,722.91	39.81	44.275			
8,100.00	8,050.51	8,280.66	8,050.51	19.51	34.24	-80.88	-183.87	-1,506.32	1,762.72	1,722.55	40.17	43.883			
8,200.00	8,150.51	8,380.66	8,150.51	19.71	34.34	-80.88	-183.87	-1,506.32	1,762.72	1,722.19	40.53	43.496			
8,300.00	8,250.51	8,480.66	8,250.51	19.90	34.45	-80.88	-183.87	-1,506.32	1,762.72	1,721.83	40.89	43.114			
8,400.00	8,350.51	8,580.66	8,350.51	20.09	34.56	-80.88	-183.87	-1,506.32	1,762.72	1,721.47	41.25	42.737			
8,500.00	8,450.51	8,680.66	8,450.51	20.28	34.67	-80.88	-183.87	-1,506.32	1,762.72	1,721.11	41.61	42.364			
8,600.00	8,550.51	8,780.66	8,550.51	20.47	34.79	-80.88	-183.87	-1,506.32	1,762.72	1,720.75	41.97	41.997			
8,700.00	8,650.51	8,880.66	8,650.51	20.67	34.90	-80.88	-183.87	-1,506.32	1,762.72	1,720.38	42.34	41.634			
8,800.00	8,750.51	8,980.66	8,750.51	20.86	35.02	-80.88	-183.87	-1,506.32	1,762.72	1,720.01	42.71	41.276			
8,900.00	8,850.51	9,080.66	8,850.51	21.06	35.13	-80.88	-183.87	-1,506.32	1,762.72	1,719.64	43.07	40.922			
9,000.00	8,950.51	9,180.66	8,950.51	21.25	35.25	-80.88	-183.87	-1,506.32	1,762.72	1,719.27	43.45	40.573			
9,100.00	9,050.51	9,280.66	9,050.51	21.45	35.37	-80.88	-183.87	-1,506.32	1,762.72	1,718.90	43.82	40.229			
9,200.00	9,150.51	9,380.66	9,150.51	21.64	35.48	-80.88	-183.87	-1,506.32	1,762.72	1,718.53	44.19	39.889			
9,300.00	9,250.51	9,480.66	9,250.51	21.84	35.60	-80.88	-183.87	-1,506.32	1,762.72	1,718.15	44.56	39.554			
9,400.00	9,350.51	9,580.66	9,350.51	22.04	35.73	-80.88	-183.87	-1,506.32	1,762.72	1,717.78	44.94	39.223			
9,500.00	9,450.51	9,680.66	9,450.51	22.24	35.85	-80.88	-183.87	-1,506.32	1,762.72	1,717.40	45.32	38.897			
9,600.00	9,550.51	9,780.66	9,550.51	22.44	35.97	-80.88	-183.87	-1,506.32	1,762.72	1,717.02	45.70	38.575			
9,700.00	9,650.51	9,880.66	9,650.51	22.64	36.09	-80.88	-183.87	-1,506.32	1,762.72	1,716.64	46.08	38.257			
9,800.00	9,750.51	9,980.66	9,750.51	22.83	36.22	-80.88	-183.87	-1,506.32	1,762.72	1,716.26	46.46	37.943			
9,900.00	9,850.51	10,080.66	9,850.51	23.03	36.35	-80.88	-183.87	-1,506.32	1,762.72	1,715.88	46.84	37.634			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Reference Site:	NBU 920-22N Pad	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 920-22N1DS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-8-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor
10,000.00	9,950.51	10,180.66	9,950.51	23.24	36.47	-80.88	-183.87	-1,506.32	1,762.72	1,715.50	47.22	37.328	
10,100.00	10,050.51	10,280.66	10,050.51	23.44	36.60	-80.88	-183.87	-1,506.32	1,762.72	1,715.11	47.61	37.027	
10,200.00	10,150.51	10,380.66	10,150.51	23.64	36.73	-80.88	-183.87	-1,506.32	1,762.72	1,714.73	47.99	36.730	
10,300.00	10,250.51	10,480.66	10,250.51	23.84	36.86	-80.88	-183.87	-1,506.32	1,762.72	1,714.34	48.38	36.436	
10,400.00	10,350.51	10,580.66	10,350.51	24.04	36.99	-80.88	-183.87	-1,506.32	1,762.72	1,713.95	48.77	36.147	
10,500.00	10,450.51	10,680.66	10,450.51	24.24	37.12	-80.88	-183.87	-1,506.32	1,762.72	1,713.56	49.15	35.861	
10,600.00	10,550.51	10,780.66	10,550.51	24.45	37.25	-80.88	-183.87	-1,506.32	1,762.72	1,713.17	49.54	35.579	
10,700.00	10,650.51	10,880.66	10,650.51	24.65	37.39	-80.88	-183.87	-1,506.32	1,762.72	1,712.78	49.93	35.301	
10,740.49	10,691.00	10,921.15	10,691.00	24.73	37.44	-80.88	-183.87	-1,506.32	1,762.72	1,712.63	50.09	35.189	

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Reference Site:	NBU 920-22N Pad	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 920-22N1DS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-8-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference				Offset			Semi Major Axis			Distance			Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	-147.24	-33.51	-21.56	39.84						
100.00	100.00	100.00	100.00	0.10	0.10	-147.24	-33.51	-21.56	39.84	39.65	0.19	206.130			
200.00	200.00	200.00	200.00	0.32	0.32	-147.24	-33.51	-21.56	39.84	39.20	0.64	61.983			
300.00	300.00	300.00	300.00	0.55	0.55	-147.24	-33.51	-21.56	39.84	38.75	1.09	36.476 CC, ES			
400.00	399.95	398.15	398.10	0.75	0.75	64.60	-34.53	-23.87	40.83	39.33	1.50	27.210			
500.00	499.63	495.47	495.13	0.97	0.97	77.74	-37.56	-30.70	45.51	43.59	1.92	23.675			
600.00	598.77	591.19	590.06	1.23	1.23	93.07	-42.50	-41.81	57.32	54.89	2.43	23.580 SF			
690.00	687.30	675.36	672.95	1.53	1.51	104.20	-48.43	-55.16	75.59	72.62	2.97	25.472			
700.00	697.09	684.58	681.99	1.57	1.54	105.27	-49.17	-56.83	78.06	75.03	3.03	25.764			
800.00	795.01	775.67	770.76	1.96	1.93	112.65	-57.43	-75.42	106.20	102.53	3.67	28.933			
900.00	892.93	864.51	856.32	2.38	2.38	116.13	-67.13	-97.25	139.40	135.06	4.34	32.135			
1,000.00	990.85	950.81	938.29	2.81	2.89	117.62	-78.08	-121.93	176.71	171.68	5.03	35.117			
1,100.00	1,088.78	1,034.35	1,016.39	3.24	3.45	118.08	-90.11	-149.01	217.72	211.97	5.75	37.835			
1,200.00	1,186.70	1,124.21	1,099.61	3.68	4.12	118.18	-103.87	-179.98	260.67	254.17	6.50	40.115			
1,300.00	1,284.62	1,214.51	1,183.24	4.12	4.81	118.26	-117.70	-211.12	303.62	296.37	7.25	41.875			
1,400.00	1,382.54	1,304.82	1,266.88	4.56	5.50	118.31	-131.53	-242.25	346.57	338.55	8.02	43.224			
1,500.00	1,480.47	1,395.13	1,350.51	5.01	6.20	118.35	-145.36	-273.39	389.52	380.73	8.79	44.293			
1,600.00	1,578.39	1,485.43	1,434.14	5.45	6.90	118.39	-159.19	-304.52	432.48	422.90	9.58	45.152			
1,700.00	1,676.31	1,575.74	1,517.77	5.90	7.61	118.42	-173.02	-335.65	475.43	465.06	10.37	45.857			
1,800.00	1,774.23	1,666.04	1,601.41	6.35	8.32	118.44	-186.85	-366.79	518.38	507.22	11.16	46.444			
1,900.00	1,872.15	1,756.35	1,685.04	6.79	9.03	118.46	-200.68	-397.92	561.33	549.38	11.96	46.939			
2,000.00	1,970.08	1,846.65	1,768.67	7.24	9.74	118.48	-214.50	-429.06	604.29	591.53	12.76	47.361			
2,100.00	2,068.00	1,936.96	1,852.30	7.69	10.45	118.49	-228.33	-460.19	647.24	633.68	13.56	47.725			
2,200.00	2,165.92	2,027.26	1,935.94	8.14	11.16	118.50	-242.16	-491.33	690.19	675.83	14.37	48.042			
2,300.00	2,263.84	2,117.57	2,019.57	8.59	11.88	118.51	-255.99	-522.46	733.15	717.97	15.17	48.320			
2,400.00	2,361.77	2,207.87	2,103.20	9.04	12.59	118.52	-269.82	-553.60	776.10	760.12	15.98	48.565			
2,500.00	2,459.69	2,298.18	2,186.84	9.49	13.31	118.53	-283.65	-584.73	819.05	802.26	16.79	48.784			
2,600.00	2,557.61	2,388.48	2,270.47	9.94	14.02	118.54	-297.48	-615.86	862.01	844.41	17.60	48.979			
2,700.00	2,655.53	2,478.79	2,354.10	10.39	14.74	118.55	-311.31	-647.00	904.96	886.55	18.41	49.154			
2,718.45	2,673.60	2,495.45	2,369.54	10.47	14.87	118.55	-313.86	-652.74	912.89	894.32	18.56	49.185			
2,800.00	2,753.65	2,569.29	2,437.92	10.78	15.45	119.08	-325.17	-678.20	947.47	928.22	19.25	49.212			
2,900.00	2,852.31	2,660.35	2,522.25	11.06	16.17	119.56	-339.11	-709.60	988.66	968.65	20.02	49.394			
3,000.00	2,951.41	2,751.88	2,607.02	11.31	16.90	119.86	-353.13	-741.15	1,028.50	1,007.76	20.74	49.580			
3,100.00	3,050.88	2,843.81	2,692.15	11.54	17.63	120.00	-367.21	-772.85	1,066.99	1,045.55	21.43	49.783			
3,200.00	3,150.61	2,936.04	2,777.57	11.72	18.36	120.01	-381.33	-804.64	1,104.15	1,082.07	22.08	50.011			
3,300.00	3,250.52	3,028.49	2,863.18	11.88	19.10	119.89	-395.49	-836.52	1,140.01	1,117.33	22.68	50.273			
3,387.03	3,337.54	3,109.05	2,937.79	11.99	19.73	-87.11	-407.82	-864.29	1,170.20	1,147.03	23.17	50.508			
3,400.00	3,350.51	3,121.07	2,948.92	12.01	19.83	-87.22	-409.66	-868.44	1,174.63	1,151.41	23.23	50.572			
3,500.00	3,450.51	3,213.68	3,034.69	12.12	20.57	-88.01	-423.85	-900.37	1,208.93	1,185.26	23.66	51.088			
3,600.00	3,550.51	3,306.29	3,120.46	12.24	21.30	-88.76	-438.03	-932.29	1,243.42	1,219.32	24.10	51.599			
3,700.00	3,650.51	3,398.90	3,206.23	12.35	22.04	-89.47	-452.21	-964.22	1,278.09	1,253.56	24.53	52.103			
3,800.00	3,750.51	3,491.51	3,292.00	12.48	22.77	-90.15	-466.39	-996.15	1,312.94	1,287.98	24.96	52.600			
3,900.00	3,850.51	3,584.12	3,377.76	12.60	23.51	-90.79	-480.57	-1,028.08	1,347.94	1,322.55	25.39	53.088			
4,000.00	3,950.51	3,676.73	3,463.53	12.73	24.24	-91.39	-494.76	-1,060.01	1,383.08	1,357.26	25.82	53.566			
4,100.00	4,050.51	3,769.34	3,549.30	12.86	24.98	-91.97	-508.94	-1,091.94	1,418.35	1,392.10	26.25	54.034			
4,200.00	4,150.51	3,861.95	3,635.07	12.99	25.71	-92.52	-523.12	-1,123.87	1,453.75	1,427.07	26.68	54.491			
4,300.00	4,250.51	3,954.57	3,720.84	13.12	26.45	-93.05	-537.30	-1,155.80	1,489.26	1,462.15	27.11	54.938			
4,400.00	4,350.51	4,047.18	3,806.61	13.26	27.19	-93.55	-551.49	-1,187.73	1,524.88	1,497.34	27.54	55.373			
4,500.00	4,450.51	4,139.79	3,892.37	13.40	27.92	-94.03	-565.67	-1,219.66	1,560.60	1,532.63	27.97	55.797			
4,600.00	4,550.51	4,232.40	3,978.14	13.54	28.66	-94.49	-579.85	-1,251.59	1,596.41	1,568.01	28.40	56.209			
4,700.00	4,650.51	4,325.01	4,063.91	13.69	29.39	-94.93	-594.03	-1,283.52	1,632.30	1,603.47	28.83	56.610			
4,800.00	4,750.51	4,465.47	4,194.47	13.83	30.35	-95.54	-615.05	-1,330.85	1,667.73	1,638.37	29.36	56.808			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Reference Site:	NBU 920-22N Pad	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 920-22N1DS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-8-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft	
Survey Program: 0-MWD												Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor	
4,900.00	4,850.51	4,681.94	4,399.97	13.98	31.47	-96.29	-642.60	-1,392.87	1,697.72	1,667.73	29.99	56.616		
5,000.00	4,950.51	4,908.26	4,619.65	14.13	32.39	-96.85	-664.59	-1,442.37	1,720.64	1,690.05	30.59	56.251		
5,100.00	5,050.51	5,142.14	4,850.43	14.28	33.05	-97.22	-679.84	-1,476.70	1,736.04	1,704.90	31.14	55.746		
5,200.00	5,150.51	5,380.73	5,088.21	14.44	33.45	-97.39	-687.47	-1,493.89	1,743.61	1,711.97	31.63	55.118		
5,300.00	5,250.51	5,543.06	5,250.51	14.59	33.58	-97.41	-688.28	-1,495.71	1,744.40	1,712.41	31.99	54.526		
5,400.00	5,350.51	5,643.06	5,350.51	14.75	33.65	-97.41	-688.28	-1,495.71	1,744.40	1,712.13	32.27	54.055		
5,500.00	5,450.51	5,743.06	5,450.51	14.91	33.72	-97.41	-688.28	-1,495.71	1,744.40	1,711.85	32.55	53.586		
5,600.00	5,550.51	5,843.06	5,550.51	15.07	33.79	-97.41	-688.28	-1,495.71	1,744.40	1,711.56	32.84	53.120		
5,700.00	5,650.51	5,943.06	5,650.51	15.23	33.86	-97.41	-688.28	-1,495.71	1,744.40	1,711.27	33.13	52.655		
5,800.00	5,750.51	6,043.06	5,750.51	15.40	33.94	-97.41	-688.28	-1,495.71	1,744.40	1,710.98	33.42	52.194		
5,900.00	5,850.51	6,143.06	5,850.51	15.56	34.02	-97.41	-688.28	-1,495.71	1,744.40	1,710.68	33.72	51.735		
6,000.00	5,950.51	6,243.06	5,950.51	15.73	34.09	-97.41	-688.28	-1,495.71	1,744.40	1,710.38	34.02	51.279		
6,100.00	6,050.51	6,343.06	6,050.51	15.90	34.17	-97.41	-688.28	-1,495.71	1,744.40	1,710.08	34.32	50.827		
6,200.00	6,150.51	6,443.06	6,150.51	16.07	34.25	-97.41	-688.28	-1,495.71	1,744.40	1,709.77	34.63	50.378		
6,300.00	6,250.51	6,543.06	6,250.51	16.24	34.33	-97.41	-688.28	-1,495.71	1,744.40	1,709.47	34.94	49.932		
6,400.00	6,350.51	6,643.06	6,350.51	16.42	34.41	-97.41	-688.28	-1,495.71	1,744.40	1,709.15	35.25	49.490		
6,500.00	6,450.51	6,743.06	6,450.51	16.59	34.50	-97.41	-688.28	-1,495.71	1,744.40	1,708.84	35.56	49.052		
6,600.00	6,550.51	6,843.06	6,550.51	16.76	34.58	-97.41	-688.28	-1,495.71	1,744.40	1,708.52	35.88	48.618		
6,700.00	6,650.51	6,943.06	6,650.51	16.94	34.67	-97.41	-688.28	-1,495.71	1,744.40	1,708.20	36.20	48.188		
6,800.00	6,750.51	7,043.06	6,750.51	17.12	34.76	-97.41	-688.28	-1,495.71	1,744.40	1,707.88	36.52	47.762		
6,900.00	6,850.51	7,143.06	6,850.51	17.30	34.85	-97.41	-688.28	-1,495.71	1,744.40	1,707.55	36.85	47.340		
7,000.00	6,950.51	7,243.06	6,950.51	17.48	34.94	-97.41	-688.28	-1,495.71	1,744.40	1,707.22	37.18	46.922		
7,100.00	7,050.51	7,343.06	7,050.51	17.66	35.03	-97.41	-688.28	-1,495.71	1,744.40	1,706.89	37.51	46.509		
7,200.00	7,150.51	7,443.06	7,150.51	17.84	35.12	-97.41	-688.28	-1,495.71	1,744.40	1,706.56	37.84	46.099		
7,300.00	7,250.51	7,543.06	7,250.51	18.02	35.21	-97.41	-688.28	-1,495.71	1,744.40	1,706.23	38.18	45.695		
7,400.00	7,350.51	7,643.06	7,350.51	18.21	35.31	-97.41	-688.28	-1,495.71	1,744.40	1,705.89	38.51	45.294		
7,500.00	7,450.51	7,743.06	7,450.51	18.39	35.40	-97.41	-688.28	-1,495.71	1,744.40	1,705.55	38.85	44.898		
7,600.00	7,550.51	7,843.06	7,550.51	18.58	35.50	-97.41	-688.28	-1,495.71	1,744.40	1,705.21	39.19	44.506		
7,700.00	7,650.51	7,943.06	7,650.51	18.76	35.60	-97.41	-688.28	-1,495.71	1,744.40	1,704.86	39.54	44.119		
7,800.00	7,750.51	8,043.06	7,750.51	18.95	35.70	-97.41	-688.28	-1,495.71	1,744.40	1,704.52	39.88	43.737		
7,900.00	7,850.51	8,143.06	7,850.51	19.14	35.80	-97.41	-688.28	-1,495.71	1,744.40	1,704.17	40.23	43.358		
8,000.00	7,950.51	8,243.06	7,950.51	19.33	35.90	-97.41	-688.28	-1,495.71	1,744.40	1,703.82	40.58	42.984		
8,100.00	8,050.51	8,343.06	8,050.51	19.51	36.00	-97.41	-688.28	-1,495.71	1,744.40	1,703.47	40.93	42.615		
8,200.00	8,150.51	8,443.06	8,150.51	19.71	36.11	-97.41	-688.28	-1,495.71	1,744.40	1,703.11	41.29	42.250		
8,300.00	8,250.51	8,543.06	8,250.51	19.90	36.21	-97.41	-688.28	-1,495.71	1,744.40	1,702.76	41.64	41.889		
8,400.00	8,350.51	8,643.06	8,350.51	20.09	36.32	-97.41	-688.28	-1,495.71	1,744.40	1,702.40	42.00	41.533		
8,500.00	8,450.51	8,743.06	8,450.51	20.28	36.42	-97.41	-688.28	-1,495.71	1,744.40	1,702.04	42.36	41.181		
8,600.00	8,550.51	8,843.06	8,550.51	20.47	36.53	-97.41	-688.28	-1,495.71	1,744.40	1,701.68	42.72	40.833		
8,700.00	8,650.51	8,943.06	8,650.51	20.67	36.64	-97.41	-688.28	-1,495.71	1,744.40	1,701.32	43.08	40.490		
8,800.00	8,750.51	9,043.06	8,750.51	20.86	36.75	-97.41	-688.28	-1,495.71	1,744.40	1,700.95	43.45	40.151		
8,900.00	8,850.51	9,143.06	8,850.51	21.06	36.86	-97.41	-688.28	-1,495.71	1,744.40	1,700.59	43.81	39.816		
9,000.00	8,950.51	9,243.06	8,950.51	21.25	36.98	-97.41	-688.28	-1,495.71	1,744.40	1,700.22	44.18	39.485		
9,100.00	9,050.51	9,343.06	9,050.51	21.45	37.09	-97.41	-688.28	-1,495.71	1,744.40	1,699.85	44.55	39.158		
9,200.00	9,150.51	9,443.06	9,150.51	21.64	37.20	-97.41	-688.28	-1,495.71	1,744.40	1,699.48	44.92	38.836		
9,300.00	9,250.51	9,543.06	9,250.51	21.84	37.32	-97.41	-688.28	-1,495.71	1,744.40	1,699.11	45.29	38.518		
9,400.00	9,350.51	9,643.06	9,350.51	22.04	37.44	-97.41	-688.28	-1,495.71	1,744.40	1,698.74	45.66	38.203		
9,500.00	9,450.51	9,743.06	9,450.51	22.24	37.55	-97.41	-688.28	-1,495.71	1,744.40	1,698.37	46.04	37.893		
9,600.00	9,550.51	9,843.06	9,550.51	22.44	37.67	-97.41	-688.28	-1,495.71	1,744.40	1,697.99	46.41	37.586		
9,700.00	9,650.51	9,943.06	9,650.51	22.64	37.79	-97.41	-688.28	-1,495.71	1,744.40	1,697.61	46.79	37.284		
9,800.00	9,750.51	10,043.06	9,750.51	22.83	37.91	-97.41	-688.28	-1,495.71	1,744.40	1,697.24	47.16	36.985		
9,900.00	9,850.51	10,143.06	9,850.51	23.03	38.03	-97.41	-688.28	-1,495.71	1,744.40	1,696.86	47.54	36.690		
10,000.00	9,950.51	10,243.06	9,950.51	23.24	38.15	-97.41	-688.28	-1,495.71	1,744.40	1,696.48	47.92	36.399		

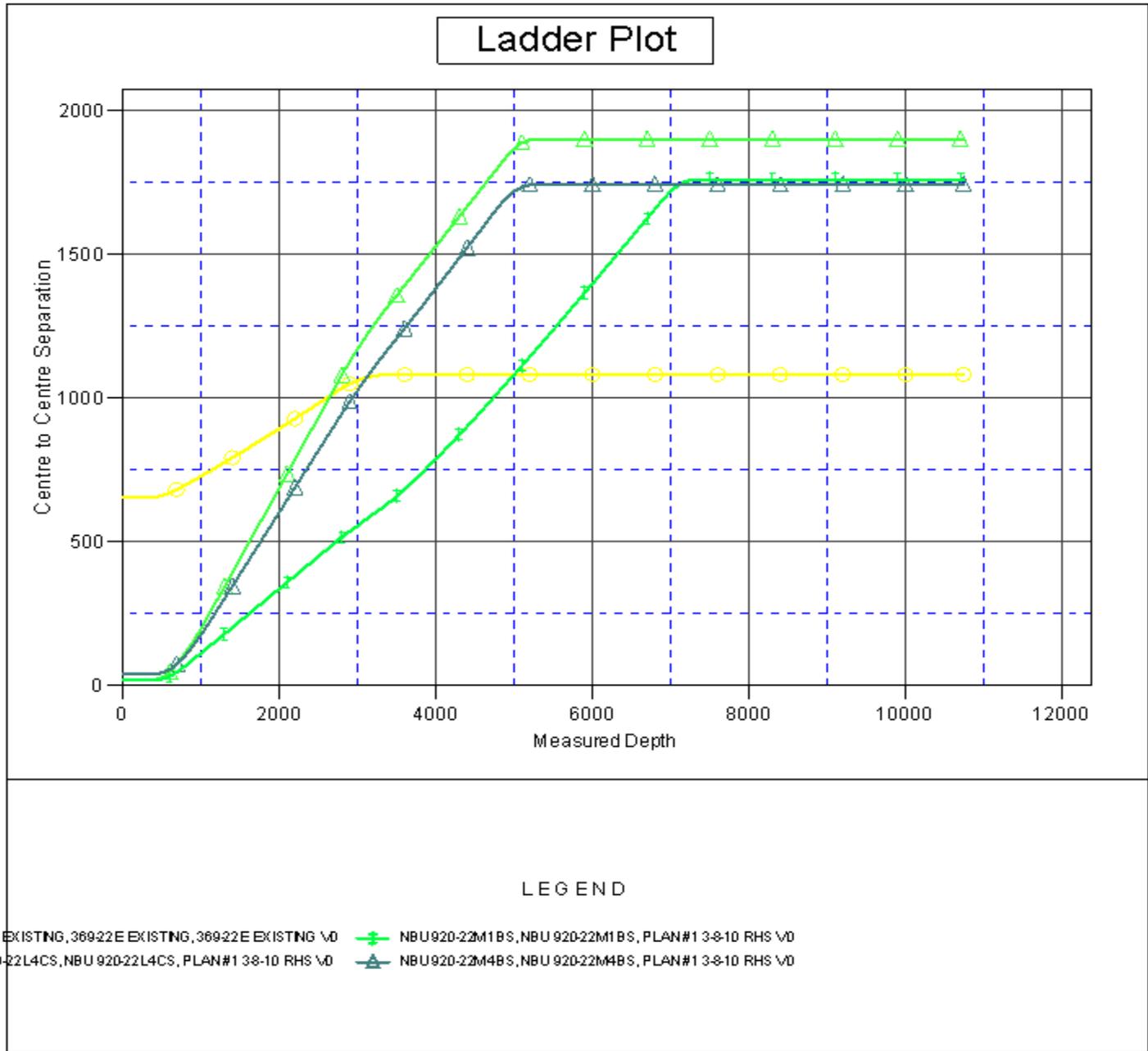
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Reference Site:	NBU 920-22N Pad	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 920-22N1DS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-8-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
10,100.00	10,050.51	10,343.06	10,050.51	23.44	38.28	-97.41	-688.28	-1,495.71	1,744.40	1,696.10	48.31	36.112			
10,200.00	10,150.51	10,443.06	10,150.51	23.64	38.40	-97.41	-688.28	-1,495.71	1,744.40	1,695.71	48.69	35.828			
10,300.00	10,250.51	10,543.06	10,250.51	23.84	38.53	-97.41	-688.28	-1,495.71	1,744.40	1,695.33	49.07	35.548			
10,400.00	10,350.51	10,643.06	10,350.51	24.04	38.65	-97.41	-688.28	-1,495.71	1,744.40	1,694.94	49.46	35.271			
10,500.00	10,450.51	10,743.06	10,450.51	24.24	38.78	-97.41	-688.28	-1,495.71	1,744.40	1,694.56	49.84	34.998			
10,600.00	10,550.51	10,843.06	10,550.51	24.45	38.91	-97.41	-688.28	-1,495.71	1,744.40	1,694.17	50.23	34.729			
10,700.00	10,650.51	10,943.06	10,650.51	24.65	39.03	-97.41	-688.28	-1,495.71	1,744.40	1,693.78	50.62	34.463			
10,740.49	10,691.00	10,983.55	10,691.00	24.73	39.09	-97.41	-688.28	-1,495.71	1,744.40	1,693.63	50.77	34.356			

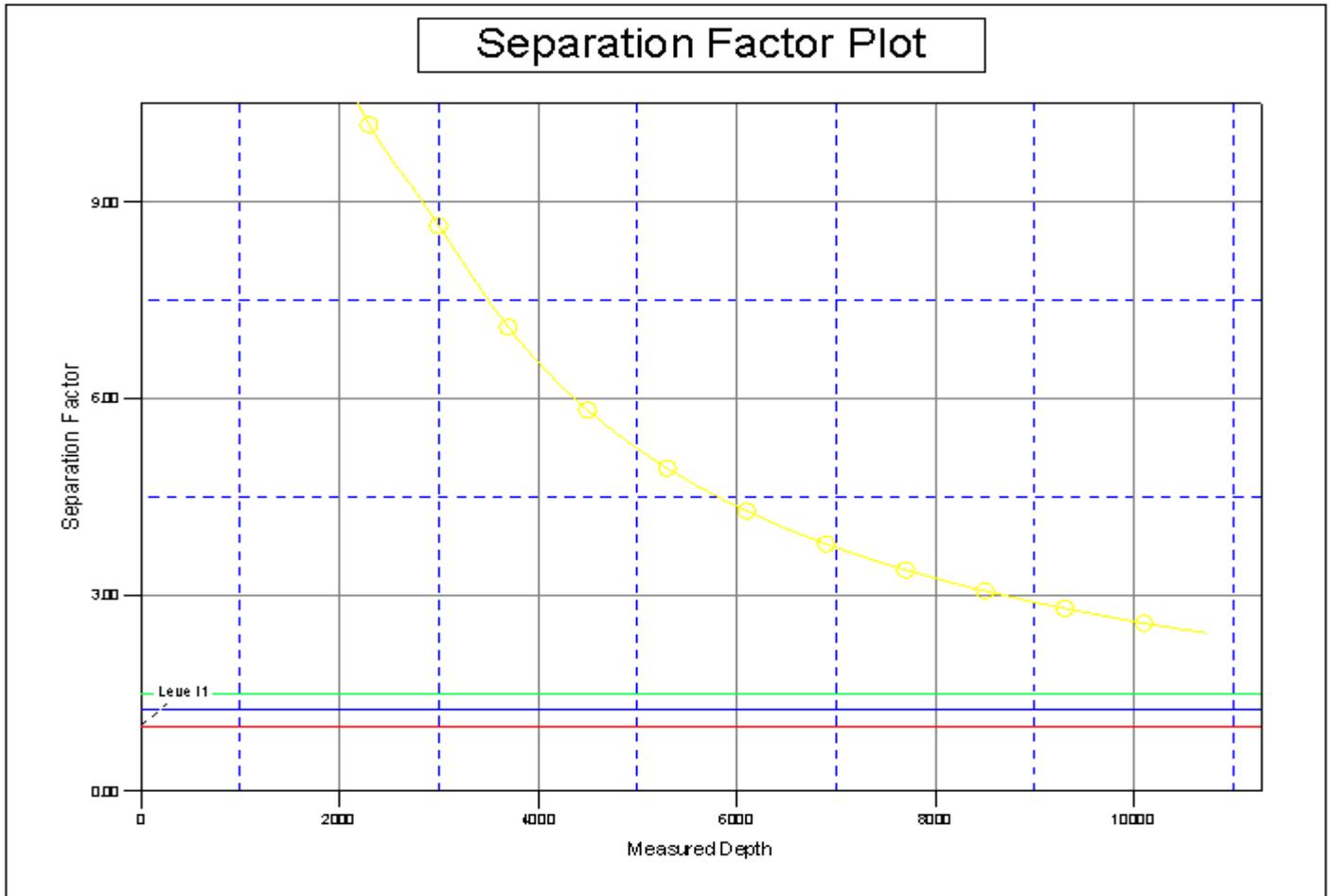
Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Reference Site:	NBU 920-22N Pad	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 920-22N1DS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-8-10 RHS	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4958.00ft (Original Well Elev) Coordinates are relative to: NBU 920-22N1DS
 Offset Depths are relative to Offset Datum Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N
 Central Meridian is 111° 0' 0.000 W ° Grid Convergence at Surface is: 0.87°



Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 4958.00ft (Original Well Elev)
Reference Site:	NBU 920-22N Pad	MD Reference:	WELL @ 4958.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
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Reference Wellbore	NBU 920-22N1DS	Database:	EDM 2003.21 Single User Db
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 Offset Depths are relative to Offset Datum Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N
 Central Meridian is 111° 0' 0.000 W ° Grid Convergence at Surface is: 0.87°



LEGEND

EXISTING, 36922E EXISTING, 36922E EXISTING \0 NBU920-22M1BS, NBU 920-22M1BS, PLAN#1 3-8-10 RHS \0
 20-22L4CS, NBU 920-22L4CS, PLAN#1 3-8-10 RHS \0 NBU920-22M4BS, NBU 920-22M4BS, PLAN#1 3-8-10 RHS \0

NBU 920-22L4CS

Surface: 1,222' FSL 2,422' FWL (SE/4SW/4)
BHL: 1,534' FSL 908' FWL (NW/4SW/4)
Mineral Lease: UTU 0577B

NBU 920-22M1BS

Surface: 1,189' FSL 2,399' FWL (SE/4SW/4)
BHL: 1,050' FSL 900' FWL (SW/4SW/4)
Mineral Lease: UTU 0577A

NBU 920-22M4BS

Surface: 1,173' FSL 2,388' FWL (SE/4SW/4)
BHL: 545' FSL 900' FWL (SW/4SW/4)
Mineral Lease: UTU 0577A

NBU 920-22N1DS (FKA NBU 920-22N)

API Number: 43-047-50560
Surface: 1,206' FSL 2,411' FWL (SE/4SW/4)
BHL: 738' FSL 2,635' FWL (SE/4SW/4)
Mineral Lease: UTU 0577A

Pad: NBU 920-22N
Sec. 22 T9S R20E

Uintah, Utah
Operator: Kerr-McGee Oil & Gas Onshore LP
Surface Owner: Ute Indian Tribe

ONSHORE ORDER NO. 1

***MULTI-POINT SURFACE USE & OPERATIONS PLAN
SUBMITTED WITH SITE-SPECIFIC INFORMATION***

An Application for Permit to Drill (APD) for the NBU 920-22N1DS well was approved by the BLM on October 16, 2009 and by UDOGM on August 11, 2009. At the time the APD was submitted, the well was known as the NBU 920-22N. Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) is requesting to change this vertical well to a directional well and add three additional wells to the well pad. Kerr-McGee will file for this request through a Sundry Notice and a Modification Application.

This APD is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) and Bureau of Indian Affairs (BIA) documents. An NOS was submitted showing the surface location in SE/4 SW/4 of Section 22 T9S R20E.

This Surface Use Plan of Operations (SUPO) or 13-point plan provides the site-specific information for the above-referenced wells. This information is to be incorporated by reference into the Master Development Plan (MDP) for Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee). The MDP is available upon request from the BIA-Ft Duchesne Office.

An on-site meeting was held on June 24, 2009. Present were:

- Verlyn Pindell and Dave Gordon – BLM;
- Kolby Kay and Mitch Batty – Timberline Surveying, Inc.
- Tony Kazeck, Jeff Samuels, Raleen White, David Liddell, and Hal Blanchard – Kerr-McGee
- Bucky Secakuku – BIA
- Nick Hall – Grasslands Consulting, Inc.
- Scott Carson – Smiling Lake Consulting
- Keith Montgomery – Montgomery Archaeological Consultants, Inc.

Directional Drilling:

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

1. Existing Roads:

- A) Refer to Topo Map A for directions to the location.
- B) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

2. Planned Access Roads:

See MDP for additional details on road construction.

Approximately $\pm 735'$ (± 0.14 miles) of new access road is proposed with concurrent access with the NBU 920-22K well pad. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site and are typically shown on the attached Exhibits and Topo maps.

3. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

4. Location of Existing and Proposed Facilities:

See MDP for additional details on Existing and Proposed Facilities.

The following guidelines will apply if the well is productive.

Approximately 660' (± 0.1 miles) of buried pipeline is proposed around the well pad. Another approximately $\pm 725'$ (± 0.1 miles) of buried pipeline is proposed from the tie in point to the edge of the pad with concurrent pipeline with the NBU 920-22K well pad. Please refer to Topo D for the existing pipeline. Appropriate surface use agreements have been or will be obtained from the Ute Indian Tribe. Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place

At the onsite, Kerr-McGee agreed to the following:

- Use pit run/gravel on well pad/access road.
- Paint equipment Shadow Grey.
- Archeological monitoring during construction.

5. Location and Type of Water Supply:

See MDP for additional details on Location and Type of Water Supply.

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

49-2243	Target Trucking Inc.	Green River- Various points
49-2300	R.N. Industries	White River- Various points
49-2298	RNI Trucking	White River- Various points
49-2231	Nile Chapman	Green River- Various points
49-2299	R.N. Industries	Green River- Various points
49-2306	R.N. Industries	White River- Various points

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.

6. Source of Construction Materials:

See MDP for additional details on Source of Construction Materials.

7. Methods of Handling Waste Materials:

See MDP for additional details on Methods of Handling Waste Materials.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by 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

8. Ancillary Facilities:

See MDP for additional details on Ancillary Facilities.

None are anticipated.

9. Well Site Layout: (See Location Layout Diagram)

See MDP for additional details on Well Site Layout.

All pits will be fenced according to the following minimum standards:

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner 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.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

10. Plans for Reclamation of the Surface:

See MDP for additional details on Plans for Reclamation of the Surface.

Kerr-McGee shall call the BIA for the seed mixture prior to starting interim and/or final reclamation actions.

11. Surface/Mineral Ownership:

The well pad and access road are located on lands owned by:

Ute Indian Tribe
PO Box 70
Fort Duchesne, Utah 84026
435-722-5141

The mineral ownership is listed below:

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

12. Other Information:

See MDP for additional details on Other Information.

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

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

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

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

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

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

Bond coverage 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.


Danielle Piernot

March 30, 2010
Date



Kerr-McGee Oil & Gas Onshore LP

1099 18th Street, Suite 1800
Denver, CO 80202-1918
P.O. Box 173779
Denver, CO 80217-3779
720-929-6000

January 14, 2010

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

Re: Directional Drilling R649-3-11
NBU 920-22N1DS
T9S-R20E
Section 22: SESW (Surf & BH)
Surface: 1206' FSL, 2411' FWL
Bottom Hole: 738' FSL, 2635' FWL
Uintah County, Utah

Dear Ms. Mason:

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

- Kerr-McGee's NBU 920-22N1DS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

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

Sincerely,
KERR-MCGEE OIL & GAS ONSHORE LP



Lynn Padgett
Staff Landman

enclosures

RECEIVED March 29, 2010

Paleontological Reconnaissance Survey Report

Survey of Kerr McGee's Proposed Multi-Well Pads, Onsite Changes, Access Roads & Pipelines for "NBU #920-14D, 14D1CS, 14C4DS, 14E1BS & D4BS; NBU #920-20E; & NBU #920-22N, 22L4CS, 22N1DS, 22M1BS & 22M4BS" (Sec. 14, 20 & 22, T 9 S, R 20 E)

Ouray
Topographic Quadrangle
Uintah County, Utah

September 2, 2009

Prepared by Stephen D. Sandau
Paleontologist for
Intermountain Paleo-Consulting
P. O. Box 1125
Vernal, Utah 84078

CLASS I LITERATURE REVIEW OF
KERR-MCGEE OIL & GAS ONSHORE LP'S
PROPOSED NBU # 920-22L4CS, NBU #920-22M1BS,
AND NBU #920-22M4BS DRILL LOCATIONS
(T9S, R20E, SECTION 22), UINTAH COUNTY, UTAH

By:

Nicole Shelnut

Prepared For:

Ute Indian Tribe
Uintah and Ouray Agency

Prepared Under Contract With:

Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 09-132

September 3, 2009

United States Department of Interior (FLPMA)
Permit No. 09-UT-60122

RECEIVED March 29, 2010



Grasslands Consulting, Inc.

4800 Happy Canyon Road, Suite 110, Denver, CO 80237

(303) 759-5377 Office (303) 759-5324 Fax

SPECIAL STATUS PLANT AND WILDLIFE SPECIES REPORT

Report #: GCI #42-Revised December 22, 2009

Operator: Kerr-McGee Oil & Gas Onshore LP

Wells: Vertical wells: NBU 920-22I, NBU 920-22J, NBU 920-22K, and NBU 920-22O.

Directional Well: NBU 920-22N1DS (Bores: NBU 920-22L4CS, NBU 920-22N1DS, NBU 920-22M1BS, and NBU 920-22M4BS).

Pipelines: Proposed pipelines leading to all proposed wells (see project map)

Access Roads: Access roads lead to all proposed wells (see project map)

Location: Section 22, Township 9 South, Range 20 East; Uintah County, Utah

Survey-Species: Uinta Basin Hookless Cactus (*Sclerocactus wetlandicus*) and nesting raptors

Date: 06/16/2009

Observers: Grasslands Consulting, Inc. Biologists: Nick Hall, Jay Slocum, Dan Hamilton, Matt Kelahan, and Jonathan Sexauer. Technicians: Chad Johnson.

Weather: Partly cloudy, 80-85°F, 0-5 mph winds with no precipitation.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0577A
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 920-22N1DS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 4304750560000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1206 FSL 2411 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 22 Township: 09.0S Range: 20.0E 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: 8/11/2010 <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 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 checked="" 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 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: August 23, 2010
 By:

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 8/11/2010



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 43047505600000

API: 43047505600000

Well Name: NBU 920-22N1DS

Location: 1206 FSL 2411 FWL QTR SESW SEC 22 TWNP 090S RNG 200E MER S

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

Date Original Permit Issued: 8/11/2009

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

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

Signature: Danielle Piernot

Date: 8/11/2010

Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: August 23, 2010

By: 

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0577A
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 920-22N1DS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047505600000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1206 FSL 2411 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 22 Township: 09.0S Range: 20.0E 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: 7/12/2011 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input 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 checked="" type="checkbox"/> APD EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> OTHER OTHER: <input style="width: 50px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
<p>Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.</p> <div style="text-align: right;"> <p>Approved by the Utah Division of Oil, Gas and Mining</p> <p>Date: <u>07/12/2011</u></p> <p>By: </p> </div>		
NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 7/12/2011	



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 43047505600000

API: 43047505600000

Well Name: NBU 920-22N1DS

Location: 1206 FSL 2411 FWL QTR SESW SEC 22 TWNP 090S RNG 200E MER S

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

Date Original Permit Issued: 8/11/2009

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: Gina Becker

Date: 7/12/2011

Title: Regulatory Analyst II **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SEP 21 2011

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

BLM

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. UTU0577A
2. Name of Operator KERR MCGEE OIL & GAS ONSHORE		6. If Indian, Allottee or Tribe Name
3a. Address 1368 SOUTH 1200 EAST VERNAL, UT 84078		7. If Unit or CA/Agreement, Name and/or No. UTU63047A
3b. Phone No. (include area code) Ph: 720-929-6156 Fx: 720-929-7156		8. Well Name and No. NBU 920-22N (IDS)
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 22 T9S R20E SESW 1206FSL 2411FWL 40.016754 N Lat, 109.653525 W Lon		9. API Well No. 43-047-50560-00-X1
		10. Field and Pool, or Exploratory NATURAL BUTTES
		11. County or Parish, and State UINTAH COUNTY, UT

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Deepen
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Alter Casing
	<input type="checkbox"/> Fracture Treat
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Change Plans
	<input type="checkbox"/> Plug and Abandon
	<input type="checkbox"/> Convert to Injection
	<input type="checkbox"/> Plug Back
	<input type="checkbox"/> Production (Start/Resume)
	<input type="checkbox"/> Reclamation
	<input type="checkbox"/> Recomplete
	<input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Water Disposal
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Well Integrity
	<input checked="" type="checkbox"/> Other Change to Original PD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. The original APD was approved on 10/16/2009.

Please note that there is a sundry notice pending to change the well name for this location. This well was originally permitted as the NBU 920-22N.

Please contact the undersigned with any questions and/or comments. Thank you.

Thank you.

CONDITIONS OF APPROVAL ATTACHED

RECEIVED

NOV 18 2011

DIV. OF OIL, GAS & MINING

VERNAL FIELD OFFICE
ENG. RAH 11/11/11
GEOL. _____
E.S. _____
PET. _____
DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #118114 verified by the BLM Well Information System
For KERR MCGEE OIL & GAS ONSHORE L, sent to the Vernal
Committed to AFMSS for processing by ROBIN R. HANSEN on 09/21/2011 (11RRH4156SE)

Name (Printed/Typed) DANIELLE E PIERNOT	Title REGULATORY ANALYST II
Signature (Electronic Submission)	Date 09/21/2011

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>[Signature]</u>	Assistant Field Manager Title Lands & Mineral Resources	NOV 07 2011
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	VERNAL FIELD OFFICE

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.

UDOGM

BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

11DD1111511511

CONDITIONS OF APPROVAL

Kerr McGee Oil and Gas Onshore LP.

Notice of Intent APD Extension

Lease: UTU-0577A
Well: NBU 920-22N
Location: SESW Sec 22-T9S-R20E

An extension for the referenced APD is granted with the following conditions:

1. The extension and APD shall expire on 10/16/2013.
2. No other extension shall be granted.

If you have any other questions concerning this matter, please contact Robin L Hansen of this office at (435) 781-2777

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0577A
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 920-22N1DS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047505600000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1206 FSL 2411 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 22 Township: 09.0S Range: 20.0E Meridian: S	COUNTY: UINTAH STATE: UTAH

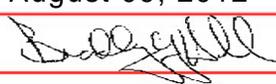
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 8/11/2012	<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: August 09, 2012
 By: 

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 8/9/2012	



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 43047505600000

API: 43047505600000

Well Name: NBU 920-22N1DS

Location: 1206 FSL 2411 FWL QTR SESW SEC 22 TWNP 090S RNG 200E MER S

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

Date Original Permit Issued: 8/11/2009

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: Danielle Piernot

Date: 8/9/2012

Title: Regulatory Analyst 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 0577A
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 920-22N1DS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1206 FSL 2411 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 22 Township: 09.0S Range: 20.0E Meridian: S	9. API NUMBER: 43047505600000
5. PHONE NUMBER: 720 929-6511	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
COUNTY: UINTAH	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 11/2/2012	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input checked="" 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 type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

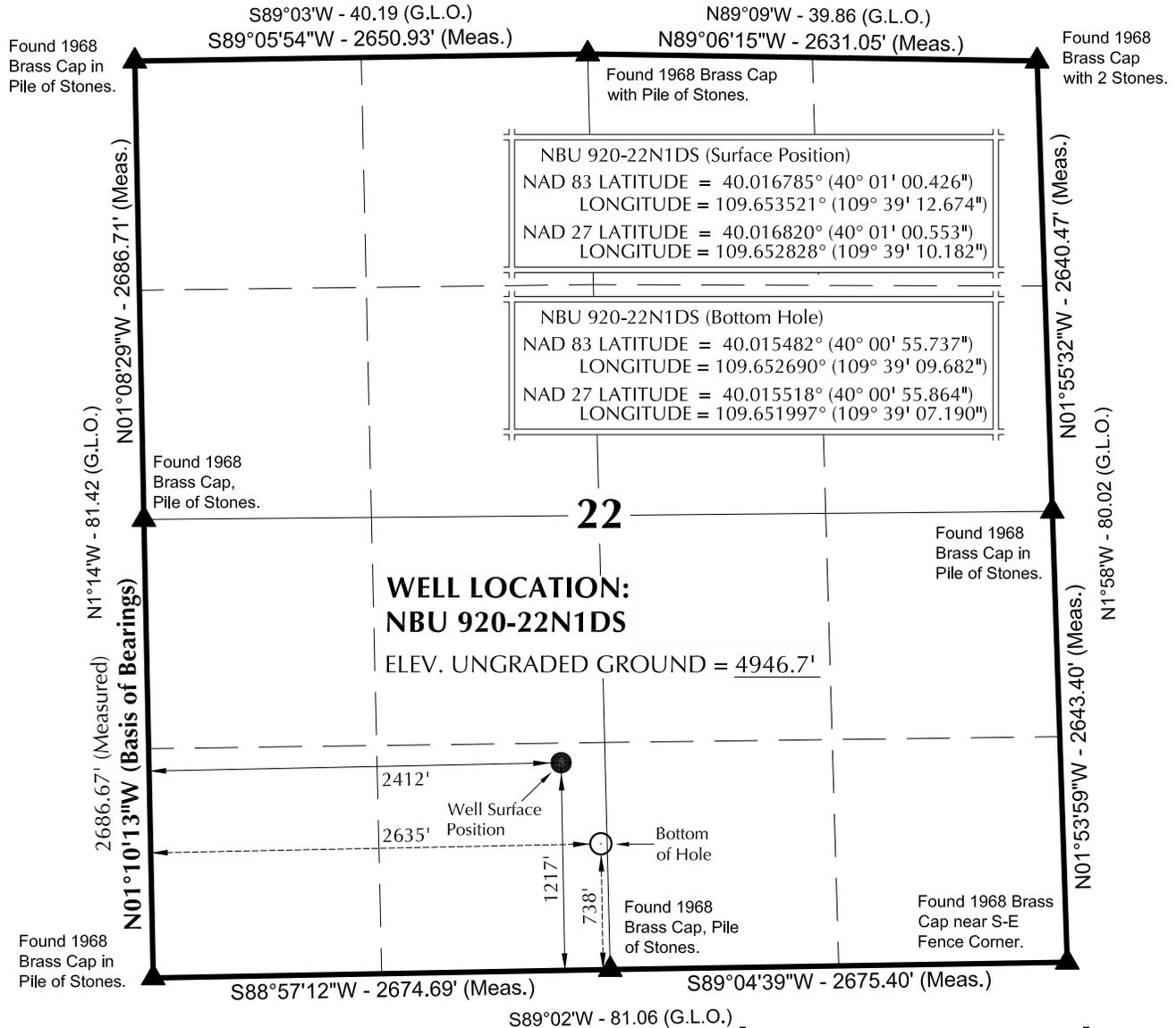
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests to update the drilling program to accomadate current drilling practices and update survey plats to show current well names for additional wells on the pad. Please see the attached revised plats, maps and drilling program for additional information. Please contact the undersigned with any questions and/or comments. Thank you.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 November 08, 2012

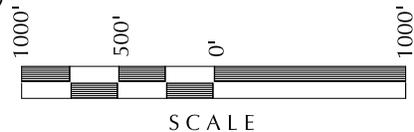
NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 11/2/2012	

T9S, R20E, S.L.B.&M.



NOTES:

- ▲ = Section Corners Located
- 1. Well footages are measured at right angles to the Section Lines. G.L.O. distances are shown in feet or chains.
- 2. 1 chain = 66 feet.
- 3. The Bottom of hole bears S26°06'55"E 528.62' from the Surface Position.
- 4. NAD 83 Latitude & Longitude are (CORS 96)(EPOCH:2002).
- 5. Bearings and Distances are based upon a Local Cartesian Grid, oriented to Geodetic North at the North 1/4 Corner of Section 8, T10S, R22E, S.L.B.&M. The Grid having a mean project height of 5300'. Lineal units used are U.S. Survey Foot.
- 6. Basis of elevation is Tri-Sta "Two Water" located in Lot 4 of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SURVEYOR'S CERTIFICATE

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

John R. Laugh
 PROFESSIONAL LAND SURVEYOR
 REGISTRATION NO. 6028691
 STATE OF UTAH

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

WELL PAD: NBU 920-22N

**NBU 920-22N1DS
 WELL PLAT**

738' FSL, 2635' FWL (Bottom Hole)
**SE ¼ SW ¼ OF SECTION 22, T9S, R20E,
 S.L.B.&M., UINTAH COUNTY, UTAH.**



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

TIMBERLINE

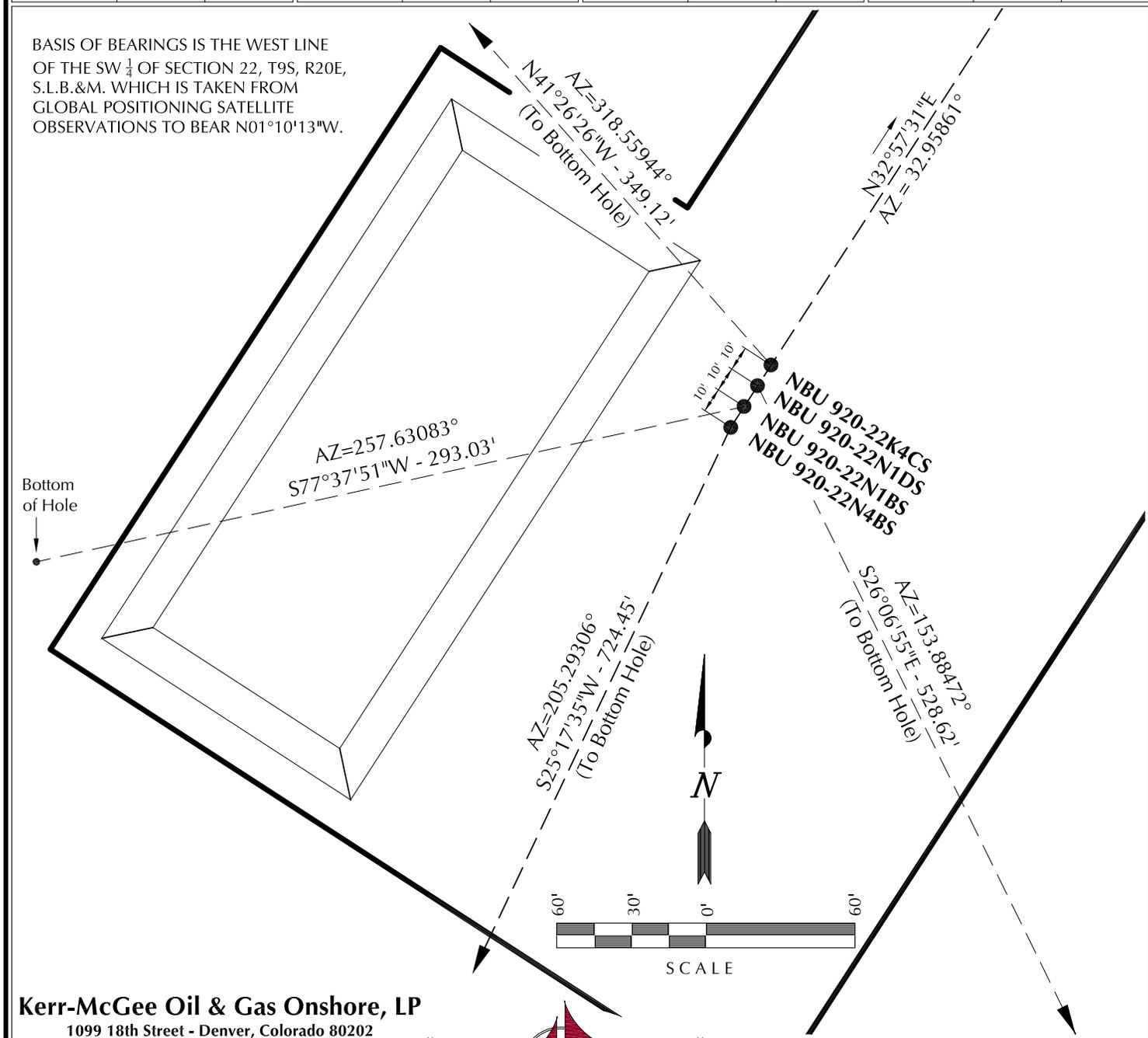
ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 7-1-09	SURVEYED BY: M.S.B.	SHEET NO: 3
DATE DRAWN: 11-30-09	DRAWN BY: E.M.S.	
SCALE: 1" = 1000'		3 OF 16

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
NBU 920-22N4BS	40°01'00.260"	109°39'12.814"	40°01'00.387"	109°39'10.321"	1200' FSL	40°00'53.787"	109°39'16.788"	40°00'53.915"	109°39'14.295"	551' FSL
	40.016739°	109.653559°	40.016774°	109.652867°	2401' FWL	40.014941°	109.654663°	40.014976°	109.653971°	2078' FWL
NBU 920-22N1BS	40°01'00.343"	109°39'12.744"	40°01'00.470"	109°39'10.251"	1209' FSL	40°00'59.722"	109°39'16.422"	40°00'59.849"	109°39'13.929"	1151' FSL
	40.016762°	109.653540°	40.016797°	109.652848°	2406' FWL	40.016589°	109.654562°	40.016625°	109.653869°	2119' FWL
NBU 920-22N1DS	40°01'00.426"	109°39'12.674"	40°01'00.553"	109°39'10.182"	1217' FSL	40°00'55.737"	109°39'09.682"	40°00'55.864"	109°39'07.190"	738' FSL
	40.016785°	109.653521°	40.016820°	109.652828°	2412' FWL	40.015482°	109.652690°	40.015518°	109.651997°	2635' FWL
NBU 920-22K4CS	40°01'00.509"	109°39'12.604"	40°01'00.636"	109°39'10.112"	1225' FSL	40°01'03.094"	109°39'15.575"	40°01'03.221"	109°39'13.082"	1491' FSL
	40.016808°	109.653501°	40.016843°	109.652809°	2418' FWL	40.017526°	109.654326°	40.017561°	109.653634°	2192' FWL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 920-22N4BS	-655.0'	-309.5'	NBU 920-22N1BS	-62.8'	-286.2'	NBU 920-22N1DS	-474.7'	232.7'	NBU 920-22K4CS	261.7'	-231.1'



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

WELL PAD - NBU 920-22N

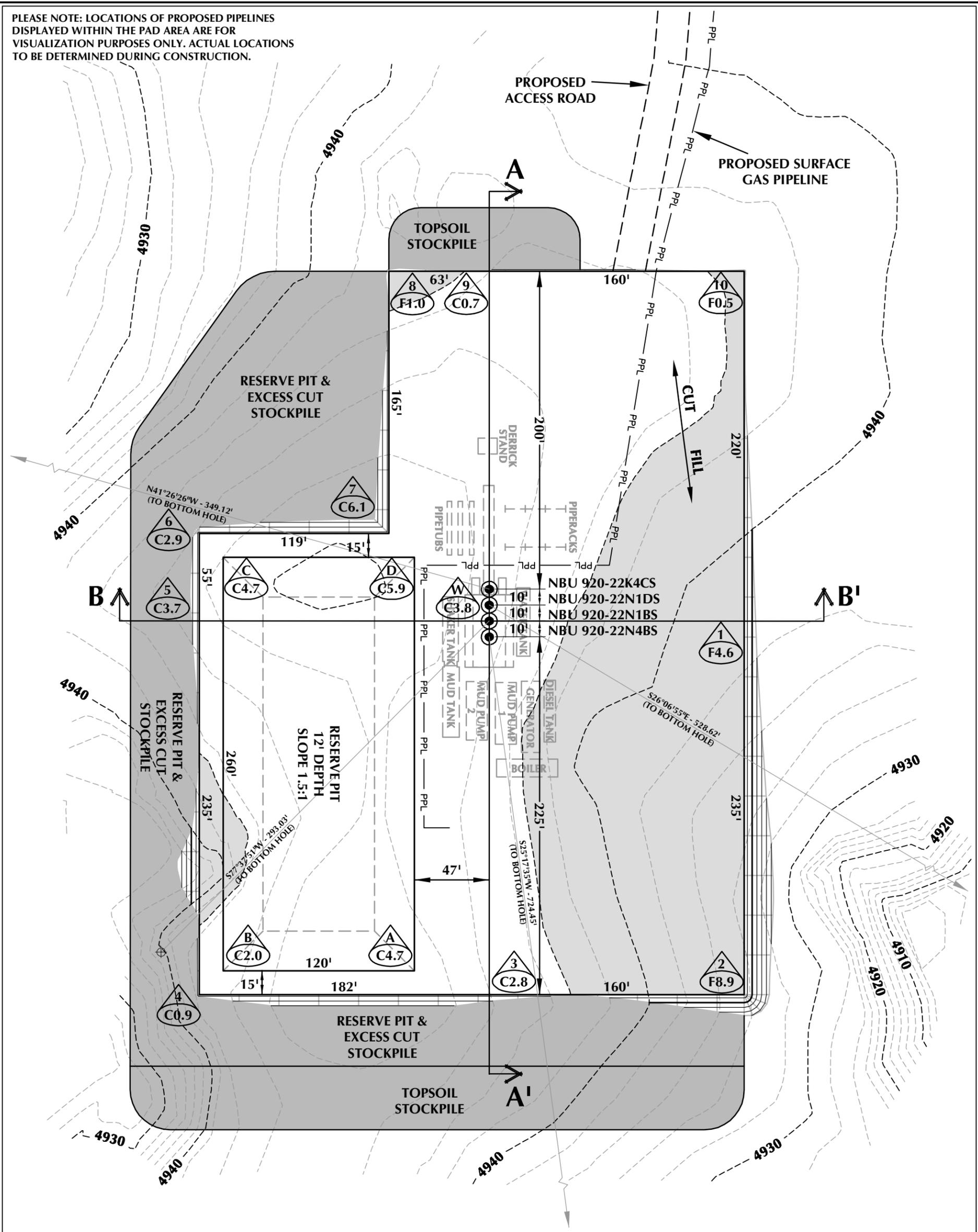
WELL PAD INTERFERENCE PLAT
WELLS - NBU 920-22N4BS, NBU 920-22N1BS, NBU 920-22N1DS & NBU 920-22K4CS LOCATED IN SECTION 22, T9S, R20E, S.L.B.&M., UTAH COUNTY, UTAH.

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: 7-1-09	SURVEYED BY: M.S.B.	SHEET NO: 5
DATE DRAWN: 11-30-09	DRAWN BY: E.M.S.	
SCALE: 1" = 60'		5 OF 16

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



WELL PAD - NBU 920-22N DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 4947.1'
 FINISHED GRADE ELEVATION = 4943.3'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.32 ACRES
 TOTAL DISTURBANCE AREA = 4.88 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

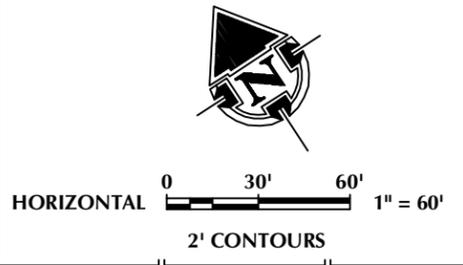
Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street - Denver, Colorado 80202

WELL PAD QUANTITIES
 TOTAL CUT FOR WELL PAD = 9,091 C.Y.
 TOTAL FILL FOR WELL PAD = 7,639 C.Y.
 TOPSOIL @ 6" DEPTH = 2,682 C.Y.
 EXCESS MATERIAL = 1,452 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



WELL PAD - NBU 920-22N

WELL PAD - LOCATION LAYOUT
 NBU 920-22N4BS, NBU 920-22N1BS,
 NBU 920-22N1DS & NBU 920-22K4CS
 LOCATED IN SECTION 22, T9S, R20E,
 S.L.B.&M., UTAH COUNTY, UTAH



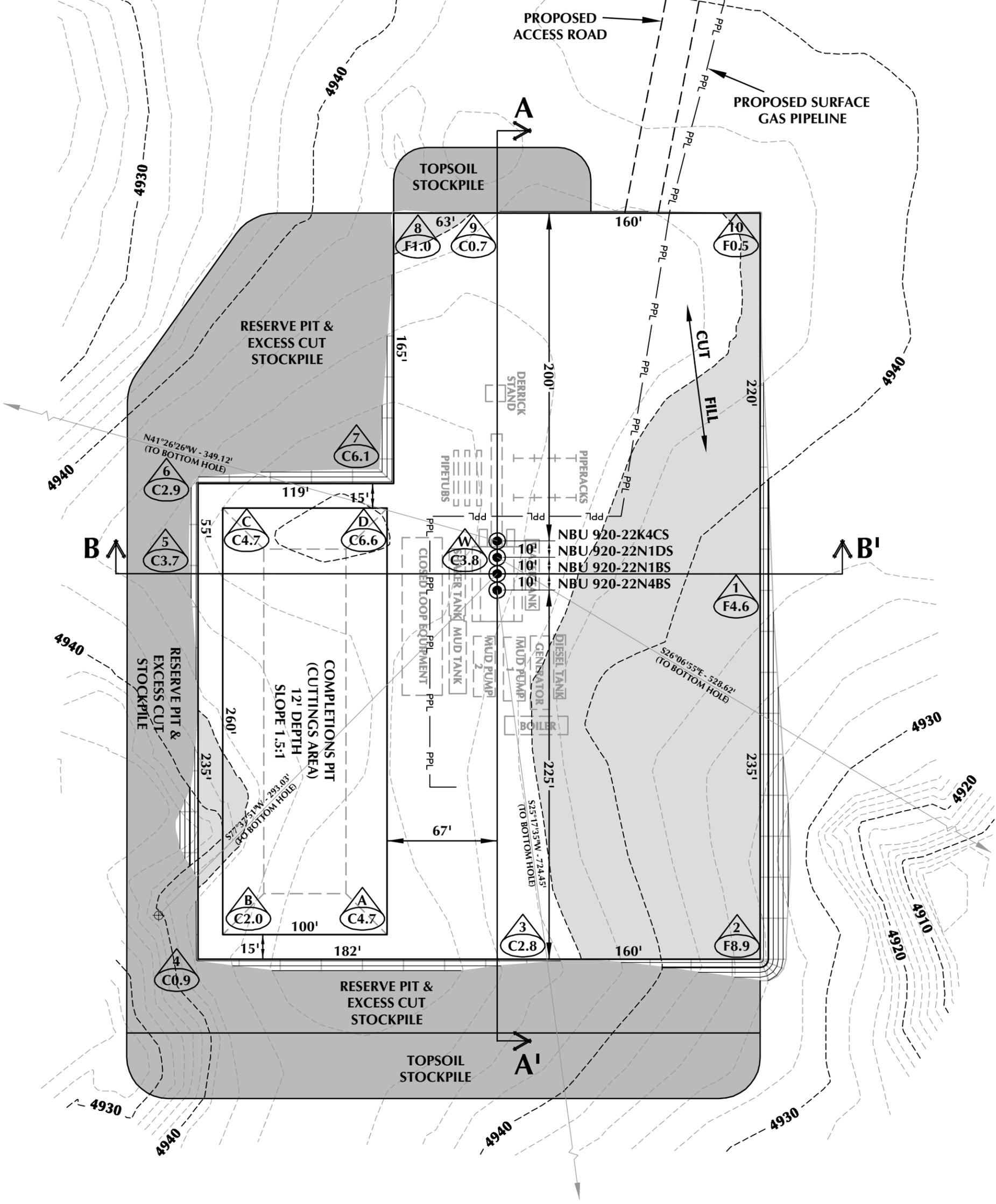
CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

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

(435) 789-1365

SCALE: 1"=60' DATE: 1/7/10 SHEET NO: 6 OF 16
 REVISED: GRB 9/14/12

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 920-22N (CLOSED LOOP) DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 4947.1'
 FINISHED GRADE ELEVATION = 4943.3'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.32 ACRES
 TOTAL DISTURBANCE AREA = 4.88 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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

WELL PAD - NBU 920-22N

WELL PAD - LOCATION LAYOUT
 NBU 920-22N4BS, NBU 920-22N1BS,
 NBU 920-22N1DS & NBU 920-22K4CS
 LOCATED IN SECTION 22, T9S, R20E,
 S.L.B.&M., UTAH COUNTY, UTAH



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

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 9,091 C.Y.
 TOTAL FILL FOR WELL PAD = 7,639 C.Y.
 TOPSOIL @ 6" DEPTH = 2,682 C.Y.
 EXCESS MATERIAL = 1,452 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

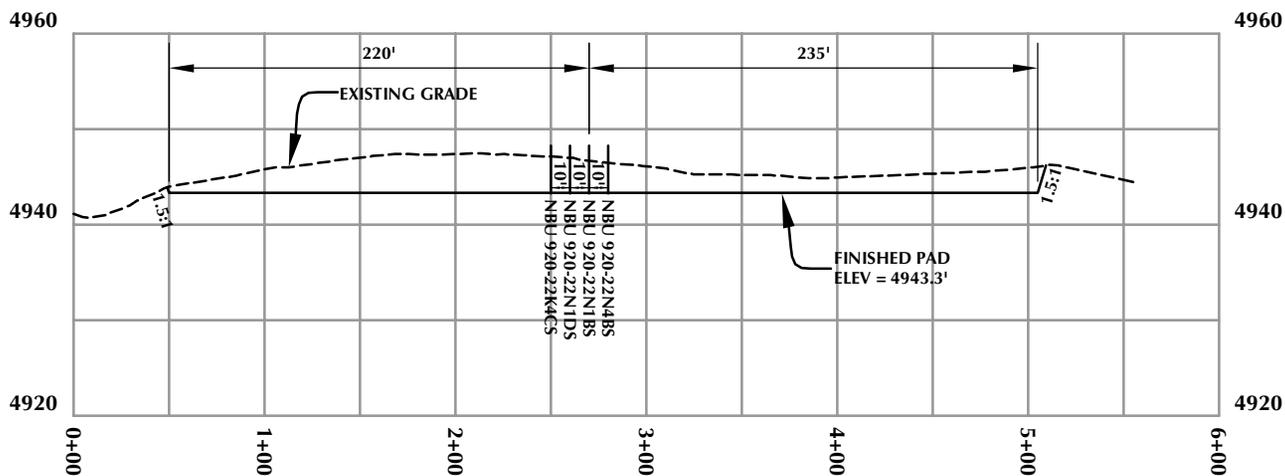
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PROPOSED PIPELINE
- EXISTING PIPELINE



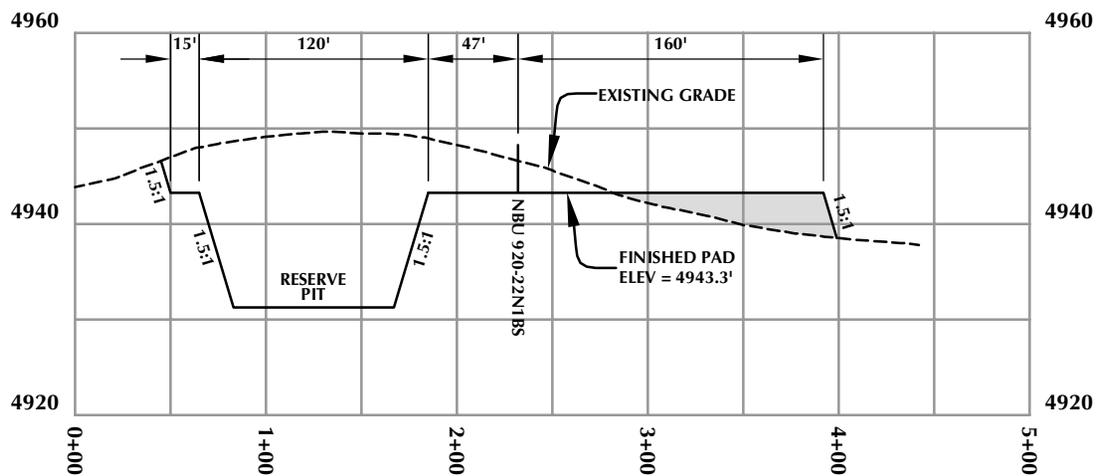
HORIZONTAL 0 30' 60' 1" = 60'
 2' CONTOURS

SCALE: 1"=60' DATE: 1/7/10 SHEET NO:
 REVISED: GRB 9/14/12 **6B** 6B OF 16

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



CROSS SECTION A-A'



CROSS SECTION B-B'

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

WELL PAD - NBU 920-22N

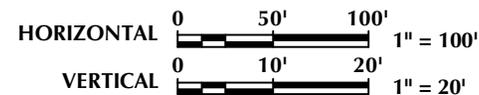
WELL PAD - CROSS SECTIONS
NBU 920-22N4BS, NBU 920-22N1BS,
NBU 920-22N1DS & NBU 920-22K4CS
LOCATED IN SECTION 22, T9S, R20E,
S.L.B.&M., UINTAH COUNTY, UTAH



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

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

(435) 789-1365



Scale: 1"=100'

Date: 1/7/10

SHEET NO:

REVISED:

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9/14/12

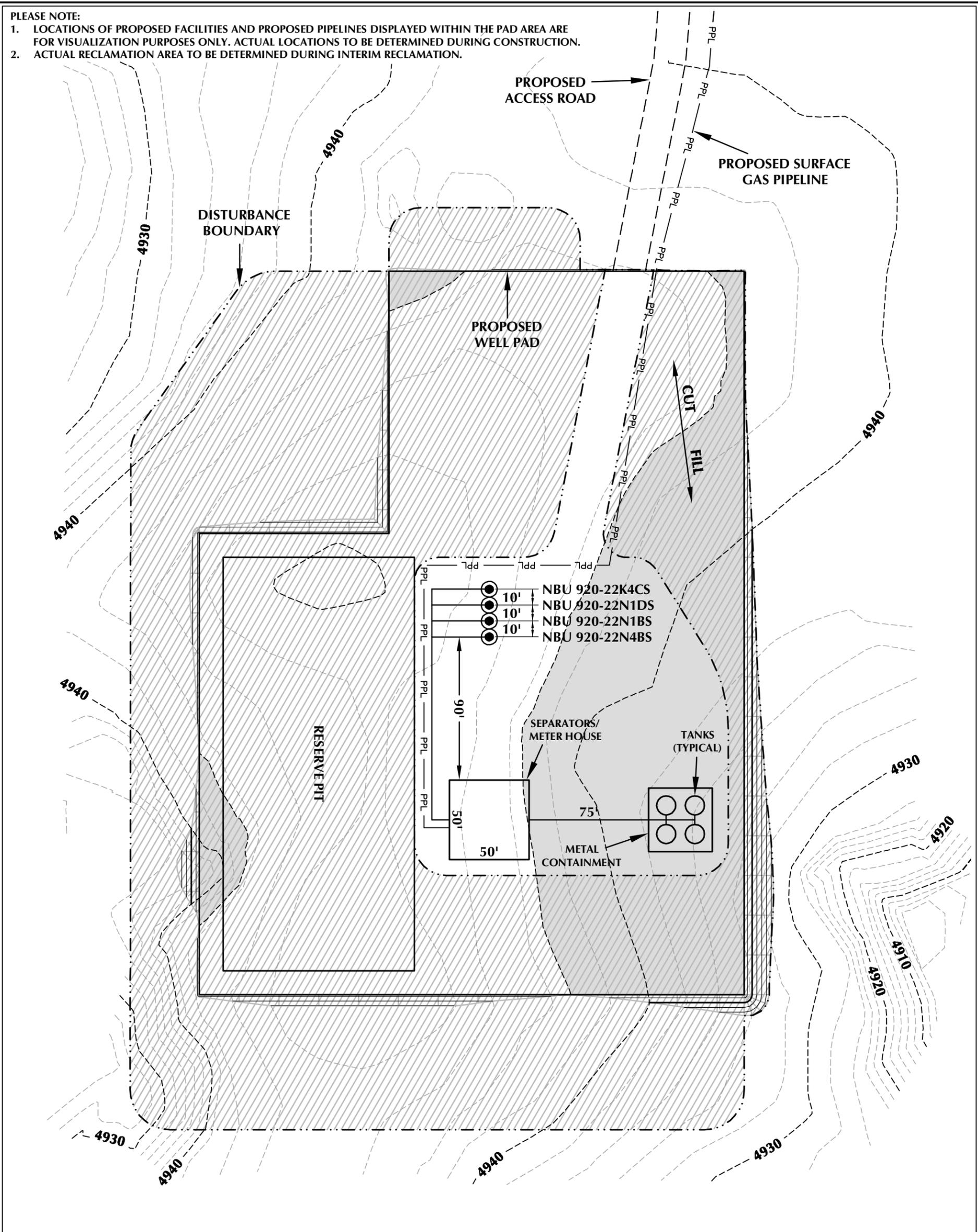
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7 OF 16

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PLEASE NOTE:

1. LOCATIONS OF PROPOSED FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.
2. ACTUAL RECLAMATION AREA TO BE DETERMINED DURING INTERIM RECLAMATION.



WELL PAD - NBU 920-22N RECLAMATION DESIGN SUMMARY

TOTAL DISTURBANCE AREA = 4.88 ACRES
 RECLAMATION AREA = 3.89 ACRES
 TOTAL WELL PAD AREA AFTER RECLAMATION = 0.99 ACRES

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

WELL PAD - NBU 920-22N

WELL PAD - RECLAMATION LAYOUT
 NBU 920-22N4BS, NBU 920-22N1BS,
 NBU 920-22N1DS & NBU 920-22K4CS
 LOCATED IN SECTION 22, T9S, R20E,
 S.L.B.&M., UTAH COUNTY, UTAH

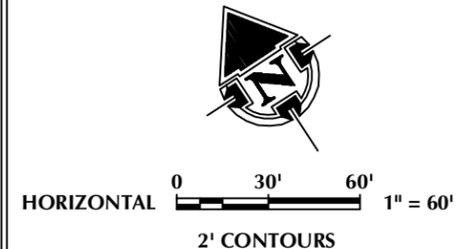


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- WELL PAD LEGEND**
- EXISTING WELL LOCATION
 - PROPOSED WELL LOCATION
 - - - EXISTING CONTOURS (2' INTERVAL)
 - - - PROPOSED CONTOURS (2' INTERVAL)
 - PPL - PROPOSED PIPELINE
 - EPL - EXISTING PIPELINE
 - ▨ RECLAMATION AREA



SCALE: 1"=60' DATE: 1/7/10 SHEET NO:
 REVISED: GRB 9/14/12 **8** 8 OF 16

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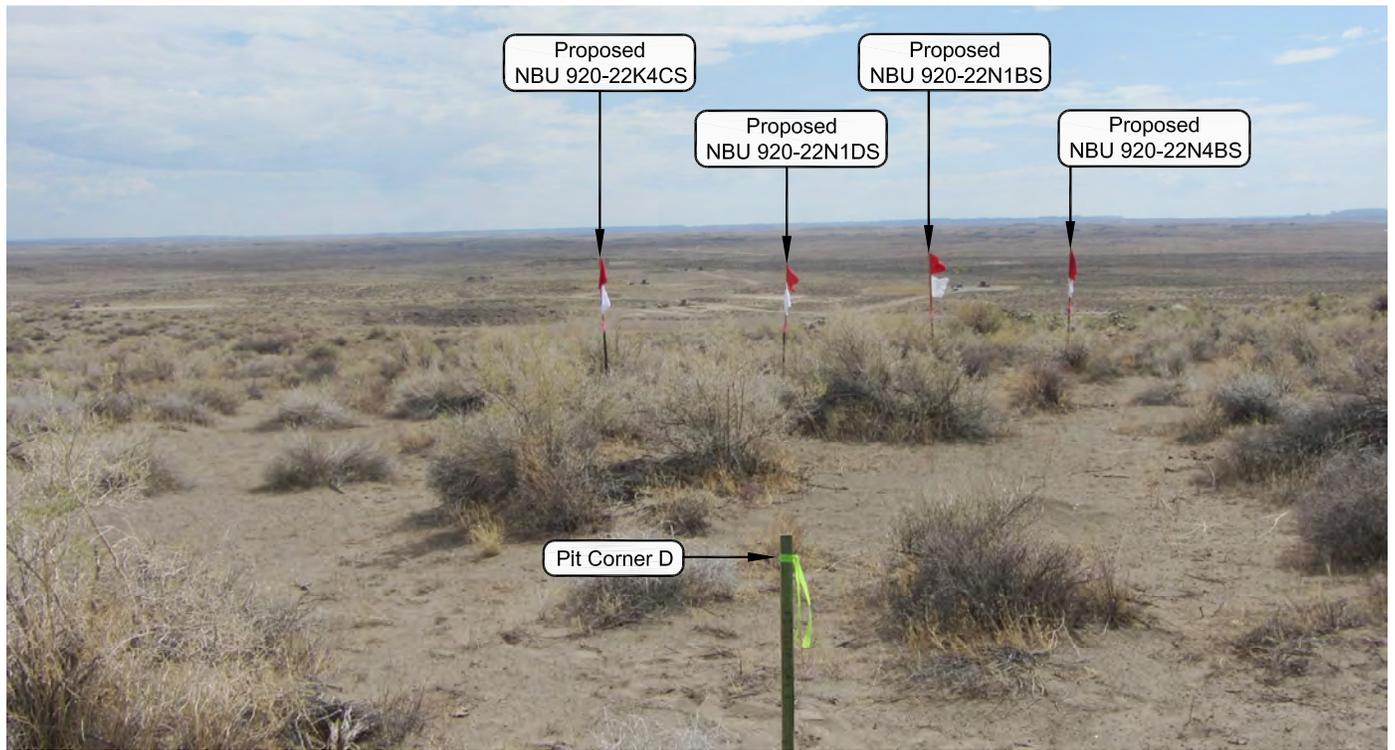


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: SOUTHEASTERLY

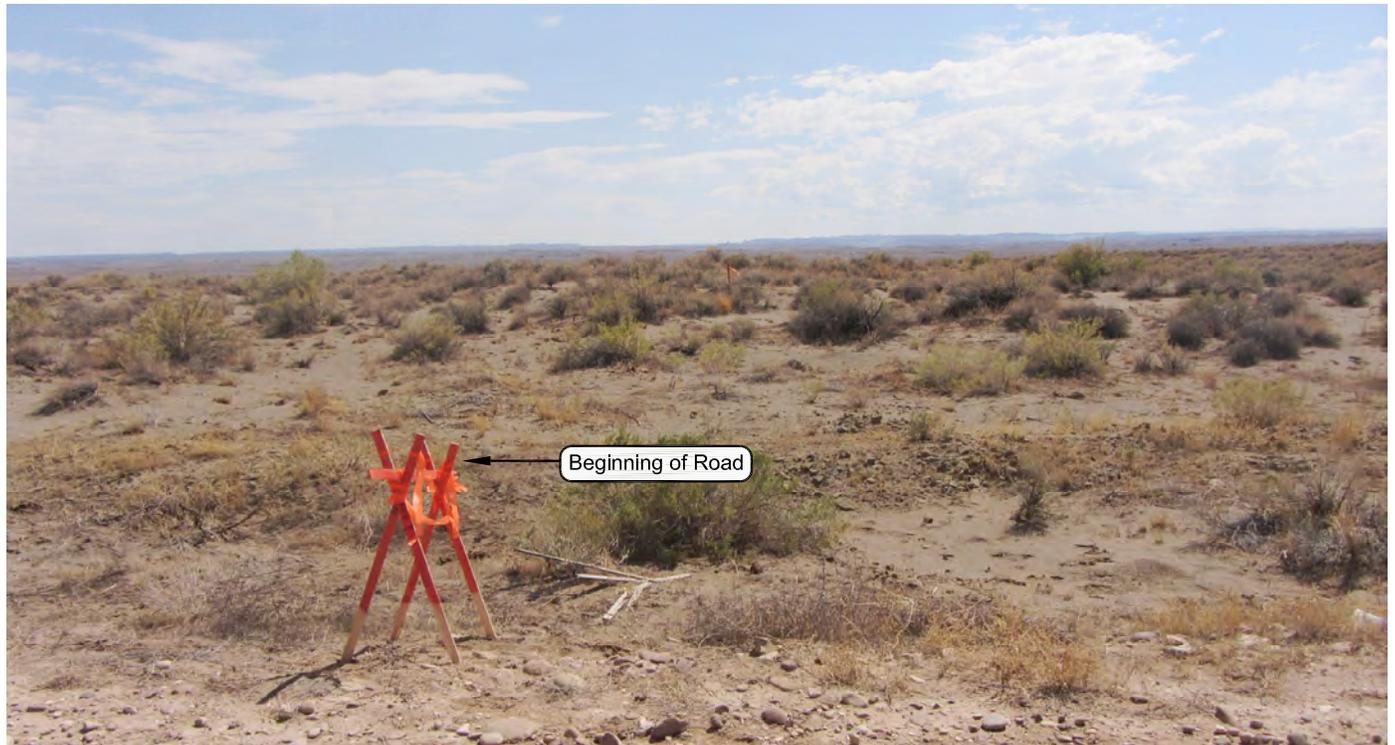


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: SOUTHERLY

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WELL PAD - NBU 920-22N

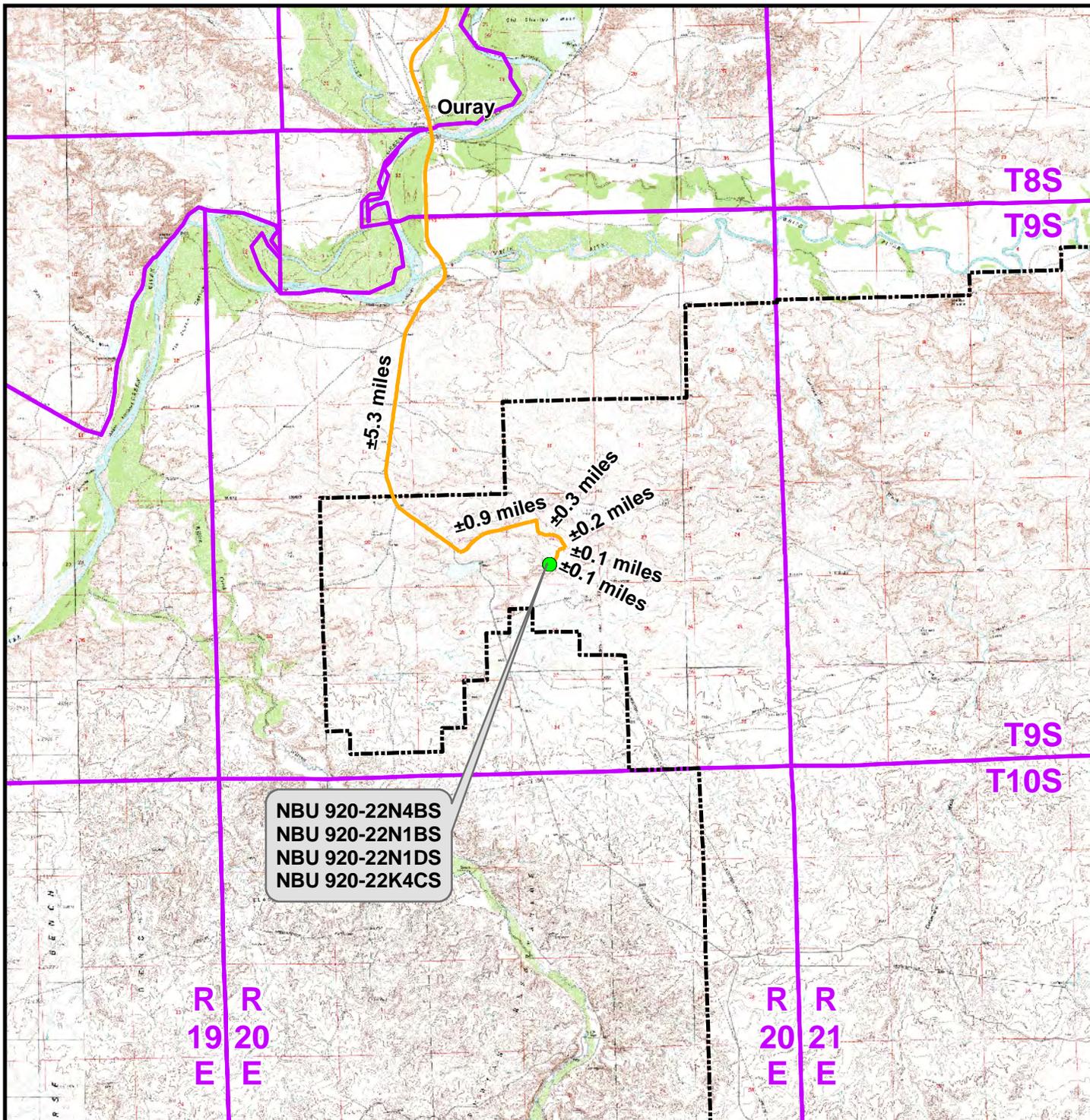
LOCATION PHOTOS
NBU 920-22N4BS, NBU 920-22N1BS,
NBU 920-22N1DS & NBU 920-22K4CS
LOCATED IN SECTION 22, T9S, R20E,
S.L.B.&M., UINTAH COUNTY, UTAH.



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209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 7-1-09	SURVEYED BY: M.S.B.	SHEET NO: 9 9 OF 16
DATE DRAWN: 7-7-09	DRAWN BY: E.M.S.	
Date Last Revised: 8-31-12 J.G.C.		



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Legend

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

Distance From Well Pad - NBU 920-22N To Unit Boundary: ±2,778ft

WELL PAD - NBU 920-22N

TOPO A
 NBU 920-22N4BS, NBU 920-22N1BS,
 NBU 920-22N1DS & NBU 920-22K4CS
 LOCATED IN SECTION 22, T9S, R20E,
 S.L.B.&M., UINTAH COUNTY, UTAH

**Kerr-McGee Oil &
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SCALE: 1:100,000

NAD83 USP Central

SHEET NO:

DRAWN: JELo

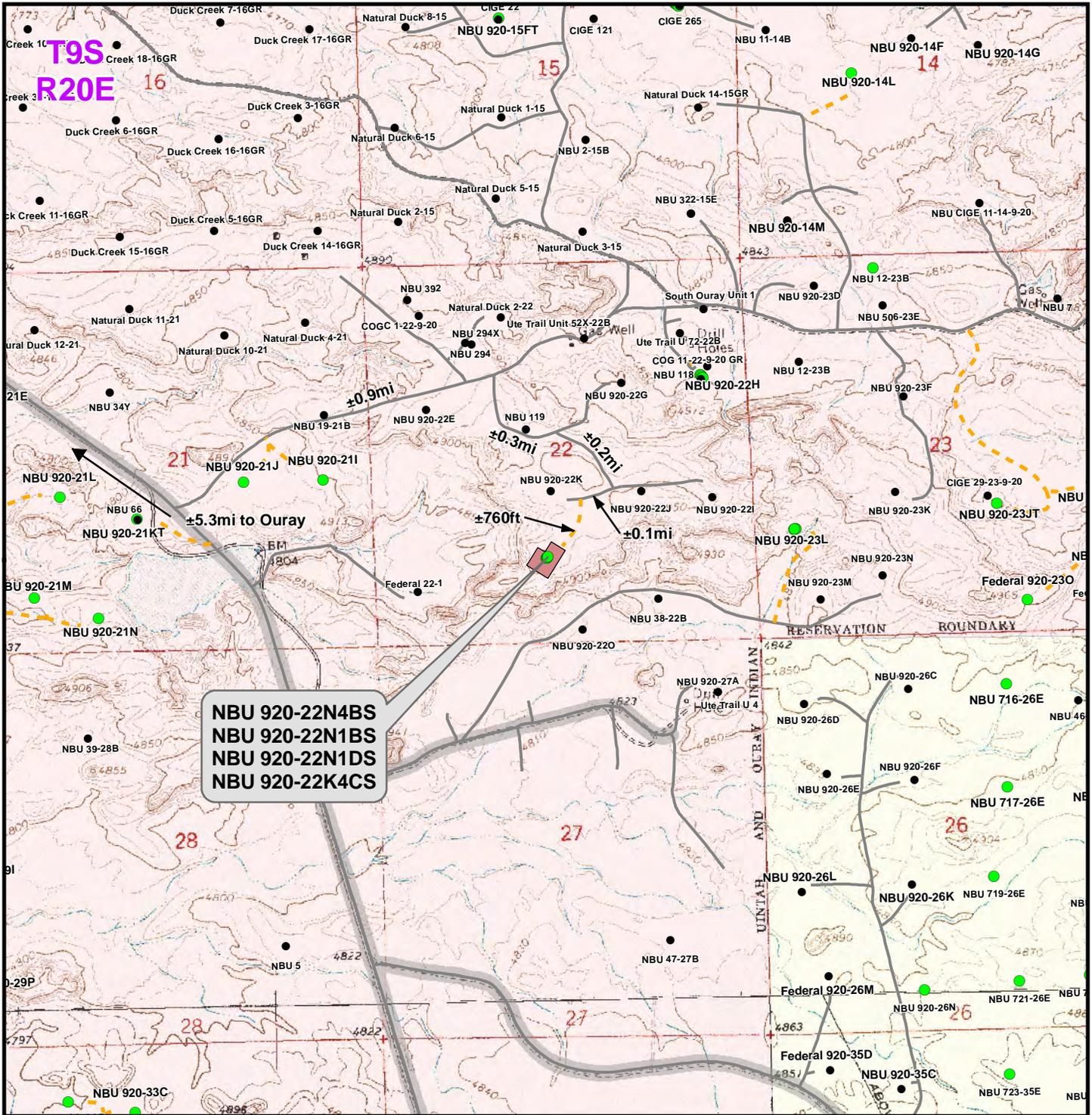
DATE: 6 Oct 2009

10

REVISED: TL

DATE: 14 Sept 2012

10 OF 16



**NBU 920-22N4BS
NBU 920-22N1BS
NBU 920-22N1DS
NBU 920-22K4CS**

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Legend

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

Total Proposed Road Length: ±760ft

WELL PAD - NBU 920-22N

TOPO B
NBU 920-22N4BS, NBU 920-22N1BS,
NBU 920-22N1DS & NBU 920-22K4CS
LOCATED IN SECTION 22, T9S, R20E,
S.L.B.&M., UINTAH COUNTY, UTAH

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

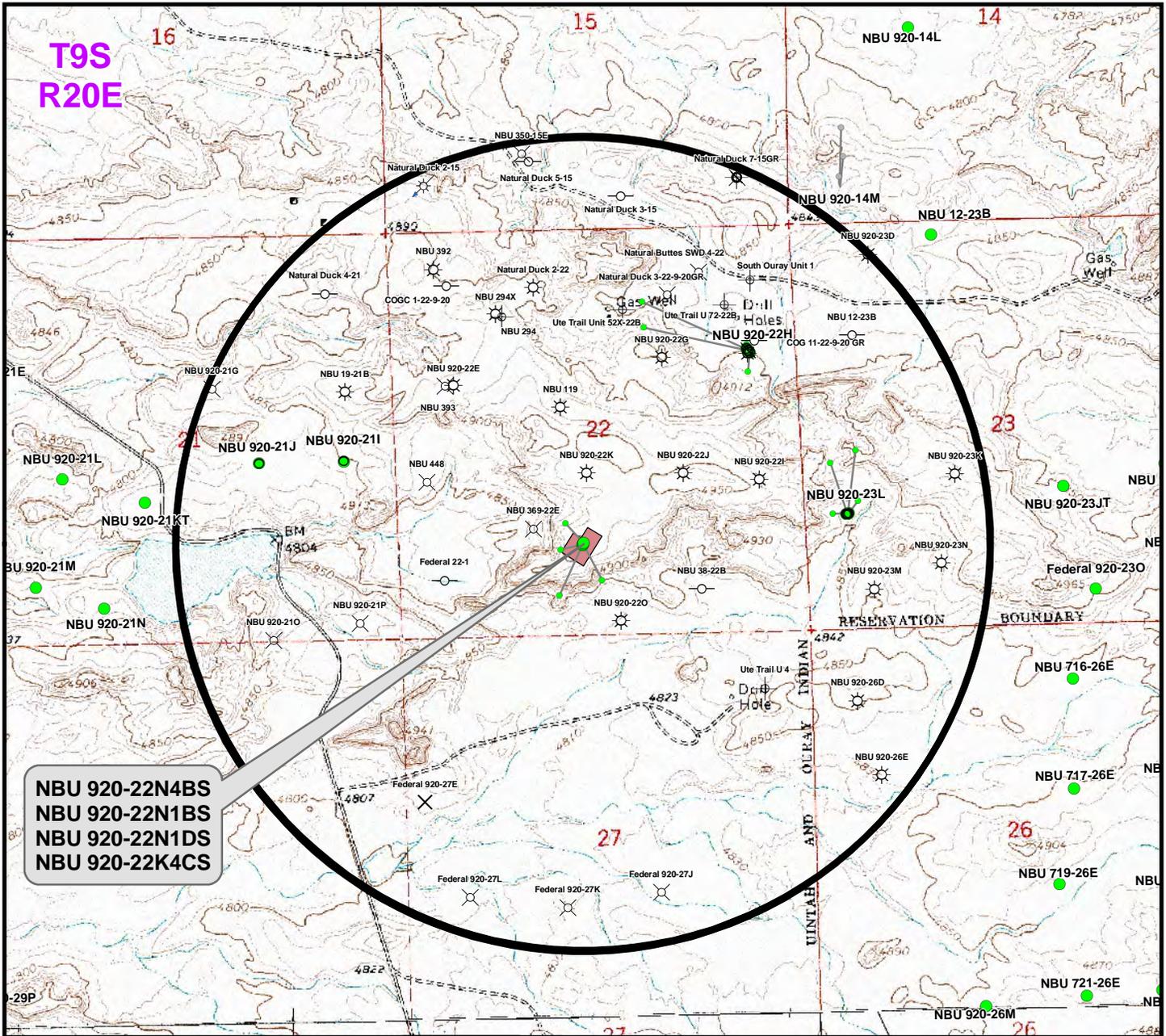
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SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO:
DRAWN: JELo	DATE: 6 Oct 2009	11
REVISED: TL	DATE: 14 Sept 2012	



**NBU 920-22N4BS
NBU 920-22N1BS
NBU 920-22N1DS
NBU 920-22K4CS**

Well locations derived from Utah Division 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 920-22N4BS	NBU 920-220	858ft
NBU 920-22N1BS	NBU 920-22K	1,047ft
NBU 920-22N1DS	NBU 920-220	585ft
NBU 920-22K4CS	NBU 920-22K	705ft

Legend

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

WELL PAD - NBU 920-22N

TOPO C
NBU 920-22N4BS, NBU 920-22N1BS,
NBU 920-22N1DS & NBU 920-22K4CS
LOCATED IN SECTION 22, T9S, R20E,
S.L.B.&M., UINTAH COUNTY, UTAH

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

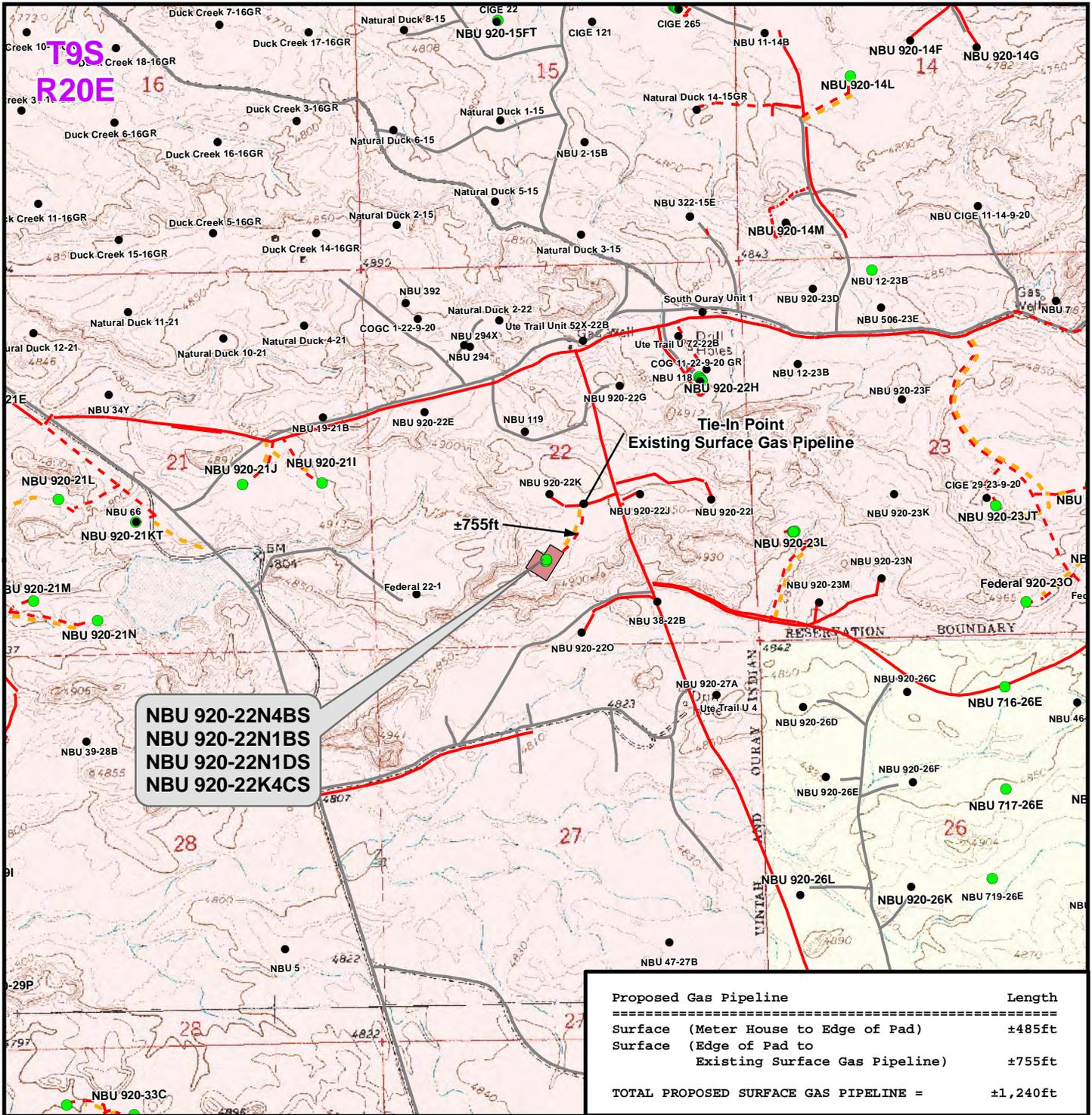
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SCALE: 1" = 2,000ft	NAD83 USP Central	12
DRAWN: JELo	DATE: 6 Oct 2009	
REVISED: TL	DATE: 14 Sept 2012	

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Legend

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

WELL PAD - NBU 920-22N

TOPO D
NBU 920-22N4BS, NBU 920-22N1BS,
NBU 920-22N1DS & NBU 920-22K4CS
LOCATED IN SECTION 22, T9S, R20E,
S.L.B.&M., Uintah County, Utah

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

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

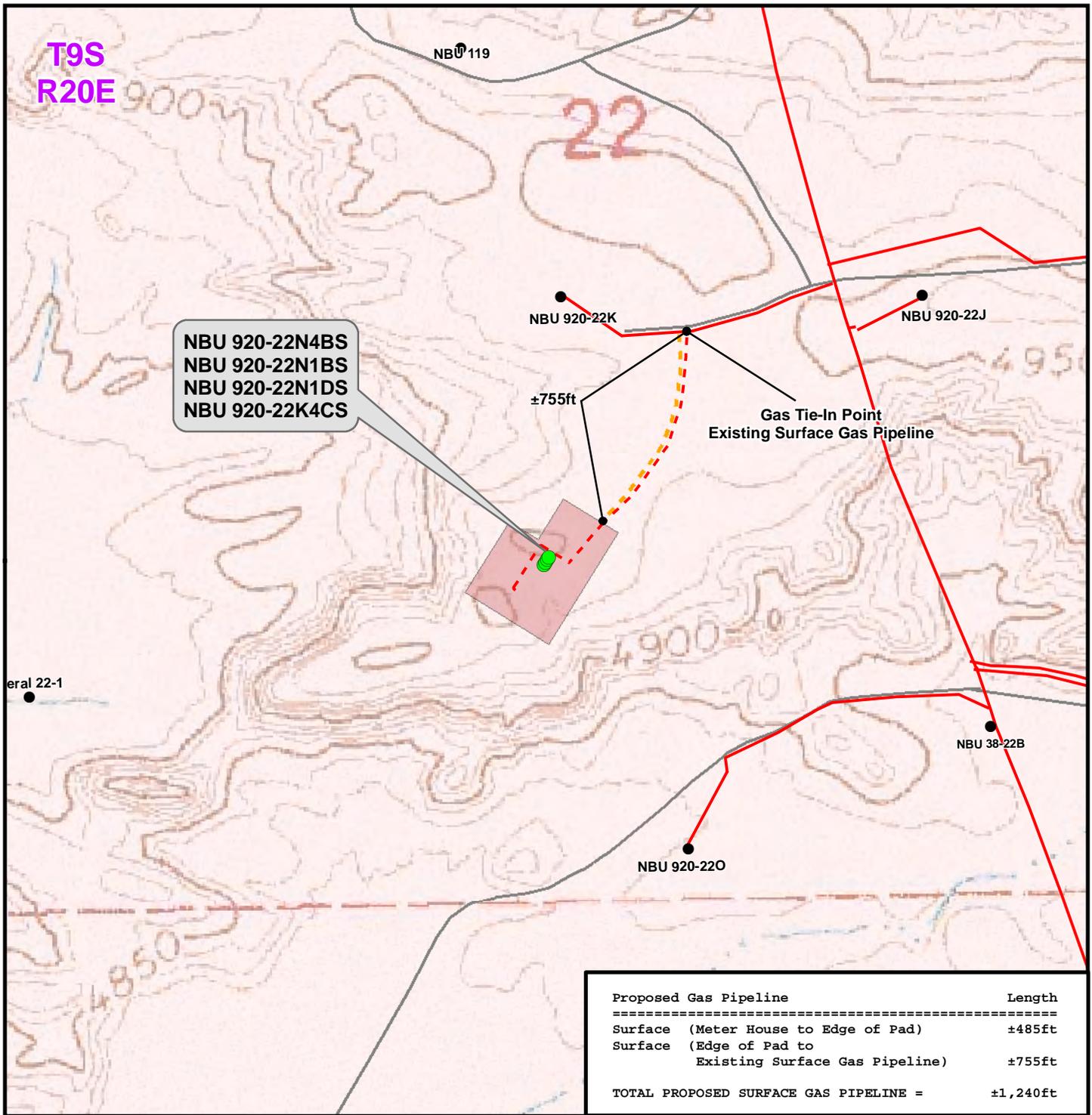


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SCALE: 1" = 2,000ft	NAD83 USP Central	13
DRAWN: JELo	DATE: 6 Oct 2009	
REVISED: TL	DATE: 14 Sept 2012	

SHEET NO:
13 OF 16



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Proposed Gas Pipeline	Length
Surface (Meter House to Edge of Pad)	±485ft
Surface (Edge of Pad to Existing Surface Gas Pipeline)	±755ft
TOTAL PROPOSED SURFACE GAS PIPELINE =	±1,240ft

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

WELL PAD - NBU 920-22N

TOPO D2 (PAD & PIPELINE DETAIL)
 NBU 920-22N4BS, NBU 920-22N1BS,
 NBU 920-22N1DS & NBU 920-22K4CS
 LOCATED IN SECTION 22, T9S, R20E,
 S.L.B.&M., UINTAH COUNTY, UTAH

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

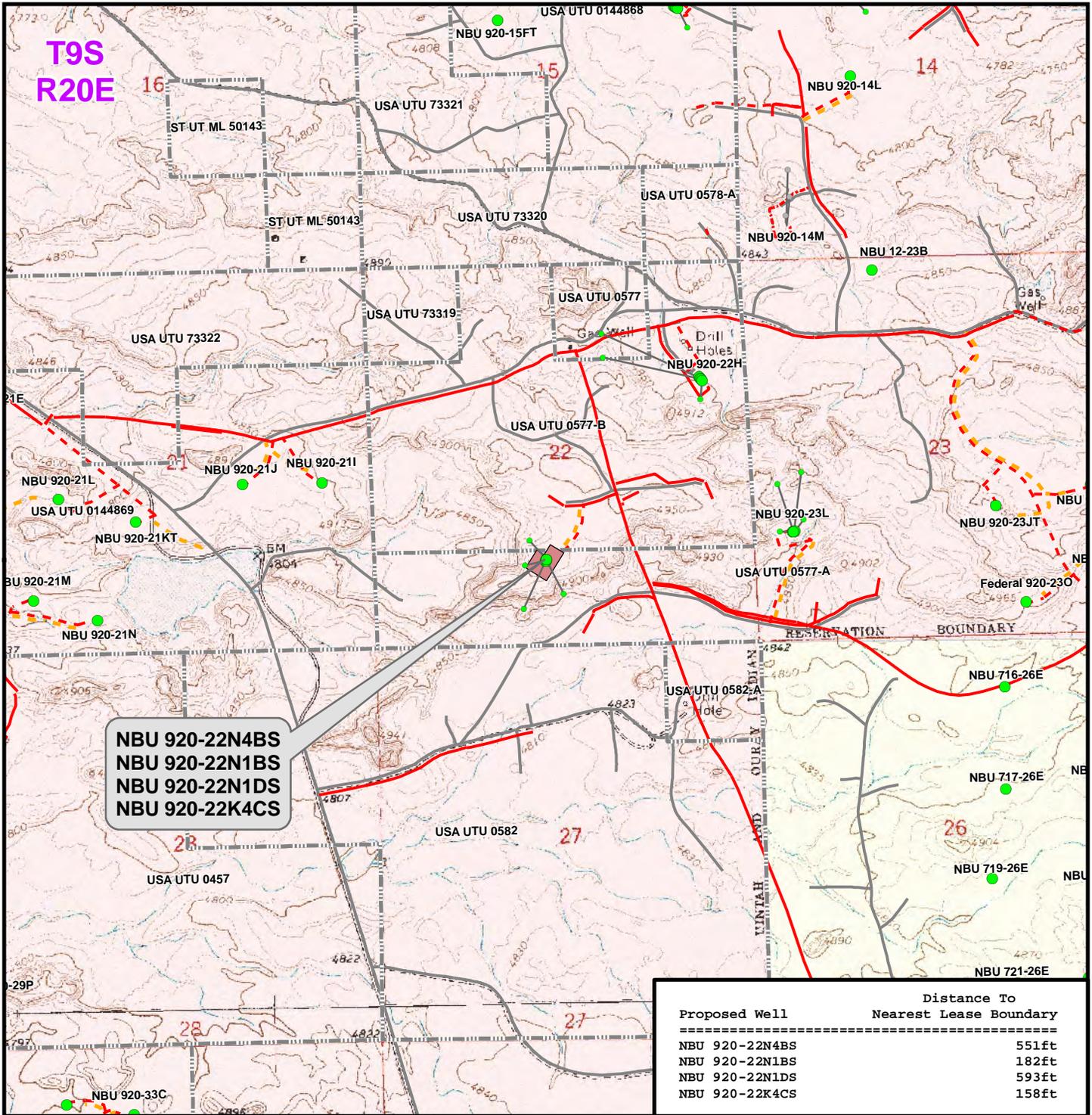
1099 18th Street
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SCALE: 1" = 500ft	NAD83 USP Central	14 14 OF 16
DRAWN: JELo	DATE: 6 Oct 2009	
REVISED: TL	DATE: 14 Sept 2012	



**NBU 920-22N4BS
NBU 920-22N1BS
NBU 920-22N1DS
NBU 920-22K4CS**

Proposed Well	Distance To Nearest Lease Boundary
NBU 920-22N4BS	551ft
NBU 920-22N1BS	182ft
NBU 920-22N1DS	593ft
NBU 920-22K4CS	158ft

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Legend

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

WELL PAD - NBU 920-22N

TOPO E
**NBU 920-22N4BS, NBU 920-22N1BS,
 NBU 920-22N1DS & NBU 920-22K4CS**
 LOCATED IN SECTION 22, T9S, R20E,
 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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 Phone 307-674-0609
 Fax 307-674-0182

SCALE: 1" = 2,000ft

DRAWN: JELo

REVISED: TL

NAD83 USP Central

DATE: 6 Oct 2009

DATE: 14 Sept 2012

SHEET NO:

15

15 OF 16

**Kerr-McGee Oil & Gas Onshore, LP
WELL PAD - NBU 920-22N
WELLS - NBU 920-22N4BS, NBU 920-22N1BS,
NBU 920-22N1DS & NBU 920-22K4CS
Section 22, T9S, R20E, S.L.B.&M.**

Proceed in a westerly direction from Vernal, Utah along U.S. Highway 40 approximately 13.9 miles to the junction of State Highway 88. Exit left and proceed in a southerly direction along State Highway 88 approximately 16.8 miles to Ouray, Utah. From Ouray, proceed in a southerly direction along the Seep Ridge Road (County B Road 2810) approximately 5.3 miles to the intersection of a service road to the northeast. Exit left and proceed in a northeasterly direction along the service road approximately 0.9 miles to a second service road to the south. Exit right and proceed in a southerly, then easterly direction along the second service road approximately 0.3 miles to an existing road to the southeast. Exit right and proceed in a southeasterly direction along the existing road approximately 0.2 miles to an existing road to the west. Exit right and proceed in a westerly direction along the existing road approximately 0.1 miles to the proposed access road to the southwest. Follow road flags in a southwesterly direction approximately 760 feet to the proposed location.

Total distance from Vernal, Utah to the proposed well location is approximately 37.6 miles in a southerly direction.

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 920-22N1DS**

Surface: 1217 FSL / 2412 FWL SESW
 BHL: 738 FSL / 2635 FWL SESW

Section 22 T9S R20E

Unitah County, Utah
 Mineral Lease: UTU-0577A

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	1,813'	
Birds Nest	2,037'	Water
Mahogany	2,532'	Water
Wasatch	5,180'	Gas
Mesaverde	8,506'	Gas
Sego	10,690'	Gas
Castlegate	10,789'	Gas
Blackhawk	11,087'	Gas
TVD =	11,687'	
TD =	11,731'	

- 2.c** Kerr McGee Oil & Gas Onshore LP (Kerr McGee) may elect to drill to (i) the Blackhawk formation (part of the Mesaverde Group), (ii) to a shallower depth within the Mesaverde Group, or (iii) to the Wasatch Formation. If Kerr McGee drills to the Blackhawk formation, please refer to Blackhawk 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 a shallower depth in the Mesaverde Group or to the Wasatch Formation, please refer to the attached Wasatch/Mesaverde Drilling Program which includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the shallower formations.

- 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 Group)

Maximum anticipated bottom hole pressure calculated at 11687' TVD, approximately equals
 7,480 psi (0.64 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 4,892 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 Formation/Mesaverde Group

Maximum anticipated bottom hole pressure calculated at 10690' TVD, approximately equals
 6,521 psi (0.61 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 4,197 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

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 2,980	28.00	IJ-55	LTC	1.81	1.35	4.76	N/A
						10,690	8,650	279,000	367,174
PRODUCTION	4-1/2"	0 to 5,000	11.60	HCP-110	DQX	1.19	1.14		3.34
	4-1/2"	5,000 to 11,731'	11.60	HCP-110	LTC	1.19	1.14	4.42	

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 @ 9000 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
SURFACE		NOTE: If well will circulate water to surface, option 2 will be utilized					
Option 2	LEAD	2,480'	Premium cmt + 16% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOC + GR 3 pps	300	35%	12.00	2.86
	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	4,671'	Premium Lite II + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	370	35%	12.00	3.38
	TAIL	7,060'	50/50 Poz/G + 10% salt + 2% gel + 0.002% FP-6L + 0.005 pps Static Free + 0.5% EC-1 + 0.9% R3 + 1.2% SMS	1,670	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 / Travis Hansell

DATE: _____

DRILLING SUPERINTENDENT:

Kenny Gathings / Lovel Young

DATE: _____



KERR-McGEE OIL & GAS ONSHORE LP
Wasatch/Mesaverde Drilling Program

	CASING PROGRAM					DESIGN FACTORS			
	SIZE	INTERVAL	WT.	GR.	CPLG.	LTC			DQX
						BURST	COLLAPSE	TENSION	
CONDUCTOR	14"	0-40'							
SURFACE	8-5/8"	0 to 2,980	28.00	IJ-55	LTC	3,390 1.81	1,880 1.35	348,000 4.76	N/A N/A
PRODUCTION	4-1/2"	0 to 5,000	11.60	I-80	DQX	7,780 1.11	6,350 0.95		267,035 2.63
	4-1/2"	5,000 to 10,734'	11.60	HCP-110	LTC	10,690 1.53	8,650 1.30	223,000 4.11	

Surface Casing:

(Burst Assumptions: TD = 12.0 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 @ 7000 psi) 0.61 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
	Option 1						
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
SURFACE		NOTE: If well will circulate water to surface, option 2 will be utilized					
	Option 2						
	LEAD	2,480'	Premium cmt + 16% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOC + GR 3 pps	300	35%	12.00	2.86
	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps Flocele + 3% salt BWOC + GR 3 pps	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,674'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	370	35%	12.00	3.38
	TAIL	6,060'	50/50 Poz/G + 10% salt + 2% gel + 0.002% FP-6L + 0.005 pps Static Free + 0.5% EC-1 + 0.9% R3 + 1.2% SMS	1,430	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 / Travis Hansell

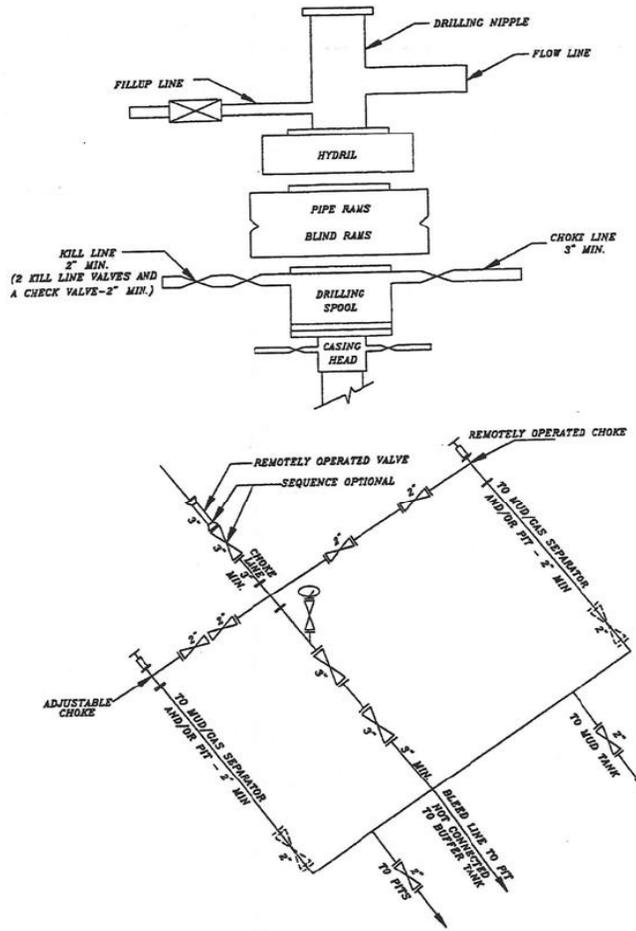
DATE:

DRILLING SUPERINTENDENT:

Kenny Gathings / Lovel Young

DATE:

EXHIBIT A
NBU 920-22N1DS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

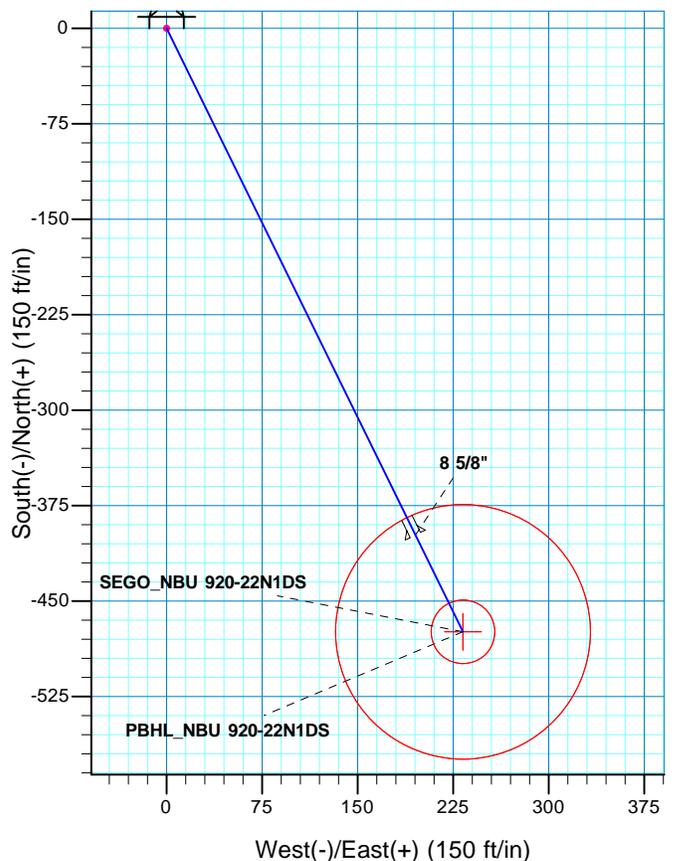
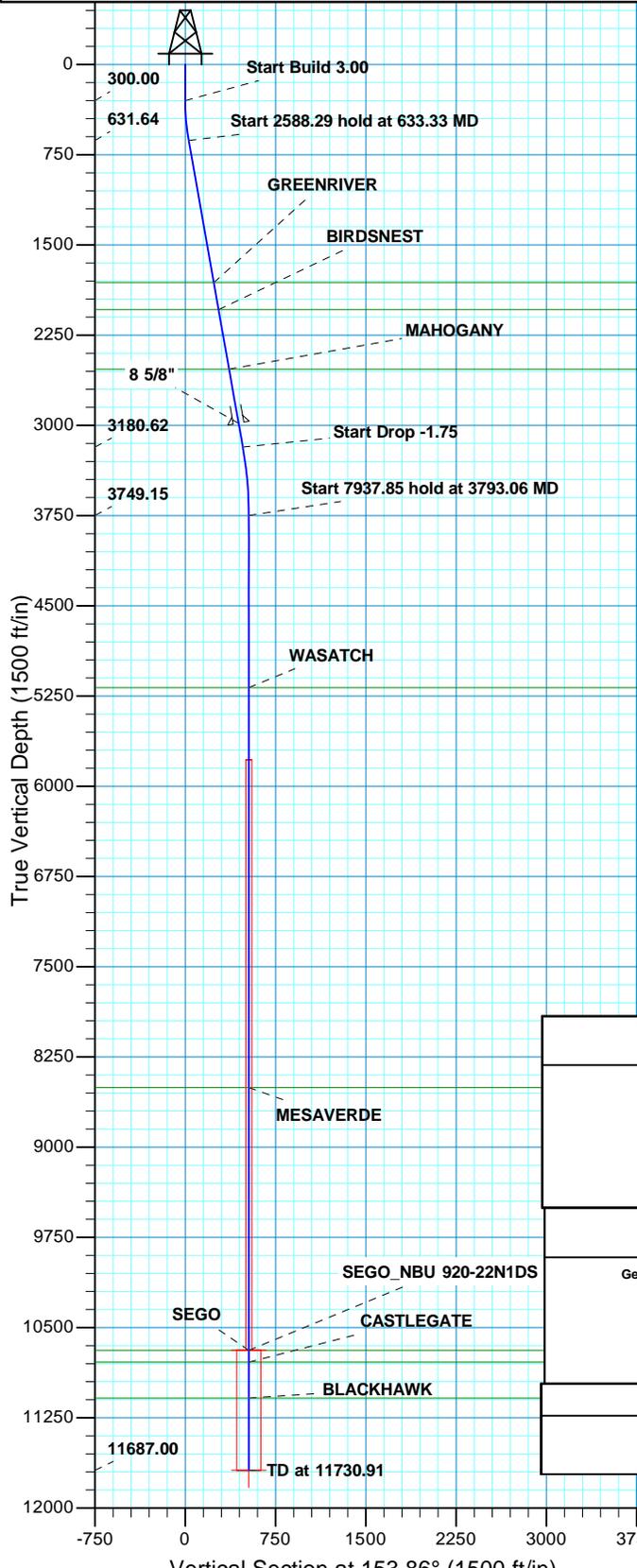


Site: NBU 920-22N Pad
Well: NBU 920-22N1DS
Wellbore: OH
Design: PLAN #1 PRELIMINARY



WELL DETAILS: NBU 920-22N1DS								
GL 4943 & KB 4 @ 4947.00ft (ASSUMED)								
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude			
0.00	0.00	14535020.83	2017616.88	40.016820	-109.652828			
DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SEGO	10690.00	-474.18	232.71	14534550.22	2017856.74	40.015518	-109.651997	Circle (Radius: 25.00)
- plan hits target center								
PBHL	11687.00	-474.18	232.71	14534550.22	2017856.74	40.015518	-109.651997	Circle (Radius: 100.00)
- plan hits target center								

Azimuths to True North
Magnetic North: 11.30°
Magnetic Field
Strength: 52443.5snT
Dip Angle: 65.88°
Date: 03/08/2010
Model: IGRF2010



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	
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	
633.33	10.00	153.86	631.64	-26.05	12.78	3.00	153.86	29.02	
3221.63	10.00	153.86	3180.62	-429.53	210.80	0.00	0.00	478.47	
3793.06	0.00	0.00	3749.15	-474.18	232.71	1.75	180.00	528.21	
11730.91	0.00	0.00	11687.00	-474.18	232.71	0.00	0.00	528.21	PBHL_NBU 920-22N1DS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N			
Geodetic System: Universal Transverse Mercator (US Survey Feet)			
Datum: NAD 1927 (NADCON CONUS)			
Ellipsoid: Clarke 1866			
Zone: Zone 12N (114 W to 108 W)			
Location: SECTION 22 T9S R20E			
System Datum: Mean Sea Level			

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1813.00	1832.91	GREENRIVER
2037.00	2060.37	BIRDSNEST
2532.00	2563.01	MAHOGANY
5180.00	5223.91	WASATCH
8506.00	8549.91	MESAVERDE
10690.00	10733.91	SEGO
10789.00	10832.91	CASTLEGATE
11087.00	11130.91	BLACKHAWK

CASING DETAILS			
TVD	MD	Name	Size
2982.00	3019.95	8 5/8"	8.620

REC



US ROCKIES REGION PLANNING

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

NBU 920-22N Pad

NBU 920-22N1DS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

25 September, 2012





SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4943 & KB 4 @ 4947.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4943 & KB 4 @ 4947.00ft (ASSUMED)
Site:	NBU 920-22N Pad	North Reference:	True
Well:	NBU 920-22N1DS	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 920-22N Pad, SECTION 22 T9S R20E				
Site Position:		Northing:	14,535,003.92 usft	Latitude:	40.016774
From:	Lat/Long	Easting:	2,017,606.21 usft	Longitude:	-109.652867
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.87 °

Well	NBU 920-22N1DS, 1217 FSL 2412 FWL					
Well Position	+N/-S	16.75 ft	Northing:	14,535,020.83 usft	Latitude:	40.016820
	+E/-W	10.92 ft	Easting:	2,017,616.88 usft	Longitude:	-109.652828
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,943.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	03/08/10	11.30	65.88	52,443

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	153.86

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	
633.33	10.00	153.86	631.64	-26.05	12.78	3.00	3.00	0.00	153.86	
3,221.63	10.00	153.86	3,180.62	-429.53	210.80	0.00	0.00	0.00	0.00	
3,793.06	0.00	0.00	3,749.15	-474.18	232.71	1.75	-1.75	0.00	180.00	
11,730.91	0.00	0.00	11,687.00	-474.18	232.71	0.00	0.00	0.00	0.00	PBHL_NBU 920-22N



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4943 & KB 4 @ 4947.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4943 & KB 4 @ 4947.00ft (ASSUMED)
Site:	NBU 920-22N Pad	North Reference:	True
Well:	NBU 920-22N1DS	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 3.00										
400.00	3.00	153.86	399.95	-2.35	1.15	2.62	3.00	3.00	0.00	0.00
500.00	6.00	153.86	499.63	-9.39	4.61	10.46	3.00	3.00	0.00	0.00
600.00	9.00	153.86	598.77	-21.11	10.36	23.51	3.00	3.00	0.00	0.00
633.33	10.00	153.86	631.64	-26.05	12.78	29.02	3.00	3.00	0.00	0.00
Start 2588.29 hold at 633.33 MD										
700.00	10.00	153.86	697.30	-36.44	17.88	40.59	0.00	0.00	0.00	0.00
800.00	10.00	153.86	795.78	-52.03	25.53	57.96	0.00	0.00	0.00	0.00
900.00	10.00	153.86	894.26	-67.62	33.18	75.32	0.00	0.00	0.00	0.00
1,000.00	10.00	153.86	992.74	-83.21	40.83	92.69	0.00	0.00	0.00	0.00
1,100.00	10.00	153.86	1,091.22	-98.79	48.49	110.05	0.00	0.00	0.00	0.00
1,200.00	10.00	153.86	1,189.70	-114.38	56.14	127.42	0.00	0.00	0.00	0.00
1,300.00	10.00	153.86	1,288.18	-129.97	63.79	144.78	0.00	0.00	0.00	0.00
1,400.00	10.00	153.86	1,386.66	-145.56	71.44	162.15	0.00	0.00	0.00	0.00
1,500.00	10.00	153.86	1,485.14	-161.15	79.09	179.51	0.00	0.00	0.00	0.00
1,600.00	10.00	153.86	1,583.62	-176.74	86.74	196.87	0.00	0.00	0.00	0.00
1,700.00	10.00	153.86	1,682.11	-192.33	94.39	214.24	0.00	0.00	0.00	0.00
1,800.00	10.00	153.86	1,780.59	-207.92	102.04	231.60	0.00	0.00	0.00	0.00
1,832.91	10.00	153.86	1,813.00	-213.05	104.56	237.32	0.00	0.00	0.00	0.00
GREENRIVER										
1,900.00	10.00	153.86	1,879.07	-223.50	109.69	248.97	0.00	0.00	0.00	0.00
2,000.00	10.00	153.86	1,977.55	-239.09	117.34	266.33	0.00	0.00	0.00	0.00
2,060.37	10.00	153.86	2,037.00	-248.50	121.96	276.82	0.00	0.00	0.00	0.00
BIRDSNEST										
2,100.00	10.00	153.86	2,076.03	-254.68	124.99	283.70	0.00	0.00	0.00	0.00
2,200.00	10.00	153.86	2,174.51	-270.27	132.64	301.06	0.00	0.00	0.00	0.00
2,300.00	10.00	153.86	2,272.99	-285.86	140.29	318.43	0.00	0.00	0.00	0.00
2,400.00	10.00	153.86	2,371.47	-301.45	147.94	335.79	0.00	0.00	0.00	0.00
2,500.00	10.00	153.86	2,469.95	-317.04	155.59	353.16	0.00	0.00	0.00	0.00
2,563.01	10.00	153.86	2,532.00	-326.86	160.41	364.10	0.00	0.00	0.00	0.00
MAHOGANY										
2,600.00	10.00	153.86	2,568.43	-332.62	163.24	370.52	0.00	0.00	0.00	0.00
2,700.00	10.00	153.86	2,666.91	-348.21	170.89	387.89	0.00	0.00	0.00	0.00
2,800.00	10.00	153.86	2,765.39	-363.80	178.54	405.25	0.00	0.00	0.00	0.00
2,900.00	10.00	153.86	2,863.87	-379.39	186.19	422.62	0.00	0.00	0.00	0.00
3,000.00	10.00	153.86	2,962.36	-394.98	193.84	439.98	0.00	0.00	0.00	0.00
3,019.95	10.00	153.86	2,982.00	-398.09	195.37	443.45	0.00	0.00	0.00	0.00
8 5/8"										
3,100.00	10.00	153.86	3,060.84	-410.57	201.49	457.35	0.00	0.00	0.00	0.00
3,200.00	10.00	153.86	3,159.32	-426.16	209.14	474.71	0.00	0.00	0.00	0.00
3,221.63	10.00	153.86	3,180.62	-429.53	210.80	478.47	0.00	0.00	0.00	0.00
Start Drop -1.75										
3,300.00	8.63	153.86	3,257.95	-440.92	216.39	491.15	1.75	-1.75	0.00	0.00
3,400.00	6.88	153.86	3,357.04	-453.03	222.33	504.64	1.75	-1.75	0.00	0.00
3,500.00	5.13	153.86	3,456.48	-462.41	226.94	515.10	1.75	-1.75	0.00	0.00
3,600.00	3.38	153.86	3,556.20	-469.07	230.21	522.52	1.75	-1.75	0.00	0.00
3,700.00	1.63	153.86	3,656.10	-472.99	232.13	526.89	1.75	-1.75	0.00	0.00
3,793.06	0.00	0.00	3,749.15	-474.18	232.71	528.21	1.75	-1.75	0.00	0.00
Start 7937.85 hold at 3793.06 MD										



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4943 & KB 4 @ 4947.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4943 & KB 4 @ 4947.00ft (ASSUMED)
Site:	NBU 920-22N Pad	North Reference:	True
Well:	NBU 920-22N1DS	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)
3,800.00	0.00	0.00	3,756.09	-474.18	232.71	528.21	0.00	0.00	0.00
3,900.00	0.00	0.00	3,856.09	-474.18	232.71	528.21	0.00	0.00	0.00
4,000.00	0.00	0.00	3,956.09	-474.18	232.71	528.21	0.00	0.00	0.00
4,100.00	0.00	0.00	4,056.09	-474.18	232.71	528.21	0.00	0.00	0.00
4,200.00	0.00	0.00	4,156.09	-474.18	232.71	528.21	0.00	0.00	0.00
4,300.00	0.00	0.00	4,256.09	-474.18	232.71	528.21	0.00	0.00	0.00
4,400.00	0.00	0.00	4,356.09	-474.18	232.71	528.21	0.00	0.00	0.00
4,500.00	0.00	0.00	4,456.09	-474.18	232.71	528.21	0.00	0.00	0.00
4,600.00	0.00	0.00	4,556.09	-474.18	232.71	528.21	0.00	0.00	0.00
4,700.00	0.00	0.00	4,656.09	-474.18	232.71	528.21	0.00	0.00	0.00
4,800.00	0.00	0.00	4,756.09	-474.18	232.71	528.21	0.00	0.00	0.00
4,900.00	0.00	0.00	4,856.09	-474.18	232.71	528.21	0.00	0.00	0.00
5,000.00	0.00	0.00	4,956.09	-474.18	232.71	528.21	0.00	0.00	0.00
5,100.00	0.00	0.00	5,056.09	-474.18	232.71	528.21	0.00	0.00	0.00
5,200.00	0.00	0.00	5,156.09	-474.18	232.71	528.21	0.00	0.00	0.00
5,223.91	0.00	0.00	5,180.00	-474.18	232.71	528.21	0.00	0.00	0.00
WASATCH									
5,300.00	0.00	0.00	5,256.09	-474.18	232.71	528.21	0.00	0.00	0.00
5,400.00	0.00	0.00	5,356.09	-474.18	232.71	528.21	0.00	0.00	0.00
5,500.00	0.00	0.00	5,456.09	-474.18	232.71	528.21	0.00	0.00	0.00
5,600.00	0.00	0.00	5,556.09	-474.18	232.71	528.21	0.00	0.00	0.00
5,700.00	0.00	0.00	5,656.09	-474.18	232.71	528.21	0.00	0.00	0.00
5,800.00	0.00	0.00	5,756.09	-474.18	232.71	528.21	0.00	0.00	0.00
5,900.00	0.00	0.00	5,856.09	-474.18	232.71	528.21	0.00	0.00	0.00
6,000.00	0.00	0.00	5,956.09	-474.18	232.71	528.21	0.00	0.00	0.00
6,100.00	0.00	0.00	6,056.09	-474.18	232.71	528.21	0.00	0.00	0.00
6,200.00	0.00	0.00	6,156.09	-474.18	232.71	528.21	0.00	0.00	0.00
6,300.00	0.00	0.00	6,256.09	-474.18	232.71	528.21	0.00	0.00	0.00
6,400.00	0.00	0.00	6,356.09	-474.18	232.71	528.21	0.00	0.00	0.00
6,500.00	0.00	0.00	6,456.09	-474.18	232.71	528.21	0.00	0.00	0.00
6,600.00	0.00	0.00	6,556.09	-474.18	232.71	528.21	0.00	0.00	0.00
6,700.00	0.00	0.00	6,656.09	-474.18	232.71	528.21	0.00	0.00	0.00
6,800.00	0.00	0.00	6,756.09	-474.18	232.71	528.21	0.00	0.00	0.00
6,900.00	0.00	0.00	6,856.09	-474.18	232.71	528.21	0.00	0.00	0.00
7,000.00	0.00	0.00	6,956.09	-474.18	232.71	528.21	0.00	0.00	0.00
7,100.00	0.00	0.00	7,056.09	-474.18	232.71	528.21	0.00	0.00	0.00
7,200.00	0.00	0.00	7,156.09	-474.18	232.71	528.21	0.00	0.00	0.00
7,300.00	0.00	0.00	7,256.09	-474.18	232.71	528.21	0.00	0.00	0.00
7,400.00	0.00	0.00	7,356.09	-474.18	232.71	528.21	0.00	0.00	0.00
7,500.00	0.00	0.00	7,456.09	-474.18	232.71	528.21	0.00	0.00	0.00
7,600.00	0.00	0.00	7,556.09	-474.18	232.71	528.21	0.00	0.00	0.00
7,700.00	0.00	0.00	7,656.09	-474.18	232.71	528.21	0.00	0.00	0.00
7,800.00	0.00	0.00	7,756.09	-474.18	232.71	528.21	0.00	0.00	0.00
7,900.00	0.00	0.00	7,856.09	-474.18	232.71	528.21	0.00	0.00	0.00
8,000.00	0.00	0.00	7,956.09	-474.18	232.71	528.21	0.00	0.00	0.00
8,100.00	0.00	0.00	8,056.09	-474.18	232.71	528.21	0.00	0.00	0.00
8,200.00	0.00	0.00	8,156.09	-474.18	232.71	528.21	0.00	0.00	0.00
8,300.00	0.00	0.00	8,256.09	-474.18	232.71	528.21	0.00	0.00	0.00
8,400.00	0.00	0.00	8,356.09	-474.18	232.71	528.21	0.00	0.00	0.00
8,500.00	0.00	0.00	8,456.09	-474.18	232.71	528.21	0.00	0.00	0.00
8,549.91	0.00	0.00	8,506.00	-474.18	232.71	528.21	0.00	0.00	0.00
MESAVERDE									
8,600.00	0.00	0.00	8,556.09	-474.18	232.71	528.21	0.00	0.00	0.00
8,700.00	0.00	0.00	8,656.09	-474.18	232.71	528.21	0.00	0.00	0.00



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4943 & KB 4 @ 4947.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4943 & KB 4 @ 4947.00ft (ASSUMED)
Site:	NBU 920-22N Pad	North Reference:	True
Well:	NBU 920-22N1DS	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)
8,800.00	0.00	0.00	8,756.09	-474.18	232.71	528.21	0.00	0.00	0.00
8,900.00	0.00	0.00	8,856.09	-474.18	232.71	528.21	0.00	0.00	0.00
9,000.00	0.00	0.00	8,956.09	-474.18	232.71	528.21	0.00	0.00	0.00
9,100.00	0.00	0.00	9,056.09	-474.18	232.71	528.21	0.00	0.00	0.00
9,200.00	0.00	0.00	9,156.09	-474.18	232.71	528.21	0.00	0.00	0.00
9,300.00	0.00	0.00	9,256.09	-474.18	232.71	528.21	0.00	0.00	0.00
9,400.00	0.00	0.00	9,356.09	-474.18	232.71	528.21	0.00	0.00	0.00
9,500.00	0.00	0.00	9,456.09	-474.18	232.71	528.21	0.00	0.00	0.00
9,600.00	0.00	0.00	9,556.09	-474.18	232.71	528.21	0.00	0.00	0.00
9,700.00	0.00	0.00	9,656.09	-474.18	232.71	528.21	0.00	0.00	0.00
9,800.00	0.00	0.00	9,756.09	-474.18	232.71	528.21	0.00	0.00	0.00
9,900.00	0.00	0.00	9,856.09	-474.18	232.71	528.21	0.00	0.00	0.00
10,000.00	0.00	0.00	9,956.09	-474.18	232.71	528.21	0.00	0.00	0.00
10,100.00	0.00	0.00	10,056.09	-474.18	232.71	528.21	0.00	0.00	0.00
10,200.00	0.00	0.00	10,156.09	-474.18	232.71	528.21	0.00	0.00	0.00
10,300.00	0.00	0.00	10,256.09	-474.18	232.71	528.21	0.00	0.00	0.00
10,400.00	0.00	0.00	10,356.09	-474.18	232.71	528.21	0.00	0.00	0.00
10,500.00	0.00	0.00	10,456.09	-474.18	232.71	528.21	0.00	0.00	0.00
10,600.00	0.00	0.00	10,556.09	-474.18	232.71	528.21	0.00	0.00	0.00
10,700.00	0.00	0.00	10,656.09	-474.18	232.71	528.21	0.00	0.00	0.00
10,733.91	0.00	0.00	10,690.00	-474.18	232.71	528.21	0.00	0.00	0.00
SEGO - SEGO_NBU 920-22N1DS									
10,800.00	0.00	0.00	10,756.09	-474.18	232.71	528.21	0.00	0.00	0.00
10,832.91	0.00	0.00	10,789.00	-474.18	232.71	528.21	0.00	0.00	0.00
CASTLEGATE									
10,900.00	0.00	0.00	10,856.09	-474.18	232.71	528.21	0.00	0.00	0.00
11,000.00	0.00	0.00	10,956.09	-474.18	232.71	528.21	0.00	0.00	0.00
11,100.00	0.00	0.00	11,056.09	-474.18	232.71	528.21	0.00	0.00	0.00
11,130.91	0.00	0.00	11,087.00	-474.18	232.71	528.21	0.00	0.00	0.00
BLACKHAWK									
11,200.00	0.00	0.00	11,156.09	-474.18	232.71	528.21	0.00	0.00	0.00
11,300.00	0.00	0.00	11,256.09	-474.18	232.71	528.21	0.00	0.00	0.00
11,400.00	0.00	0.00	11,356.09	-474.18	232.71	528.21	0.00	0.00	0.00
11,500.00	0.00	0.00	11,456.09	-474.18	232.71	528.21	0.00	0.00	0.00
11,600.00	0.00	0.00	11,556.09	-474.18	232.71	528.21	0.00	0.00	0.00
11,700.00	0.00	0.00	11,656.09	-474.18	232.71	528.21	0.00	0.00	0.00
11,730.91	0.00	0.00	11,687.00	-474.18	232.71	528.21	0.00	0.00	0.00
TD at 11730.91 - PBHL_NBU 920-22N1DS									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SEGO_NBU 920-22N1D - hit/miss target - Shape - plan hits target center - Circle (radius 25.00)	0.00	0.00	10,690.00	-474.18	232.71	14,534,550.23	2,017,856.73	40.015518	-109.651997
PBHL_NBU 920-22N1D - plan hits target center - Circle (radius 100.00)	0.00	0.00	11,687.00	-474.18	232.71	14,534,550.23	2,017,856.73	40.015518	-109.651997



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 920-22N1DS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4943 & KB 4 @ 4947.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 4943 & KB 4 @ 4947.00ft (ASSUMED)
Site:	NBU 920-22N Pad	North Reference:	True
Well:	NBU 920-22N1DS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
3,019.95	2,982.00	8 5/8"	8.620	11.000

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,832.91	1,813.00	GREENRIVER			
2,060.37	2,037.00	BIRDSNEST			
2,563.01	2,532.00	MAHOGANY			
5,223.91	5,180.00	WASATCH			
8,549.91	8,506.00	MESAVERDE			
10,733.91	10,690.00	SEGO			
10,832.91	10,789.00	CASTLEGATE			
11,130.91	11,087.00	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 3.00
633.33	631.64	-26.05	12.78	Start 2588.29 hold at 633.33 MD
3,221.63	3,180.62	-429.53	210.80	Start Drop -1.75
3,793.06	3,749.15	-474.18	232.71	Start 7937.85 hold at 3793.06 MD
11,730.91	11,687.00	-474.18	232.71	TD at 11730.91

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 920-22N Pad****API #4304750560****NBU 920-22N1DS**

Surface:	1217 FSL / 2412 FWL	SESW	Lot
BHL:	738 FSL / 2635 FWL	SESW	Lot

API #**NBU 920-22K4CS**

Surface:	1225 FSL / 2418 FWL	SESW	Lot
BHL:	1491 FSL / 2192 FWL	NESW	Lot

API #**NBU 920-22N1BS**

Surface:	1209 FSL / 2406 FWL	SESW	Lot
BHL:	1151 FSL / 2119 FWL	SESW	Lot

API #**NBU 920-22N4BS**

Surface:	1200 FSL / 2401 FWL	SESW	Lot
BHL:	551 FSL / 2078 FWL	SESW	Lot

The NBU 920-22N APD was approved by the BLM on October 16, 2009. A sundry notice was approved on December 16, 2011 to change the original permit to a directional well and to update the well name to the NBU 920-22N1DS. Kerr-McGee plans to add three additional wells to NBU 920-22N Pad. The surface disturbance will remain the same as planned in the originally approved APD.

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 for the NBU 920-22N Pad was held on June 24, 2009.

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.

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

±760' (0.1 miles) – Section 22 (S/2) T9S R20E – On lease UTU0577B Ute Indian Tribe surface,
New access road is proposed from the edge of the well pad to an existing road to the north.
Please refer to Topo B.

C. Location of Existing Wells:

A) Refer to Topo Map C.

D. Location of Existing and/or Proposed Facilities:

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 ±1,240' 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.

±1,240' (0.2 miles) – Section 22 T9S R20E– On-lease UTU0577A and UTU0577B Ute Indian Tribe Surface, New 6" surface gas gathering pipeline from the meter to the existing surface gas pipeline to the northeast of the proposed pad. Please refer to Topo D2 - Pad and Pipeline Detail.

Pipeline Gathering Construction

Gathering (pipeline) infrastructure will be utilized to collect and transport gas and/or 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.

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.

When no longer deemed necessary by the operator, Kerr-McGee or it's successor will consult with the Vernal BIA Office before terminating of 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.

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E. Location and Types of Water Supply:

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

JD Field Services:

Green River: 1087' FSL & 1020' FEL, Sec. 15 – T2N – R22E

RN Industries:

High Pressure: 705' FNL & 675' FWL, Sec. 1 – T6S – R22E
1057' FNL & 390' FWL, Sec. 1 – T6S – R22E
1239' FNL & 52' FEL, Sec. 6 – T6S – R23E

White River: 501' FNL & 1676' FEL, Sec. 9 – T8S – R20E
471' FNL & 1676' FEL, Sec. 9 – T8S – R20E
900' FNL & 550' FEL, Sec. 35 – T9S – R22E
200' FNL & 950' FEL, Sec. 2 – T10S – R22E
275' FSL & 2275' FEL, Sec. 2 – T10S – R22E
122' FSL & 1350' FEL, Sec. 11 – T10S – R22E
1670' FSL & 500' FEL, Sec. 12 – T10S – R22E
959' FNL & 705' FEL, Sec. 13 – T10S – R22E
600' FSL & 900' FEL, Sec. 13 – T10S – R22E

Water Plant: 481' FNL & 2176' FEL, Sec. 9 – T8S – R20E
471' FNL & 2176' FEL, Sec. 9 – T8S – R20E

Frog Pond: 4820' FNL & 1200' FWL, Sec. 33 – T8S – R20E
4850' FNL & 700' FWL, Sec. 33 – T8S – R20E

Blue Tanks: 200' FNL & 405' FEL, Sec. 32 – T4S – R3E

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.

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.

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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 Duschesne, UT 84026	Vernal, UT 84078
(435) 722-4307	(435)781-4400

L. Other Information:

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 on October 4, 2012 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 12-287.

A paleontological reconnaissance survey was completed on October 5, 2012 by SWCA Environmental Consultants. For additional details please refer to report UT-06-009C.

Biological field survey was completed on October 2, 2012 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-848

Proposed Action Annual Emissions Tables:

Table 1: Proposed Action Annual Emissions (tons/year)¹			
Pollutant	Development	Production	Total
NOx	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

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 Kerr-McGee Oil Gas Onshore, L.P.

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Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison			
Species	Proposed Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory^a (ton/yr)	Percentage of Proposed Action to WRAP Phase III
NOx	15.68	16,547	0.09%
VOC	20	127,495	0.02%

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

Uintah Basin Data

NBU 920-22K4CS/920-22N1BS/ 920-22N1DS/ 920-22N4BS
Kerr-McGee Oil Gas Onshore, L.P.

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

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

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

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

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

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

Bond coverage 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.

Cara Mahler

October 16, 2012

Date

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS	5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0577A
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
1. TYPE OF WELL Gas Well	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	8. WELL NAME and NUMBER: NBU 920-22N1DS
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	9. API NUMBER: 43047505600000
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1206 FSL 2411 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 22 Township: 09.0S Range: 20.0E 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

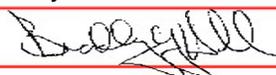
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 8/11/2013	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<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 22, 2013

By: 

NAME (PLEASE PRINT) Teena Paulo	PHONE NUMBER 720 929-6236	TITLE Staff Regulatory Specialist
SIGNATURE N/A	DATE 7/19/2013	



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 43047505600000

API: 43047505600000

Well Name: NBU 920-22N1DS

Location: 1206 FSL 2411 FWL QTR SESW SEC 22 TWNP 090S RNG 200E MER S

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

Date Original Permit Issued: 8/11/2009

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: 7/19/2013

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

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

JUL 22 2009
me

APPLICATION FOR PERMIT TO DRILL OR REENTER

BLM

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU0577A
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator KERRMCGEE OIL&GAS ONSHORE		7. If Unit or CA Agreement, Name and No. 891008900A
Contact: DANIELLE E PIERNOT Email: Danielle.Piernot@anadarko.com		8. Lease Name and Well No. NBU 920-22N
3a. Address PO BOX 173779 DENVER, CO 80202-3779	3b. Phone No. (include area code) Ph: 720-929-6156 Fx: 720-929-7156	9. API Well No. 43 047 50560
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SESW 1206FSL 2411FWL 40.01675 N Lat, 109.65353 W Lon At proposed prod. zone SESW 1206FSL 2411FWL 40.01675 N Lat, 109.65353 W Lon		10. Field and Pool, or Exploratory NATURAL BUTTES
14. Distance in miles and direction from nearest town or post office* APPROXIMATELY 7 MILES SOUTHEAST OF OURAY, UTAH		11. Sec., T., R., M., or Blk. and Survey or Area Sec 22 T9S R20E Mer SLB
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1206 FEET	16. No. of Acres in Lease 2091.20	12. County or Parish UINTAH
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. APPROXIMATELY 930 FEET	19. Proposed Depth 10700 MD 10700 TVD	13. State UT
21. Elevations (Show whether DF, KB, RT, GL, etc.) 4947 GL	22. Approximate date work will start 08/03/2009	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) DANIELLE E PIERNOT Ph: 720-929-6156	Date 07/14/2009
Title REGULATORY ANALYST		
Approved by (Signature) <i>Stephanie J Howard</i>	Name (Printed/Typed) Stephanie J Howard	Date 10/16/09
Title Assistant Field Manager	Office VERNAL FIELD OFFICE	

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

CONDITIONS OF APPROVAL ATTACHED

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

Additional Operator Remarks (see next page)

Electronic Submission #72151 verified by the BLM Well Information System
For KERRMCGEE OIL&GAS ONSHORE Vernal
Committed to AFMSS for processing by GAIL JENKINS on 07/17/2009

NOTICE OF APPROVAL

RECEIVED

OCT 27 2009

AFMSS#

DIV. OF OIL, GAS & MINING

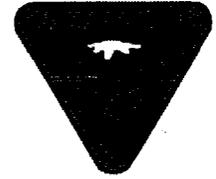
** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **



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**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
Well No: NBU 920-22N
API No: 43-047-50560

Location: SESW, Sec. 22, T9S, R20E
Lease No: UTU-0577A
Agreement: N/A

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

Construction Activity (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	- The Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist shall be notified at least 48 hours in advance of any construction activity. The Ute Tribal office is open Monday through Thursday.
Construction Completion (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	- Upon completion of the pertinent APD/ROW construction, notify the Ute Tribe Energy & Minerals Dept. for a Tribal Technician to verify the Affidavit of Completion. Notify the BLM Environmental Scientist prior to moving on the drilling rig.
Spud Notice (Notify BLM Petroleum Engineer)	- Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify BLM Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut_vn_opreport@blm.gov .
BOP & Related Equipment Tests (Notify BLM Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify BLM 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)**

Site-Specific Conditions of Approval:

- Paint facilities "shadow gray."
- Utilize pit-run/gravel for well pad and access road support.
- Monitor location by a permitted archaeologist during the construction process.
- If project construction operations are scheduled to occur after December 31, 2009, KMG will conduct additional raptor surveys in accordance with the guidelines specified in the Utah Field Office Guidelines for Raptor Protection for Human and Land Use Disturbances, 2002 and conduct its operations according to applicable seasonal restrictions and spatial offsets.
- If project construction operation are scheduled to occur after June 16, 2010, KMG will conduct additional biological surveys in accordance with the guidelines specified I the USFWS Rare Plant Conservation Measures for Uinta Basin hookless cactus and conduct its operation according to its specifications.

BIA Standard Conditions of Approval:

- Soil erosion will be mitigated by reseeded all disturbed areas.
- The gathering pipelines will be constructed to lie on the surface. The surface pipelines will not be bladed or cleared of vegetation. Where pipelines are constructed parallel to roads they may be welded on the road and then lifted from the road onto the right-of-way. Where pipelines do not parallel roads but cross-country between sites, they shall be welded in place at well sites or on access roads and then pulled between stations with a suitable piece of equipment. Traffic will be restricted along these areas so that the pipeline right-of-way will not be used as an access road.
- An open drilling system shall be used, unless otherwise specified in 10.0 Additional Stipulations of this document and in the Application for Permit to Drill. A closed drilling system shall be used in all flood plain areas, and other highly sensitive areas, recommended by the Ute Tribe Technician, BIA, and other agencies involved.
- The reserve pit shall be lined with a synthetic leak proof liner. After the drilling operation is complete, excess fluids shall be removed from the reserve pit and either hauled to an approved disposal site or shall be used to drill other wells. When the fluids are removed the pit shall be backfilled a minimum of 3.0' below the soil surface elevation.
- A closed production system shall be used. This means all produced water and oil field fluid wastes shall be contained in leak proof tanks. These fluids shall be disposed of in either approved injection wells or disposal pits.
- Major low water crossings will be armored with pit run material to protect them from erosion.
- All personnel shall refrain from collecting any paleontological fossils and from disturbing any fossil resources in the area.

- If fossils are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.
- Before the site is abandoned the company will be required to restore the right-of-way to near its original state. The disturbed area will be reseeded with desirable perennial vegetation. If necessary, the Bureau of Indian Affairs or Bureau of Land Management will provide a suitable seed mixture.
- Noxious weeds will be controlled on all surface disturbances within the project area. If noxious weeds spread from the project area onto adjoining land, the company will also be responsible for their control.
- If project construction operations are scheduled to occur after December 31, 2009, KMG shall conduct annual raptor surveys in accordance with the guidelines specified in the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002 (See Appendix E) and conduct its operations according to applicable seasonal restrictions and spatial offsets.
- USFWS threatened and endangered plant and animal conservation measures will be followed, as appropriate to the species identified by the biological resource survey (See Appendix E).
- All personnel shall refrain from collecting artifacts and from disturbing any significant cultural resources in the area.
- If artifacts or any culturally sensitive materials are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.

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

SITE SPECIFIC DOWNHOLE COAs:

- A Gama Ray Log shall be run from TD to surface.

Variations Granted:

Air Drilling:

- Properly lubricated and maintained rotating head, variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore, variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for two truck/trailer mounted air compressors located within 40 feet from the well bore and 60' from the blooie line.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for kill fluid.
- Automatic igniter. Variance granted for igniter due to there being no productive formations while drilling with air.

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

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

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

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

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- 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.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

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

JUL 22 2009
me

APPLICATION FOR PERMIT TO DRILL OR REENTER

BLM

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU0577A
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator KERRMCGEE OIL&GAS ONSHORE		7. If Unit or CA Agreement, Name and No. 891008900A
Contact: DANIELLE E PIERNOT Email: Danielle.Piernot@anadarko.com		8. Lease Name and Well No. NBU 920-22N
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21. Elevations (Show whether DF, KB, RT, GL, etc.) 4947 GL	22. Approximate date work will start 08/03/2009	17. Spacing Unit dedicated to this well
		20. BLM/BIA Bond No. on file WYB000291
		23. Estimated duration 60-90 DAYS

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

- | | |
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| 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). |
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25. Signature (Electronic Submission)	Name (Printed/Typed) DANIELLE E PIERNOT Ph: 720-929-6156	Date 07/14/2009
Title REGULATORY ANALYST		
Approved by (Signature) <i>Stephanie J Howard</i>	Name (Printed/Typed) Stephanie J Howard	Date 10/16/09
Title Assistant Field Manager	Office VERNAL FIELD OFFICE	

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For KERRMCGEE OIL&GAS ONSHORE Vernal
Committed to AFMSS for processing by GAIL JENKINS on 07/17/2009

NOTICE OF APPROVAL

RECEIVED

OCT 27 2009

AFMSS#

DIV. OF OIL, GAS & MINING

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



090XT53724E me 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
Well No: NBU 920-22N
API No: 43-047-50560

Location: SESW, Sec. 22, T9S, R20E
Lease No: UTU-0577A
Agreement: N/A

OFFICE NUMBER: (435) 781-4400

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

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CONDITIONS OF APPROVAL (COAs)**

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- Properly lubricated and maintained rotating head, variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore, variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for two truck/trailer mounted air compressors located within 40 feet from the well bore and 60' from the blooie line.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for kill fluid.
- Automatic igniter. Variance granted for igniter due to there being no productive formations while drilling with air.

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

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

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

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

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- 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.



Kerr-McGee APDs to Rescind

Paulo, Teena <Teena.Paulo@anadarko.com>

Wed, Jul 9, 2014 at 8:39 AM

To: "dianawhitney@utah.gov" <dianawhitney@utah.gov>

Good Morning Diana,

Please see the below list of wells for the APD's that Kerr-McGee requests to rescind with UDOGM.

Well Name	API Number
NBU 920-22N1DS	4304750560
NBU 920-23L3DS	4304750573

Thank you,

Teena Paulo
Staff Regulatory Specialist
Anadarko Petroleum
1099 18th Street, Suite 600
Denver, CO 80202

[Click here for Anadarko's Electronic Mail Disclaimer](#)



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

July 25, 2014

JOHN R. BAZA
Division Director

Tenna Paulo
Kerr-McGee Oil & Gas Onshore, LP.
1099 18th Street, Suite 600
Denver, CO 80217

Re: APD Rescinded – NBU 920-22N1DS, Sec. 22, T.9S, R.20E
Uintah County, Utah API No. 43-047-50560

Dear Ms. Paulo:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on August 11, 2009. On August 23, 2010, July 12, 2011, August 9, 2012 and July 22, 2013 the Division granted a one-year APD extension. On July 9, 2014, you requested that the division rescind the state approved APD. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective July 9, 2014.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,


Diana Mason
Environmental Scientist

cc: Well File
Bureau of Land Management, Vernal

