

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU-0579
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 Ute
2. Name of Operator Kerr-McGee Oil & Gas Onshore, LP		7. If Unit or CA Agreement, Name and No. 881008900A
3a. Address P.O. Box 173779, Denver, CO 80217-3779		8. Lease Name and Well No. NBU 920-13D
3b. Phone No. (include area code) 720.929.6226		9. API Well No. 43-047-4 0380
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface NWNW 186' FNL & 807' FWL LAT 40.0422 LON -109.6212 (NAD 27) At proposed prod. zone N/A		10. Field and Pool, or Exploratory Natural Buttes Field
14. Distance in miles and direction from nearest town or post office* 7.7 miles southeast of Ouray, Utah		11. Sec., T. R. M. or Blk. and Survey or Area Sec. 13, T 9S, R 20E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 186'	16. No. of acres in lease 1920	17. Spacing Unit dedicated to this well Unit Well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1000'	19. Proposed Depth 10,600'	20. BLM/BIA Bond No. on file WYB000291
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4768.9' GL	22. Approximate date work will start*	23. Estimated duration 10 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must 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 must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM.             |

25. Signature 	Name (Printed Typed) Kevin McIntyre	Date 09/25/2008
Title Regulatory Analyst		
Approved by (Signature) 	Name (Printed Typed) BRADLEY G. HILL	Date 10-01-08
Title ENVIRONMENTAL MANAGER		

Application approval 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.  
Conditions of approval, if any, are 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.

(Continued on page 2)

\*(Instructions on page 2)

617632X  
4433137Y  
40.042156  
-109.621141

Federal Approval of this  
Action is Necessary

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**NBU 920-13D  
NWNW Sec. 13, T9S, R20E  
UINTAH COUNTY, UTAH  
UTU-0579**

**ONSHORE ORDER NO. 1**

***DRILLING PROGRAM***

**1. Estimated Tops of Important Geologic Markers:**

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	1804'
Bird's Nest	2060'
Mahogany	2573'
Wasatch	5228'
Mesaverde	8465'
MVU2	9456'
MVL1	9959'
TD	10,600'

**2. Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:**

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River	1804'
	Bird's Nest	2060'
	Mahogany	2573'
Gas	Wasatch	5228'
Gas	Mesaverde	8465'
Gas	MVU2	9456'
Gas	MVL1	9959'
Water	N/A	
Other Minerals	N/A	

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

*Please see the Natural Buttes Unit Standard Operating Procedure (SOP).*

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

*Please see the Natural Buttes Unit SOP. See attached drilling diagram.*

**5. Drilling Fluids Program:**

*Please see the Natural Buttes Unit SOP.*

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6. **Evaluation Program:**

*Please see the Natural Buttes Unit SOP.*

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 10,600' TD, approximately equals 6572 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 4240 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 see Natural Buttes Unit SOP Onshore Order #2 – Air Drilling Variance  
Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2*

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

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

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

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

***Background***

*In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet.*

*The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.*

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

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*The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole 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.*

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*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 see Natural Buttes Unit SOP.*

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**NBU 920-13D  
NWNW Sec. 13 ,T9S,R20E  
UINTAH COUNTY, UTAH  
UTU-0579**

**ONSHORE ORDER NO. 1**

***MULTI-POINT SURFACE USE & OPERATIONS PLAN***

**1. Existing Roads:**

Refer to the attached location directions.

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

**2. Planned Access Roads:**

Approximately 1,400' +/- of new access road is proposed. Refer to Topo Map B.

*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.*

*Please see the Natural Buttes Unit Standard Operating Procedure (SOP).*

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

Please refer to Topo Map C.

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

*Please see the Natural Buttes Unit SOP.*

Refer to Topo Map D for the location of the proposed pipelines.

**A right-of-way is required for the pipeline. The pipeline is approximately 1,652' in length and 30' in width. A 4" surface steel pipeline will be constructed utilizing existing disturbance where possible. The pipeline will be butt-welded together and pulled into place with a rubber tired tractor.**

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**Variations to Best Management Practices (BMPs) Requested:**

Approximately 1,652' of 4" steel pipeline will be installed on surface within the access corridor for the well location. As a Best Management Practice (BMP), the pipeline would be buried within the access road corridor if possible. The construction of pipelines requires the corridor of 30 feet.

This exception to the BMP should be granted by the BLM Authorized Officer because indurated bedrock, such as sandstone, is at or within 2 feet of the surface and the soil has a poor history for successful rehabilitation.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The requested color is Shadow gray (2.5Y 6/2), a non-reflective earthtone.

**Interim Surface Reclamation Plan:**

This exception is requested due to the current twin and multi-well program. If determined that this well will not be a candidate for either twinning &/or multi-well the operator shall spread the topsoil pile on the location up to the rig anchor points. The location will be reshaped to the original contour to the extent possible. The operator will reseed the area using the BLM recommended seed mixture and reclamation methods.

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

*Please see the Natural Buttes SOP.*

**6. Source of Construction Materials:**

*Please see the Natural Buttes SOP.*

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

*Please see the Natural Buttes SOP.*

A plastic reinforced liner is to be used as discussed during on-site inspection. It will be a minimum of 20 mil thick and felt, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

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, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E, Pipeline Facility Sec. 36, T9S, R20E, Goat Pasture Evaporation Pond SW/4 Sec. 16, T10S, R22E, Bonanza Evaporation Pond Sec. 2, T10S, R23E (*Request is in lieu of filing Form 3160-5, after initial production*).

**8. Ancillary Facilities:**

*Please see the Natural Buttes SOP.*

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

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

Location size may change prior to the drilling of the well due to the current rig availability. If the proposed location is not large enough to accommodate the drilling rig. The location will be re-surveyed and a form 3160-5 will be submitted.

10. **Plans for Reclamation of the Surface:**

*Please see the Natural Buttes SOP.*

Upon reclamation of the pit the following seed mixture will be used. A total of 12 lbs/acre will be used if the seeds are drilled (24 lbs/acre if the seeds are broadcast). The per acre requirements for *drilled* seed are:

Crested Wheatgrass      12 lbs.

Operator shall call the BLM for the seed mixture when final reclamation occurs.

11. **Surface/Mineral Ownership:**

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

Ute Indian Tribe  
P.O. 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

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**12. Stipulations/Notices/Mitigation:**

There are no stipulations or notices for this location.

**13. Other Information:**

A Class III archaeological survey and a paleontological survey (Report IPC #08-152 dated 7/8/2008) have been performed and will be submitted.

This location is not within 460' from the boundary of the Natural Buttes Unit, nor is it within 460' of any non-committed tract lying within the boundaries of the Unit.

**14. Lessee's or Operator's Representative & Certification:**

Kevin McIntyre  
Regulatory Analyst  
Kerr-McGee Oil & Gas Onshore LP  
P.O. Box 173779  
Denver, CO 80217-3779  
(720) 929-6226

Randy Bayne  
Drilling Manager  
Kerr-McGee Oil & Gas Onshore LP  
1368 South 1200 East  
Vernal, UT 84078  
(435) 781-7018

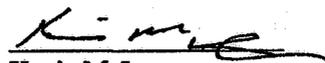
Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

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 the terms and conditions of the lease for the operations conducted upon leased lands.

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.

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 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 by the Operator, its contractors, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

  
Kevin McIntyre

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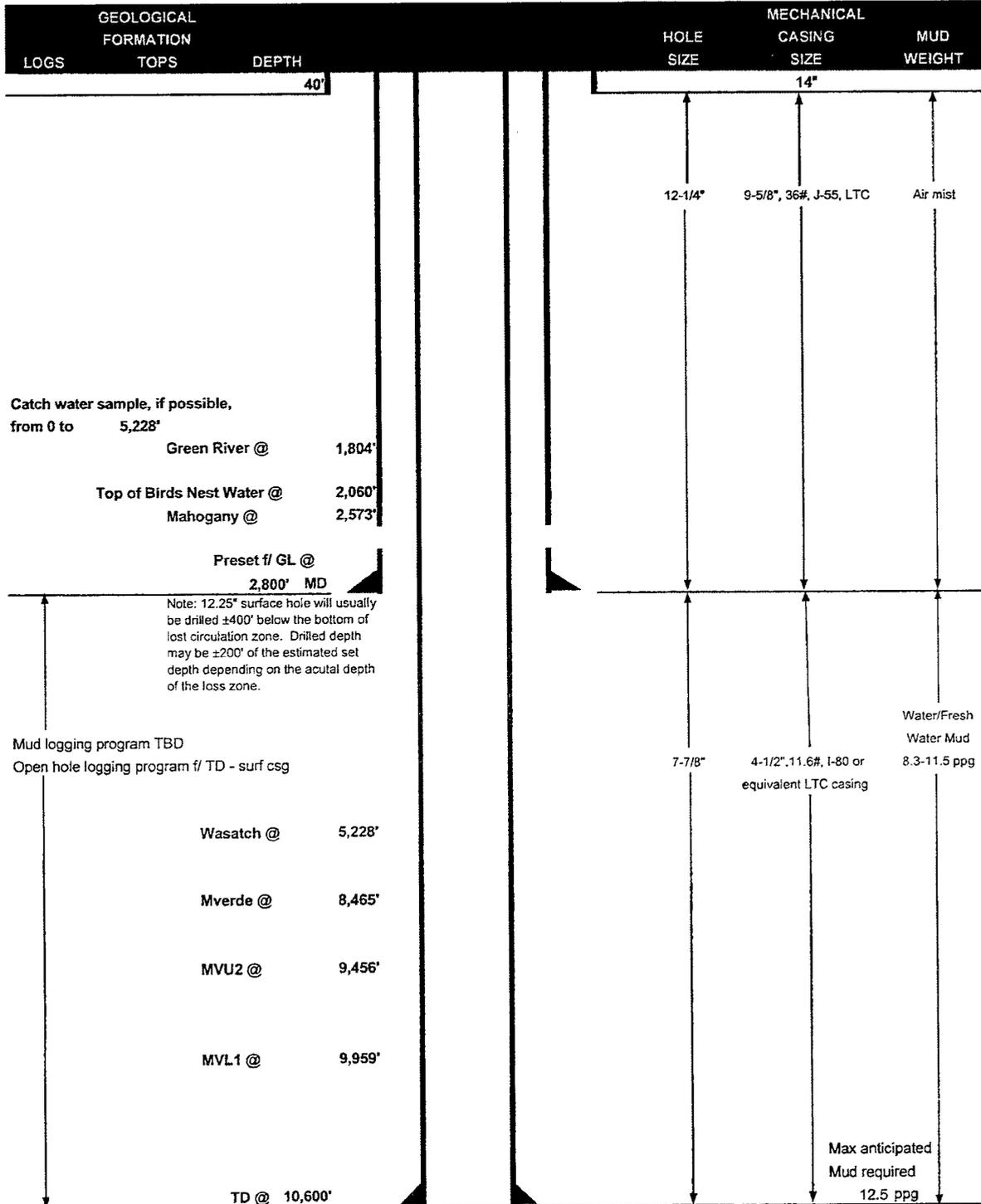
9/25/2008

Date



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	September 25, 2008	
WELL NAME	NBU 920-13D	TD	10,600'	MD/TVD
FIELD	Natural Buttes	COUNTY	Uintah	STATE
		Utah	ELEVATION	4,769' GL KB 4,784'
SURFACE LOCATION	NWNW 186' FNL & 807' FWL, Sec. 13, T 9S R 20E			BHL
	Latitude: 40.042200	Longitude: -109.821200	NAD 27	
OBJECTIVE ZONE(S)	Mesaverde/Wasatch			
ADDITIONAL INFO	Regulatory Agencies: BLM (MINERALS), BIA (SURFACE), UDOGM, Tri-County Health Dept.			



CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3520	2020	453000
SURFACE	9-5/8"	0 to 2,800'	36.00	J-55	LTC	0.77	1.54	5.13
						7780	6350	201000
PRODUCTION	4-1/2"	0 to 10600	11.60	I-80	LTC	1.71	0.92	1.87

- 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 - (.22 psi/ft-partial evac gradient x TD)
- (Burst Assumptions: TD = 12.5 ppg) .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 4240 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl + .25 pps flocele	215	60%	15.60	1.18
Option 1	TOP OUT CMT (1)	250	20 gals sodium silicate + Premium cmt + 2% CaCl + .25 pps flocele	100		15.60	1.18
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE		<b>NOTE: If well will circulate water to surface, option 2 will be utilized</b>					
Option 2	LEAD	2000	Prem cmt + 16% Gel + 10 pps gilsonite + .25 pps Flocele + 3% salt BWOC	230	35%	11.00	3.82
	TAIL	500	Premium cmt + 2% CaCl + .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	4,720'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	520	60%	11.00	3.38
	TAIL	5,880'	50/50 Poz/G + 10% salt + 2% gel +.1% R-3	1640	60%	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 to top of tail cement with 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. Test to 5,000 psi (annular to 2,500 psi) prior to drilling out. Record on chart recorder & tour sheet. Function test rams on each trip. Maintain safety valve & inside BOP on rig floor at all times. Kelly to be equipped with upper & lower kelly valves.  
 Drop Tolco 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: \_\_\_\_\_  
 Brad Laney  
 DRILLING SUPERINTENDENT: \_\_\_\_\_  
 Randy Bayne

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

**Kerr-McGee Oil & Gas Onshore, LP**  
**NBU 920-13D**  
**Section 13, 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 2.9 MILES TO THE INTERSECTION OF AN EXISTING ROAD TO THE EAST. EXIT LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION ALONG EXISTING ROAD APPROXIMATELY 3.8 MILES TO THE INTERSECTION OF AN EXISTING ROAD TO THE SOUTH. EXIT RIGHT AND PROCEED IN A SOUTHERLY DIRECTION ALONG EXISTING ROAD APPROXIMATELY 0.8 MILES TO THE NBU 920-12L EXISTING WELL LOCATION. CONTINUE IN A SOUTHWESTERLY DIRECTION THROUGH EXISTING WELL LOCATION APPROXIMATELY 350 FEET TO THE PROPOSED ACCESS ROAD FOR WELL LOCATION 920-12N. FOLLOW 920-12N ROAD FLAGS IN A SOUTHWESTERLY THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 970 FEET TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 1,400 FEET TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 38.7 MILES IN A SOUTHERLY DIRECTION.

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SHEET 9 OF 9

IPC #08-152

## **Paleontological Reconnaissance Survey Report**

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**Survey of Kerr McGee's Proposed Well Pads, Access Roads, and  
Pipelines for "NBU #920-12LT, 12N, 13D, 13F, 13G, 13J,  
24AT & 24B" (Sec. 12, 13 & 24, T 9 S, R 20 E)**

Ouray SE  
Topographic Quadrangle  
Uintah County, Utah

July 8, 2008

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

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## INTRODUCTION

At the request of Raleen White of Kerr McGee Onshore LP and authorized by Bruce Pargeets of the Ute Indian Tribe and by Lynn Becker, EMD Land Division Manager of the Ute Indian Tribe's Energy and Minerals Department, a paleontological reconnaissance survey of Kerr McGee's proposed well pads, access roads, and pipelines for "NBU #920-12LT, 12N, 13D, 13F, 13G, 13J, 24AT & 24B" (Sec. 12, 13 & 24, T 9 S, R 20 E) was conducted by Stephen Sandau and Daniel Burk on July 1, 2008. The survey was conducted under the Ute Indian Tribe Business License FY 2008, #A08-1308 and the accompanying Access Permit (effective 3/26/2008 through 9/30/2008). This survey to locate, identify, and evaluate paleontological resources was done to meet requirements of the National Environmental Policy Act of 1969 and other State and Federal laws and regulations that protect paleontological resources.

## FEDERAL AND STATE REQUIREMENTS

As mandated by the Federal and State government, paleontologically sensitive geologic formations on State lands that are considered for exchange or may be impacted due to ground disturbance require paleontological evaluation. This requirement complies with:

- 1) The National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321.et. Seq., P.L. 91-190);
- 2) The Federal Land Policy and Management Act (FLPMA) of 1976 (90 Stat. 2743, 43 U.S.C. § 1701-1785, et. Seq., P.L. 94-579) and
- 3) The National Historic Preservation Act. 16 U.S.C. § 470-1, P.L. 102-575 in conjunction with 42 U.S.C. § 5320

The new Potential Fossil Yield Classification (PFYC) System (October, 2007) replaces the Condition Classification System from Handbook H-8270-1. Geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential.

- **Class 1 – Very Low.** Geologic units (igneous, metamorphic, or Precambrian) not likely to contain recognizable fossil remains.
- **Class 2 – Low.** Sedimentary geologic units not likely to contain vertebrate fossils or scientifically significant non-vertebrate fossils. (Including modern eolian, fluvial, and colluvial deposits etc...)
- **Class 3 – Moderate or Unknown.** Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential.
  - **Class 3a – Moderate Potential.** The potential for a project to be sited on or impact a significant fossil locality is low, but is somewhat higher for common fossils.
  - **Class 3b – Unknown Potential.** Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but little information about the paleontological resources of the unit or the area is known.

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- **Class 4 – High.** Geologic units containing a high occurrence of vertebrate fossils or scientifically significant invertebrate or plant fossils, but may vary in abundance and predictability.
  - **Class 4a** – Outcrop areas with high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
  - **Class 4b** – Areas underlain by geologic units with high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.
- **Class 5 – Very High.** Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils.
  - **Class 5a** - Outcrop areas with very high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
  - **Class 5b** - Areas underlain by geologic units with very high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.

It should be noted that many fossils, though common and unimpressive in and of themselves, can be important paleo-environmental, depositional, and chronostratigraphic indicators.

## LOCATION

Kerr McGee's proposed well pads, access roads, and pipelines for "NBU #920-12LT, 12N, 13D, 13F, 13G, 13J, 24AT & 24B" (Sec. 12, 13 & 24, T 9 S, R 20 E) are located on Ute Indian Reservation land some 2.5 miles south of the White River and 5 miles southeast of Ouray, Utah. The project area can be found on the Ouray SE 7.5 minute U. S. Geological Survey Quadrangle Map, Uintah County, Utah.

## PREVIOUS WORK

The basins of western North America have long produced some of the richest fossil collections in the world. Early Cenozoic sediments are especially well represented throughout the western interior. Paleontologists started field work in Utah's Uinta Basin as early as 1870 (Betts, 1871; Marsh, 1871, 1875a, 1875b). The Uinta Basin is located in the northeastern corner of Utah and covers approximately 31,000 sq. km (12,000 sq. miles) ranging in elevation from 1,465 to 2,130 m (4,800 to 7,000 ft) (Marsell, 1964; Hamblin et al., 1987). Middle to late Eocene time marked a period of dramatic change in the climate, flora, (Stucky, 1992) and fauna (Black and Dawson, 1966) of North America.

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## GEOLOGICAL AND PALEONTOLOGICAL OVERVIEW

Early in the geologic history of Utah, some 1,000 to 600 Ma, an east-west trending basin developed creating accommodation for 25,000 feet of siliclastics. Uplift of that filled-basin during the early Cenozoic formed the Uinta Mountains (Rasmussen et al., 1999). With the rise of the Uinta Mountains the asymmetrical synclinal Uinta Basin is thought to have formed through the effects of down warping in connection with the uplift. Throughout the Paleozoic and Mesozoic deposition fluctuated between marine and non-marine environments laying down a thick succession of sediments in the area now occupied by the Uinta Basin. Portions of these beds crop out on the margins of the basin due to tectonic events during the late Mesozoic.

Early Tertiary Uinta Basin sediments were deposited in alternating lacustrine and fluvial environments. Large shallow lakes periodically covered most of the basin and surrounding areas during early to mid Eocene time (Abbott, 1957). These lacustrine sediments show up in the western part of the basin, dipping 2-3 degrees to the northeast and are lost in the subsurface on the east side. The increase of cross-bedded, coarse-grained sandstone and conglomerates preserved in paleo-channels indicates a transition to a fluvial environment toward the end of the epoch.

Four Eocene formations are recognized in the Uinta Basin: the Wasatch, Green River, Uinta and Duchesne River, respectively (Wood, 1941). The Uinta Formation is subdivided into two lithostratigraphic units namely: the Wagonhound Member (Wood, 1934), formerly known as Uinta A and B (Osborn, 1895, 1929) and the Myton Member previously regarded as the Uinta C.

Within the Uinta Basin in northeast Utah, the Uinta Formation in the western part of the basin is composed primarily of lacustrine sediments inter-fingering with over-bank deposits of silt, and mudstone and westward flowing channel sands and fluvial clays, muds, and sands in the east (Bryant et al, 1990; Ryder et al, 1976). Stratigraphic work done by early geologists and paleontologists within the Uinta Formation focused on the definition of rock units and attempted to define a distinction between early and late Uintan faunas (Riggs, 1912; Peterson and Kay, 1931; Kay 1934). More recent work focused on magnetostratigraphy, radioscopic chronology, and continental biostratigraphy (Flynn, 1986; Prothero, 1996). Well-known for its fossiliferous nature and distinctive mammalian fauna of mid-Eocene Age, the Uinta Formation is the type formation for the Uintan Land Mammal Age (Wood et al, 1941).

The Duchesne River Formation of the Uinta Basin in northeastern Utah is composed of a succession of fluvial and flood plain deposits composed of mud, silt, and sandstone. The source area for these late Eocene deposits is from the Uinta Mountains indicated by paleocurrent data (Anderson and Picard, 1972). In Peterson's (1931c) paper, the name "Duchesne Formation" was applied to the formation and it was later changed to the "Duchesne River Formation" by Kay (1934). The formation is divided up into four members: the Brennan Basin, Dry Gulch Creek, LaPoint, and Starr Flat (Anderson and Picard, 1972). Debates concerning the Duchesne River Formation, as to whether its age was late Eocene or early Oligocene, have surfaced throughout the literature of the last century (Wood et al., 1941; Scott 1945). Recent paleo-magnetostratigraphic work (Prothero, 1996) shows that the Duchesne River Formation is late Eocene in time.

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## FIELD METHODS

In order to determine if the proposed project area contained any paleontological resources, a reconnaissance survey was performed. An on-site observation of the proposed areas undergoing surficial disturbance is necessary because judgments made from topographic maps alone are often unreliable. Areas of low relief have potential to be erosional surfaces with the possibility of bearing fossil materials rather than surfaces covered by unconsolidated sediment or soils.

When found within the proposed construction areas, outcrops and erosional surfaces were checked to determine if fossils were present and to assess needs. Careful effort is made during surveys to identify and evaluate significant fossil materials or fossil horizons when they are found. Microvertebrates, although rare, are occasionally found in anthills or upon erosional surfaces and are of particular importance.

## PROJECT AREA

The project area is situated in the Wagonhound Member (Uinta A & B) of the Uinta Formation. The following list provides a description of the individual wells and their associated pipelines and access roads.

### **NBU #920-12LT**

The proposed twin is located on the pad of existing well "NBU #920-12L" in the NW/SW quarter-quarter section of Sec. 12, T 9 S, R 20 E (Figure 1). The proposed twin is located among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick. No fossils were found.

### **NBU #920-12N**

The proposed pipeline and access road begin at existing well "NBU #920-12L" in the NW/SW quarter-quarter section of Sec. 12, T 9 S, R 20 E, then travel southeast for approximately 0.2 miles where they enter the proposed well pad in the SE/SW quarter-quarter section of Sec. 12, T 9 S, R 20 E (Figure 1). The proposed pipeline, access road, and well pad are located on muddy colluvium among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick. Scattered, unidentifiable bone fragments and turtle shell fragments were found weathering out of the outcrops directly to the east of the staked area, but no other fossils were found.

### **NBU #920-13D**

The proposed pipeline and access road begin near the proposed well "NBU #920-12N" in the SW/SW quarter-quarter section of Sec. 12, T 9 S, R 20 E and travel southwest for approximately 0.3 miles where they enter the proposed well pad in the NW/NW quarter-quarter section of Sec. 13, T 9 S, R 20 E (Figure 1). The proposed pipeline, access road, and well pad are located on hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine

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to medium-grained, and 1 to 2 meters thick. The siltstones are green and purple and 3 to 4 meters thick. Scattered, isolated turtle shell fragments were found on the well pad. Very dense concentrations of turtle shell and limb fragments (*Echmatemys sp.?*) were found just to the north of the proposed access road weathering out of green siltstone.

**NBU #920-13F**

The proposed access road begins at an existing road in the SE/NE quarter-quarter section of Sec. 13, T 9 S, R 20 E and travels west approximately 0.1 miles. The proposed pipeline begins here and travels with the access road west approximately 0.4 miles where they enter the well pad in the NE/NW quarter-quarter section of Sec. 13, T 9 S, R 20 E (Figure 1). The proposed pipeline, access road, and well pad are located among rolling hills with outcrops of gray-green and tan sandstone. Dense concentrations of weathered turtle shell fragments were found all along the staked access road, especially where the road crosses sandstone outcrops.

**NBU #920-13G**

The proposed pipeline and access road begin at the proposed access road for "NBU #920-13F" and travel south >0.1 miles where they enter the proposed well pad in the SW/NE quarter-quarter section of Sec. 13, T 9 S, R 20 E (Figure 1). The proposed pipeline, access road, and well pad are located on rolling hills of sandy colluvium derived from underlying sandstone. A few small, tan, sandstone outcrops are located within the staked area. Scattered turtle shell fragments were found on the proposed well pad.

**NBU #920-13J**

The proposed access road begins at an existing road in the NW/NE quarter-quarter section of Sec. 24, T 9 S, R 20 E and travels in a generally northward direction for approximately 0.8 miles where it meets the proposed pipeline tie-in. Together the proposed access road and pipeline travel north for >0.1 miles where they enter the proposed well pad in the NW/SE quarter-quarter section of Sec. 13, T 9 S, R 20 E (Figure 1). The proposed pipeline, access road, and well pad are located among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick. The proposed access road is located on an abandoned access road for the first 0.5 miles. Scattered turtle shell fragments were found all along the staked area with greater concentrations on the actual outcrops.

**NBU #920-24AT**

The proposed access road begins at the proposed road for "NBU #920-13J" and travels east >0.1 miles to the well pad in the NE/NE quarter-quarter section of Sec. 24, T 9 S, R 20 E (Figure 1). The proposed pipeline begins near the proposed well pad "NBU #920-24B" in the NW/NE quarter-quarter section of Sec. 24, T 9 S, R 20 E and travels in a generally eastern direction approximately 0.4 miles where it enters the well pad in the NE/NE quarter-quarter section of Sec. 24, T 9 S, R 20 E. The proposed pipeline, access road, and well pad are located among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick. Scattered turtle shell fragments were found on the well pad.

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**NBU #920-24B**

The proposed access road begins along the proposed access road for "NBU #920-13J" in the SW/SE quarter-quarter section of Sec. 13, T 9 S, R 20 E and travels SW approximately 0.2 miles to where it is joined by the proposed pipeline (Figure 1). The proposed access road and pipeline then travel southwest together for >0.1 miles where they enter the proposed well pad in the NW/NE quarter-quarter section of Sec. 24, T 9 S, R 20 E. The proposed pipeline, access road, and well pad are located among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick. The proposed access road crosses a significant drainage near its start. Scattered turtle shell fragments were found over a wide area on the well pad.

**SURVEY RESULTS**

<b>PROJECT</b>	<b>GEOLOGY</b>	<b>PALEONTOLOGY</b>
"NBU #920-12LT" (Sec. 12, T 9 S, R 20 E)	The proposed twin is located among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick.	No fossils were found. <b>Class 3a</b>
"NBU #920-12N" (Sec. 12, T 9 S, R 20 E)	The proposed pipeline, access road, and well pad are located on muddy colluvium among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick.	Scattered, unidentifiable bone fragments and turtle shell fragments were found weathering out of the outcrops directly to the east of the staked area, but no other fossils were found. <b>Class 3a</b>
"NBU #920-13D" (Sec. 12 & 13, T 9 S, R 20 E)	The proposed pipeline, access road, and well pad are located on hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium grained, and 1 to 2 meters thick. The siltstones are green and purple and 3-4 meters thick.	Scattered and isolated turtle shell fragments were found on the well pad. Very dense concentrations of turtle shell and limb fragments ( <i>Echmatemys sp.?</i> ) were found just to the north of the proposed access road weathering out of green siltstone. <b>Class 4a</b>
"NBU #920-13F" (Sec. 13, T 9 S, R 20 E)	The proposed pipeline, access road, and well pad are located among rolling hills with outcrops of gray-green and tan sandstone.	Dense concentrations of weathered turtle shell fragments were found all along the staked access road especially where the road crosses sandstone outcrops. <b>Class 4a</b>

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<p><b>“NBU #920-13G”</b> (Sec. 13, T 9 S, R 20 E)</p>	<p>The proposed pipeline, access road, and well pad are located on rolling hills of sandy colluvium derived from underlying sandstone. A few small tan sandstone outcrops are located within the staked area.</p>	<p>Scattered turtle shell fragments were found on the proposed well pad. <b>Class 4b</b></p>
<p><b>“NBU #920-13J”</b> (Sec. 13, T 9 S, R 20 E)</p>	<p>The proposed pipeline, access road, and well pad are located among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick. The proposed access road is located on an abandoned access road for the first 0.5 miles.</p>	<p>Scattered turtle shell fragments were found all along the staked area with greater concentrations on the actual outcrops. <b>Class 4a</b></p>
<p><b>“NBU #920-24AT”</b> (Sec. 24, T 9 S, R 20 E)</p>	<p>The proposed pipeline, access road, and well pad are located among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick.</p>	<p>Scattered turtle shell fragments were found on the well pad. <b>Class 3a</b></p>
<p><b>“NBU #920-24B”</b> (Sec. 24, T 9 S, R 20 E)</p>	<p>The proposed pipeline, access road, and well pad are located among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick. The proposed access road crosses a significant drainage near its start.</p>	<p>Scattered turtle shell fragments were found over a wide area on the well pad. <b>Class 3a</b></p>

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## RECOMMENDATIONS

A reconnaissance survey was conducted for Kerr McGee's proposed well pads, access roads, and pipelines for "NBU #920-12LT, 12N, 13D, 13F, 13G, 13J, 24AT & 24B" (Sec. 12, 13 & 24, T 9 S, R 20 E). The proposed well pads and the associated access roads and pipelines covered in this report showed some signs of vertebrate fossils, therefore, we advise the following recommendations.

**We recommend that due to the number of vertebrate fossils found, that the proposed access roads, pipelines and well pads for "NBU #920-13D" and "NBU #920-13F" be monitored during the construction process.**

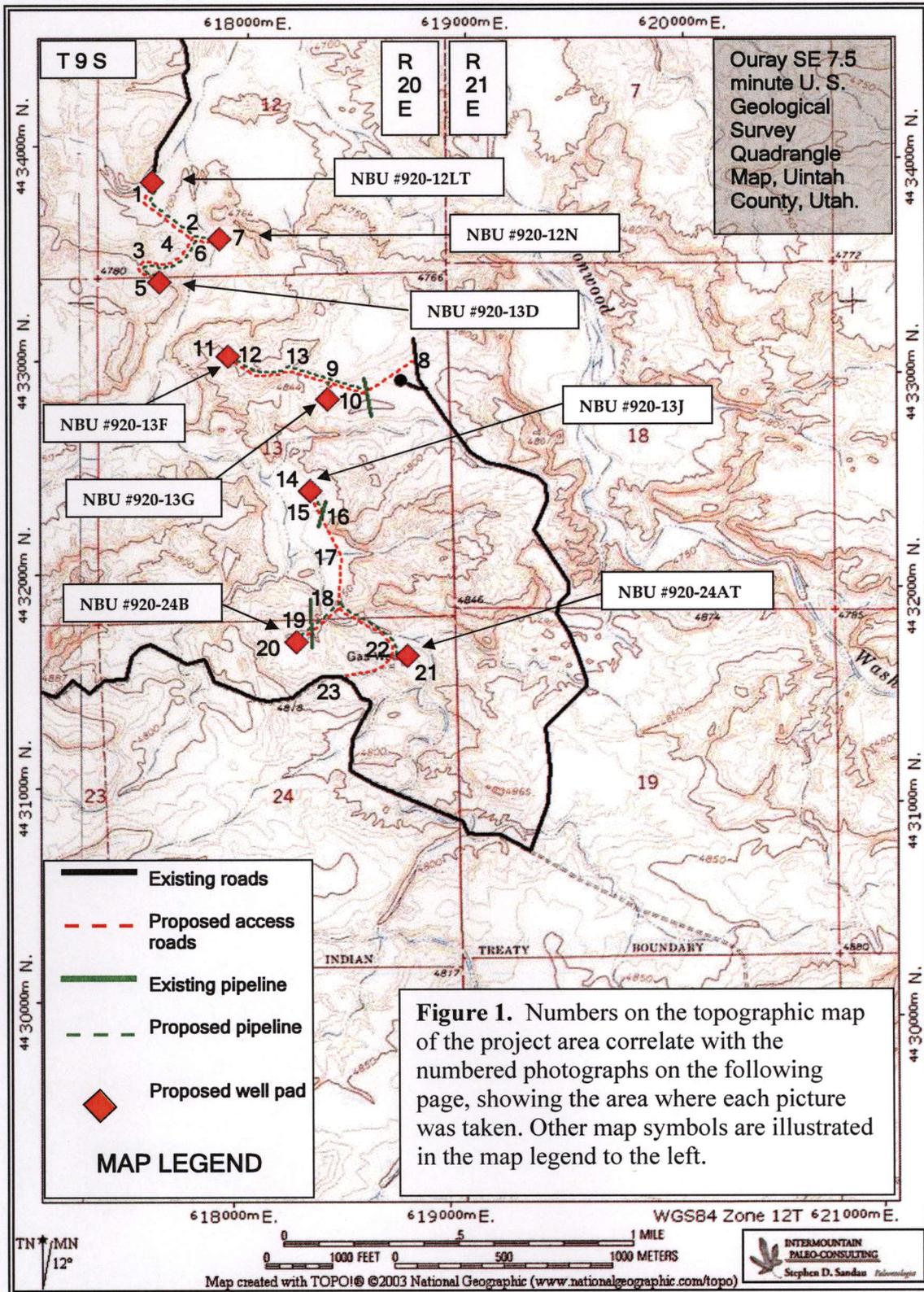
We recommend that no other paleontological restrictions should be placed on the development of the remainder of the projects included in this report.

Nevertheless, if any vertebrate fossil(s) are found during construction within the project area, recommendations are that a paleontologist is immediately notified in order to collect fossil materials in danger of being destroyed. Any vertebrate fossils found should be carefully moved outside of the construction areas to be checked by a permitted paleontologist.

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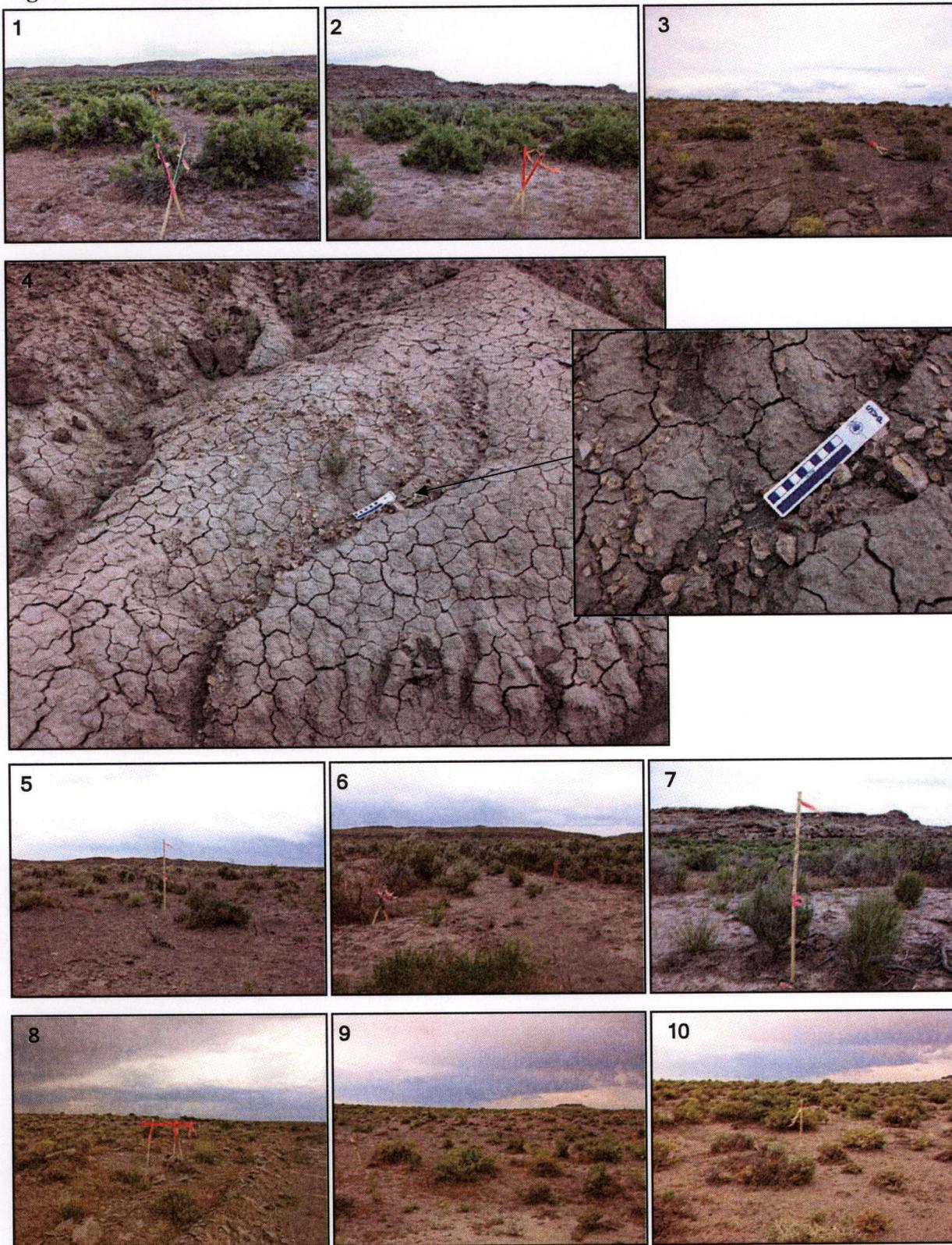


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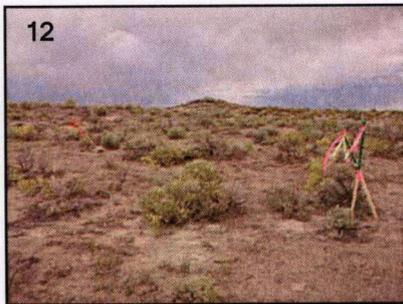
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Figure 1. continued...



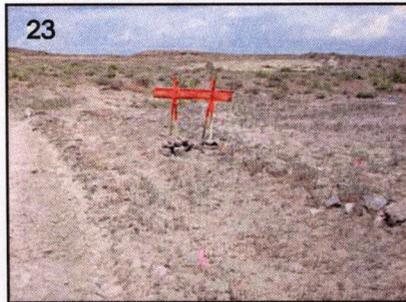
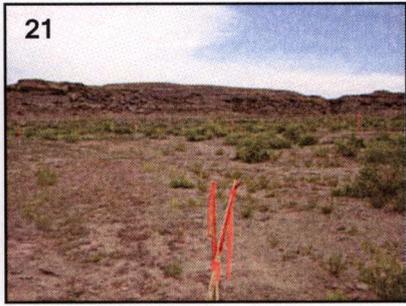
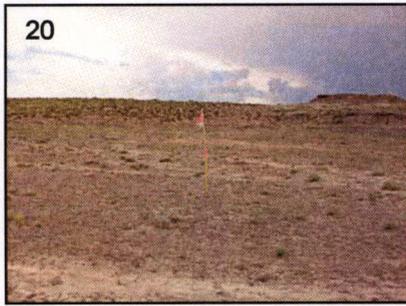
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Figure 1. *continued.* . .



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Figure 1. *continued...*



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## REFERENCES CITED

- Abbott, W., 1957, Tertiary of the Uinta Basin: Intermountain Assoc. Petroleum Geologists Guidebook, Eighth Ann. Field Conf., p. 102-109.
- Anderson, D. W., and Picard, M. D., 1972, Stratigraphy of the Duchesne River Formation (Eocene-Oligocene?), northern Uinta Basin, northeastern Utah: Utah Geological and Mineralogical Survey Bulletin 97, p. 1-28.
- Betts, C. W., 1871, The Yale College expedition of 1870: Harper's New Monthly Magazine, v. 43, p. 663-671.
- Black, C. C. and Dawson, M. R., 1966, A Review of Late Eocene Mammalian Faunas from North America: American Journal of Science, v. 264, p. 321-349.
- Bryant, B., Naeser C. W., Marvin R. F., Mahnert H. H., 1989, Cretaceous and Paleogene Sedimentary Rocks and Isotopic Ages of Paleogene Tuffs, Uinta basin, Utah. And Ages of Late Paleogene and Neogene Tuffs and the Beginning of Rapid Regional Extension, Eastern Boundary of the Basin and Range Province near Salt lake City, Utah: In: Evolution of Sedimentary basins-Uinta and Piceance Basins. U. S. Geological Survey Bulletin 1787-J, K.
- Flynn, J. J., 1986, Correlation and geochronology of middle Eocene strata from the western United States: Palaeogeographic, Palaeoclimatology, Palaeoecology, v. 55, p. 335-406.
- Hamblin, A. H. and Miller, W. E., 1987, Paleogeography and Paleoecology of the Myton Pocket, Uinta Basin, Utah (Uinta Formation-Upper Eocene): Brigham Young University Geology Studies, v. 34, p 33-60.
- Kay, J. L., 1934, Tertiary formations of the Uinta Basin, Utah: Annals of Carnegie Museum, v. 23, p. 357-371.
- Marsell, R. E., 1964, Geomorphology of the Uinta Basin-A Brief Sketch: Thirteenth annual Field Conference. Association of Petroleum Geologists, p. 34-46.
- Marsh, O. C., 1871, on the geology of the Eastern Uintah Mountains: American Journal of Science and Arts, v. 1, p. 1-8.
- \_\_\_\_\_ 1875a, Ancient lake basins of the Rocky Mountain region: American Journal of Science and Arts, v. 9, p. 49-52.
- \_\_\_\_\_ 1875b, Notice of new Tertiary mammals, IV: American Journal of Science and Arts, Third Series, v. 9, p. 239-250.

RECEIVED

SEP 29 2003

DIV. OF OIL, GAS &amp; MINING

- Osborn, H. F., 1895, Fossil mammals of the Uinta beds, expedition of 1894: American Museum of Natural History Bulletin, v. 7, p. 71-106.
- \_\_\_\_\_, 1929, The Titanotheres of Ancient Wyoming, Dakota and Nebraska: Monograph of the U. S. Geological Survey, v. 55, p. 1-953.
- Peterson, O. A., 1931c, new species from the Oligocene of the Uinta: Annals of Carnegie Museum, v. 21, p. 61-78.
- Peterson, O. A. and Kay, J. L., 1931, The Upper Uinta Formation of Northeastern Utah: Annals of the Carnegie Museum, v. 20, p. 293-306.
- Prothero, D. R., 1996, Magnetic Stratigraphy and biostratigraphy of the middle Eocene Uinta Formation, Uinta Basin, Utah, *in* Prothero, D. R., and Emry, R. J. editors, The Terrestrial Eocene-Oligocene Transition in North America, p. 3-24.
- Rasmussen, D. T., Conroy, G. C., Friscia, A. R., Townsend, K. E. and Kinkel, M. D., 1999, Mammals of the middle Eocene Uinta Formation: Vertebrate Paleontology of Utah, p. 401-420.
- Riggs, E. S., 1912. New or Little Known Titanotheres from the Lower Uintah Formations: Field Museum of Natural History Geological Series, v. 159, p. 17-41.
- Ryder, R. T., Fouch, T. D., Elison, J. H., 1976, Early Tertiary sedimentation in the western Uinta Basin, Utah: Geological Society of America Bulletin v. 87, p. 496-512.
- Scott, W. B., 1945, The Mammalia of the Duchesne River Oligocene: Transactions of the American Philosophical Society, v. 34, p. 209-253.
- Stucky, R. K., 1992, Mammalian faunas in North America of Bridgerian to early Arikareean "age" (Eocene and Oligocene), *in* Prothero, D. R., and Berggren, W. A., eds., Eocene-Oligocene climatic and biotic evolution: Princeton University Press, p. 464-493.
- Wood, H. E., 1934, Revision of the Hyrachyidae: American Museum of Natural History Bulletin, v. 67, p. 181-295.
- \_\_\_\_\_, and others, 1941, Nomenclature and Correlation of the North America Continental Tertiary: Geol. Soc. Amer. Bull., v. 52, no. 1, Jan. 1, p. 1-48. 52, no. 1, Jan. 1, p. 1-48.

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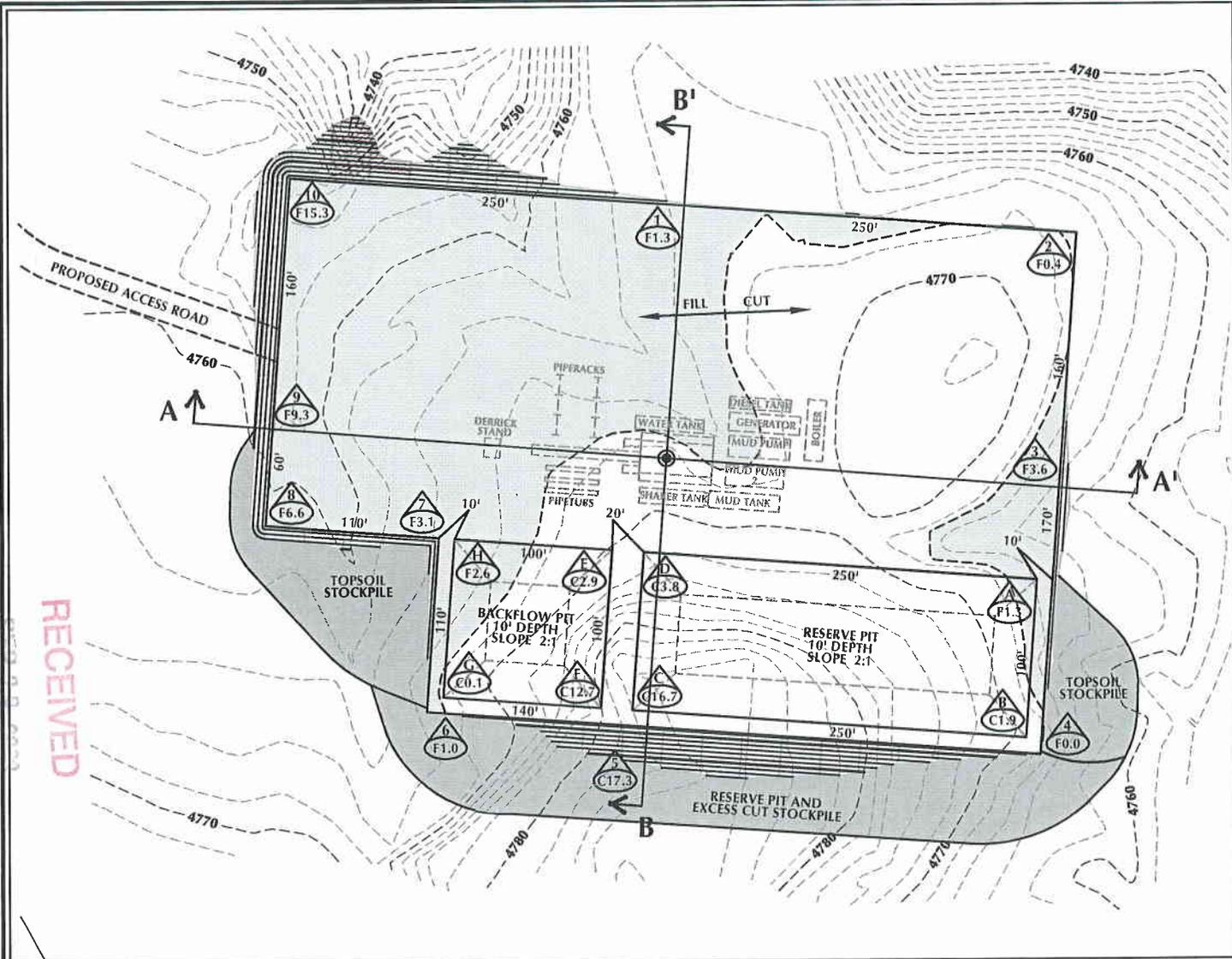
**WELL PAD LEGEND**

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

**WELL PAD NBU 920-13D QUANTITIES**

EXISTING GRADE @ LOC. STAKE = 4,768.9'  
 FINISHED GRADE ELEVATION = 4,767.3'  
 CUT SLOPES = 1.5:1  
 FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 15,176 C.Y.  
 TOTAL FILL FOR WELL PAD = 14,584 C.Y.  
 TOPSOIL @ 6" DEPTH = 3,126 C.Y.  
 TOTAL DISTURBANCE = 3.88 ACRES  
 SHRINKAGE FACTOR = 1.10  
 SWELL FACTOR = 1.00  
 RESERVE PIT CAPACITY (2' OF FREEBOARD)  
 +/- 25,880 BARRELS  
 RESERVE PIT VOLUME  
 +/- 7,185 CY  
 BACKFLOW PIT CAPACITY (2' OF FREEBOARD)  
 +/- 8,780 BARRELS  
 BACKFLOW PIT VOLUME  
 +/- 2,520 CY



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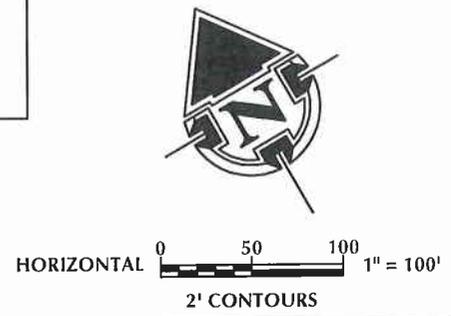
**KERR-MCGEE OIL & GAS**  
**ONSHORE L.P.**  
 1099 18th Street - Denver, Colorado 80202



**CONSULTING, LLC**  
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 Fax 307-674-0182

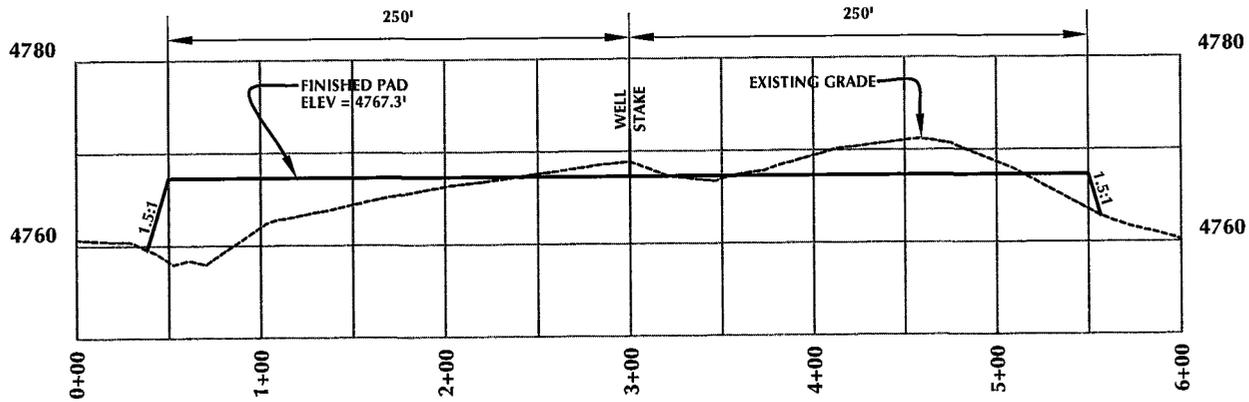
**NBU 920-13D**  
**WELL PAD - LOCATION LAYOUT**  
 186' FNL, 807' FWL  
 NW1/4NW1/4, SECTION 13, T.9S., R.20E.  
 S.L.B.&M., UTAH COUNTY, UTAH

Scale: 1"=100'	Date: 9/9/08	SHEET NO:
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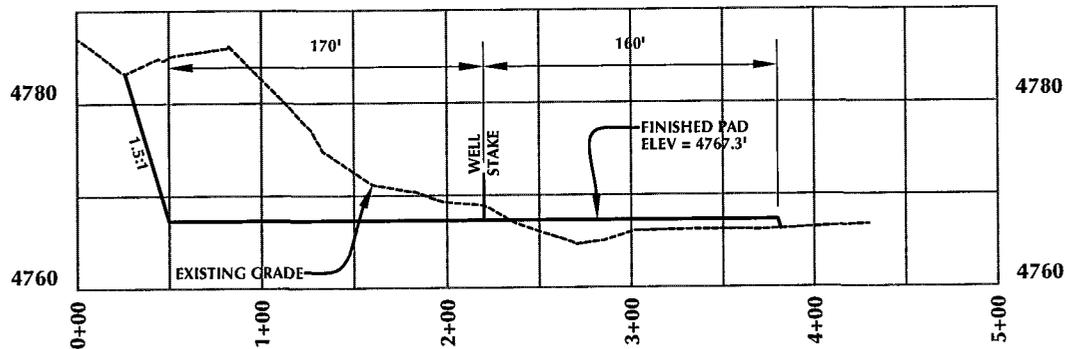


**Timberline** (435) 789-1365  
**Engineering & Land Surveying, Inc.**  
 38 WEST 100 NORTH VERNAL, UTAH 84078

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**CROSS SECTION A-A'**



**CROSS SECTION B-B'**

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NBU 920-13D  
WELL PAD - CROSS SECTIONS  
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NW1/4NW1/4, SECTION 13, T.9S., R.20E.  
S.L.B.&M., UINTAH COUNTY, UTAH



CONSULTING, LLC  
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Scale: 1"=100'	Date: 9/9/08
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SHEET NO:	3
	3 OF 9



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

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Engineering & Land Surveying, Inc.  
3B WEST 100 NORTH VERNAL, UTAH 84078



PHOTO VIEW: TO LOCATION STAKE

CAMERA ANGLE: NORTHEASTERLY



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: SOUTHERLY

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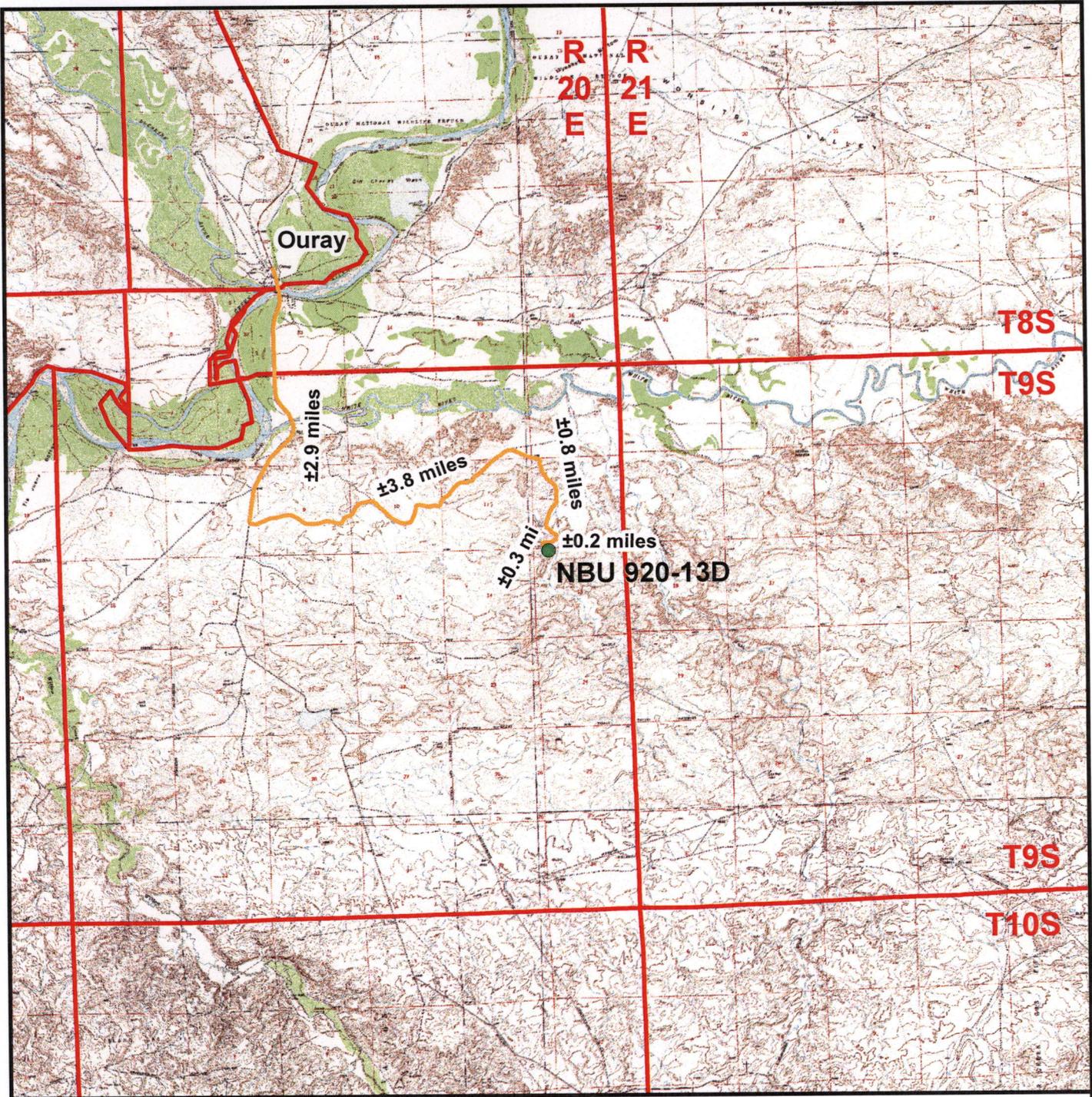
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 Sheridan WY 82801  
 Phone 307-674-0609  
 Fax 307-674-0182

NBU 920-13D  
 186' FNL, 807' FWL  
 NW  $\frac{1}{4}$  NW  $\frac{1}{4}$  OF SECTION 13, T9S, R20E,  
 S.L.B.&M. UINTAH COUNTY, UTAH.

<b>LOCATION PHOTOS</b>		DATE TAKEN: 08-08-08
		DATE DRAWN: 08-26-08
TAKEN BY: M.S.B.	DRAWN BY: E.M.S.	REVISED:
<b>Timberline</b> Engineering & Land Surveying, Inc.		(435) 789-1365
38 WEST 100 NORTH VERNAL, UTAH 84078		<b>SHEET</b> <b>4</b> <b>OF 9</b>



**Legend**

- Proposed NBU 920-13D Well Location
- Access Route - Proposed

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

**NBU 920-13D**  
 Topo A  
 186' FNL, 807' FWL  
 NW¼ NW¼, Section 13, T9S, R20E  
 S.L.B.&M., Uintah County, Utah



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

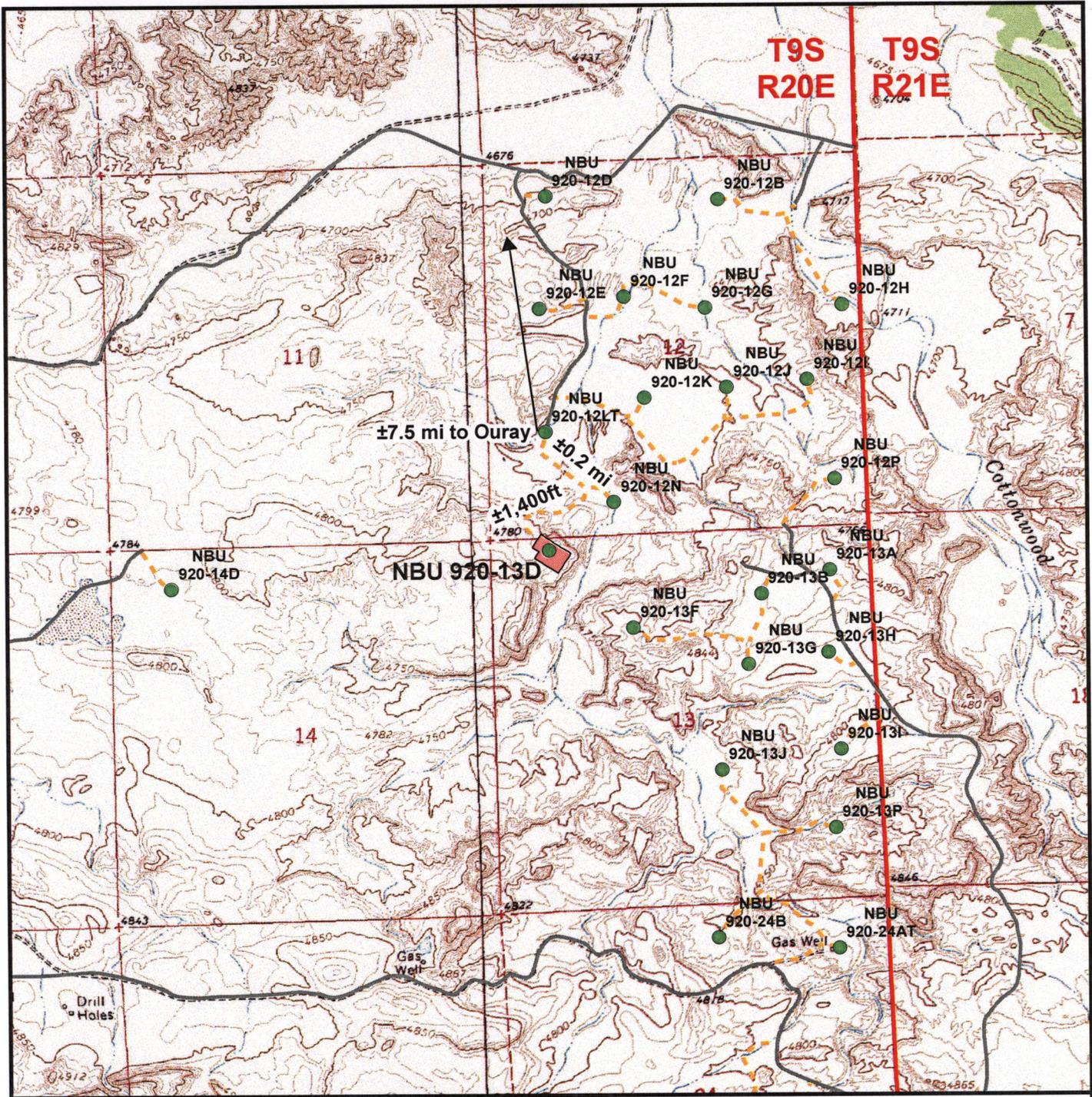


**RECEIVED**

SEP 29 2008

DIV. OF OIL, GAS & MINING

Scale: 1:100,000	NAD83 USP Central	Sheet No:
Drawn: JELO	Date: 8 Sept 2008	<b>5</b>
Revised:	Date:	5 of 9



**Legend**

- Well - Proposed
- Well Pad
- - - Road - Proposed
- Road - Existing

Total Proposed Road Length: ±1,400ft

RECEIVED

SEP 29 2008

DIV. OF OIL, GAS & MINING

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

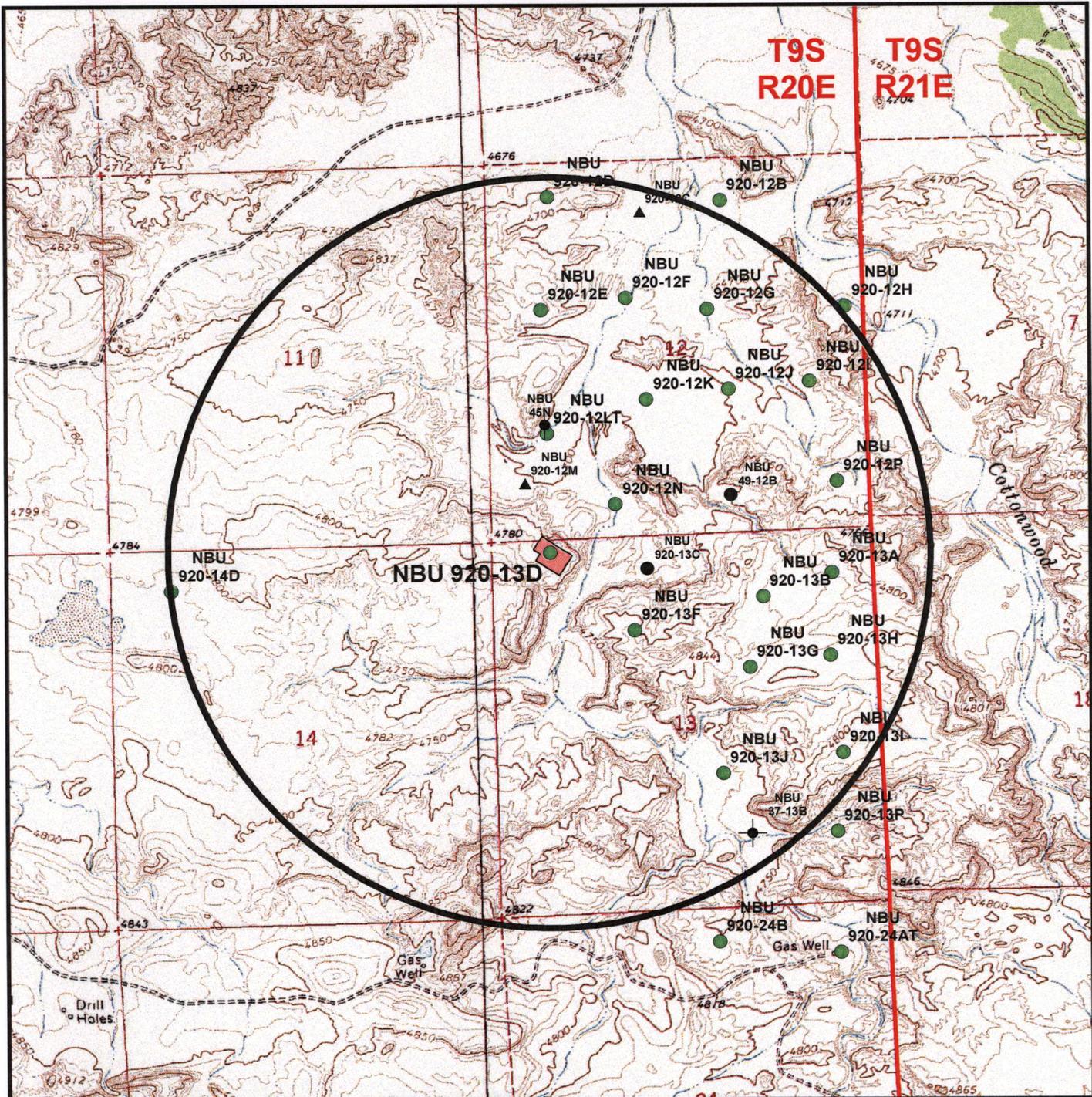


**609**  
CONSULTING, LLC  
371 Coffeen Avenue  
Sheridan, WY 82801  
Phone (307) 674-0609  
Fax (307) 674-0182



**NBU 920-13D**  
Topo B  
186' FNL, 807' FWL  
NW¼ NW¼, Section 13, T9S, R20E  
S.L.B.&M., Uintah County, Utah

Scale: 1" = 2000ft	NAD83 USP Central	Sheet No:
Drawn: JELo	Date: 8 Sept 2008	<b>6</b>
Revised:	Date:	6 of 9



**Legend**

- Well - Proposed
- Well Pad
- Well - 1 Mile Radius
- Producing
- ▲ Approved permit (APD); not yet spudded
- Spudded (Drilling commenced: Not yet complete)
- ⊗ Location Abandoned
- Temporarily-Abandoned
- ⊕ Plugged and Abandoned
- ⊖ Shut-In

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

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

**NBU 920-13D**  
Topo C  
186' FNL, 807' FWL  
NW¼ NW¼, Section 13, T9S, R20E  
S.L.B.&M., Uintah County, Utah

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

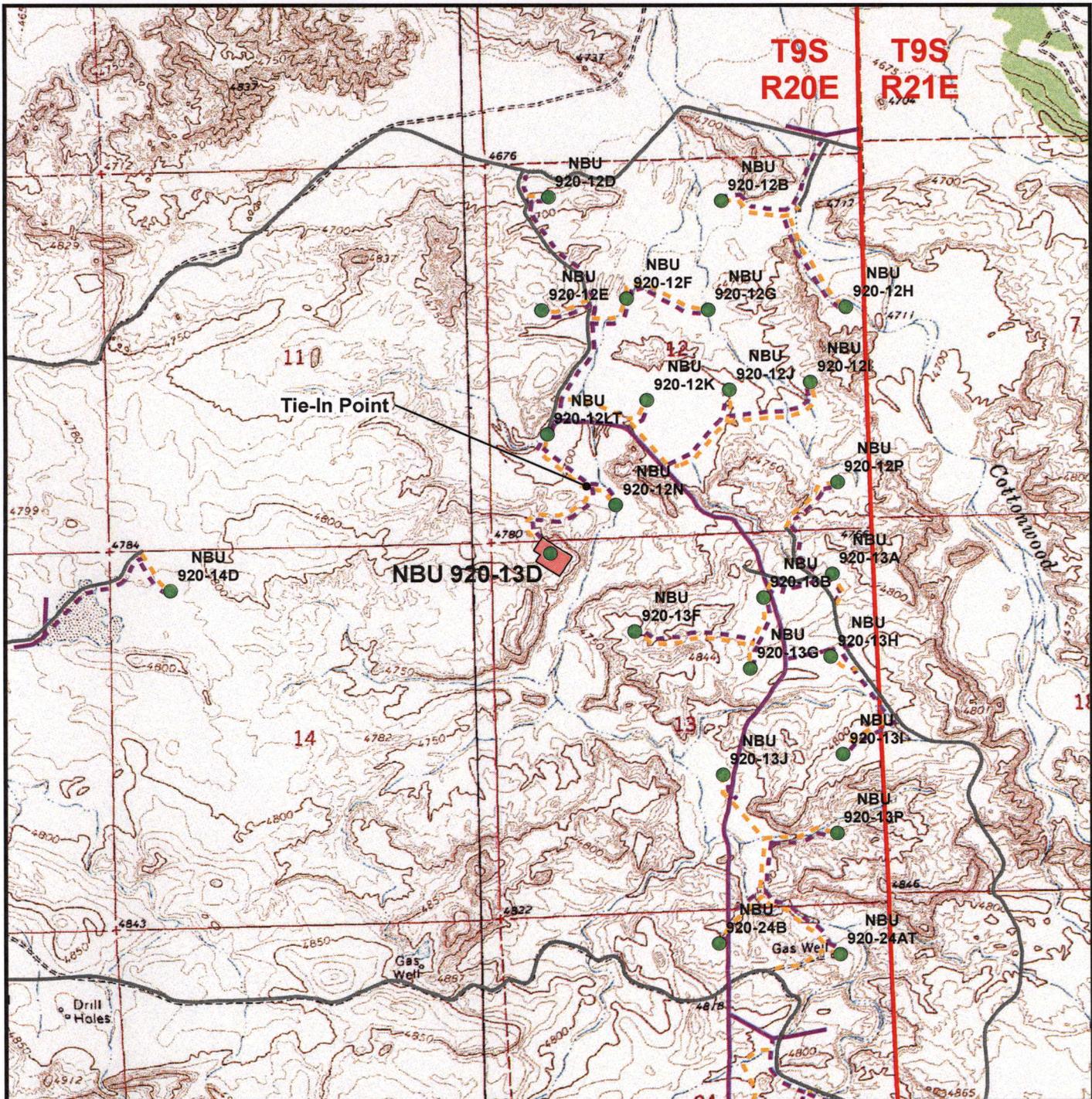


**RECEIVED**

SEP 29 2008

**DIV. OF OIL, GAS & MINING**

Scale: 1" = 2000ft	NAD83 USP Central	Sheet No:
Drawn: JELO	Date: 8 Sept 2008	<b>7</b>
Revised:	Date:	7 of 9



**Legend**

- Well - Proposed
- Well Pad
- - - Pipeline - Proposed
- - - Road - Proposed
- Pipeline - Existing
- Road - Existing

Total Proposed Pipeline Length: ±1,652ft

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

**NBU 920-13D**  
**Topo D**  
**186' FNL, 807' FWL**  
**NW¼ NW¼, Section 13, T9S, R20E**  
**S.L.B.&M., Uintah County, Utah**

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

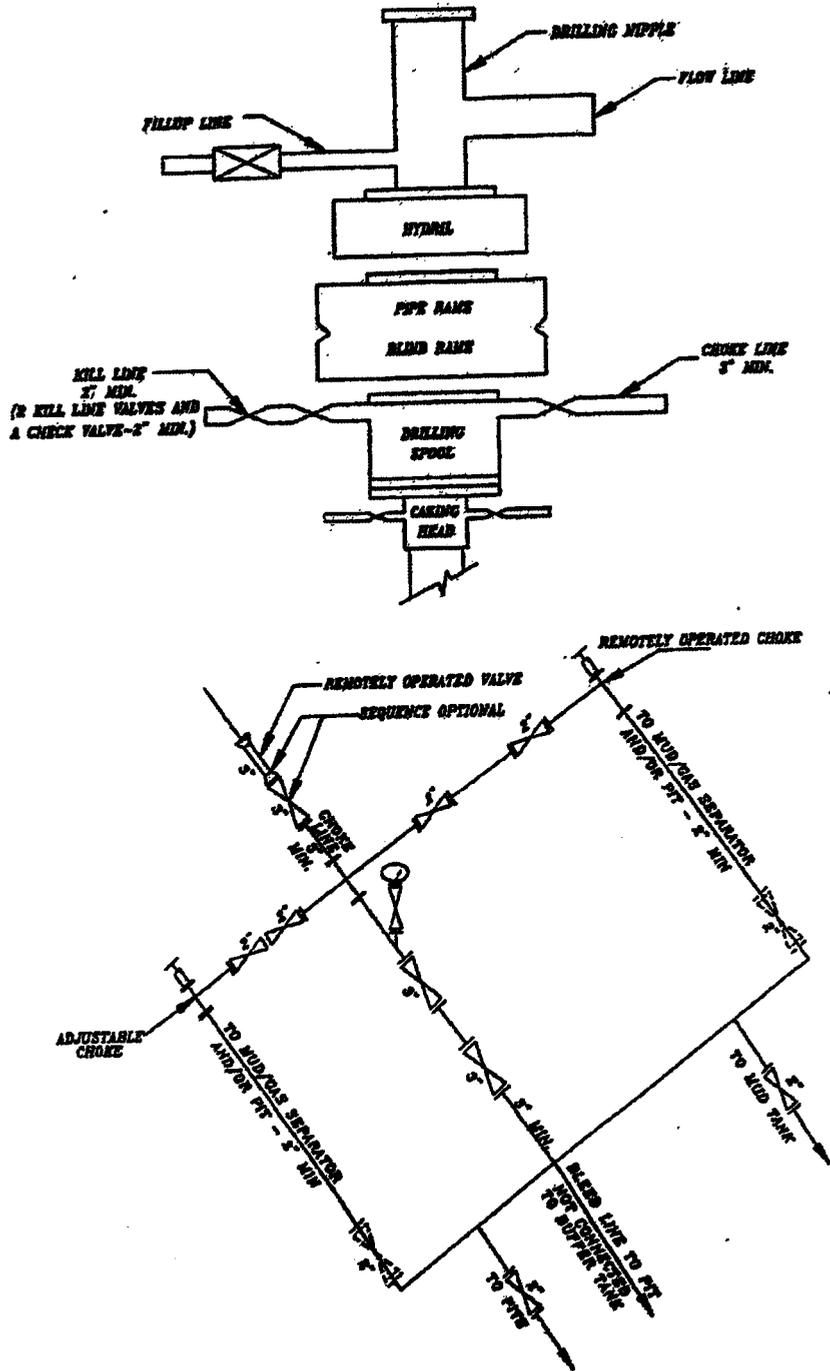
RECEIVED

SEP 29 2003

DIV. OF OIL, GAS & MINING

Scale: 1" = 2000ft	NAD83 USP Central	Sheet No:	
Drawn: JELO	Date: 8 Sept 2008	8	8 of 9
Revised:	Date:		

EXHIBIT A



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

RECEIVED  
SEP 29 2003  
DIV. OF OIL, GAS & MINING

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 09/29/2008

API NO. ASSIGNED: 43-047-40380

WELL NAME: NBU 920-13D  
 OPERATOR: KERR-MCGEE OIL & GAS ( N2995 )  
 CONTACT: KEVIN MCINTYRE

PHONE NUMBER: 720-929-6226

PROPOSED LOCATION:

NWNW 13 090S 200E  
 SURFACE: 0186 FNL 0807 FWL  
 BOTTOM: 0186 FNL 0807 FWL  
 COUNTY: UINTAH  
 LATITUDE: 40.04216 LONGITUDE: -109.6211  
 UTM SURF EASTINGS: 617632 NORTHINGS: 4433137  
 FIELD NAME: NATURAL BUTTES ( 630 )

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 1 - Federal  
 LEASE NUMBER: UTU-0579  
 SURFACE OWNER: 2 - Indian

PROPOSED FORMATION: WSMVD  
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

- Plat
- Bond: Fed[1] Ind[] Sta[] Fee[]  
(No. WYB000291 )
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit  
(No. 43-8496 )
- RDCC Review (Y/N)  
(Date: \_\_\_\_\_ )
- Fee Surf Agreement (Y/N)
- Intent to Commingle (Y/N)

LOCATION AND SITING:

- R649-2-3.
- Unit: NATURAL BUTTES
- R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells
- R649-3-3. Exception
- Drilling Unit  
Board Cause No: 173-14  
Eff Date: 12-2-1999  
Siting: 460' fr Wbdry of Uncomm. Tract
- R649-3-11. Directional Drill

COMMENTS:

*Sup, Separate file*

STIPULATIONS:

*1- Federal Approval  
2- OIL SHALE*

API Number: 4304740380

Well Name: NBU 920-13D

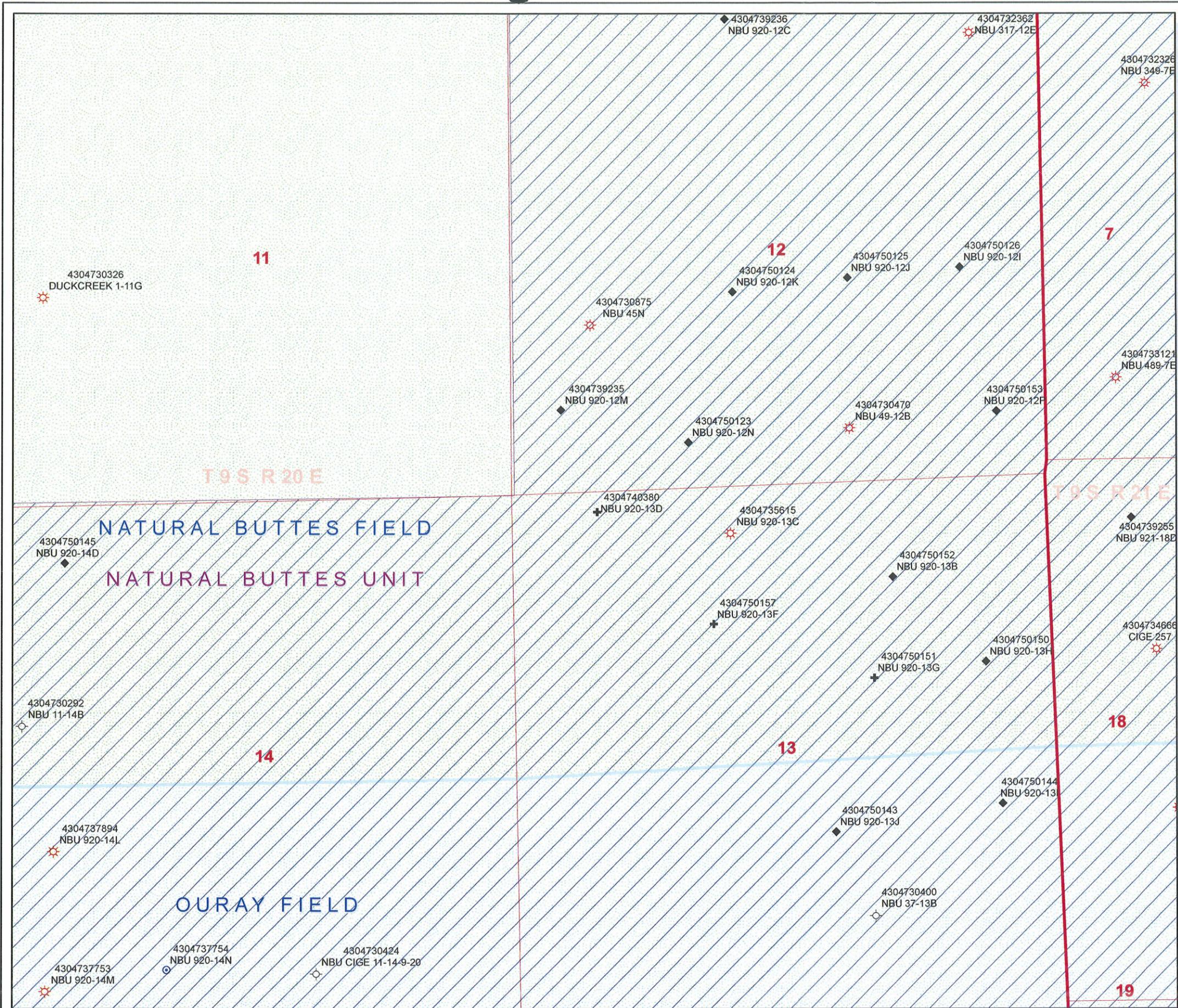
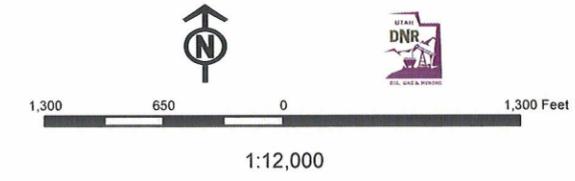
Township 09.0 S Range 20.0 E Section 13

Meridian: SLBM

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

Map Prepared:  
Map Produced by Diana Mason

Units	Wells Query Events
<b>STATUS</b>	<all other values>
ACTIVE	<Null>
EXPLORATORY	APD
GAS STORAGE	DRL
NF PP OIL	GI
NF SECONDARY	GS
PI OIL	LA
PP GAS	NEW
PP GEOTHERML	OPS
PP OIL	PA
SECONDARY	PGW
TERMINATED	POW
<b>Fields</b>	RET
<b>STATUS</b>	SGW
ACTIVE	SOW
COMBINED	TA
Sections	TW
Township	WD
	WI
	WS
	Bottom Hole Location



# 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)

October 1, 2008

### Memorandum

To: Assistant District Manager Minerals, Vernal District  
From: Michael Coulthard, Petroleum Engineer  
Subject: 2008 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 2008 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50157	NBU 920-13F	Sec 13 T09S R20E 1321 FNL 1950 FWL
43-047-40380	NBU 920-13D	Sec 13 T09S R20E 0186 FNL 0807 FWL
43-047-50163	NBU 920-12E	Sec 12 T09S R20E 2080 FNL 0747 FWL
43-047-50151	NBU 920-13G	Sec 13 T09S R20E 1907 FNL 1782 FEL
43-047-50160	NBU 920-12D	Sec 12 T09S R20E 0491 FNL 0857 FWL
43-047-50164	NBU 920-13A	Sec 13 T09S R20E 0625 FNL 0586 FEL
43-047-50165	NBU 1022-27C	Sec 27 T10S R22E 0922 FNL 2341 FWL

(Proposed PZ MESA VERDE)		
43-047-50161	NBU 920-24AT	Sec 24 T09S R20E 0709 FNL 0704 FEL
43-047-50162	NBU 920-12LT	Sec 12 T09S R20E 1538 FSL 0792 FWL

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



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

October 1, 2008

Kerr-McGee Oil & Gas Onshore, LP  
P O Box 173779  
Denver, CO 80217-3779

Re: NBU 920-13D Well, 186' FNL, 807' FWL, NW NW, Sec. 13, T. 9 South, R. 20 East,  
Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

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. The API identification number assigned to this well is 43-047-40380.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

cc: Uintah County Assessor  
Bureau of Land Management, Vernal Office

**Operator:** Kerr-McGee Oil & Gas Onshore, LP

**Well Name & Number** NBU 920-13D

**API Number:** 43-047-40380

**Lease:** UTU-0579

**Location:** NW NW                      Sec. 13                      T. 9 South                      R. 20 East

### Conditions of Approval

1. 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.

2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

- Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

- Contact Dustin Doucet at (801) 538-5281 office      (801) 733-0983 home

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

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

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

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-0579
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b> UTE  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 920-13D
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 4304740380000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0186 FNL 0807 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 13 Township: 09.0S Range: 20.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES  <b>COUNTY:</b> UINTAH  <b>STATE:</b> UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 9/28/2009	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> 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"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> 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: _____

**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:** September 30, 2009

**By:**

<b>NAME (PLEASE PRINT)</b> Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 9/24/2009	



**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 43047403800000**

**API:** 43047403800000

**Well Name:** NBU 920-13D

**Location:** 0186 FNL 0807 FWL QTR NWNW SEC 13 TWNP 090S RNG 200E MER S

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

**Date Original Permit Issued:** 10/1/2008

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

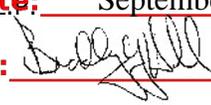
**Approved by the  
Utah Division of  
Oil, Gas and Mining**

**Signature:** Danielle Piernot

**Date:** 9/24/2009

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

**Date:** September 30, 2009

**By:** 

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-0579
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b> UTE  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 920-13D
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047403800000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0186 FNL 0807 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 13 Township: 09.0S Range: 20.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES  <b>COUNTY:</b> UINTAH  <b>STATE:</b> UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 6/21/2010  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:  <input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:  <input type="checkbox"/> <b>DRILLING REPORT</b> 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 checked="" type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: _____

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

Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) respectfully requests to change the surface casing size for this well from FROM: 9-5/8" TO: 8-5/8". Additionally, Kerr-McGee requests to change the cement program for this well due to a revised drilling procedure. The production casing will still be cemented it's entire length to the surface. Please see the attached drilling program for additional details. All other information remains the same. Please contact the undersigned with any questions and/or comments. Thank you.

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

Date: June 15, 2010

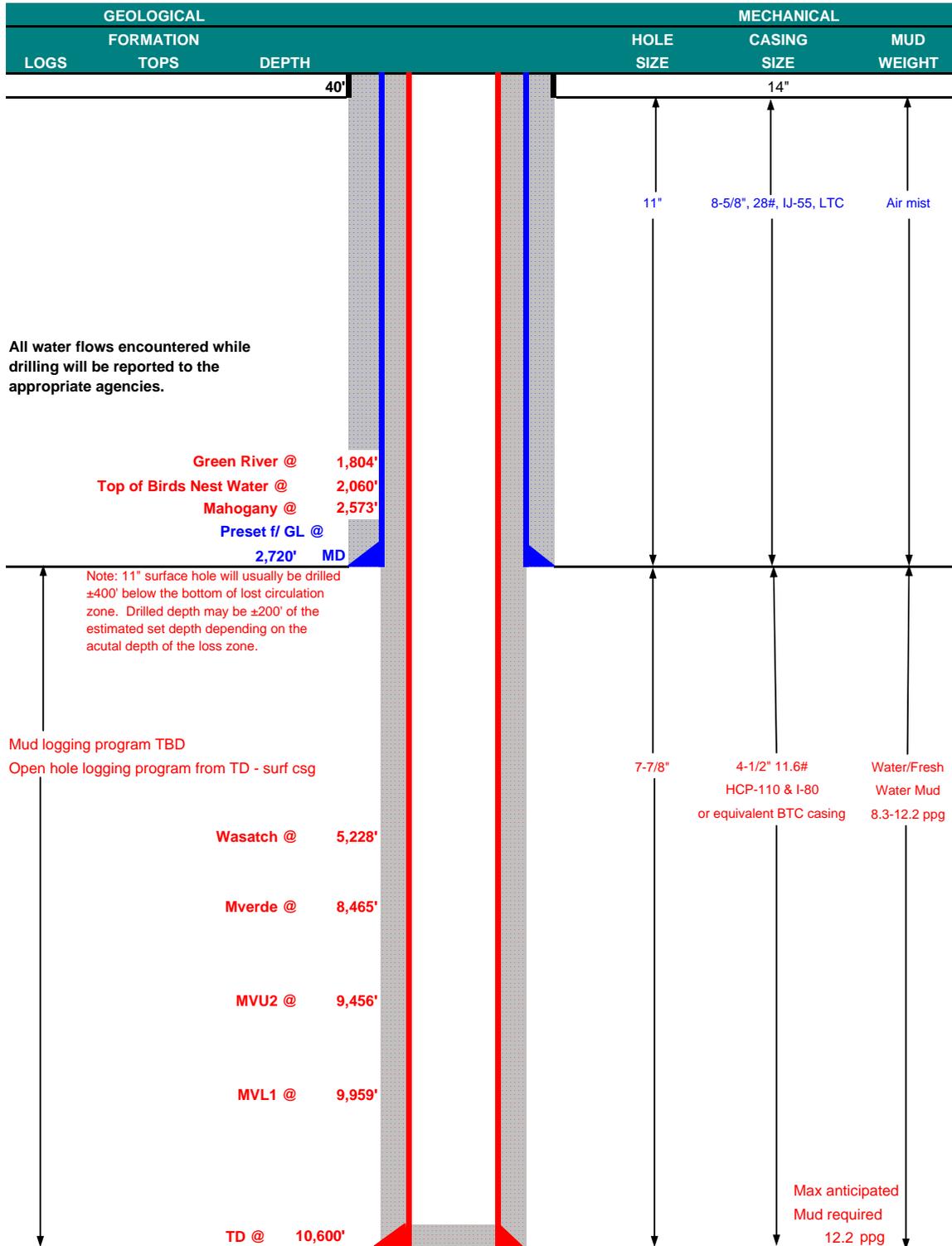
By: *Danielle Piernot*

<b>NAME (PLEASE PRINT)</b> Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 6/14/2010	



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE June 14, 2010  
 WELL NAME NBU 920-13D TD 10,600' MD/TVD  
 FIELD Natural Buttes COUNTY Uintah STATE Utah FINISHED ELEVATION 4,769'  
 SURFACE LOCATION NW/4 NW/4 186' FNL 807' FWL Sec 13 T 9S R 20E BHL Straight Hole  
 Latitude: 40.042170 Longitude: -109.621890 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'				3,390	1,880	348,000
SURFACE	8-5/8"	0 to 2720	28.00	IJ-55	LTC	0.77*	1.48	4.57
PRODUCTION	4-1/2"	0 to 9600	11.60	I-80	BTC	1.77	1.04	2.78
		9600 to 10600	11.60	HCP-110	BTC	2.43	1.29	38.89

\*Burst on surface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 1.98

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 4,272 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 6,604 psi**

**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
<b>NOTE: If well will circulate water to surface, option 2 will be utilized</b>							
SURFACE	LEAD	2,220'	Prem cmt + 16% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOC	200	35%	11.00	3.82
Option 2	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,720'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	360	20%	11.00	3.38
	TAIL	5,880'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,240	20%	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: \_\_\_\_\_  
John Huycke / Emile Goodwin

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

DRILLING SUPERINTENDENT: \_\_\_\_\_  
John Merkel / Lovel Young

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

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-0579
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b> UTE  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 920-13D
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047403800000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0186 FNL 0807 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 13 Township: 09.0S Range: 20.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES  <b>COUNTY:</b> UINTAH  <b>STATE:</b> UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 6/21/2010	<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 checked="" type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: _____
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:			
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:			
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:			

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

Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) respectfully requests to change the surface casing size for this well from FROM: 9-5/8" TO: 8-5/8". Additionally, Kerr-McGee requests to change the cement program for this well due to a revised drilling procedure. The production casing will still be cemented it's entire length to the surface. Please see the attached drilling program for additional details. All other information remains the same. Please contact the undersigned with any questions and/or comments. Thank you.

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

Date: June 15, 2010

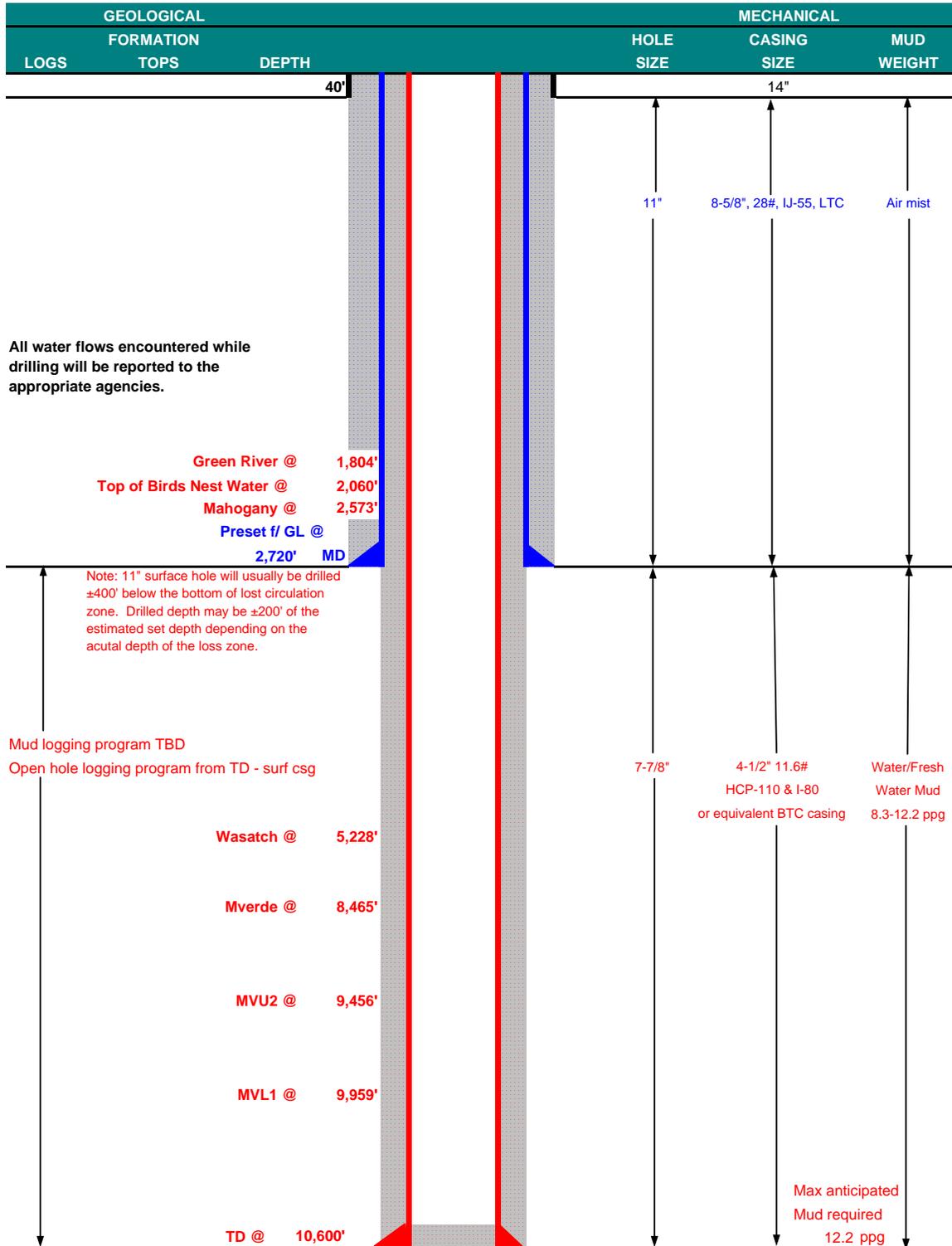
By: *Danielle Piernot*

<b>NAME (PLEASE PRINT)</b> Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 6/14/2010	



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE June 14, 2010  
 WELL NAME NBU 920-13D TD 10,600' MD/TVD  
 FIELD Natural Buttes COUNTY Uintah STATE Utah FINISHED ELEVATION 4,769'  
 SURFACE LOCATION NW/4 NW/4 186' FNL 807' FWL Sec 13 T 9S R 20E BHL Straight Hole  
 Latitude: 40.042170 Longitude: -109.621890 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'				3,390	1,880	348,000
SURFACE	8-5/8"	0 to 2720	28.00	IJ-55	LTC	0.77*	1.48	4.57
PRODUCTION	4-1/2"	0 to 9600	11.60	I-80	BTC	1.77	1.04	2.78
		9600 to 10600	11.60	HCP-110	BTC	2.43	1.29	38.89

\*Burst on surface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 1.98

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 4,272 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 6,604 psi**

**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
<b>NOTE: If well will circulate water to surface, option 2 will be utilized</b>						
SURFACE LEAD	2,220'	Prem cmt + 16% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOC	200	35%	11.00	3.82
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DRILLING ENGINEER: \_\_\_\_\_  
John Huycke / Emile Goodwin

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

DRILLING SUPERINTENDENT: \_\_\_\_\_  
John Merkel / Lovel Young

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

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-0579
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TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 6/21/2010  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:  <input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:  <input type="checkbox"/> <b>DRILLING REPORT</b> 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 checked="" type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: _____

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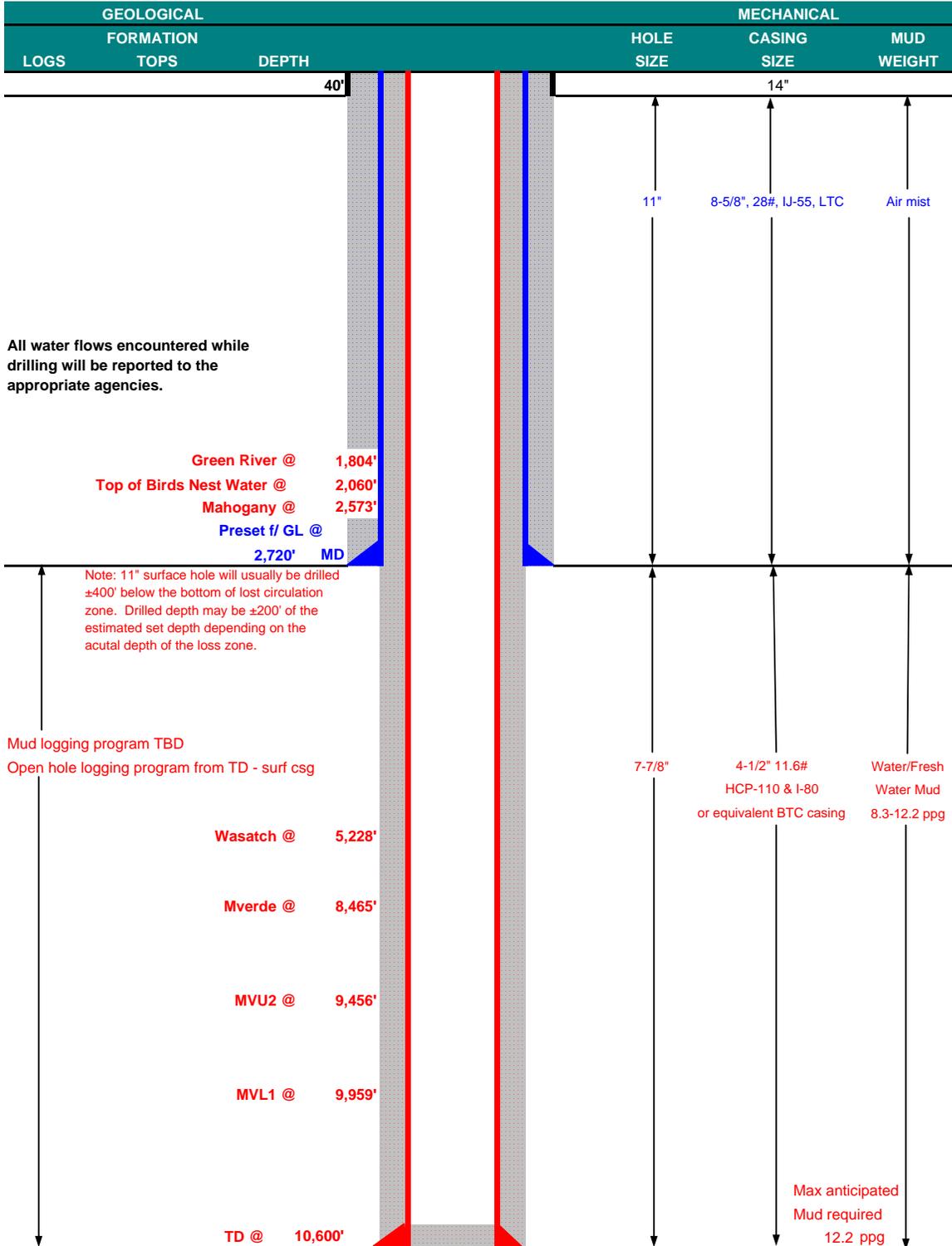
Date: June 15, 2010  
By: *Danielle Piernot*

<b>NAME (PLEASE PRINT)</b> Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 6/14/2010	



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE June 14, 2010  
 WELL NAME NBU 920-13D TD 10,600' MD/TVD  
 FIELD Natural Buttes COUNTY Uintah STATE Utah FINISHED ELEVATION 4,769'  
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 Latitude: 40.042170 Longitude: -109.621890 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
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	Option 1						
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SURFACE		<b>NOTE: If well will circulate water to surface, option 2 will be utilized</b>					
	Option 2						
	LEAD	2,220'	Prem cmt + 16% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOC	200	35%	11.00	3.82
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DRILLING ENGINEER:

John Huycke / Emile Goodwin

DATE:

DRILLING SUPERINTENDENT:

John Merkel / Lovel Young

DATE:

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-0579
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<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 920-13D
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047403800000
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<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0186 FNL 0807 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 13 Township: 09.0S Range: 20.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES  <b>COUNTY:</b> UINTAH  <b>STATE:</b> UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 9/30/2010  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:  <input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:  <input type="checkbox"/> <b>DRILLING REPORT</b> 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: October 06, 2010  
 By: 

<b>NAME (PLEASE PRINT)</b> Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 9/30/2010	



**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 43047403800000**

**API:** 43047403800000

**Well Name:** NBU 920-13D

**Location:** 0186 FNL 0807 FWL QTR NWNW SEC 13 TWNP 090S RNG 200E MER S

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

**Date Original Permit Issued:** 10/1/2008

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:** 9/30/2010

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

**Date:** October 06, 2010

**By:** 

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-0579			
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b> UTE  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES			
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 920-13D				
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047403800000				
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6515 Ext	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES			
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0186 FNL 0807 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWNW Section: 13 Township: 09.0S Range: 20.0E Meridian: S	<b>COUNTY:</b> UINTAH  <b>STATE:</b> UTAH				
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA					
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>				
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 10/1/2011  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:  <input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:  <input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top;"> <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           </td> <td style="width: 33%; vertical-align: top;"> <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           </td> <td style="width: 33%; vertical-align: top;"> <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"/> </td> </tr> </table>		<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"/>
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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.					
		<b>Approved by the          Utah Division of          Oil, Gas and Mining</b>  <b>Date:</b> <u>09/20/2011</u>  <b>By:</b> 			
<b>NAME (PLEASE PRINT)</b> Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	<b>TITLE</b> Regulatory Analyst			
<b>SIGNATURE</b> N/A	<b>DATE</b> 9/19/2011				



**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 43047403800000**

**API:** 43047403800000

**Well Name:** NBU 920-13D

**Location:** 0186 FNL 0807 FWL QTR NWNW SEC 13 TWNP 090S RNG 200E MER S

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

**Date Original Permit Issued:** 10/1/2008

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:** 9/19/2011

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



GARY R. HERBERT  
Governor

GREG BELL  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

May 9, 2012

Jenn Hawkins  
Anadarko Petroleum Corporation  
1099 18th Street, Suite 1800  
Denver, CO 80202

43 047 40380  
NBU 920-13D  
QS 20E 13

Re: APDs Rescinded for Anadarko Petroleum Corporation  
Uintah County

Dear Ms. Hawkins:

Enclosed find the list of APDs that you requested to be rescinded. No drilling activity at these locations has been reported to the division. Therefore, approval to drill these wells is hereby rescinded, effective May 2, 2012.

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  
SITLA, Ed Bonner



4304750055	NBU 753-32E	4304740374	NBU 705-26E
4304750683	NBU 634-12EX	4304750123	NBU 920-12N
4304740346	NBU 921-15N1S	4304750143	NBU 920-13J
4304740347	NBU 921-14M3S	4304750751	NBU 920-21G
4304740348	NBU 921-22A1S	4304750756	NBU 1022-35I1CS
4304750089	NBU 921-15O3T	4304750757	NBU 1022-35I4BS
4304740441	NBU 1022-25G2S	4304750758	NBU 1022-35J1CS
4304740442	NBU 1022-25G4S	4304750759	NBU 1022-35J4CS
4304740443	NBU 1022-25G3S	→ 4304740380	NBU 920-13D
4304750852	FEDERAL 920-23O	4304750155	FEDERAL 920-24O
4304751026	NBU 921-12K	4304750769	NBU 1022-35K4CS
4304751027	NBU 921-12L	4304750770	NBU 1022-35N1CS
4304751028	NBU 921-12M	4304750771	NBU 1022-35O1BS
4304751039	NBU 920-21O	4304750772	NBU 1022-35O1CS
4304750697	NBU 687-30E	4304750791	NBU 921-10O
4304750811	NBU 699-25E	4304750792	NBU 921-10M
4304740153	NBU 1022-05JT	4304740439	NBU 1022-24P2S
4304740135	NBU 921-15MT	4304740440	NBU 1022-24P4S
4304750468	NBU 738-30E		
4304739369	NBU 922-18O		
4304739372	NBU 922-20E		
4304740184	NBU 921-30FT		
4304740217	NBU 759-29E		
4304740218	NBU 737-30E		
4304750461	NBU 1022-24O2S		
4304740267	NBU 704-26E		
4304740240	NBU 702-26E		
4304740241	NBU 703-26E		
4304750578	NBU 920-14B		
4304750579	NBU 920-14A		
4304740268	NBU 701-26E		
4304750627	NBU 920-21P		
4304750628	NBU 920-21N		
4304750682	NBU 921-12J		
4304750695	NBU 921-12N		
4304750111	NBU 921-11GT		
4304750112	NBU 921-11HT		
4304750118	NBU 740-30E		



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Green River District-Vernal Field Office

170 South 500 East

Vernal, UT 84078

(435) 781-4400 Fax: (435) 781-4410

<http://www.blm.gov/ut/st/en/fo/vernal.html>

**MAY 14 2012**



IN REPLY REFER TO:  
3160 (UTG011)

Julie Jacobson  
Anadarko Petroleum Corporation  
Kerr McGee Oil & Gas Onshore LP  
1099 18<sup>th</sup> Street, Suite 600  
Denver, CO 80202

43 0A7 40380

Re: Request to Return APD  
Well No. NBU 920-13D  
NWNW, Sec. 13, T9S, R20E  
Uintah County, Utah  
Lease No. UTU-0579  
Natural Buttes Unit

Dear Ms. Jacobson:

The Application for Permit to Drill (APD) for the above referenced well received in this office on October 2, 2008, is being returned unapproved per a request to this office in an email message from you received on April 23, 2012. If you intend to drill at this location at a future date, a new Application for Permit to Drill must be submitted.

If you have any questions regarding APD processing, please contact Cindy Severson at (435) 781-4455.

Sincerely,

Jerry Kenczka  
Assistant Field Manager  
Lands & Mineral Resources

Enclosures

cc: UDOGM

RECEIVED  
MAY 22 2012  
DIV. OF OIL, GAS & MINING