

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

FORM 3

AMENDED REPORT   
(highlight changes)

<b>APPLICATION FOR PERMIT TO DRILL</b>				5. MINERAL LEASE NO: <b>ML-22649</b>	6. SURFACE: State
1A. TYPE OF WORK: <b>DRILL</b> <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>				7. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A	
B. TYPE OF WELL:    OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER _____    SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>				8. UNIT or CA AGREEMENT NAME: <b>NATURAL BUTTES UNIT</b>	
2. NAME OF OPERATOR: <b>KERR-MCGEE OIL &amp; GAS ONSHORE, LP</b>				9. WELL NAME and NUMBER: <b>NBU 922-32AT</b>	
3. ADDRESS OF OPERATOR: <b>PO BOX 173779</b> CITY <b>DENVER</b> STATE <b>CO</b> ZIP <b>80123</b>			PHONE NUMBER: <b>(720) 929-6666</b>	10. FIELD AND POOL, OR WILDCAT: <b>NATURAL BUTTES</b>	
4. LOCATION OF WELL (FOOTAGES)  AT SURFACE: <b>457' FNL, 113' FEL - LAT/LONG NAD 27 39.998572 / 109.454142</b>  AT PROPOSED PRODUCING ZONE: <b>631970X    39.998548</b> <b>44285314    -109.454062</b>				11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>NENE 32 9S 22E S</b>	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: <b>23 +/- MILES TO OURAY, UTAH</b>				12. COUNTY: <b>UINTAH</b>	13. STATE: <b>UTAH</b>
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) <b>113'</b>		16. NUMBER OF ACRES IN LEASE: <b>640</b>		17. NUMBER OF ACRES ASSIGNED TO THIS WELL: <b>40</b>	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) <b>20'</b>		19. PROPOSED DEPTH: <b>9,200</b>		20. BOND DESCRIPTION: <b>RLB0005237</b>	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): <b>4903' GR</b>		22. APPROXIMATE DATE WORK WILL START:		23. ESTIMATED DURATION: <b>10 DAYS</b>	

24. **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT			
12 1/4"	9 5/8	J-55	36 LTC	2,800	PREMIUM=2%CaCl	215 SK	1.18	15.6
7 7/8"	4 1/2	I-80	11.6 LTC	9,200	PREMIUM LITE II+3%	LEAD 430	3.38	11
					50/50 POZ/G =10%	TAIL 1470	1.31	14.3

25. **ATTACHMENTS**

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

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER	<input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) Raleen White    TITLE Sr. Regulatory Analyst  
SIGNATURE Raleen White    DATE 6-13-08

(This space for State use only)

API NUMBER ASSIGNED: 43-047-40147

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

APPROVAL:  
Date: 10-15-09  
By: [Signature]

**RECEIVED**  
**JUN 16 2008**  
DIV. OF OIL, GAS & MINING

(11/2001)

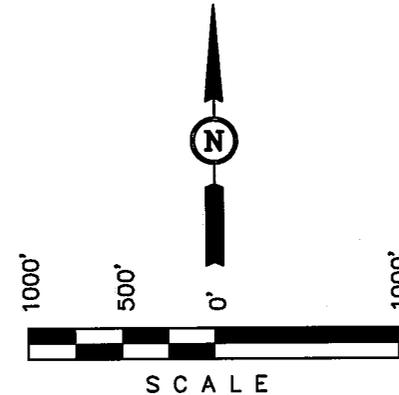
# T9S, R22E, S.L.B.&M.

## KERR MCGEE OIL & GAS ONSHORE LP

Well location, NBU #922-32AT, located as shown in the NE 1/4 NE 1/4 of Section 32, T9S, R22E, S.L.B.&M., Uintah County, Utah.

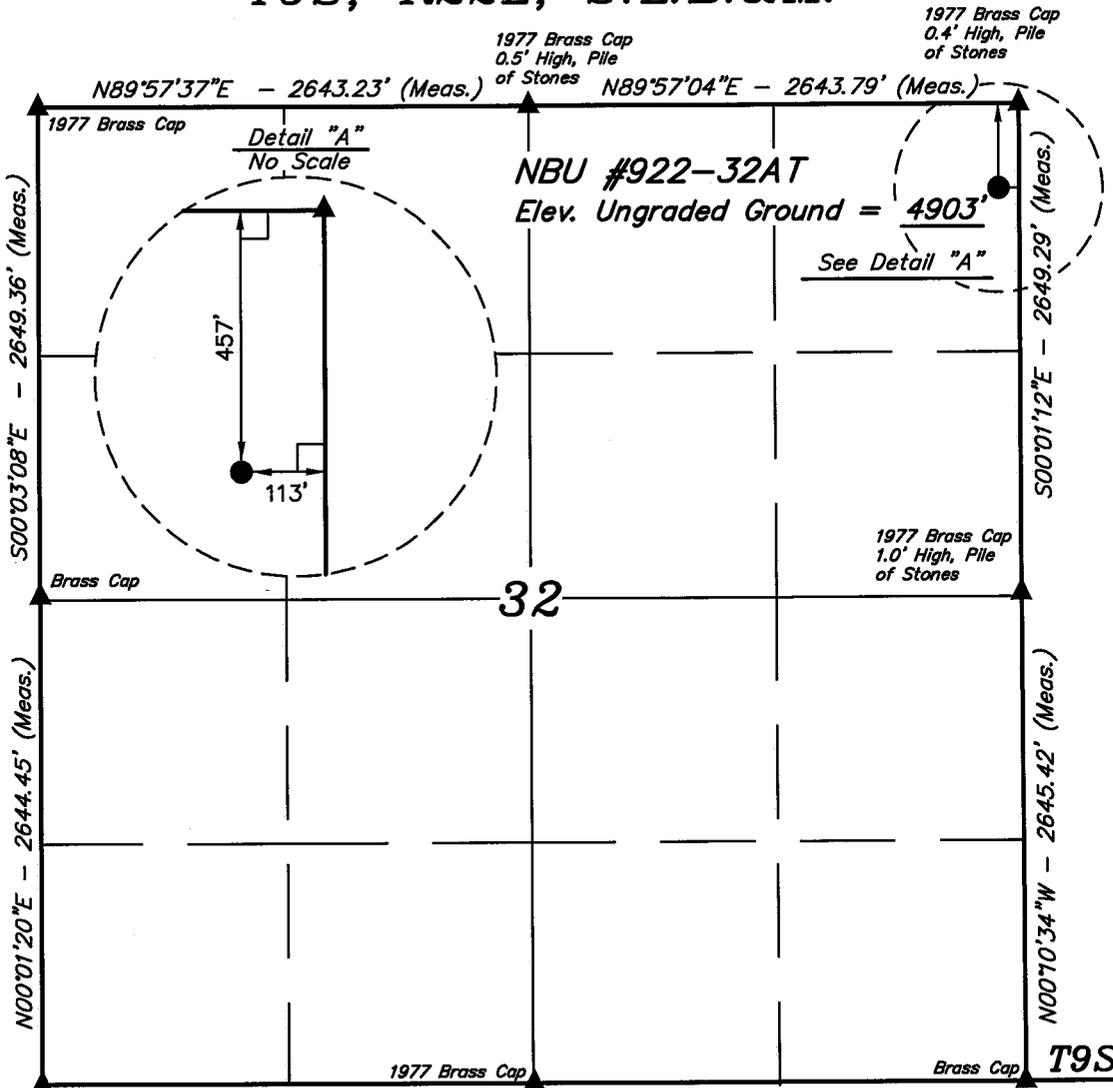
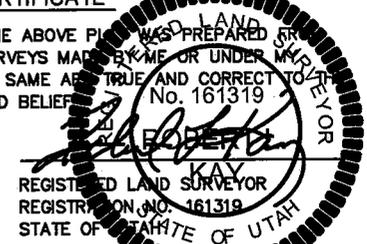
### BASIS OF ELEVATION

TWO WATER TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 1, T10S, R21E, S.L.B.&M. TAKEN FROM THE BIG PACK MTN NE QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5238 FEET.



### CERTIFICATE

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



1977 Brass Cap N89°59'14"E - 2647.21' (Meas.)  
2.0' High, Pile of Stones

N89°56'37"E - 2647.47' (Meas.) T10S

### LEGEND:

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

(NAD 83)  
 LATITUDE = 39°59'54.73" (39.998536)  
 LONGITUDE = 109°27'17.37" (109.454825)  
 (NAD 27)  
 LATITUDE = 39°59'54.86" (39.998572)  
 LONGITUDE = 109°27'14.91" (109.454142)

**UINTAH ENGINEERING & LAND SURVEYING**  
 85 SOUTH 200 EAST - VERNAL, UTAH 84078  
 (435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 05-22-08	DATE DRAWN: 05-30-08
PARTY T.A. S.K. L.K.	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE Kerr McGee Oil & Gas Onshore LP	

NBU 922-32AT  
NENE Sec. 32, T9S,R22E  
UINTAH COUNTY, UTAH  
ML-22649

ONSHORE ORDER NO. 1

***DRILLING PROGRAM***

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

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	1214'
Birds Nest	1558'
Mahogany	2038'
Wasatch	4452'
Mesaverde	6935'
TD	9200'

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

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River	1214'
Water	Birds Nest	1558'
Water	Mahogany	2038'
Gas	Wasatch	4452'
Gas	Mesaverde	6935'
Water	N/A	
Other Minerals	N/A	

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

*Please refer to the attached Drilling Program.*

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

*Please refer to the attached Drilling Program.*

5. **Drilling Fluids Program:**

*Please refer to the attached Drilling Program.*

6. **Evaluation Program:**

*Please refer to the attached Drilling Program.*

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 9200' TD, approximately equals 5704 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 3680 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. **Anticipated Starting Dates:**

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

9. **Variances:**

*Please refer to the attached Drilling Program.*

*Onshore Order #2 – Air Drilling Variance*

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

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

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

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

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

*Background*

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

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

*The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.*

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

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

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

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

#### *Variance for BOPE Requirements*

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

#### *Variance for Mud Material Requirements*

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

#### *Variance for Special Drilling Operation (surface equipment placement) Requirements*

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

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

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

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

*Conclusion*

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

**10. Other Information:**

*Please refer to the attached Drilling Program.*





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

**CASING PROGRAM**

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						
SURFACE	9-5/8"	0 to 2800	36.00	J-55	LTC	3520	2020	453000
						7780	6350	201000
PRODUCTION	4-1/2"	0 to 9200	11.60	I-80	LTC	2.82	1.33	2.16

- 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 = 10.0 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 2760 psi

**CEMENT PROGRAM**

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE Option 1	LEAD	500	Premium cmt + 2% CaCl + .25 pps flocele	215	60%	15.60	1.18
	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt + 2% CaCl + .25 pps flocele	50		15.60	1.18
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE Option 2	LEAD	1500	NOTE: If well will circulate water to surface, option 2 will be utilized Prem cmt + 16% Gel + 10 pps gilsonite + 25 pps Flocele + 3% salt BWOC	170	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	3,950'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	430	60%	11.00	3.38
	TAIL	5,250'	50/50 Poz/G + 10% salt + 2% gel +.1% R-3	1470	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**

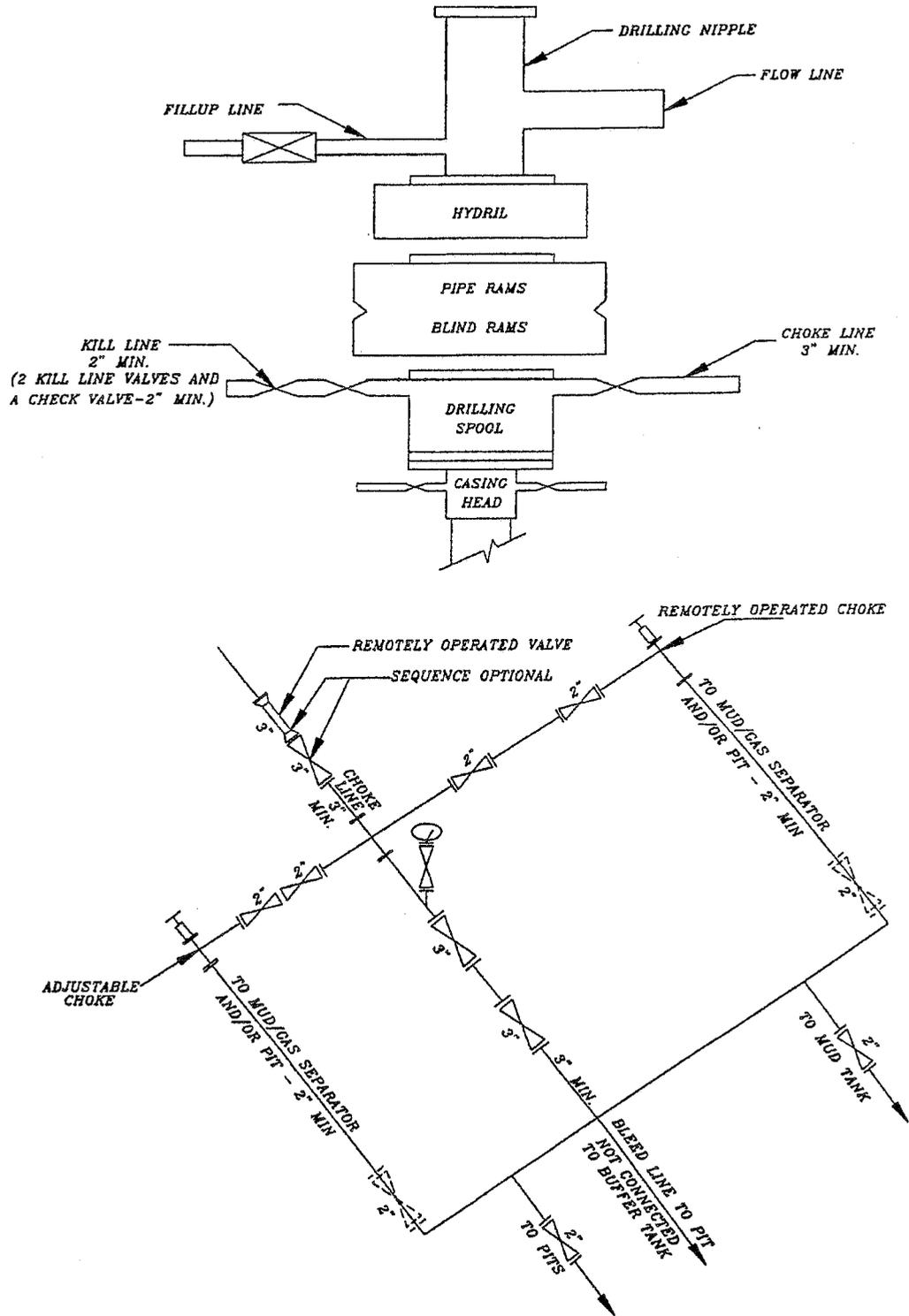
SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

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

DRILLING ENGINEER: \_\_\_\_\_ DATE: \_\_\_\_\_  
 Brad Laney  
 DRILLING SUPERINTENDENT: \_\_\_\_\_ DATE: \_\_\_\_\_  
 Randy Bayne

# 5M BOP STACK and CHOKE MANIFOLD SYSTEM



NBU 922-32AT  
Twin to NBU 190  
NENE SEC 32-T9S-R22E  
Uintah County, UT  
ML-22649

ONSHORE ORDER NO. 1

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

1. **Existing Roads:**

Refer to Topo Map A for directions to the location.

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

The existing road for the NBU 190 will be utilized. All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.

2. **Planned Access Roads:**

No new access road is proposed. Refer to Topo Map B for the location of the existing access road.

The upgraded and new portions of the access road will be crowned and ditched with a running surface of 18 feet and a maximum disturbed width of 30 feet. Appropriate water control will be installed to control erosion.

*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.*

Surfacing material may be necessary, depending upon weather conditions.

Surface disturbance and vehicular traffic will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

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

Please refer to Topo Map C.

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

*The following guidelines will apply if the well is productive.*

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope or the top of the fill slope.

A dike will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks, and/or heater/treater). These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank, and be independent of the back cut.

All permanent (on-site six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the five state Rocky Mountain Inter-Agency Committee.

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 required color is Carlsbad Canyon, standard color number 2.5Y 6/2.

Any necessary pits will be properly fenced to protect livestock and prevent wildlife entry.

**No new pipeline utilizing the existing NBU 190 pipeline. No TOPO D attached.**

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

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

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

No water well is to be drilled on this lease.

6. **Source of Construction Materials:**

Surface and subsoil materials in the immediate area will be utilized.

Any gravel will be obtained from a commercial source.

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

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids, including salts and chemicals, will be contained in the reserve pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an approved waste disposal facility within 120 days after drilling is terminated.

The reserve pit will be constructed on the location and will not be located within natural drainage, where a flood hazard exists or surface runoff will destroy or damage the pit walls. The reserve pit will be constructed so that it will not leak, break, or allow discharge of liquids.

A plastic reinforced liner and felt will be used, it will be a minimum of 20 mil thick, 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 spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

A chemical porta-toilet will be furnished with the drilling rig.

Garbage, trash, and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. No trash will be burned on location.

All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig.

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

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. CIGE 112D SWD – SESE, SECTION 19, T9S, R21E, NBU 47N2 SWD – SESW, SECTION 30, T10S, R22E, NBU 159 SWD – NESW, SECTION 35, T9S, R21E, NBU 347 – NWSW, SECTION 11, T10S, R22E, Ouray #1 SWD – NENE SECTION 1, T9S, R21E, Pipeline Facility Sec. 36, T9S, R20E, Goat Pasture Evaporation Pond SW/4 Sec. 16, T10S, R22E, Bonanza Evaporation Pond Sec. 2, T10S, R23E

8. **Ancillary Facilities:**

None are anticipated.

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.

The reserve pit will be lined, and when the reserve pit is closed, the pit liner will be buried below plow depth.

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

39 inch net wire will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.

The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.

Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.

Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

The reserve pit fencing will be on three sides during drilling operations, and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

Location size may change prior to the drilling of the well due to 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 9 shall be submitted.

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

*Producing Location:*

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, materials, trash, and debris not required for production.

Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.

A plastic, nylon reinforced liner will be used, it shall be torn and perforated before backfilling of the reserve pit.

Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 90 days from the date of well completion, weather permitting.

To prevent surface water (s) from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit will consist of "mounding" the surface three feet above surrounding ground surface to allow the reclaimed pit area to drain effectively.

Upon completion of backfilling, leveling, and recontouring, the stockpiled topsoil will be spread evenly over the reclaimed area(s).

*Dry Hole/Abandoned Location:*

Abandoned well sites, roads, and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions, and re-establishment of vegetation as specified.

All disturbed surfaces will be recontoured to the approximate natural contours, with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. Reseeding operations will be performed after completion of other reclamation operations.

**11. Surface Ownership:**

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

**12. Other Information:**

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, the approved Plan of Operations, and any applicable Notice of Lessees. The Operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

The Operator will control noxious weeds along Rights-Of-Way for roads, pipelines, well sites, or other applicable facilities.

A Class III archaeological survey has been completed and is attached.

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.

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

Raleen White  
Sr. Regulatory Analyst  
Kerr-McGee Oil & Gas Onshore LP  
PO BOX 173779  
Denver, CO 80217-3779  
(720) 929-6666

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

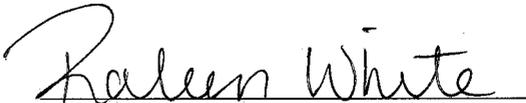
Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

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

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

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by State Surety Bond #RLB0005237.

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.

  
Raleen White  
Sr. Regulatory Analyst

6/13/2008

\_\_\_\_\_  
Date

**Kerr-McGee Oil & Gas Onshore LP**  
**NBU #922-32AT**  
**SECTION 32, T9S, R22E, S.L.B.&M.**

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 6.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN EASTERLY DIRECTION APPROXIMATELY 5.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN RIGHT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 3.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 4.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN EASTERLY, THEN NORTHWESTERLY DIRECTION APPROXIMATELY 1.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN RIGHT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN A NORTHEASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 1.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST, TURN RIGHT AND PROCEED IN A SOUTHWESTERLY, THEN WESTERLY DIRECTION APPROXIMATELY 0.1 MILES TO THE EXISTING #190 AND THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 55.6 MILES.

# Kerr-McGee Oil & Gas Onshore LP

NBU #922-32AT

LOCATED IN UINTAH COUNTY, UTAH  
SECTION 32, T9S, R22E, S.L.B.&M.

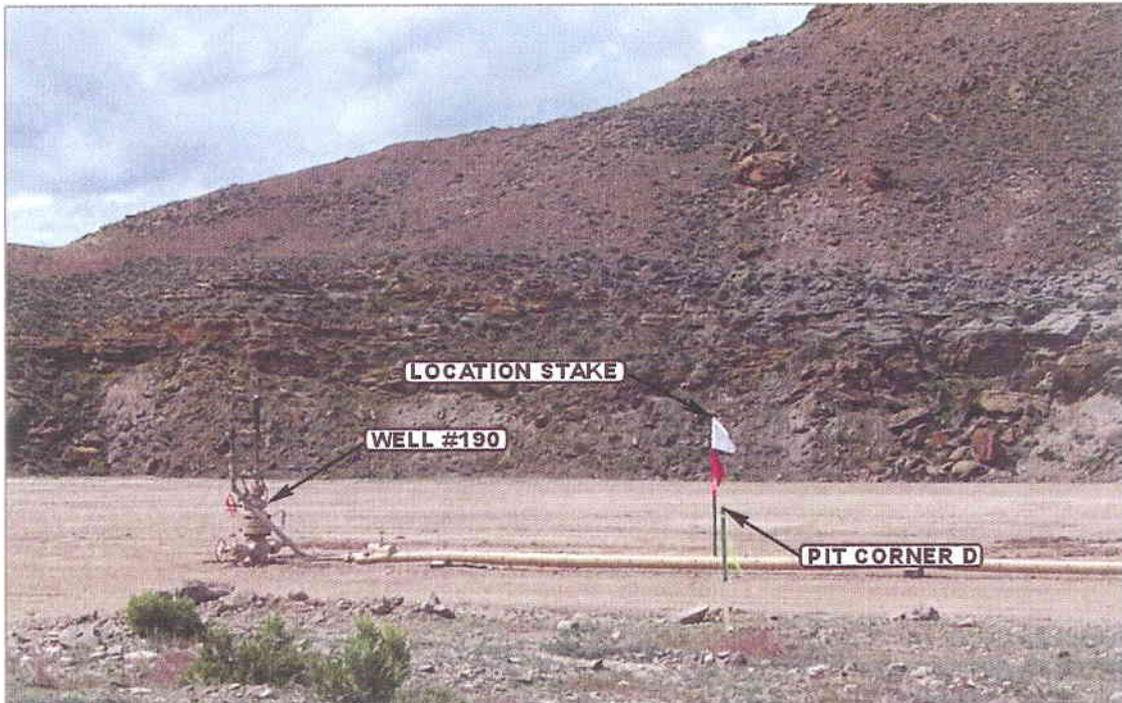


PHOTO: VIEW FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: SOUTHEASTERLY



PHOTO: VIEW OF EXISTING ACCESS

CAMERA ANGLE: SOUTHWESTERLY



- Since 1964 -

U  
E  
L  
S  
Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
435-789-1017 uels@uelsinc.com

LOCATION PHOTOS

05 30 08  
MONTH DAY YEAR

PHOTO

TAKEN BY: T.A.

DRAWN BY: L.K.

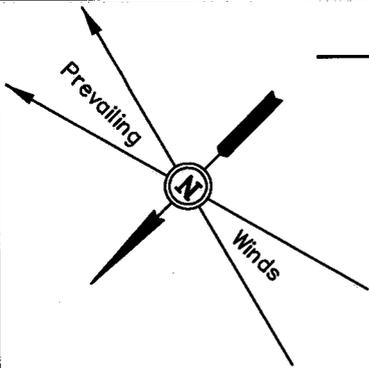
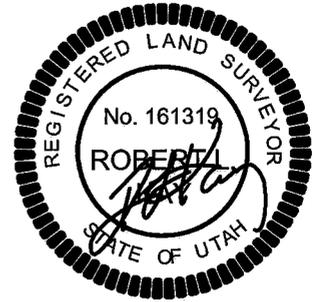
REVISED: 00-00-00

Kerr-McGee Oil & Gas Onshore LP

FIGURE #1

LOCATION LAYOUT FOR

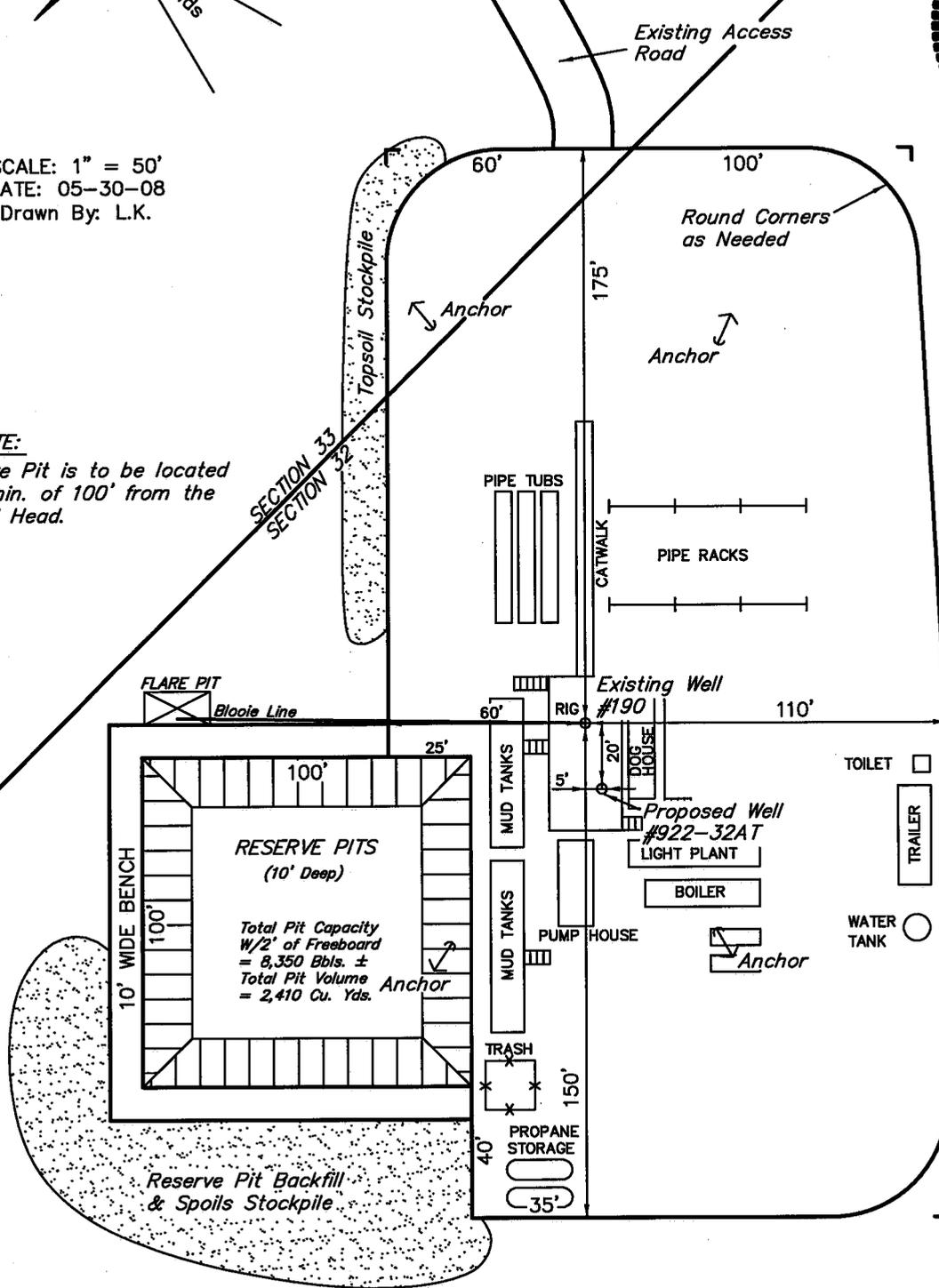
NBU #922-32AT  
SECTION 32, T9S, R22E, S.L.B.&M.  
457' FNL 113' FEL



SCALE: 1" = 50'  
DATE: 05-30-08  
Drawn By: L.K.

NOTE:

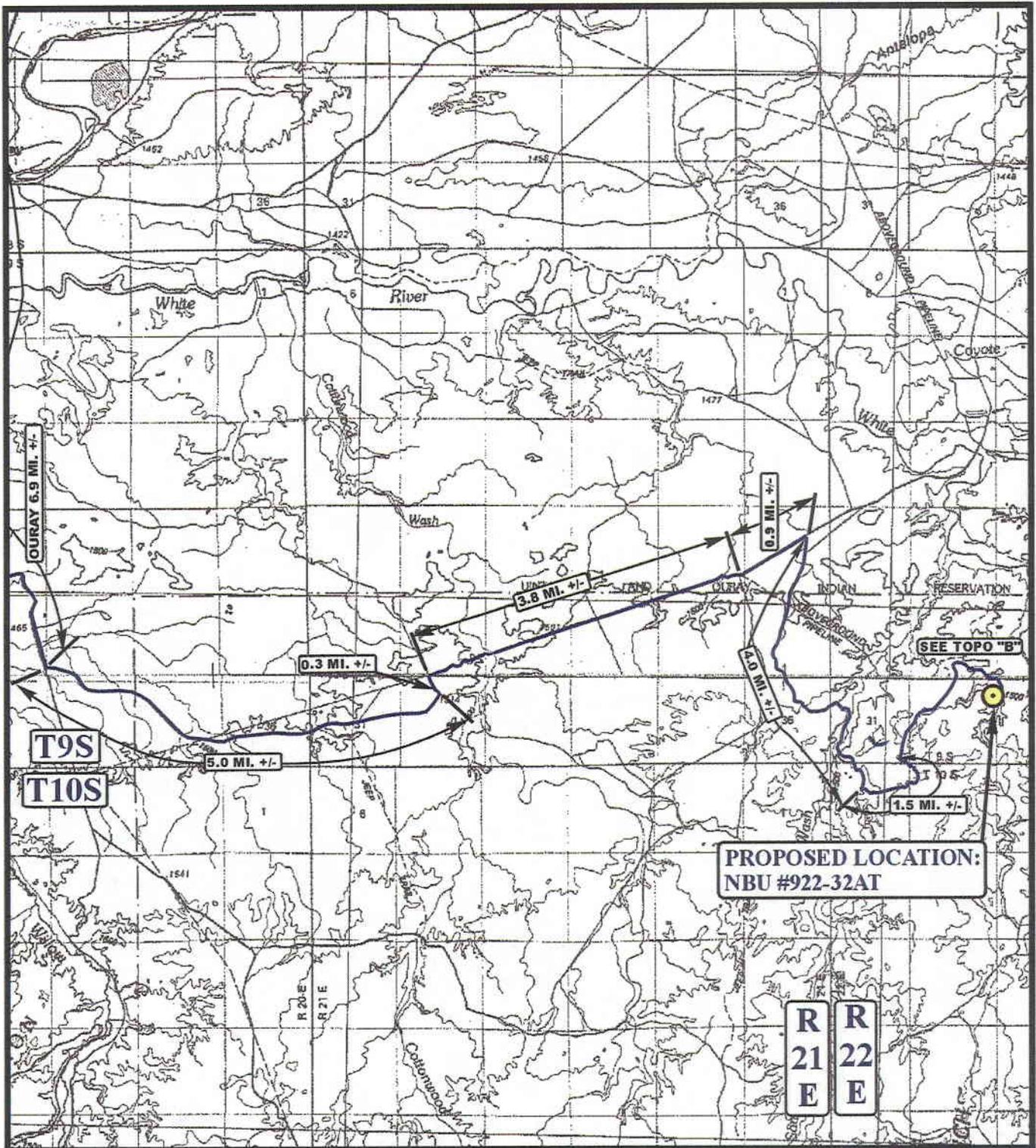
Flare Pit is to be located a min. of 100' from the Well Head.



NOTES:

FINISHED GRADE ELEV. AT LOC. STAKE = 4903.0'

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017



**PROPOSED LOCATION:  
NBU #922-32AT**

**R  
21  
E**     **R  
22  
E**

**LEGEND:**

PROPOSED LOCATION



**Kerr-McGee Oil & Gas Onshore LP**

**NBU #922-32AT  
SECTION 32, T9S, R22E, S.L.B.&M.  
457' FNL 113' FEL**



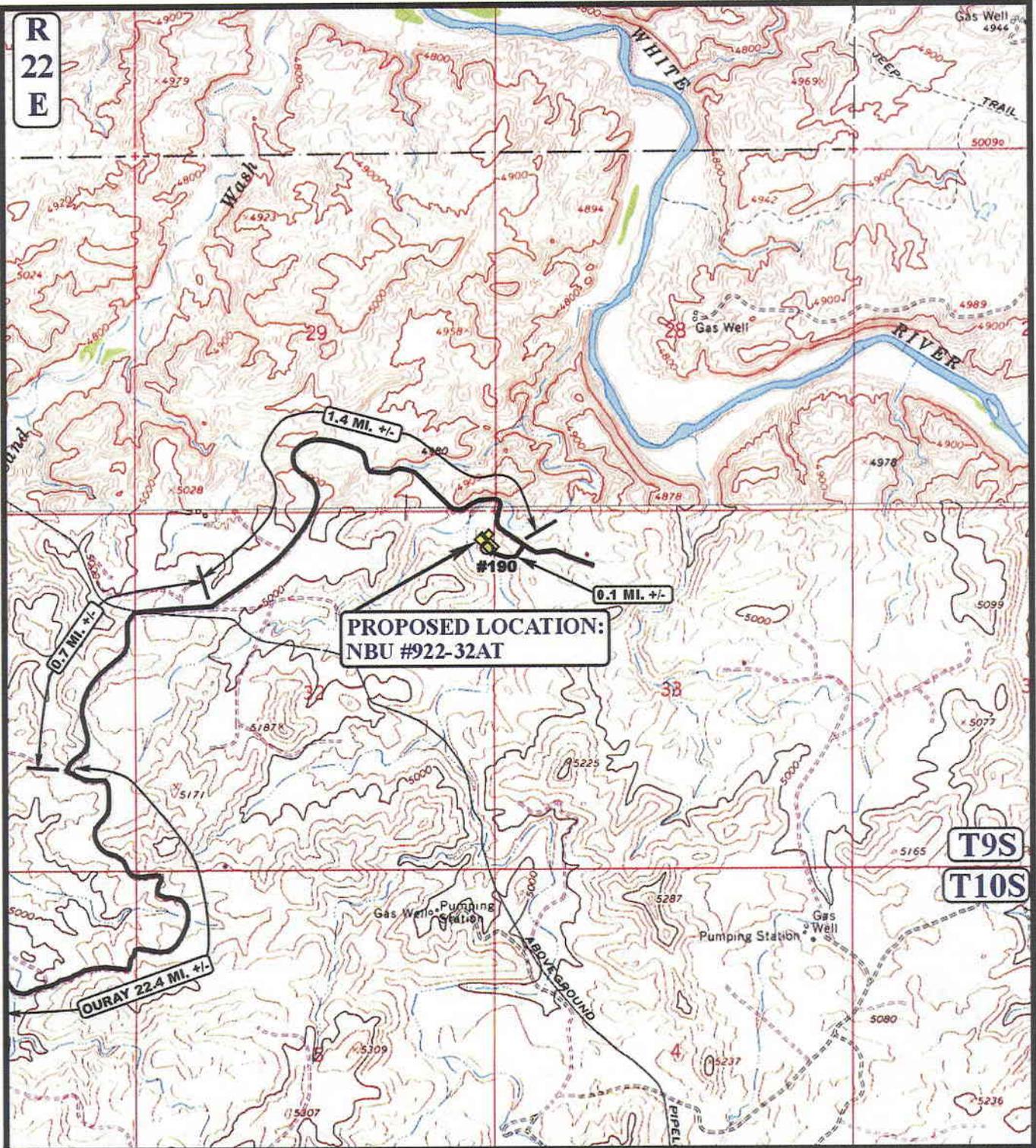
**Uintah Engineering & Land Surveying**  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813

**TOPOGRAPHIC  
MAP**

**05 30 08**  
MONTH DAY YEAR

SCALE: 1: 100,000 DRAWN BY: L.K. REVISED: 00-00-00





**LEGEND:**

- PROPOSED ACCESS ROAD
- EXISTING ROAD

**Kerr-McGee Oil & Gas Onshore LP**

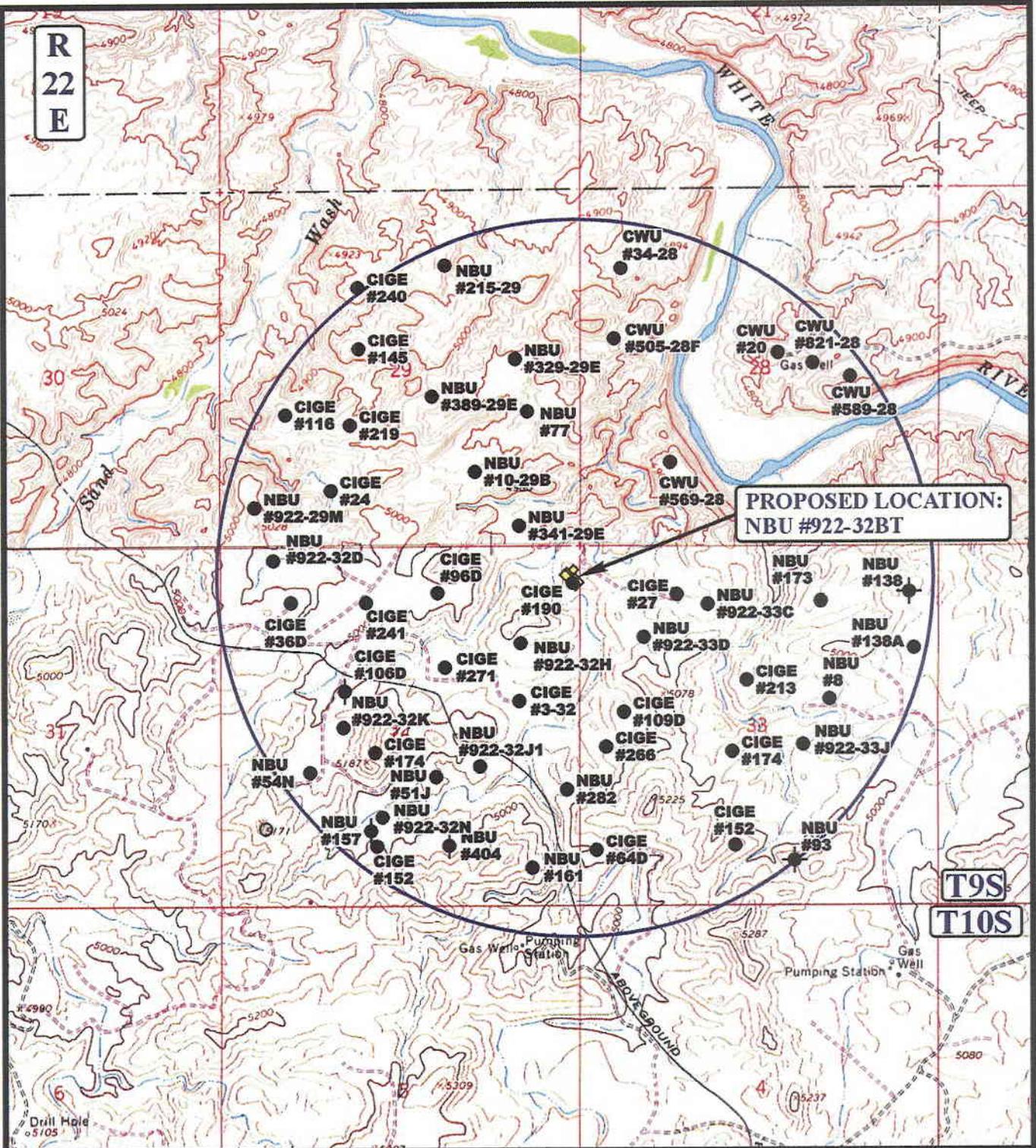
NBU #922-32AT  
 SECTION 32, T9S, R22E, S.L.B.&M.  
 457' FNL 113' FEL



**UEIS** Uintah Engineering & Land Surveying  
 85 South 200 East Vernal, Utah 84078  
 (435) 789-1017 \* FAX (435) 789-1813

**TOPOGRAPHIC MAP** **05 30 08**  
 MONTH DAY YEAR  
 SCALE: 1" = 2000' DRAWN BY: L.K. REVISED: 00-00-00 **B**  
 TOPO

R  
22  
E



PROPOSED LOCATION:  
NBU #922-32BT

T9S  
T10S

**LEGEND:**

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

**Kerr-McGee Oil & Gas Onshore LP**

NBU #922-32AT  
SECTION 32, T9S, R22E, S.L.B.&M.  
457' FNL 113' FEL



Uintah Engineering & Land Surveying  
85 South 200 East Vernal, Utah 84078  
(435) 789-1017 \* FAX (435) 789-1813



TOPOGRAPHIC  
MAP

05 29 08  
MONTH DAY YEAR

SCALE: 1" = 2000' DRAWN BY: L.K. REVISED: 00-00-00



**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 06/16/2008

API NO. ASSIGNED: 43-047-40147

WELL NAME: NBU 922-32AT  
 OPERATOR: KERR-MCGEE OIL & GAS ( N2995 )  
 CONTACT: RALEEN WHITE

PHONE NUMBER: 720-929-6666

PROPOSED LOCATION:  
 NENE 32 090S 220E  
 SURFACE: 0457 FNL 0113 FEL  
 BOTTOM: 0457 FNL 0113 FEL  
 COUNTY: UINTAH  
 LATITUDE: 39.99855 LONGITUDE: -109.4541  
 UTM SURF EASTINGS: 631970 NORTHINGS: 4428531  
 FIELD NAME: NATURAL BUTTES ( 630 )

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering	DRO	7/16/08
Geology		
Surface		

LEASE TYPE: 3 - State  
 LEASE NUMBER: ML-22649  
 SURFACE OWNER: 3 - State

PROPOSED FORMATION: MVRD  
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

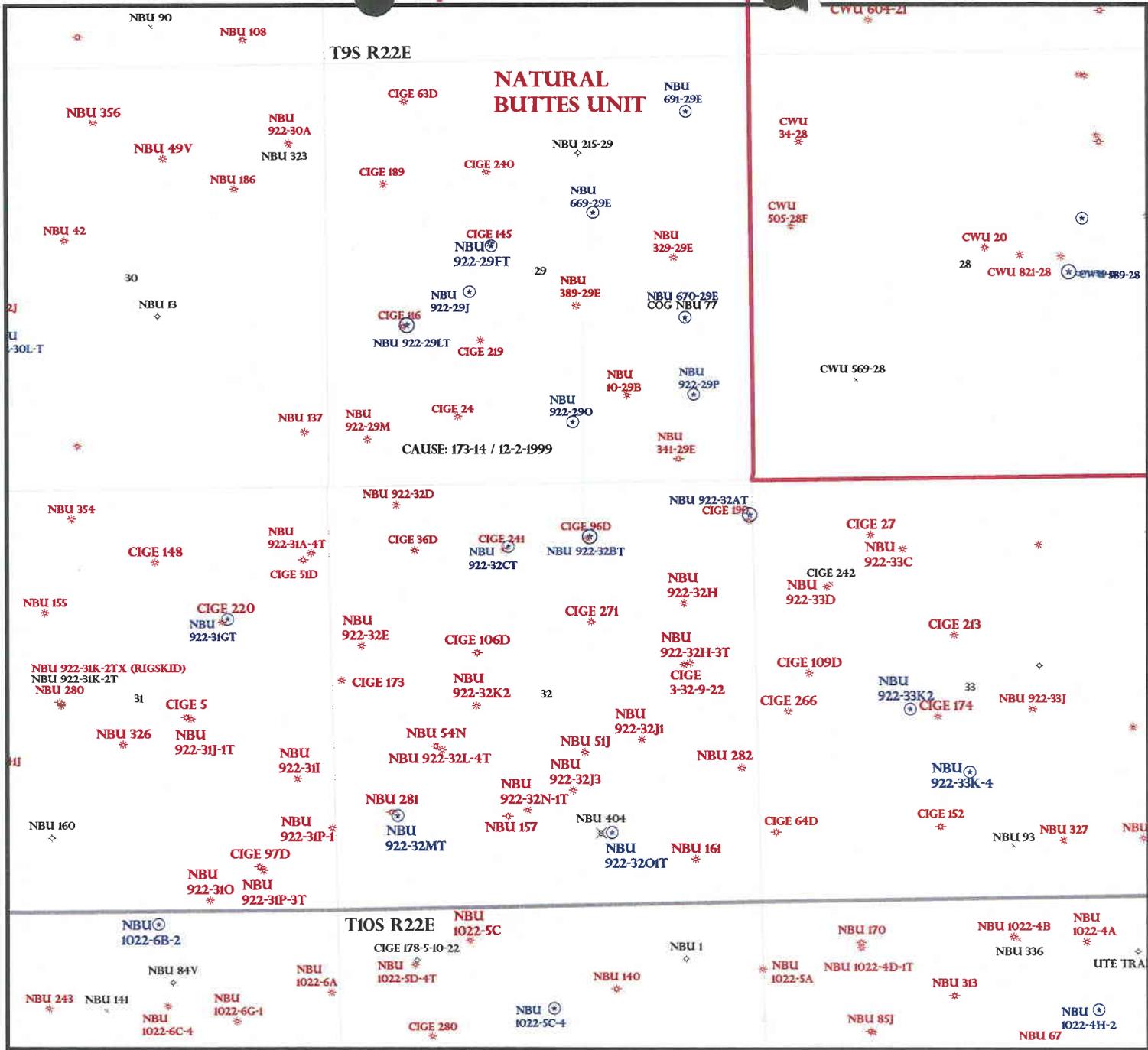
Plat  
 Bond: Fed[] Ind[] Sta[] Fee[]  
 (No. 22013542 )  
 Potash (Y/N)  
 Oil Shale 190-5 (B) or 190-3 or 190-13  
 Water Permit  
 (No. 43-8496 )  
 RDCC Review (Y/N)  
 (Date: \_\_\_\_\_ )  
 Fee Surf Agreement (Y/N)  
 Intent to Commingle (Y/N)

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: 17314  
 Eff Date: 12-2-1999  
 Siting: 460' fr ubdrg funcomm. Tract  
 \_\_\_\_ R649-3-11. Directional Drill

COMMENTS: Needs Permit (06-19-08)

STIPULATIONS: 1-STATEMENT OF BASIS  
2-Dry SHALE  
3-Surface Cgg Cont Stop



OPERATOR: KERR MCGEE O&G (N2995)

SEC: 29,32 T.9S R. 22E

FIELD: NATURAL BUTTES (630)

COUNTY: UINTAH

CAUSE: 173-14 / 12-2-1999

**Field Status**

ABANDONED
ACTIVE
COMBINED
INACTIVE
PROPOSED
STORAGE
TERMINATED

**Unit Status**

EXPLORATORY
GAS STORAGE
NE PP OIL
NE SECONDARY
PENDING
PI OIL
PP GAS
PP GEOTHERML
PP OIL
SECONDARY
TERMINATED

- Wells Status**
- ☐ GAS INJECTION
  - ✱ GAS STORAGE
  - ✕ LOCATION ABANDONED
  - ⊙ NEW LOCATION
  - ⊖ PLUGGED & ABANDONED
  - ⊙ PRODUCING GAS
  - PRODUCING OIL
  - ⊙ SHUT-IN GAS
  - ⊙ SHUT-IN OIL
  - ⊙ TEMP. ABANDONED
  - ⊙ TEST WELL
  - ⊙ WATER INJECTION
  - ⊙ WATER SUPPLY
  - ⊙ WATER DISPOSAL
  - ⊙ DRILLING



PREPARED BY: DIANA MASON  
DATE: 17-JUNE-2008

# Application for Permit to Drill

## Statement of Basis

10/19/2009

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Ownr	CBM
820	43-047-40147-00-00		GW	S	No
<b>Operator</b>	KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>Surface Owner-APD</b>		
<b>Well Name</b>	NBU 922-32AT	<b>Unit</b>	NATURAL BUTTES		
<b>Field</b>	NATURAL BUTTES		<b>Type of Work</b>		
<b>Location</b>	NENE 32 9S 22E S 457 FNL 113 FEL		GPS Coord (UTM) 631970E 4428531N		

### Geologic Statement of Basis

Kerr McGee proposes to set 2,800' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 3,400'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the proposed location. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The production casing cement should be brought up above the base of the moderately saline ground water in order to isolate it from fresher waters up hole. The proposed casing and cement should adequately protect. Any usable ground water.

Brad Hill  
APD Evaluator

7/3/2008  
Date / Time

### Surface Statement of Basis

The proposed NBU 922-32AT gas well is on the existing location of the NBU 190 gas well. This well is planned to be plugged. The reserve pit will be reduced to 70 feet wide and extended to 140 feet in length. It will be re-dug in the northwest corner of the location. The existing pad appears to be stable and should present no problems for drilling and operating the proposed well.

Floyd Bartlett  
Onsite Evaluator

6/19/2008  
Date / Time

### Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

# ON-SITE PREDRILL EVALUATION

## Utah Division of Oil, Gas and Mining

**Operator** KERR-MCGEE OIL & GAS ONSHORE, L.P.  
**Well Name** NBU 922-32AT  
**API Number** 43-047-40147-0      **APD No** 820      **Field/Unit** NATURAL BUTTES  
**Location:** 1/4,1/4 NENE      **Sec** 32      **Tw** 9S      **Rng** 22E      457 FNL 113 FEL  
**GPS Coord (UTM)** 631968      4428535      **Surface Owner**

### Participants

Floyd Bartlett and David Hackford (DOGM), Jim Davis (SITLA), Raleen White, Clay Einerson and Tony Kzneck (Kerr McGee) and David Kay (Uintah Engineering and Land Surveying).

### Regional/Local Setting & Topography

The proposed NBU 922-32AT gas well is on the existing location of the NBU 190 gas well. This well is planned to be plugged. A reserve pit will be reduced to 70 feet wide and extended to 140 feet in length. It will be re-dug in the northwest corner of the location. The existing pad appears to be stable and should present no problems for drilling and operating the proposed well.

### Surface Use Plan

#### **Current Surface Use**

Existing Well Pad

#### **New Road**

<b>Miles</b>	<b>Well Pad</b>		<b>Src Const Material</b>	<b>Surface Formation</b>
	<b>Width</b>	<b>Length</b>		
0				

#### **Ancillary Facilities**

### Waste Management Plan Adequate?

### Environmental Parameters

**Affected Floodplains and/or Wetland**

**Flora / Fauna**

**Soil Type and Characteristics**

**Erosion Issues**

**Sedimentation Issues**

**Site Stability Issues**

**Drainage Diversion Required**

**Berm Required?**

**Erosion Sedimentation Control Required?**

**Paleo Survey Run?**

**Paleo Potential Observed?**

**Cultural Survey Run?**

**Cultural Resources?**

**Reserve Pit**

<b>Site-Specific Factors</b>		<b>Site Ranking</b>
<b>Distance to Groundwater (feet)</b>	>200	0
<b>Distance to Surface Water (feet)</b>	>1000	0
<b>Dist. Nearest Municipal Well (ft)</b>	>5280	0
<b>Distance to Other Wells (feet)</b>	300 to 1320	10
<b>Native Soil Type</b>	Mod permeability	10
<b>Fluid Type</b>	Fresh Water	5
<b>Drill Cuttings</b>	Normal Rock	0
<b>Annual Precipitation (inches)</b>	<10	0
<b>Affected Populations</b>	<10	0
<b>Presence Nearby Utility Conduits</b>	Not Present	0
	<b>Final Score</b>	<b>25</b>
		<b>1 Sensitivity Level</b>

**Characteristics / Requirements**

The reserve pit will be reduced to 70 feet wide and extended to 140 feet in length. It will be re-dug in the northwest corner of the location.

**Closed Loop Mud Required?** N    **Liner Required?** Y    **Liner Thickness** 16    **Pit Underlayment Required?** Y

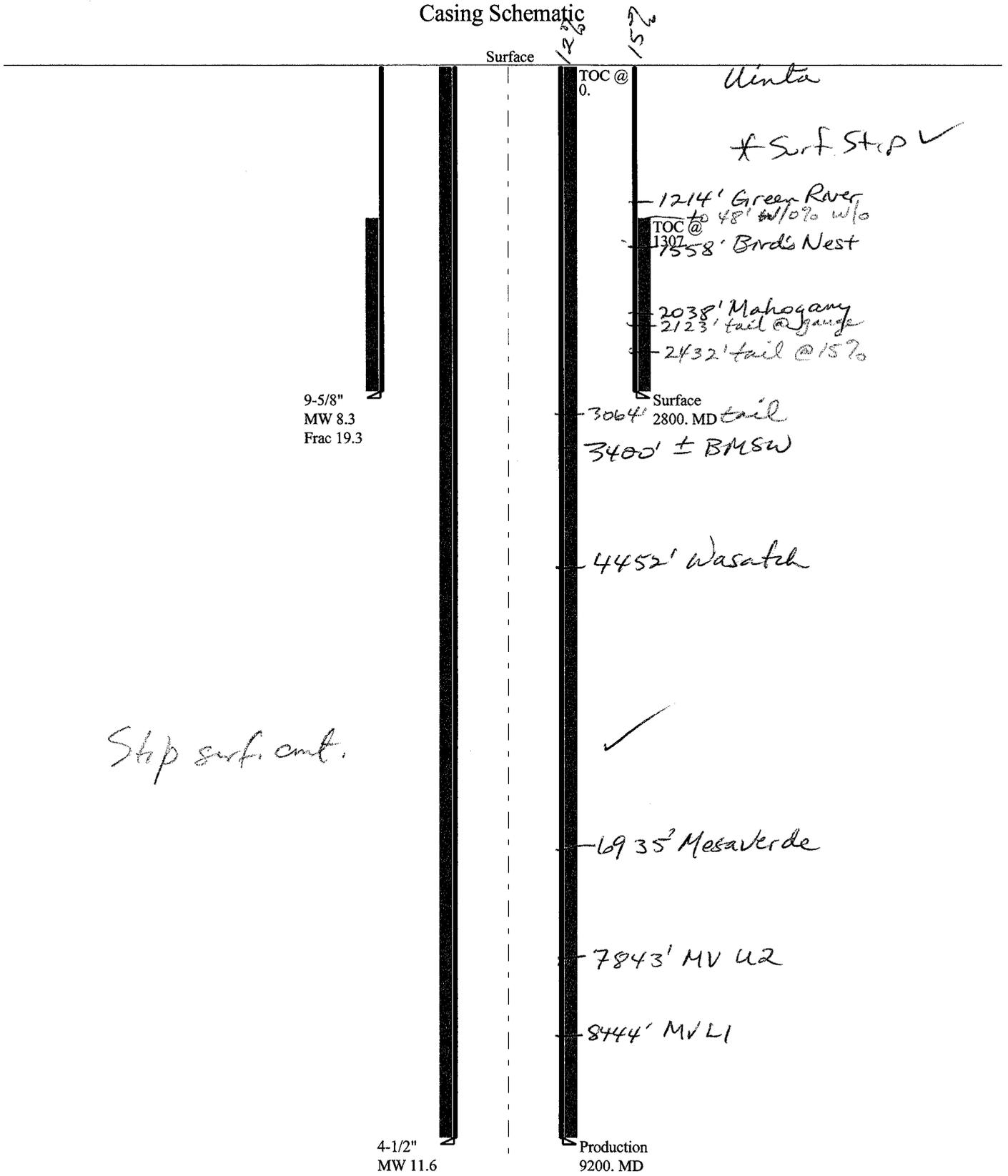
**Other Observations / Comments**

**Evaluator**

6/19/2008  
**Date / Time**

2008-07 Kerr McGee NBU 922-32AT

Casing Schematic



Well name:	<b>2008-07 Kerr McGee NBU 922-32AT</b>	
Operator:	<b>Kerr McGee Oil &amp; Gas Onshore L.P.</b>	Project ID:
String type:	Surface	43-047-40147
Location:	Uintah County, Utah	

**Design parameters:**

**Collapse**

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

**Burst**

Max anticipated surface pressure: 2,464 psi  
 Internal gradient: 0.120 psi/ft  
 Calculated BHP: 2,800 psi

No backup mud specified.

**Minimum design factors:**

**Collapse:**

Design factor: 1.125

**Burst:**

Design factor: 1.00

**Tension:**

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

Tension is based on buoyed weight.  
 Neutral point: 2,455 ft

**Environment:**

H2S considered? No  
 Surface temperature: 75 °F  
 Bottom hole temperature: 114 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 1,300 ft

Cement top: 1,307 ft

Completion type is subs  
**Non-directional string.**

**Re subsequent strings:**

Next setting depth: 9,200 ft  
 Next mud weight: 10.000 ppg  
 Next setting BHP: 4,779 psi  
 Fracture mud wt: 19.250 ppg  
 Fracture depth: 2,800 ft  
 Injection pressure: 2,800 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	2800	9.625	36.00	J-55	LT&C	2800	2800	8.796	1215.4

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	1212	2020	1.667	2800	3520	1.26	88	453	5.13 J

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

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

Date: July 8, 2008  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 2800 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:

**2008-07 Kerr McGee NBU 922-32AT**

Operator: **Kerr McGee Oil & Gas Onshore L.P.**

String type: Production

Project ID:  
43-047-40147

Location: Uintah County, Utah

**Design parameters:**

**Collapse**

Mud weight: 11.600 ppg  
Internal fluid density: 2.300 ppg

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 75 °F  
Bottom hole temperature: 204 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,500 ft

Cement top: Surface

**Burst**

Max anticipated surface pressure: 3,520 psi  
Internal gradient: 0.220 psi/ft  
Calculated BHP 5,544 psi

No backup mud specified.

**Tension:**

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

Tension is based on buoyed weight.  
Neutral point: 7,605 ft

Completion type is subs  
**Non-directional string.**

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	9200	4.5	11.60	I-80	LT&C	9200	9200	3.875	802.9
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	4445	6360	1.431	5544	7780	1.40	88	212	2.40 J

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

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

Date: July 8, 2008  
Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 9200 ft, a mud weight of 11.6 ppg. An internal gradient of .119 psi/ft was used for collapse from TD. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

**BOPE REVIEW**

**Kerr-McGee NBU 922-32AT API 43-047-40147**

**INPUT**

Well Name

Kerr-McGee NBU 922-32AT API 43-047-40147

Casing Size (")

String 1	String 2		
9 5/8	4 1/2		
2800	9200		
40	2800		
8.4	10		
500	5000		
3520	7780		
5704	11.9 ppg		

Setting Depth (TVD)

Previous Shoe Setting Depth (TVD)

Max Mud Weight (ppg)

BOPE Proposed (psi)

Casing Internal Yield (psi)

Operators Max Anticipated Pressure (psi)

**Calculations**

**String 1 9 5/8 "**

Max BHP [psi]	.052*Setting Depth*MW =	1223	
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) =	887	NO Air Drill to surface shoe with diverter
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) =	607	NO
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth) =	616	NO <i>Common in Area, no expected pressures</i>
Required Casing/BOPE Test Pressure		2464 psi	
*Max Pressure Allowed @ Previous Casing Shoe =		40 psi	*Assumes 1psi/ft frac gradient

**Calculations**

**String 2 4 1/2 "**

Max BHP [psi]	.052*Setting Depth*MW =	4784	
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) =	3680	YES
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) =	2760	YES
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth) =	3376	NO <i>B.R.</i>
Required Casing/BOPE Test Pressure		5000 psi	
*Max Pressure Allowed @ Previous Casing Shoe =		2800 psi	*Assumes 1psi/ft frac gradient

# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:

3160

(UT-922)

June 18, 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 MesaVerde)

43-047-40146	NBU 922-29LT	Sec 29 T09S R22E 1978 FSL 0957 FWL
43-047-40147	NBU 922-32AT	Sec 32 T09S R22E 0457 FNL 0113 FEL
43-047-40148	NBU 922-32BT	Sec 32 T09S R22E 0701 FNL 2116 FEL
43-047-40149	NBU 1022-03FT	Sec 03 T10S R22E 2059 FNL 1825 FWL
43-047-40150	NBU 1022-03CT	Sec 03 T10S R22E 0715 FNL 1777 FWL
43-047-40151	NBU 1022-04HT	Sec 04 T10S R22E 2015 FNL 0566 FEL
43-047-40152	NBU 1022-04AT	Sec 04 T10S R22E 0544 FNL 1278 FEL
43-047-40153	NBU 1022-05JT	Sec 05 T10S R22E 2203 FSL 2319 FEL
43-047-40154	NBU 1022-05IT	Sec 05 T10S R22E 2288 FSL 0691 FEL
43-047-40155	NBU 1022-05BT	Sec 05 T10S R22E 1028 FNL 1886 FEL
43-047-40156	NBU 1022-06ET	Sec 06 T10S R22E 2475 FNL 0628 FWL
43-047-40157	NBU 1022-06FT	Sec 06 T10S R22E 2108 FNL 1669 FWL
43-047-40158	NBU 1022-06DT	Sec 06 T10S R22E 0162 FNL 0311 FWL

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

/s/ Michael L. Coulthard

**From:** Jim Davis  
**To:** Bonner, Ed; Whitney, Diana  
**Date:** 8/13/2008 8:26 AM  
**Subject:** Kerr Mc Gee Approvals

**CC:** Raleen.White@anadarko.com

The following wells have been granted SITLA approval, including arch and paleo clearance.

4304740180 S	NBU 922-32IT	Kerr-McGee Oil & Gas	Natural Buttes	NESE	32	090S	220E
4304740147 S	NBU 922-32AT	Kerr-McGee Oil & Gas	Natural Buttes	NENE	32	090S	220E
4304740116 S	NBU 922-32O1T	Kerr-McGee Oil & Gas	Natural Buttes	SWSE	32	090S	220E
4304740117 S	NBU 922-32MT	Kerr-McGee Oil & Gas	Natural Buttes	SWSW	32	090S	220E
4304740118 S	NBU 922-36NT	Kerr-McGee Oil & Gas	Natural Buttes	SESW	36	090S	220E

-Jim

Jim Davis  
Utah Trust Lands Administration  
jimdavis1@utah.gov  
Phone: (801) 538-5156



RECEIVED

March 19, 2009

EOG Resources, Inc.  
Ms. Toni Miller  
600 17<sup>th</sup> Street, Suite 1000N  
Denver, CO 80202

Re: Request for Consent to Exception Well Location  
NBU 922-32AT  
Township 9 South, Range 22 East  
Section 32: NENE  
457' FNL, 113' FEL  
Uintah County, Utah  
Natural Buttes Unit

Dear Ms. Miller:

Kerr-McGee Oil & Gas Onshore LP has staked and proposes to drill the NBU 922-32AT well, a 9,200' Wasatch/Mesaverde formation test, located 457' FNL, 113' FEL in Section 32-T9S-R22E, SLM, Uintah County, Utah. Enclosed is a copy of the survey plat depicting the proposed location of the subject well.

The Farmout Agreement dated March 16<sup>th</sup> 1977, as amended, by and between Gas Producing Enterprises, Inc. (now Kerr-McGee Oil and Gas Onshore LP) and Belco Development Corporation (now EOG Resources, Inc.), has various restrictions in place regarding well locations within the Natural Buttes Unit.

By amendatory letter dated February 25, 2008, EOG Resources, Inc. and Kerr-McGee Oil & Gas Onshore LP agreed to amend the Farmout Agreement set-back provision as follows:

"Neither Kerr-McGee Oil & Gas Onshore LP nor EOG Resources, Inc., will drill any well having an objective within the unitized formations described in the Natural Buttes Unit Agreement at a location lying closer than 460 feet (with no tolerance) to the boundaries of any well-site earned by EOG Resources, Inc.'s predecessor, Belco Development Corporation, without the prior written consent of the other party."

Since the location of the subject well is not in compliance with the well set-back provision of this agreement, Kerr-McGee Oil & Gas Onshore LP requests EOG Resources, Inc.'s approval of such location as an exception location. If EOG Resources, Inc. has no objections to Kerr-McGee Oil & Gas Onshore LP's drilling the subject well at the above-described exception

location, Kerr-McGee Oil & Gas Onshore LP respectfully requests you indicate your approval by executing in the space provided below and returning one (1) originally executed copy to my attention.

If you have any questions or require any additional information, please do not hesitate to call the undersigned at 720-929-6262.

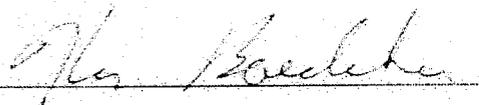
Sincerely,

**Kerr-McGee Oil & Gas Onshore LP**

Jason K. Rayburn  
Landman

EOG Resources consents to the above described exception location this

27th day of March, 2009.

By: 

Name: Ken Boedeker

Title: Division Engineering Manager



Kerr-McGee Oil & Gas Onshore LP  
1099 18<sup>th</sup> Street, Suite 1200  
Denver, CO 80202

October 15<sup>th</sup>, 2009

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

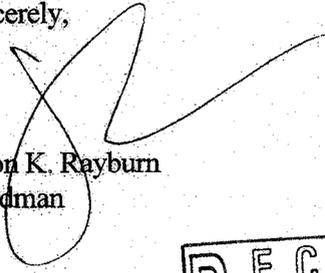
RE: NBU 922-32AT  
T9S-R22E  
Section 32: NENE  
457' FNL, 113' FEL  
Uintah County, Utah  
Natural Buttes Unit

Dear Ms. Mason,

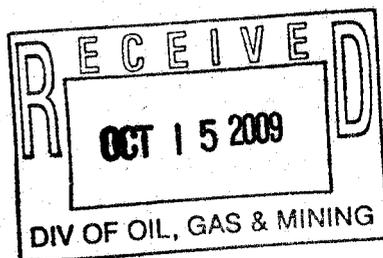
Kerr-McGee Oil & Gas Onshore LP has submitted a permit to drill the captioned well to test the Wasatch and Mesaverde formations. The well is located at an exception location to Spacing Order 173-14. The well location was moved for geographic reasons. Kerr-McGee and EOG Resources, Inc. own 100% of the leasehold within 460 feet of the exception location of the offset lands and has no objection to the exception location. Enclosed for your reference is EOG's signed consent to the exception well location.

Kerr-McGee requests your approval of this exception location. If you have any questions, call me at 720-929-6262. Thank you for your assistance.

Sincerely,

  
Jason K. Rayburn  
Landman

encl





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 15, 2009

Kerr-McGee Oil & Gas Onshore LP  
P O Box 173779  
Denver, CO 80123

Re: NBU 922-32AT Well, 457' FNL, 113' FEL, NE NE, Sec. 32, T. 9 South, R. 22 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.

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby 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 43-047-40147.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

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



Operator: Kerr-McGee Oil & Gas Onshore LP  
Well Name & Number NBU 922-32AT  
API Number: 43-047-40147  
Lease: ML-22649

Location: NE NE Sec. 32 T. 9 South R. 22 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

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

- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- 24 hours prior to testing blowout prevention equipment – contact Dan Jarvis
- 24 hours prior to spudding the well – contact Carol Daniels
- Within 24 hours of any emergency changes made to the approved drilling program – contact Dustin Doucet
- Prior to commencing operations to plug and abandon the well – contact Dan Jarvis

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

- Plugging and abandonment or significant plug back of this well – contact Dustin Doucet
- Any changes to the approved drilling plan – contact Dustin Doucet

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

- Dan Jarvis at: (801) 538-5338 office (801) 942-0871 home
- Carol Daniels at: (801) 538-5284 office
- 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. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.
5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)
6. 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.
7. Surface casing shall be cemented to the surface.

# DIVISION OF OIL, GAS AND MINING

## **SPUDDING INFORMATION**

Name of Company: KERR-McGEE OIL & GAS ONSHORE, L.P.

Well Name: NBU 922-32AT

Api No: 43-047-40147 Lease Type: STATE

Section 32 Township 09S Range 22E County UINTAH

Drilling Contractor PETE MARTIN DRLG RIG # BUCKET

## **SPUDDED:**

Date 01/12/2010

Time 9:45 AM

How DRY

**Drilling will Commence:** \_\_\_\_\_

Reported by JAMES GOBER

Telephone # (435) 828-7024

Date 01/12/2010 Signed CHD

<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> ML-22649
<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>  <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 922-32AT
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047401470000
<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> 0457 FNL 0113 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 32 Township: 09.0S Range: 22.0E 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 type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start:	<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 checked="" type="checkbox"/> <b>SPUD REPORT</b> Date of Spud: 1/12/2010	<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 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.

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'.  
 RAN 14" 36.7# SCHEDULE 10 CONDUCTOR PIPE. CMT W/28 SX READY MIX  
 SPUD WELL LOCATION ON 01/12/2010 AT 9:45 HRS.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 January 13, 2010

<b>NAME (PLEASE PRINT)</b> Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 1/12/2010	

**ENTITY ACTION FORM**

Operator: KERR MCGEE OIL & GAS ONSHORE LP Operator Account Number: N 2995  
 Address: P.O. Box 173779  
city DENVER  
state CO zip 80217 Phone Number: (720) 929-6100

**Well 1**

API Number	Well Name	QQ	Sec	Twp	Rng	County
4304740147	NBU 922-32AT	NENE	32	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number		Spud Date		Entity Assignment Effective Date
B	99999	2900		1/12/2010		1/14/2010
<b>Comments:</b> MIRU PETE MARTIN BUCKET RIG. <i>WSMVD</i> SPUD WELL LOCATION ON 1/12/2010 AT 09:45 HRS.						

**Well 2**

API Number	Well Name	QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number		Spud Date		Entity Assignment Effective Date
<b>Comments:</b>						

**Well 3**

API Number	Well Name	QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number		Spud Date		Entity Assignment Effective Date
<b>Comments:</b>						

**ACTION CODES:**

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

ANDY LYTLE

Name (Please Print)

Signature

REGULATORY ANALYST

Title

1/12/2010

Date

**RECEIVED**  
JAN 12 2010

<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> ML-22649
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<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>  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
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<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 922-32AT
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<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047401470000
---	---

<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>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
---	--	--

<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0457 FNL 0113 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 32 Township: 09.0S Range: 22.0E Meridian: S	<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 type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER:
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:			
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:			
<input checked="" type="checkbox"/> <b>DRILLING REPORT</b> Report Date: 1/21/2010			

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

MIRU PROPETRO AIR RIG ON 1/19/2010. DRILLED 12-1/4" SURFACE HOLE TO 2140'. RAN 9-5/8" 36# J-55 SURFACE CSG. PUMP 160 BBLS GEL WATER LEAD CMT W/180 SX CLASS G HI FILL @ 11.0 PPG, 3.82 YIELD. TAILED CMT W/200 SX CLASS G PREM LITE @ 15.8 PPG, 1.15 YIELD. DROP PLUG ON AND DISPLACE W/159 BBLS WATER. LAND PLUG W/900 PSI, FLOATS OK. CMT TO SURFACE. 125 BBLS INTO DISPLACEMENT. PUMP 125 SX CLASS G PREM LITE TOP OUT DOWN BACKSIDE, HOLE FULL THEN DROPPED APPROX 25-30'. WORT.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 January 25, 2010

<b>NAME (PLEASE PRINT)</b> Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 1/25/2010	

<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> ML-22649
<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>  <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 922-32AT
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047401470000
<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> 0457 FNL 0113 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 32 Township: 09.0S Range: 22.0E 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 type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start:	<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 checked="" type="checkbox"/> <b>DRILLING REPORT</b> Report Date: 1/31/2010	<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
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	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER:

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

FINISHED DRILLING FROM 2140' TO 9213' ON 1/29/2010. RAN 4-1/2" 11.6# I-80 PRODUCTION CSG. PUMP 40 BBLS SPACER. LEAD CMT W/550 SX CLASS G PREM LITE @ 12.1 PPG, 2.23 YIELD. TAILED CMT W/1293 SX CLASS G @ 14.3 PPG, 1.31 YIELD. DROPPED PLUG & DISPLACE W/142.5 BBLS CLAYTREAT WATER. BUMP PLUG, FLOATS HELD, W/3190 PSI, FINAL LIFT 2600. FULL RETURNS THROUGHOUT JOB W/42.5 BBLS GOOD CMT TO PIT. TOP OF TAIL CALCULATED @ 3750', PLUG BACK @ 9163'. N/D BOP, CLEAN PITS. RELEASE PIONEER 69 RIG ON 01/31/2010 AT 23:59 HRS.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 February 01, 2010

<b>NAME (PLEASE PRINT)</b> Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 2/1/2010	

<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> ML-22649
<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>  <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 922-32AT
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047401470000
<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> 0457 FNL 0113 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 32 Township: 09.0S Range: 22.0E 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 type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start:	<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 checked="" type="checkbox"/> <b>DRILLING REPORT</b> Report Date: 2/26/2010	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input checked="" type="checkbox"/> <b>PRODUCTION START OR RESUME</b>	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER:

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

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 2/26/2010 AT 12:00 P.M.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 March 02, 2010

<b>NAME (PLEASE PRINT)</b> Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 3/1/2010	

<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> ML-22649
<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>  <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 922-32AT
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047401470000
<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> 0457 FNL 0113 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 32 Township: 09.0S Range: 22.0E 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 type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start:	<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 checked="" type="checkbox"/> <b>DRILLING REPORT</b> Report Date: 2/26/2010	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input checked="" type="checkbox"/> <b>PRODUCTION START OR RESUME</b>	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER:

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

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 2/26/2010 AT 12:00 P.M.

**Accepted by the**  
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 March 02, 2010

<b>NAME (PLEASE PRINT)</b> Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 3/1/2010	

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

AMENDED REPORT  FORM 8  
(highlight changes)

5. LEASE DESIGNATION AND SERIAL NUMBER:  
**ML 22649**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME  
**UTU63047A**

8. WELL NAME and NUMBER:  
**NBU 922-32AT**

9. API NUMBER:  
**4304740147**

10. FIELD AND POOL, OR WILDCAT  
**NATURAL BUTTES**

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:  
**NENE 32 9S 22E**

12. COUNTY  
**UINTAH**

13. STATE  
**UTAH**

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  OTHER \_\_\_\_\_

b. TYPE OF WORK: NEW WELL  HORIZ. LATS.  DEEP-EN  RE-ENTRY  DIFF. RESVR.  OTHER \_\_\_\_\_

2. NAME OF OPERATOR:  
**KERR MCGEE OIL & GAS ONSHORE LP**

3. ADDRESS OF OPERATOR: P.O. BOX 173779 CITY **DENVER** STATE **CO** ZIP **80217** PHONE NUMBER: **(720) 929-6100**

4. LOCATION OF WELL (FOOTAGES)  
AT SURFACE: **NENE 460 FNL & 113 FEL**  
AT TOP PRODUCING INTERVAL REPORTED BELOW:  
AT TOTAL DEPTH: **0493 FNL 0059 FEL**

14. DATE SPUDDED: **1/12/2010** 15. DATE T.D. REACHED: **1/29/2010** 16. DATE COMPLETED: **2/26/2010** ABANDONED  READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL):  
**4903' GL**

18. TOTAL DEPTH: MD **9,213** TVD **9,211** 19. PLUG BACK T.D.: MD **9,165** TVD **9,163** 20. IF MULTIPLE COMPLETIONS, HOW MANY? \*

21. DEPTH BRIDGE MD PLUG SET: TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)  
**HDIL/ZDL/CN-RPM**

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

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

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#		40		28			
12 1/4"	9 5/8 J-55	36#		2,127		630			
7 7/8"	4 1/2 I-80	11.6#		9,208		1843		0	

**25. TUBING RECORD**

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	8.552							

**26. PRODUCING INTERVALS**

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) MESAVERDE	7,054	9,100		
(B)				
(C)				
(D)				

**27. PERFORATION RECORD**

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
7,054 9,100	0.36	300	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
			Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
7,054-9,100	PMP 11,545 BBLs SLICK H2O & 448,766 LBS 30/50 SD.

**29. ENCLOSED ATTACHMENTS:**

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

**30. WELL STATUS:**

**PROD**

**RECEIVED**

**MAR 30 2010**

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

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED: 2/26/2010		TEST DATE: 3/1/2010		HOURS TESTED: 24		TEST PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 2,313	WATER – BBL: 625	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS. 1,859	CSG. PRESS. 2,618	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 2,313	WATER – BBL: 625	INTERVAL STATUS: PROD

INTERVAL B (As shown in item #26)

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

INTERVAL C (As shown in item #26)

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

INTERVAL D (As shown in item #26)

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

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

SOLD

33. SUMMARY OF POROUS ZONES (Include Aquifers):

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

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
GREEN RIVER	1,267				
MAHOGANY	2,044				
WASATCH	4,475	7,015			
MESAVERDE	7,041	9,213			

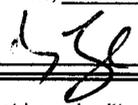
35. ADDITIONAL REMARKS (Include plugging procedure)

ATTACHED TO THIS COMPLETION REPORT IS THE CHRONOLOGICAL WELL HISTORY AND FINAL SURVEY.

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

NAME (PLEASE PRINT) ANDY LYTLE

TITLE REGULATORY ANALYST

SIGNATURE 

DATE 3/22/2010

This report must be submitted within 30 days of

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

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

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

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

Phone: 801-538-5340  
Fax: 801-359-3940

## 1 General

### 1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

### 1.2 Well Information

Well	NBU 922-32AT	Wellbore No.	OH
Well Name	NBU 922-32AT	Common Name	NBU 922-32AT
Project	UTAH-UINTAH	Site	CIGE 190
Vertical Section Azimuth		North Reference	True
Origin N/S		Origin E/W	
Spud Date	1/19/2010	UWI	NE/NE/0/9/S/22/E/32/0/0/26/PM/N/460.00/E/0/1 13.00/0/0
Active Datum	RKB @4,921.00ft (above Mean Sea Level)		

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	SCIENTIFIC DRILLING
Started	1/19/2010	Ended	
Tool Name	MWD	Engineer	KYLE

#### 2.1.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
14.00	0.00	0.00	14.00	0.00	0.00

#### 2.1.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
1/19/2010	Tie On	14.00	0.00	0.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 2.2 Survey Name: Survey #2

Survey Name	Survey #2	Company	APC
Started	1/20/2010	Ended	
Tool Name		Engineer	Anadarko

#### 2.2.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
14.00	0.00	0.00	14.00	0.00	0.00

#### 2.2.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
1/20/2010	Tie On	14.00	0.00	0.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/20/2010	NORMAL	163.00	0.84	166.70	162.99	-1.06	0.25	-1.06	0.56	0.56	0.00	166.70

2.2.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
1/20/2010	NORMAL	253.00	1.01	168.78	252.98	-2.48	0.56	-2.48	0.19	0.19	2.31	12.21
	NORMAL	343.00	0.81	183.19	342.97	-3.90	0.68	-3.90	0.34	-0.22	16.01	138.20
	NORMAL	433.00	0.64	190.34	432.96	-5.03	0.55	-5.03	0.21	-0.19	7.94	155.52
	NORMAL	513.00	0.62	151.11	512.96	-5.84	0.68	-5.84	0.53	-0.03	-49.04	-112.16
	NORMAL	603.00	0.64	189.10	602.95	-6.77	0.84	-6.77	0.46	0.02	42.21	106.35
	NORMAL	693.00	0.67	198.19	692.95	-7.76	0.59	-7.76	0.12	0.03	10.10	78.47
	NORMAL	783.00	0.59	203.94	782.94	-8.69	0.24	-8.69	0.11	-0.09	6.39	144.53
	NORMAL	873.00	0.61	229.22	872.94	-9.42	-0.31	-9.42	0.29	0.02	28.09	98.39
	NORMAL	963.00	0.28	271.42	962.94	-9.73	-0.89	-9.73	0.49	-0.37	46.89	154.96
	NORMAL	1,053.00	0.71	216.73	1,052.93	-10.17	-1.45	-10.17	0.66	0.48	-60.77	-77.32
	NORMAL	1,143.00	0.38	242.80	1,142.93	-10.76	-2.05	-10.76	0.45	-0.37	28.97	155.63
	NORMAL	1,233.00	0.48	227.90	1,232.93	-11.14	-2.59	-11.14	0.17	0.11	-16.56	-55.81
	NORMAL	1,323.00	0.41	291.55	1,322.92	-11.28	-3.17	-11.28	0.53	-0.08	70.72	129.05
	NORMAL	1,413.00	0.35	185.59	1,412.92	-11.43	-3.50	-11.43	0.68	-0.07	-117.73	-146.39
	NORMAL	1,503.00	0.15	190.36	1,502.92	-11.82	-3.54	-11.82	0.22	-0.22	5.30	176.44
	NORMAL	1,593.00	0.71	312.81	1,592.92	-11.56	-3.98	-11.56	0.89	0.62	136.06	131.55
	NORMAL	1,683.00	1.01	326.57	1,682.91	-10.52	-4.82	-10.52	0.40	0.33	15.29	41.55
	NORMAL	1,773.00	1.06	333.42	1,772.90	-9.11	-5.63	-9.11	0.15	0.06	7.61	71.44
	NORMAL	1,863.00	0.38	354.85	1,862.89	-8.07	-6.03	-8.07	0.80	-0.76	23.81	168.88
	NORMAL	1,953.00	0.31	248.15	1,952.89	-7.86	-6.28	-7.86	0.62	-0.08	-118.56	-147.67
	NORMAL	2,043.00	0.31	279.55	2,042.89	-7.92	-6.75	-7.92	0.19	0.00	34.89	105.70
	NORMAL	2,093.00	0.18	58.67	2,092.89	-7.85	-6.82	-7.85	0.92	-0.26	278.24	165.21
1/25/2010	NORMAL	2,212.00	0.58	170.76	2,211.88	-8.35	-6.56	-8.35	0.56	0.34	94.19	126.53
	NORMAL	2,307.00	0.64	298.69	2,306.88	-8.57	-6.95	-8.57	1.15	0.06	134.66	152.59
	NORMAL	2,429.00	1.29	329.08	2,428.86	-7.06	-8.25	-7.06	0.66	0.53	24.91	54.08
	NORMAL	2,521.00	0.90	330.57	2,520.85	-5.55	-9.14	-5.55	0.43	-0.42	1.62	176.57
	NORMAL	2,614.00	0.33	307.32	2,613.84	-4.75	-9.71	-4.75	0.66	-0.61	-25.00	-167.69
	NORMAL	2,707.00	0.29	241.73	2,706.84	-4.70	-10.13	-4.70	0.36	-0.04	-70.53	-128.51
1/26/2010	NORMAL	2,902.00	0.86	188.12	2,901.83	-6.38	-10.77	-6.38	0.37	0.29	-27.49	-72.35
	NORMAL	3,095.00	1.07	294.26	3,094.81	-7.07	-12.62	-7.07	0.80	0.11	54.99	138.39
	NORMAL	3,279.00	1.14	238.61	3,278.79	-7.32	-15.75	-7.32	0.56	0.04	-30.24	-114.39
	NORMAL	3,472.00	1.41	207.57	3,471.74	-10.43	-18.49	-10.43	0.38	0.14	-16.08	-84.64
	NORMAL	3,662.00	1.97	195.01	3,661.66	-15.65	-20.41	-15.65	0.35	0.29	-6.61	-39.87
	NORMAL	3,850.00	1.71	164.33	3,849.56	-21.47	-20.49	-21.47	0.53	-0.14	-16.32	-119.78
	NORMAL	3,948.00	1.51	125.08	3,947.53	-23.62	-19.04	-23.62	1.12	-0.20	-40.05	-119.50
	NORMAL	4,138.00	1.54	88.21	4,137.47	-24.98	-14.44	-24.98	0.51	0.02	-19.41	-106.74
	NORMAL	4,231.00	1.20	90.56	4,230.44	-24.95	-12.22	-24.95	0.37	-0.37	2.53	171.79
	NORMAL	4,422.00	0.91	119.77	4,421.41	-25.73	-8.90	-25.73	0.31	-0.15	15.29	132.41
	NORMAL	4,612.00	0.73	71.37	4,611.39	-26.09	-6.44	-26.09	0.36	-0.09	-25.47	-127.92
	NORMAL	4,803.00	1.26	35.10	4,802.36	-23.98	-4.08	-23.98	0.42	0.28	-18.99	-69.01
	NORMAL	4,901.00	1.21	41.42	4,900.34	-22.32	-2.78	-22.32	0.15	-0.05	6.45	113.30
	NORMAL	4,999.00	2.14	36.85	4,998.30	-20.08	-1.00	-20.08	0.96	0.95	-4.66	-10.46
	NORMAL	5,187.00	1.54	40.73	5,186.20	-15.36	2.76	-15.36	0.33	-0.32	2.06	170.20
	NORMAL	5,370.00	0.98	62.56	5,369.15	-12.78	5.75	-12.78	0.40	-0.31	11.93	149.96
	NORMAL	5,558.00	1.85	29.93	5,557.10	-9.41	8.69	-9.41	0.61	0.46	-17.36	-59.90
1/27/2010	NORMAL	5,748.00	1.19	29.64	5,747.03	-5.03	11.20	-5.03	0.35	-0.35	-0.15	-179.48
	NORMAL	5,944.00	0.93	76.09	5,943.00	-2.88	13.75	-2.88	0.44	-0.13	23.70	129.17
	NORMAL	6,234.00	0.98	129.66	6,232.97	-3.90	17.94	-3.90	0.30	0.02	18.47	113.81
	NORMAL	6,507.00	1.28	150.63	6,505.91	-8.05	21.23	-8.05	0.19	0.11	7.68	64.83
	NORMAL	6,704.00	0.86	341.94	6,702.90	-8.56	21.85	-8.56	1.08	-0.21	-85.63	-175.46
	NORMAL	6,857.00	0.59	332.26	6,855.89	-6.77	21.13	-6.77	0.19	-0.18	-6.33	-160.39
	NORMAL	6,956.00	1.29	1.41	6,954.87	-5.20	20.92	-5.20	0.83	0.71	29.44	49.50
	NORMAL	7,152.00	0.44	19.53	7,150.85	-2.29	21.23	-2.29	0.45	-0.43	9.24	171.08
1/28/2010	NORMAL	7,368.00	0.50	141.75	7,366.85	-2.25	22.09	-2.25	0.38	0.03	56.58	149.09
	NORMAL	7,679.00	1.09	80.67	7,677.82	-2.83	25.85	-2.83	0.31	0.19	-19.64	-88.37
	NORMAL	7,866.00	1.21	110.22	7,864.78	-3.23	29.46	-3.23	0.32	0.06	15.80	93.58
	NORMAL	8,097.00	1.60	118.89	8,095.71	-5.63	34.57	-5.63	0.19	0.17	3.75	32.97

## 2.2.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
1/28/2010	NORMAL	8,249.00	1.68	119.99	8,247.65	-7.77	38.36	-7.77	0.06	0.05	0.72	22.03
1/29/2010	NORMAL	8,446.00	1.52	144.68	8,444.58	-11.34	42.37	-11.34	0.36	-0.08	12.53	115.21
	NORMAL	8,544.00	1.46	149.40	8,542.54	-13.48	43.75	-13.48	0.14	-0.06	4.82	118.40
	NORMAL	8,944.00	2.02	161.41	8,942.36	-24.55	48.60	-24.55	0.17	0.14	3.00	39.17
	NORMAL	9,147.00	2.24	143.38	9,145.22	-31.12	52.10	-31.12	0.35	0.11	-8.88	-80.97
	NORMAL	9,213.00	2.24	143.38	9,211.17	-33.19	53.64	-33.19	0.00	0.00	0.00	0.00

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 922-32AT      Spud Conductor: 1/12/2010      Spud Date: 1/19/2010  
 Project: UTAH-UINTAH      Site: CIGE 190      Rig Name No: PIONEER 69/69, PROPETRO/  
 Event: DRILLING      Start Date: 1/4/2010      End Date: 1/31/2010  
 Active Datum: RKB @4,921.00ft (above Mean Sea Level)      UWI: NE/NE/0/9/S/22/E/32/0/0/26/PM/N/460.00/E/0/113.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
1/19/2010	13:30 - 21:30	8.00	MIRU	01	B	P		MOVE RIG ON TO LOCATION. INSPECT COLLARS AND XO SUBS. (5 CRACKED ITEMS) DRESS CONDUCTOR, INSTALL AIR BOWL, RIG UP BOWIE LINE, RIG UP RIG., BUILD DITCH, RIG UP PUMPS, DOG HOUSE, AIR COMPRESSOR P/U MOTOR 183 DEG BENT HOUSE MOTOR SN 8082 W/ HC507Z 12-1/4" BIT 2ND RUN SN 7014966
	21:30 - 22:30	1.00	DRLSUR	02	B	P		SPUD SURFACE 1/19/2010 21:30. 44'-150'.
	22:30 - 0:00	1.50	DRLSUR	06	A	P		LD 6" DRILL COLLARS. P/U DIRECTIONAL TOOLS, INSTALL SLOT SUBS.
1/20/2010	0:00 - 0:30	0.50	DRLSUR	06	A	P		P/U DIRECTIONAL BHA. SLIPS AND WEDDING BAND FAILED. DROPPED MOTOR, BIT, PONY COLLAR, MONEL. FELL TO 150'.
	0:30 - 2:30	2.00	DRLSUR	19	A	Z		TRIP IN AND SCREW INTO FISH WITH DOUBLE PIN. PULL FISH OUT OF HOLE, INSPECT BIT AND MOTOR. PUMP THROUGH MOTOR AND BIT. NORMAL PRESSURES, NORMAL ROT. BIT UNDEAMAGED.
	2:30 - 4:30	2.00	DRLSUR	06	A	P		P/U DIRECTIONAL TOOLS, RESCRIBE AND ORIENT TOOLS.
	4:30 - 23:30	19.00	DRLSUR	02	D	P		DRILL W/ MWD 150'- 2140' - ( 1990' ) 105' HR,WOB 20,RPM,50,MM RPM-104,PP OFF/ ON BTM = 1340-1200, GPM-650, UP/DWN/ROT - 63/63/63- FULL RETURNS
	23:30 - 0:00	0.50	DRLSUR	05	C	P		CIRC TO LDDS
1/21/2010	0:00 - 0:30	0.50	DRLSUR	05	C	P		CIRC TO LDDS
	0:30 - 5:00	4.50	DRLSUR	06	A	P		LDDS AND MWD TOOLS
	5:00 - 10:00	5.00	DRLSUR	12	C	P		RUN 49 JOINTS 9 5/8 36# J-55 CSNG, SHOE @ 2113' BAFFLE IN THE TOP OF SHOE JOINT @ 2069' R/D RELEASE RIG TO THE BONANZA 1023-5G ON 1-21-2010 @ 10:00 A.M. HELD SAFETY MTNG W/CEMENTERS TEST LINES TO 2000 PSI , PUMP 160 BBLs GEL WATER,180SX 11# 3.82 YLD 23 GAL HIFILL LEAD CMNT,PUMP 200SX 15.8#1.1E YLD 5 GAL/ SX 2% CALC 1/4 # FLOC TAIL CMNT, DROP PLUG ON FLY, DISP W / 159 BBLs WATER LAND PLUG W/ 900 PSI FLOATS OK, CMNT TO SURFACE, 125 BBLs INTO DISP, PUMP 125 SX DOWN BACKSIDE HOLE FULL THEN DROPPED APPROX 25-30'
1/23/2010	2:00 - 7:00	5.00	DRLPRO	01	E	P		RDRT
	7:00 - 18:00	11.00	DRLPRO	01	A	P		MOVE RIG 2.5 MILES TO NBU 922-32AT, SLICK RDS.HAD TO SET IN BACK YARD W/CRANE, RISE SUB, SET IN RIG
	18:00 - 0:00	6.00	DRLPRO	21	C	P		WIAT ON DAYLIGHT
1/24/2010	0:00 - 6:00	6.00	DRLPRO	21	C	P		WAIT ON DAYLIGHT
	6:00 - 15:00	9.00	DRLPRO	01	B	P		LEVEL CARRIER & Y-BASE, RAISE & SCOPE UP DERRICK, RURT, TRUCKS & CRANE RELEASED @ 10:00
	15:00 - 22:00	7.00	DRLPRO	14	A	P		N/U BOPE, TORQUE KELLY
	22:00 - 0:00	2.00	DRLPRO	15	A	P		HPJSM W/ TESTERS & RIG CREWS, TEST BOPE, RAMS & ALL VALVES 250 LOW-5000 HIGH, ANN 2500, CASING 1500 F/ 30 MIN
1/25/2010	0:00 - 4:00	4.00	DRLPRO	15	A	P		FINISH TESTING BOPE INSTALL WEAR BUSHING, PRE-SPUD INSECTION

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 922-32AT      Spud Conductor: 1/12/2010      Spud Date: 1/19/2010  
 Project: UTAH-UINTAH      Site: CIGE 190      Rig Name No: PIONEER 69/69, PROPETRO/  
 Event: DRILLING      Start Date: 1/4/2010      End Date: 1/31/2010  
 Active Datum: RKB @4,921.00ft (above Mean Sea Level)      UWI: NE/NE/0/9/S/22/E/32/0/0/26/PM/N/460.00/E/0/113.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	4:00 - 10:00	6.00	DRLPRO	06	A	P		LAYOUT & STRAP BHA, & D/P, HPJSM W/ RIG & P/U CREWS, R/U & P/U BIT, MM, DIR TOOLS, BHA & 45 JTS D/P, R/D
	10:00 - 12:00	2.00	DRLPRO	09	A	P		CUT & SLIP 160' DRLG LINE, INSTALL ROT RUBBER, KELLY DRIVE BUSHING, CENTER STACK
	12:00 - 16:00	4.00	DRLPRO	22	L	P		REPLACE PULSATION DAMPNER RUBBER, INSTALL NEW SADDLES ON STAND PIPE
	16:00 - 18:00	2.00	DRLPRO	02	F	P		DRLG CEMENT & F/E & OPEN HOLE TO 2154', SPUD WELL @ 17:30 1/25/10
	18:00 - 0:00	6.00	DRLPRO	02	B	P		DRLG, SLIDE SURVEY F/ 2154 TO 2873', 719' @ 119.8' PH, CIRC RESERVE PIT W/ GEL & POLY SWEEPS, WOB 18, MW 8.3, VIS 26, SPM 125, GPM 473, PU/SO/ROT 90-80-85, ON/OFF 1450-1150, DIFF 150-300, SLIDES 2280-2295, 2400-2415
1/26/2010	0:00 - 1:00	1.00	DRLPRO	02	B	P		DRLG F/ 2873 TO 2971', 98' @ 98' PH
	1:00 - 1:30	0.50	DRLPRO	08	A	Z		REPAIR ROT TABLE LOCK
	1:30 - 13:00	11.50	DRLPRO	02	B	P		DRLG F/ 2971' TO 4296', 1325' @ 115.2' PH
	13:00 - 13:30	0.50	DRLPRO	07	A	P		SERVICE RIG
	13:30 - 0:00	10.50	DRLPRO	02	B	P		DRLG, SURVEY, SLIDE F/ 4296' TO 5531', 1235' @ 117.6' PH, CIRC RESERVE W/ GEL & POLY SWEEPS, WOB 18, MW 8.3, VIS 26, SPM 125, GPM 473, PU/SO/ROT 150-115-130, ON/OFF 1500-1290, DIFF 150-300
1/27/2010	0:00 - 14:00	14.00	DRLPRO	02	B	P		DRLG, SLIDE, SURVEY F/ 5531 TO 6764', 1233' @ 88 PH, MW 9.2, VIS 41, SLIDES 6580-6594, 6673-6683
	14:00 - 14:30	0.50	DRLPRO	07	A	P		SERVICE RIG
	14:30 - 0:00	9.50	DRLPRO	02	B	P		DRLG, SLIDE, SURVEY F/ 6764 TO 7200', 43645.9' PH, WOB 18, MW 9.9, VIS 40, SPM 125, GPM 473, P/U/SO/ROT 175-148-160, ON/OFF 2100-1800, DIFF 150-300, SLIDES 6924-6934, CLOSE IN PITS @ 6600, START MUD UP @ 6800'
1/28/2010	0:00 - 14:00	14.00	DRLPRO	02	B	P		DRLG, SLIDE, SURVEY F/ 7200 TO 7925', 725' @ 51.7' PH, MW 10.5, VIS 40, SLIDES 7427-7437'
	14:00 - 14:30	0.50	DRLPRO	07	A	P		SERVICE RIG
	14:30 - 0:00	9.50	DRLPRO	02	B	P		DRLG, SLIDE SURVEY F/ 7925 TO 8400', 475' @ 50' PH, MW 11.0, VIS 41, WOB 18-20, SPM 125, GPM 473, PU/SO/ROT 180-155-167, ON/OFF 2350-2150, DIFF 100-200, SLIDE 8237-8247
1/29/2010	0:00 - 14:30	14.50	DRLPRO	02	B	P		DRLG F/ 8400 TO 9103', 703' @ 48.48' PH, MW 11.8, VIS 45
	14:30 - 15:00	0.50	DRLPRO	07	A	P		SERVICE RIG
	15:00 - 18:30	3.50	DRLPRO	02	B	P		DRLG F/ 9103 TO 9213', 110' @ 31.4' PH, TD WELL @ 18:30 1/29/10 9213'
	18:30 - 20:30	2.00	DRLPRO	05	C	P		CIRC HOLE F/ SHORT TRIP
	20:30 - 0:00	3.50	DRLPRO	06	E	P		SHORT TRIP TO SHOE, WET @ 6800' R/U MUD BUCKET, POOH TO SURFACE
1/30/2010	0:00 - 7:30	7.50	DRLPRO	06	E	P		FINISH POOH, L/D DIR TOOLS, BIT & MM PLUGGED, BIT GRADE 2-4, P/U CONE BIT & BIT SUB, TIH, FILL @ SHOE,
	7:30 - 9:00	1.50	DRLPRO	03	A	P		WASH & REAM TIGHT HOLE F/ 7700 TO 7900'
	9:00 - 10:00	1.00	DRLPRO	06	A	P		FINISH TIH, WASH 30' TO BOTTOM, 5' FILL
	10:00 - 12:00	2.00	DRLPRO	05	C	P		CIRC HOLE CLEAN F/ LDDS
	12:00 - 18:30	6.50	DRLPRO	06	B	P		HPJSM W/ RIG & L/D CREWS, R/U & LDDS
	18:30 - 19:00	0.50	DRLPRO	24	A	P		PULL WEAR BUSHING
	19:00 - 0:00	5.00	DRLPRO	11	C	P		HPJSM W/ RIG & LOGGING CREWS/ R/U & RUN IN TO 9207 LOGGER'S DETH, LOG OUT W/ TRIPLE COMBO
1/31/2010	0:00 - 4:30	4.50	DRLPRO	11	C	P		FINISH LOGGING, R/D

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 922-32AT      Spud Conductor: 1/12/2010      Spud Date: 1/19/2010  
 Project: UTAH-UINTAH      Site: CIGE 190      Rig Name No: PIONEER 69/69, PROPETRO/  
 Event: DRILLING      Start Date: 1/4/2010      End Date: 1/31/2010  
 Active Datum: RKB @4,921.00ft (above Mean Sea Level)      UWI: NE/NE/0/9/S/22/E/32/0/0/26/PM/N/460.00/E/0/113.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	4:30 - 12:00	7.50	DRLPRO	12	A	P		HPJSM W/ RIG & KIMZEY CASING, R/U & RUN 218 jt 4 1/2" I-80 BTC
	12:00 - 14:00	2.00	DRLPRO	05	D	P		CIRC OUT GAS TO CEMENT
	14:00 - 18:00	4.00	DRLPRO	12	E	P		HPJSM W/ RIG & BJ SERVICES, R/U & TEST LINES TO 5000PSI, POP OFF TO 4000 PSI, PUMP 40 BBLS SPACER, LEAD 550 SXS 12.1 PPG 2.23 YLD, TAIL 1293 SXS 14.3 PPG 1.31 YLD, DROPE PLUG & DISPLACED W/ 142.5 BBLS CLAYTREAT WATER, BUMP PLUG, FLOATS HELD, W/ 3190 PSI, FINAL LIFT 2600 PSI, FULL RETURNS THOUGH OUT JOB W/ 42.5 BBLS GOOD CEMENT TO PIT, TOP OF TAIL CAL @ 3750', PLUG BACK @ 9163, FLUSH OUT STACK, R/D
	18:00 - 23:59	5.98	DRLPRO	24	A	P		N/D BOPE PULL RENTAL SPOOLS OFF, CLEAN PITS, RELEASE RIG @ 1/31/10 23:59

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 922-32AT	Spud Conductor: 1/12/2010	Spud Date: 1/19/2010
Project: UTAH-UINTAH	Site: CIGE 190	Rig Name No: PIONEER 69/69, PROPETRO/
Event: DRILLING	Start Date: 1/4/2010	End Date: 1/31/2010
Active Datum: RKB @4,921.00ft (above Mean Sea Leve UWI: NE/NE/O/S/22/E/32/O/O/26/PM/N/460.00/E/O/113.00/O/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
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23:59 - 0:00      0.02      DRLPRO

CONDUCTOR CASING:  
 Cond. Depth set: 40  
 Cement sx used:

SPUD DATE/TIME: 1/19/2010 21:30

SURFACE HOLE:  
 Surface From depth:44  
 Surface To depth: 2,140  
 Total SURFACE hours: 20.00  
 Surface Casing size:9 5/8  
 # of casing joints ran: 49  
 Casing set MD:2,109.0  
 # sx of cement:505  
 Cement blend (ppg.):15.8  
 Cement yield (ft3/sk): 1.15  
 # of bbls to surface: 34  
 Describe cement issues: pump 125 sxs down backside, dropped @ 25-30'  
 Describe hole issues:

PRODUCTION:  
 Rig Move/Skid start date/time: 1/23/2010 2:00  
 Rig Move/Skid finish date/time:1/24/2010 15:00  
 Total MOVE hours: 37.0  
 Prod Rig Spud date/time: 1/25/2010 16:00  
 Rig Release date/time:  
 Total SPUD to RR hours: 152  
 Planned depth MD 9,212  
 Planned depth TVD 9,210  
 Actual MD: 9,213  
 Actual TVD: 9,211  
 Open Wells \$:708,754  
 AFE \$: \$720,131  
 Open wells \$/ft:76.93

PRODUCTION HOLE:  
 Prod. From depth: 2,154  
 Prod. To depth:9,213  
 Total PROD hours: 94  
 Production Casing size: 4 1/2  
 # of casing joints ran: 218  
 Casing set MD:9,208.7  
 # sx of cement:1,843  
 Cement blend (ppg.):14.3  
 Cement yield (ft3/sk): 1.31  
 Est. TOC (Lead & Tail) or 2 Stage : 18/3700  
 Describe cement issues: full returns throughout job  
 Describe hole issues: none

DIRECTIONAL INFO:  
 KOP: 2,093  
 Max angle: 1.60  
 Departure: 11.82  
 Max dogleg MD: 0.92

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 922-32AT	Spud Conductor: 1/12/2010	Spud Date: 1/19/2010
Project: UTAH-UINTAH	Site: CIGE 190	Rig Name No: MILES-GRAY 1/1
Event: COMPLETION	Start Date: 2/16/2010	End Date:
Active Datum: RKB @4,921.00ft (above Mean Sea Level) UWI: NE/NE/0/9/S/22/E/32/0/0/26/PM/N/460.00/E/0/113.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
2/17/2010	11:00 - 15:00	4.00	COMP	30	A	P		ROAD RIG FROM NBU 922-32J4CS TO LOC, MIRU, N/D WH, N/U BOPS, PRAPARE TO P/U TBG IN AM, SDFN.
2/18/2010	7:00 - 7:15	0.25	COMP	48		P		JSA-SAFETY MEETING #2,
	7:15 - 12:30	5.25	COMP	31	I	P		TALLY TBG ON TRAILER, P/U RIH W/ 3 7/8" BIT AND 2 3/8" J-55 TBG, TAG PBTD @ 9137', CIRC WELL CLEAN,
	12:30 - 16:30	4.00	COMP	31	I	P		P/O LAY DN 60 JTS 2 3/8" TBG ON TRAILER, TOOH W STANDING TBG BACK, SWI, SDFN
2/19/2010	7:00 - 7:15	0.25	COMP	48		P		JSA-SAFETY MEETING #3,
	7:15 - 12:00	4.75	COMP	33	C	P		N/D BOPS, N/U FRAC VALVE, R/U B&C QUICK TEST, PRESSURE TEST CSG AND FRAC VALVE TO 7,000#, TOP MASTER STEAM PACKING LEAKING, CHANGE OUT PACKING, PRESSURE TEST CSG AND FRAC VALVE TO 7000#, OK,
	12:00 - 15:00	3.00	COMP	37	B	P		( PERF STG #1 ) R/U CUTTER WIRELINE, RIH W/ PERF GUNS, PERF THE MESAVERDE @ 9097' - 9100', 8960' - 8964', 8935' - 8937', 4-SPF, USING 3 3/8" EXP GUNS, 23 gm, 0.36 HOLE, 90° PHS, 36 HOLES,
2/22/2010	7:00 - 7:15	0.25	COMP	48		P		SHUT WELL IN SDFWE JSA-SAFETY MEETING #4, W/ FRAC TECH, CUTTER WIRELINE, RIG CREW

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 922-32AT	Spud Conductor: 1/12/2010	Spud Date: 1/19/2010
Project: UTAH-UINTAH	Site: CIGE 190	Rig Name No: MILES-GRAY 1/1
Event: COMPLETION	Start Date: 2/16/2010	End Date:
Active Datum: RKB @4,921.00ft (above Mean Sea Leve) UWI: NE/NE/O/9/S/22/E/32/O/0/26/PM/N/460.00/E/O/113.00/O/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 19:00	11.75	COMP	36	E	P		<p>( STG #1 ) R/U FRAC TECH, PT SURFACE LINE TO 8000#, BRK DN PERF 3469 # @ 4 B/M, INJ-RT = 51 B/M, INJ-P = 4650 #, ISIP = 3082 #, F.G = 0.77 , PUMP 3 BBLS 15% HCL AHEAD OF INJ, CALC ALL PERF OPEN, PUMP 1562 BBLS SLK WTR &amp; 56480 # OTTAWA SAND, ISIP = 2865 #, F.G.=0.75 , NPI = - 217 #, MP = 6170 #, MR = 51.4 B/M, AP = 4650 #, AR = 51.1 B/M, 51480 # 30/50 SD, 5000 # TLC SD, 181 GALS NALCO SCALE INHIB, 33 GALS NALCO BIOCID, COMMENTS = START 8:55, STOP 9:30,</p> <p>( STG #2 ) RIH W/ BAKER 8K CBP &amp; PERF GUNS, SET CBP @ 8701', PERF THE MEASVERDE @ 8668 - 8671', 8633 - 8636', 8580 - 8583', 4- SPF, USING 3 3/8" EXP GUNS , 23 gm, 0.36 HOLE, 90* PHS, 36 HOLES, WHP = 875 #, BRK DN PERF @ 3750 # @ 5 B/M, INJ-RT = 51.6 B/M, INJ-P = 4680 #, ISIP = 2648 #, F.G.=0.74 , CALC ALL PERF OPEN, PUMP 785 BBLS SLK WTR, &amp; 27292 # OTTAWA SAND, ISIP = 2695 #, F.G.=0.75 , NPI = 47 #, MP = 6246 #, MR = 51.5 B/M, AP = 4412 #, AR = 51.1 B/M, 22292 # 30/50 SD, 5000 # TLC SD, 87 GALS NALCO SCALE INHIB, 16 GALS NALCO BIOCID, COMMENTS = START 10:47 STOP 11:10, GOOD JOB</p> <p>( STG #3 ) RIH W/ BAKER 8K CBP &amp; PERF GUNS, SET CBP @ 8525', PERF THE MEASVERDE @ 8493 - 8495', 8472 - 8474', 8448 - 8450', 8429 - 8430', 8410 - 8411', 8385 - 8386', 8343 - 8344', 4- SPF, USING 3 3/8" EXP GUNS , 23 gm, 0.36 HOLE, 90* PHS, 40 HOLES, WHP = 750 #, BRK DN PERF @ 3984 # @ 5 B/M, INJ-RT = 43 B/M, INJ-P = 3950 #, ISIP = 2854 #, F.G.=0.77 , CALC ALL PERF OPEN, PUMP 2881 BBLS SLK WTR, &amp; 115908 # OTTAWA SAND, ISIP = 2760 #, F.G.=0.76 , NPI = - 94 #, MP = 6258 #, MR = 43.2 B/M, AP = 4360 #, AR = 41.9 B/M, 110908 # 30/50 SD, 5000 # TLC SD, 194 GALS NALCO SCALE INHIB, 66 GALS NALCO BIOCID, COMMENTS = START 12:15 STOP 13:30, LOST ONE PUMP AT START,</p> <p>( STG #4 ) RIH W/ BAKER 8K CBP &amp; PERF GUNS, SET CBP @ 8301', PERF THE MEASVERDE @ 8266 - 8271', 8190 - 8193', 8141- 8142', 4- SPF, USING 3 3/8" EXP GUNS , 23 gm, 0.36 HOLE, 90* PHS, 36 HOLES, WHP = 1084 #, BRK DN PERF @ 3984 # @ 3 B/M, INJ-RT = 43 B/M, INJ-P = 4800 #, ISIP = 2777 #, F.G.=0.77 , CALC 72% PERF OPEN, PUMP 832 BBLS SLK WTR, &amp; 30062 # OTTAWA SAND, ISIP = 2648 #, F.G.=0.76 , NPI = - 129 #, MP = 5960 #, MR = 43.4 B/M, AP = 4180 #, AR = 43 B/M, 25062 # 30/50 SD, 5000 # TLC SD, 89 GALS NALCO SCALE INHIB, 17 GALS NALCO BIOCID, COMMENTS= START 14:30 STOP 14:55, ONE PUMP DN,</p> <p>( STG #5 ) RIH W/ BAKER 8K CBP &amp; PERF GUNS, SET CBP @ 8029', PERF THE MEASVERDE @</p>

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 922-32AT      Spud Conductor: 1/12/2010      Spud Date: 1/19/2010  
 Project: UTAH-UINTAH      Site: CIGE 190      Rig Name No: MILES-GRAY 1/1  
 Event: COMPLETION      Start Date: 2/16/2010      End Date:  
 Active Datum: RKB @4,921.00ft (above Mean Sea Leve      UWI: NE/NE/O/S/22/E/32/O/O/26/PM/N/460.00/E/O/113.00/O/O

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
								7997 - 7999', 7964 - 7964', 7945 - 7947', 7926 - 7927', 7898 - 7899', 7874 - 7876', 4- SPF, USING 3 3/8" EXP GUNS , 23 gm, 0.36 HOLE, 90* PHS, 40 HOLES, WHP = 550 #, BRK DN PERF @ 3493 # @ 5 B/M, INJ-RT = 43 B/M, INJ-P = 3900 #, ISIP = 2262 #, F.G.= 0.72 , CALC ALL PERF OPEN, PUMP 892 BBLS SLK WTR, & 34648 # OTTAWA SAND, ISIP = 2191 , F.G.= 0.71 , NPI = - 71#, MP = 4670 #, MR = 43.5 B/M, AP = 3470 #, AR = 43.3 B/M, 29648 # 30/50 SD, 5000 # TLC SD 66 GALS NALCO SCALE INHIB, 17 GALS NALCO BIOCID, COMMENTS = START 15:50 STOP 16:20, LOST SAME PUMP AT START, LOST PRIME ON FLUSH  ( STG #6 ) RIH W/ BAKER 8K CBP & PERF GUNS, SET CBP @ 7828', PERF THE MEASVERDE @ 7794 - 7798', 7745 - 7747', 7725' - 7726', 7712 - 7714', 7632 - 7633', 4- SPF, USING 3 3/8" EXP GUNS 23 gm, 0.36 HOLE, 90* PHS, 40 HOLES, WHP = 410 #, BRK DN PERF @ 6439 # @ 4.5 B/M, INJ-RT = 43 B/M, INJ-P = 4000 #, ISIP = 2607 #, F.G.= 0.77 , CALC ALL PERF OPEN, PUMP 1139 BBLS SLK WTR, & 44922 # OTTAWA SAND, ISIP = 2344 #, F.G.= 0.74 , NPI = - 263 #, MP = 5162 #, MR = 43.6 B/M, AP = 3768 #, AR = 43 B/M, 39922 # 30/50 SD, 5000 # TLC SD, 90 GALS NALCO SCALE INHIB, 24 GALS NALCO BIOCID, COMMENTS = START 17:15 STOP 17:50, HAD ONLY 4 PUMPS,  ( PERF STG #7 ) RIH W/ BAKER 8K CBP AND PERF GUNS SET CBP @ 7484', PERF THE MESAVERDE @ 7452 - 7454', 7415 - 7416', 7372 - 7374', 7350 - 7352', 7252 - 7254', 4-SPF, USING 3 3/8" EXP GUNS, 23 gm, 0.36 HOLE, 90* PHS, 36 HOLES,  SHUT WELL IN DRAIN UP PUMP LINE SDFN, JSA-SAFETY MEETING #5 W/ FRAC TECH, CUTTER, RIG CREW
2/23/2010	7:00 - 7:15	0.25	COMP	48		P		

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 922-32AT      Spud Conductor: 1/12/2010      Spud Date: 1/19/2010  
 Project: UTAH-UINTAH      Site: CIGE 190      Rig Name No: MILES-GRAY 1/1  
 Event: COMPLETION      Start Date: 2/16/2010      End Date:  
 Active Datum: RKB @4,921.00ft (above Mean Sea Level)      UWI: NE/NE/0/9/S/22/E/32/0/0/26/PM/N/460.00/E/0/113.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 11:30	4.25	COMP	36	E	P		( STG #7 ) WHP = 1050 #, BRK DN PERF @ 2930 @ 3.5 B/M, INJ-RT = 43 B/M, INJ-P = 3250 #, ISIP = 1887#, F.G.= 0.69 , CALC ALL PERF OPEN, PUMP 2170 BBLS SLK WTR & 86701 # OTTAWA SAND, ISIP = 2426 #, F.G.= 0.76, NPI = 539 #, MP = 5256 #, MR = 43.3 B/M, AP = 3225 #, AR = 43.1 B/M, 81701 # 30/50 SAND, 5000 # TLC SAND, 66 GALS NALCO SCALE INHIB, 20 GALS NALCO BIOCID, COMMENTS = START 7:10, STOP 8:10, 4- PUMPS
								( STG #8 ) RIH W/ BAKER 8K CBP AND PERF GUNS, SET CBP @ 7227', PERF THE MEASVERDE @ 7195 - 7197', 7130 - 7135', 7054 - 7056', 4-SPF, USING 3 3/8" EXP GUNS, 23 gm, 0.35 HOLE, 90* PHS, 36 HOLES, WHP = 1050 #, BRK DN PERF @ 1887 # @ 5 B/M, INJ-RT = 43 B/M, INJ-P = 3100 #, ISIP = 1564 #, F.G. = 0.65 , CALC ALL PERF OPEN, PUMP 1284 BBLS SLK WTR & 52753 # OTTAWA SAND, ISIP = 2338 #, F.G.= 0.76 , NPI = 774 #, MP = 5350 #, MR = 43.4 B/M, AP = 3025 #, AR = 43.1 B/M, 47753 # 30/50 SAND, 5000 # TLC SAND, 70 GALS NALCO SCALE INHIB, 25 GALS NALCO BIOCID, COMMENTS = START 9:35, STOP 10:10, 4- PUMPS
								( KILL PLUG ) RIH W/ BAKER 8K CBP, SET CBP @ 7004', POOH, R/D WIRELINE AND FRAC TECH,
								TOTAL FLUID = 11645 BBLD SLK WTR, TOTAL SAND = 448766 #, TOTAL NALCO SCALE INHIB = 969 GALS, TOTAL NALCO BIOCID = 284 GALS, N/D FRAC VALVE, N/U BOPS AND TBG EQUIP, P/U 3 7/8" MILL W/ POBS, TIH W/ 2 3/8" TBG TO 7000', R/U POWER SWIVEL , PREPARE TO DRILL OUT IN AM, SHUT WELL IN SDFN, JSA-SAFETY MEETING #6,
	11:30 - 11:30	0.00	COMP	31	I	P		RIH TAG CBP 7004', PRESSURE TEST BOPS TO 3000#, ESTB CIRC DN TBG OUT CSG,
2/24/2010	7:00 - 7:15	0.25	COMP	48		P		( DRLG CBP #1 ) 7004 ' , DRILL OUT BAKER 8K CBP IN 120 MIN, 500 # DIFF, RIH TAG @ 7200 ' , C/O 30 ' SAND, FCP = 500 #,
	7:15 - 7:15	0.00	COMP	44	C	P		( DRLG CBP #2 ) 7230 ' , DRILL OUT BAKER 8K CBP IN 90 MIN, 500 # DIFF, RIH TAG @ 7460' , C/O 30 ' SAND, FCP = 400 #,
								( DRLG CBP #3 ) 7490 ' , DRILL OUT BAKER 8K CBP IN 90 MIN, 400 # DIFF, RIH TAG @ 7798' , C/O 30 ' SAND, FCP = 400 #,
								( DRLG CBP #4 ) 7828 ' , DRILL OUT BAKER 8K CBP IN 90 MIN, 100 # DIFF,
2/25/2010	7:00 - 7:15	0.25	COMP	48		P		CIRC WELL CLEAN, P/O TO @ 6900', SHUT WELL IN SDFN, JSA-SAFETY MEETING #7,

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 922-32AT      Spud Conductor: 1/12/2010      Spud Date: 1/19/2010  
 Project: UTAH-UINTAH      Site: CIGE 190      Rig Name No: MILES-GRAY 1/1  
 Event: COMPLETION      Start Date: 2/16/2010      End Date:  
 Active Datum: RKB @4,921.00ft (above Mean Sea Leve)      UWI: NE/NE/0/9/S/22/E/32/0/0/26/PM/N/460.00/E/0/113.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 17:00	9.75	COMP	44		P		800# ON CSG, BLOWED DN CSG TO TK, TIH TAG FILL @ 8009', R/U POWER SWIVEL, ESTB CIRC DN TBG OUT CSG, C/O SAND FROM 8009' TO 8039', ( DRLG CBP #5 ) 8039', DRILL OUT BAKER 8K CBP IN 90 MIN, 300# DIFF, RIH TAG FILL @ 8271', C/O 30' SAND, FCP = 400#,  ( DRLG CBP #6 ) 8301', DRILL OUT BAKER 8K CBP IN 90 MIN, 300# DIFF, RIH TAG FILL @ 8505', C/O 30' SAND, FCP = 425#,  ( DRLG CBP #7 ) 8535', DRILL OUT BAKER 8K CBP IN 50 MIN, 300# DIFF, RIH TAG FILL @ 8671', C/O 30' SAND, FCP = 500#,  ( DRLG CBP #8 ) 8701', DRILL OUT BAKER 8K CBP IN 45 MIN, 300# DIFF, RIH TAG FILL @ 9130', C/O TO PBTD @ 9164', FCP = 500#, CIRC WELL CLEAN, R/D POWER SWIVEL, P/O LAY DN 21 JTS ON TRAILER, LAND TBG W/ HANGER W/ 275JTS 2 3/8" J-55 TBG, EOT @ 8552.15', R/D TBG EQUIP, N/D BOPS, DROP BALL DN TBG, N/U WH, PUMP OFF BIT & SUB @ 1600 #, WAIT 30 MIN FOR BIT TO FALL TO BOTTOM, OPEN WELL TO TK W/ FTP 1250 #, SICP 2200 #, TURN WELL OVER TO FLOW BACK CREW W/ 7845 BBLS WTR LTR, RIG DN RIG AND EQUIP, PREPARE TO MOVE OFF LOC IN AM, SDFN  KB = 18.00' HANGER = .83 275 JTS 2 3/8" J-55 TBG = 8531.12 XN-NIPPLE POBS = 2.20'  _____ EOT = 8552.15'  301 JTS 2 3/8" J-55 TBG DELV 275 JTS 2 3/8" J-55 TBG LANDED 26 JTS 2 3/8" J-55 TBG RETURNED 7 AM FLBK REPORT: CP 2875#, TP 2150#, 20/64" CK, 47 BWPH, TRACE SAND, LIGHT GAS TTL BBLS RECOVERED: 5483 BBLS LEFT TO RECOVER: 6992 WELL TURNED TO SALES @ 1030 HR ON 2/26/10 - 2300 MCFD, 1080 BWPD, CP 3250#, FTP 2200#, CK 20/694"
2/26/2010	7:00 -			33	A			7 AM FLBK REPORT: CP 3225#, TP 2125#, 20/64" CK, 37 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 6469 BBLS LEFT TO RECOVER: 6006 7 AM FLBK REPORT: CP 2850#, TP 1925#, 20/64" CK, 28 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 7238 BBLS LEFT TO RECOVER: 5237 7 AM FLBK REPORT: CP 2625#, TP 1800#, 20/64" CK, 25 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 7863 BBLS LEFT TO RECOVER: 4612

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-22649
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>
		<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 922-32AT	
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047401470000	
<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 FOOTAGES AT SURFACE:</b> 0457 FNL 0113 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 32 Township: 09.0S Range: 22.0E 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: 7/12/2011  <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:	<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 checked="" type="checkbox"/> OTHER	
	<input checked="" 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="text" value="Wellhead Repair"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
<p>The operator requests approval to conduct wellhead/casing repair operations on the subject well location. Please find the attached procedure for the proposed repair work on the subject well location.</p> <div style="text-align: right;"> <p><b>Approved by the Utah Division of Oil, Gas and Mining</b></p> <p><b>Date:</b> <u>07/20/2011</u></p> <p><b>By:</b> <u><i>Dark K. Quist</i></u></p> </div>		
<b>NAME (PLEASE PRINT)</b> Gina Becker	<b>PHONE NUMBER</b> 720 929-6086	<b>TITLE</b> Regulatory Analyst II
<b>SIGNATURE</b> N/A	<b>DATE</b> 7/12/2011	

**WORKORDER #: 88119396**

Name: **NBU 922-32AT** 7/11/2011  
 Surface Location: NENE Sec. 32, T9S, R22E  
 Uintah County, UT

API: 4304740147 LEASE#: ML-22649

ELEVATIONS: 4903' GL 4921' KB

TOTAL DEPTH: 9213' PBDT: 9165'

SURFACE CASING: 9 5/8", 36# J-55 @ 2127'

PRODUCTION CASING: 4 1/2", 11.6#, I-80 @ 9208'  
 TOC @ Surface per CBL (with min 50' isolation)

PERFORATIONS: Mesaverde 7054' - 9100'

Tubular/Borehole	Drift inches	Collapse psi	Burst psi	Capacities		
				Gal./ft.	Cuft/ft.	Bbl./ft.
2.375" 4.7# J-55 tbg.	1.901	8100	7700	0.1624	0.02171	0.00387
4.5" 11.6# I-80	3.875	6350	7780	0.6528	0.0872	0.0155
9.625" 36# J-55	8.921	2020	3520	3.247	0.434	0.0773
<b>Annular Capacities</b>						
2.375" tbg. X 4 1/2" 11.6# csg				0.4227	0.0565	0.01

**GEOLOGICAL TOPS:**

1267' Green River  
 2044' Mahogany  
 4475' Wasatch  
 7041' Mesaverde

## **NBU 922-32AT- WELLHEAD REPAIR PROCEDURE**

### **PREP-WORK PRIOR TO MIRU:**

1. Dig out down to the 2" surface casing valve or to the valve on the riser off the surface casing.
2. Install a tee with 2 valves, with a pressure gauge and sensor on one valve.
3. Open casing valve and record pressures.
4. Install nipple and steel hose on the other valve, the relief valve,. Do not use hammer unions. No impact equipment or tools to be used for any of this installation. Extend hose and hard piping to a downwind location at least 100' from the wellhead. Consider installing a manifold so that vent area could be in two locations approx. 90 degrees apart from the wellhead.
5. Open the relief valve and blow well down to the atmosphere.
6. Make a determination of amount of gas flow, either by installation of a choke nipple, bucket test or other.
7. Shut well in. Observe for rate of build-up by utilizing sensor data. Do not build-up for more than 24 hours. Vent gas through the vent line and leave open to the atmosphere.

### **WORKOVER PROCEDURE:**

1. MIRU workover rig.
2. Kill well with 10# brine / KCL (dictated by well pressure ).
3. Remove tree, install double BOP with blind and 2 3/8" pipe rams, with accumulator closing unit and manual back-ups. Function test BOP system.
4. POOH w/ tubing laying down extra tubing.
5. Rig up wireline service. RIH and set CBP @ ~7004'. Dump bail 4 sx cement on top of plug. POOH and RD wireline service. TIH w/ tubing and seating nipple. Land tubing ±60' above cement. RDMO.
6. Monitor well pressures. If surface casing is dead. MIRU. ND WH and NU BOP. POOH w/ tubing.
7. Depending on conditions at wellsite, continue with either CUT/PATCH Procedure or BACK-OFF Procedure.

**CUT/PATCH PROCEDURE:**

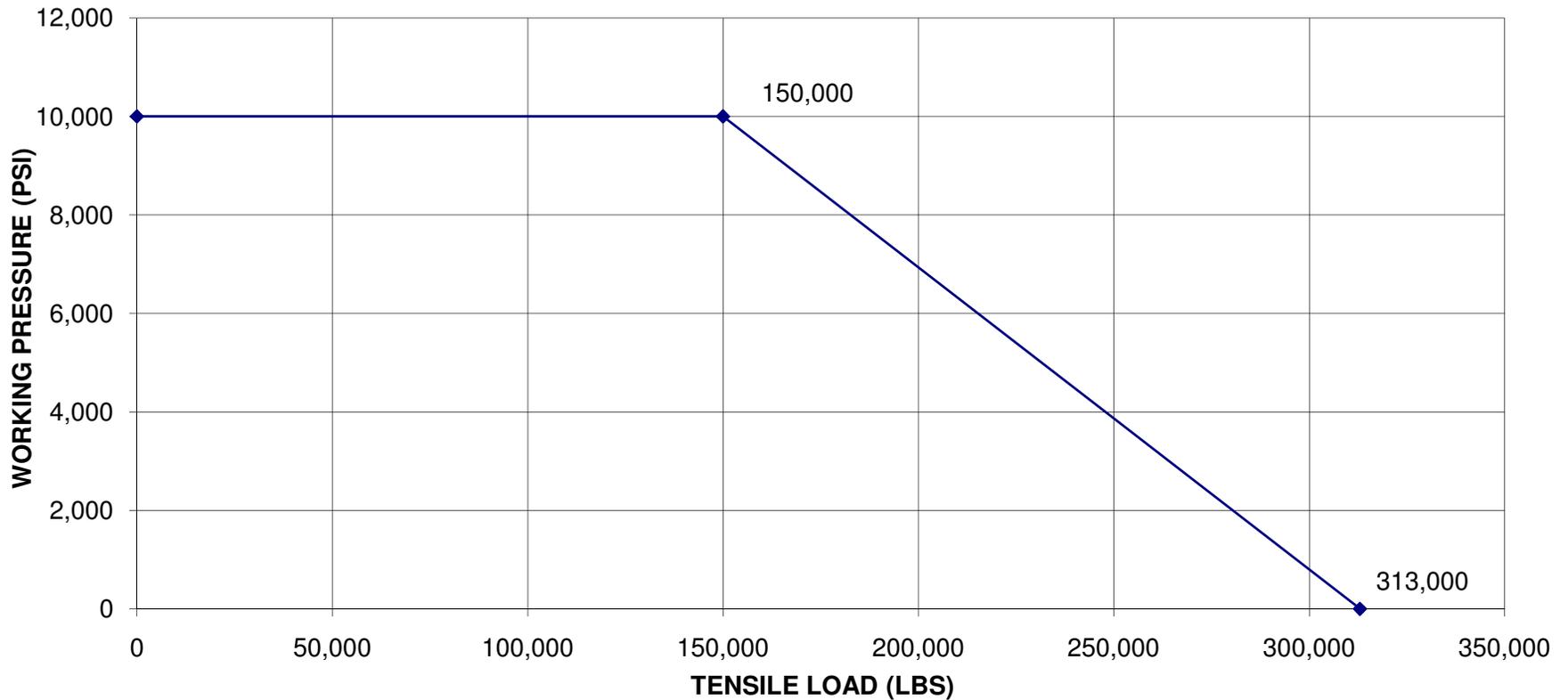
1. PU internal casing cutters and RIH. Cut casing at +/- 30' from surface.
2. POOH, LD cutters and casing.
3. PU 7 3/8" overshoot with 4 1/2" right hand standard wicker grapple, 1 - 4 3/4" drill collar with 3 1/2" IF threads, pup joint, manual bumper sub, and crossovers. If casing cut is deeper than ±30' utilize >7000 ft-lb torque pipe as needed. Pull a minimum of 10,000# to keep grapple engaged if cement top is high (<~900'). If cement top is low (>~900'), more weight will be required to put casing in neutral. Torque casing string to ±7000 ft-lbs, count number of turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out, release overshoot, POOH, and lay down.
4. TIH w/ skirted mill and dress off the fish top for approximately 1/2 hour. TOO H.
5. PU & RIH w/ 4 1/2" 10k external casing patch on 4 1/2" P-110 casing. Ensure that sliding sleeve assembly shifts ±3' and casing tags no-go portion of patch. NOTE: Shear pins will shear at 3500 to 4500 lbs.
6. Latch fish, PU to 100,000# tension. RU B&C. Cycle pressure test to 3500 psi.
7. Install slips. Land casing w/ 80,000# tension.
8. Cut-off and dress 4 1/2" casing stub.
9. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~6954'. Clean out to PBSD (9165').
10. POOH, land tbg and pump off POBS.
11. NUWH, RDMO. Turn well over to production ops.

**BACK-OFF PROCEDURE:**

1. PU internal casing cutters and RIH. Cut casing at +/- 6' from surface.
2. POOH, LD cutters and casing.
3. PU 4 1/2" overshoot. RIH, latch fish. Pick string weight to neutral.
4. MIRU casing crew and wireline services. RIH and shoot string shot at casing collar @ ± 46'.
5. Back-off casing, POOH.

6. PU new casing joint with buttress threads and entry guide and RIH. Tag casing top. Thread into casing and torque up to  $\pm 7000$  ft-lbs, count number of additional turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place  $\pm 7000$  ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out go to step 7.
7. PU 100,000# tension string weight. RU B&C. Cycle pressure test to 3500 psi.
8. Install slips. Land casing w/ 80,000# tension.
9. Cut-off and dress 4 1/2" casing stub.
10. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~6954'. Clean out to PBTD (9165').
11. POOH, land tbg and pump off POBS.
12. NUWH, RDMO. Turn well over to production ops.

**STRENGTH DATA FOR LOGAN 5.88" OD "L" TYPE CSG PATCH  
4-1/2 CASING, 10K PSI MAX WP 125K YIELD MAT'L  
LOGAN ASSEMBLY NO. 510L-005 -000**



COLLAPSE PRESSURE:  
11,222 PSI @ 0 TENSILE  
8,634 PSI @ 220K TENSILE

Tensile Strength @ Yield:  
Tensile Strength w/ 0 Int. Press.= 472,791lbs.  
Tensile Strength w/ 10K Int. Press.= 313,748lbs.

DATA BY SLS 11/16/2009

**RECEIVED** Jul. 12, 2011



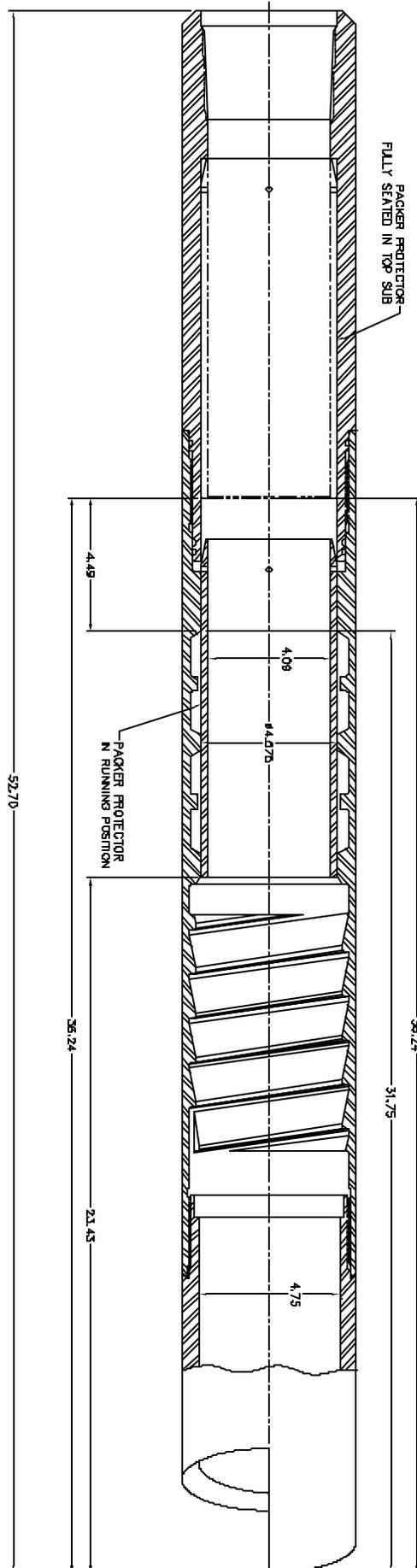
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## **Logan High Pressure Casing Patches Assembly Procedure**

All parts should be thoroughly greased before being assembled.

1. Install all four Logan Type "L" Packers in the spaces provided in the Casing Patch Bowl. Refer to diagram provided for proper installation.
2. Install Packer Protector from the Basket Grapple end of the Bowl. The beveled end of the Packer Protector goes in first. Carefully push the Packer Protector through the four Type "L" Packers.
3. Align Shear Pin Holes in Packer Protector so that the holes have just passed into the counter bore at the Top Sub end, refer to diagram. The Packer Protector is provided with four Shear Pin Holes. Use only two holes, 180 degrees apart and install the pins.
4. Screw the Basket Grapple in from the lower end of the Bowl, using left-hand rotation. The Tang Slot in the Basket Grapple must land in line with the slot in the Bowl.
5. Insert the Basket Grapple Control into the end of the Bowl. Align Tang on the Basket Grapple Control with the Tang Slot of the Bowl and Basket Grapple. This secures the Bowl and the Basket Grapple together.
6. Install the Cutlipped Guide into the lower end of the Bowl.
7. Install O-Rings on the two five-foot long Extensions. Screw the first Extension into the top end of the Bowl. Screw the second Extension into the top end of the first Extension.
8. Install O-Ring on Top Sub. Screw Top Sub into top end of second Extension.

Follow recommended Make-Up Torque as provided in chart.



510L-005-001 4-1/2" LOGAN HP CASING PATCH

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<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>1. TYPE OF WELL</b> Gas Well	<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML-22649
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>PHONE NUMBER:</b> 720 929-6511	<b>8. WELL NAME and NUMBER:</b> NBU 922-32AT
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0457 FNL 0113 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NENE Section: 32 Township: 09.0S Range: 22.0E Meridian: S	<b>9. API NUMBER:</b> 43047401470000
	<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 type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input checked="" type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 12/12/2011	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

The operator has concluded the wellhead/casing repairs on the subject well location. Please see the attached chronological history for details of the operations.

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

<b>NAME (PLEASE PRINT)</b> Jaime Scharnowske	<b>PHONE NUMBER</b> 720 929-6304	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 7/17/2012	

**US ROCKIES REGION**  
**Operation Summary Report**

US ROCKIES REGION								
Operation Summary Report								
Well: NBU 922-32AT			Spud Conductor: 1/12/2010			Spud Date: 1/19/2010		
Project: UTAH-UINTAH			Site: CIGE 190			Rig Name No: MONUMENT/698		
Event: WELL WORK EXPENSE			Start Date: 12/8/2011			End Date: 12/12/2011		
Active Datum: RKB @4,921.00usft (above Mean Sea Level)			UWI: NE/NE/0/9/S/22/E/32/0/0/26/PM/N/460.00/E/0/113.00/0/0					
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/8/2011	7:00 - 7:30	0.50	ALL	48		P		HSM, POOH TBG, & RIH WIRELINE
	7:30 - 9:00	1.50	ALL	30	G	P		MOVE, RIG, EQUIPMENT FROM NBU 921-25 NT PAD TO NBU 922-32 AT SPOT IN EQUIPMENT
	9:00 - 12:00	3.00	ALL	31	I	P		FCP. 122 PSI. FTP. 122 PSI. BLEW TBG DWN, CONTROL TBG W/ 10 BBLs, ND WH, NU BOP'S, RU FLOOR & TBG EQUIPMENT, DROP DRIFT SLEEVE DWN TBG, UNLAND TBG.
	12:00 - 14:00	2.00	ALL	31	I	P		POOH 275 JTS. 2-3/8 J-55 TBG, LD XN NIPPLE W/ HALF POBS.
	14:00 - 17:00	3.00	ALL	34	D	P		MIRU J-W WIRELINE RIH SET CIBP @ 7000', POOH, PU DUMP BAILER, RIH DUMP 2 SXS CMT ON CIBP, RD J-W WIRELINE COMPANY, FILL CSG W/ T-MAC, P.T. PLUG TO 3000 PSI. SWI, SDFN.
12/9/2011	7:00 - 7:15	0.25	ALL	48		P		HSM, REVIEWED BACK-OFF PROCEDURE
	7:15 - 8:30	1.25	ALL	47	C	P		RD FLOOR & TBG EQUIPMENT, THAW OUT W/H, ND BOP'S, ND CSG BOWL, RU PWR SWVL.
	8:30 - 10:00	1.50	ALL	47	A	P		PU INTERNAL CSG CUTTER & RIH, CUT CSG @ 3' F/ SURFACE, POOH, LD CUTTER & CSG MANDRAL, RD PWR SWVL, PU 4-1/2 OVERSHOT, RIH, LATCH FISH, MIRU CSG CREW & WIRELINE SERVICES, RIH STRING SHOT CSG COLLAR, BACK-OFF CSG, POOH, PU NEW CSG PUP JNT, RIH & TAG CSG TOP, TORQUE CSG TO 7000# W/ 13.5 ROUNDS, RD CSG CREW & WIRELINE SERVICES, PU CSG TO 100,000# TENSION.
	10:00 - 11:00	1.00	ALL	47	B	P		RU B&C QUICK TEST, P.T. 4-1/2 CSG TO 1000 PSI. LOST 7 PSI. IN 15 MIN, P.T. 4-1/2 CSG TO 3500 PSI. LOST 24 PSI. IN 30 MIN, NO COMMUNICATION BETWEEN SURFACE CSG & 4-1/2 CSG, RD B&C QUICK TEST.
	11:00 - 13:00	2.00	ALL	47	A	P		RU WEATHERFORD TECHNICIAN, SET C-21 SLIPS, LAND CSG W/ 80,000# TENSION, CUT-OFF & DRESS 4-1/2 CSG, INSTALL "H" PLATE, FLANGE, & CROSSOVER SPOOL, TORQUE ALL 1-7/8 BOLTS, RD WEATHERFORD TECHNICIAN
	13:00 - 16:00	3.00	ALL	31	I	P		NU CSG BOWL, NU BOP'S, RU FLOOR & TBG EQUIPMENT, PU 3-7/8 MILL W/ 1.875 XN POBS, RIH ON 2 3/8 TBG. TAG CMT @ 6930' W 224 JTS. SWI, DRAIN EQUIPMENT PREP TO D/O MONDAY 12-12-2011 SDFWE.
12/12/2011	7:00 - 7:30	0.50	ALL	48		P		HSM, REVIEW AIR FOAM & D/O CMT & CIBP
	7:30 - 8:30	1.00	ALL	47	A	P		RU PWR SWVL, RU TECH FOAM, EST CIRC IN 40 MINS
	8:30 - 8:45	0.25	ALL	44	A	P		D/O CMT @ 6990' IN 15 MINS'
	8:45 - 12:00	3.25	ALL	44	C	P		D/O CIBP @ 7000' IN 3 HRS 10 MINS, HAD 50 PSI. INCREASE, KILL TBG, LD PWR SWVL
	12:00 - 13:15	1.25	ALL	31	I	P		RIH 51 JTS. TBG F/ DERRICK, PU 19 JTS. F/ TRAILER, TAG FILL @ 9128', W/ 294 JTS. INSTALL TSF, RU PWR SWVL, EST CIRC IN 15 MINS

**US ROCKIES REGION**  
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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	13:15 - 14:45	1.50	ALL	44	D	P		C/O SAND F/ 9128' TO 9138' TAG OLD POBS, CIRC WELL CLEAN, KILL TBG, POOH 1 JNT, REMOVE TSF, RD PWR SWVL, DROP BALL, PUMP MILL-OFF W/ 1880 PSI. KILL TBG.
	14:45 - 17:30	2.75	ALL	31	I	P		POOH & LD 18 JTS. 2-3/8 J-55 ON TRAILER, LAND TBG, RU SWAB EQUIPMENT, RIH & BROACH TBG TO XN W/ 1.9 BROACH, RD SWAB EQUIPMENT, RD FLOOR & TBG EQUIPMENT, ND BOP'S, NU WH, RDMO. MOVE TO BONANZA 1023-8A4BS.

TBG DETAIL

KB-----  
 -----18'  
 HANGER-----  
 -----83"  
 275 JTS. 2-3/8 J-55 TBG @-----  
 --8531.12'  
 1.875 XN POBS-----  
 -----2.20'  
 EOT @-----  
 --8552.15'  
 WLTR. 75 BBLS.  
 TOP PERF @ 7054'  
 BTM PERF @ 9100'  
 TAG OLD POBS @ 9138'  
 PBTD @ 9165'  
 API# 4304740147