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

FORM 3

AMENDED REPORT ☐
(highlight changes)

APPLICATION FOR PERMIT TO DRILL

5. MINERAL LEASE NO:	6. SURFACE:
ML-22582	State

1A. TYPE OF WORK: DRILL ☑ REENTER ☐ DEEPEN ☐

7. IF INDIAN, ALLOTTEE OR TRIBE NAME:

B. TYPE OF WELL: OIL ☐ GAS ☑ OTHER _____ SINGLE ZONE ☐ MULTIPLE ZONE ☑

8. UNIT or CA AGREEMENT NAME: UNIT #891008900A

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

9. WELL NAME and NUMBER: NBU 921-35J

3. ADDRESS OF OPERATOR: 1368 S. 1200 E. CITY VERNAL STATE UT ZIP 84078

PHONE NUMBER: (435) 781-7024

10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 1454'FSL, 1481'FEL 624867X 39.989206 4427407Y -109.514037
AT PROPOSED PRODUCING ZONE:

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

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 17.65 MILES SOUTHEAST OF OURAY, UTAH

12. COUNTY: UINTAH

13. STATE: UTAH

15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET)	16. NUMBER OF ACRES IN LEASE:	17. NUMBER OF ACRES ASSIGNED TO THIS WELL:
1454'	320.37	40.00
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET)	**19. PROPOSED DEPTH:**	**20. BOND DESCRIPTION:**
REFER TO TOPO C	9,500	RLB0005238
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.):	**22. APPROXIMATE DATE WORK WILL START:**	**23. ESTIMATED DURATION:**
5075'GL		

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	H-40	32.3#	2,230	315 SX CLASS G	1.18 YIELD	15.6 PPG
7 7/8"	4 1/2"	I-80	11.6#	9,500	1950 SX 50/50 POZ	1.31 YIELD	14.3 PPG

25. **ATTACHMENTS**

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

☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
☑ COMPLETE DRILLING PLAN
☑ EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER
☐ FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE REGULATORY ANALYST

SIGNATURE Sheila Upchego DATE 5/8/2006

(This space for State use only)

API NUMBER ASSIGNED: 43-047-38105 APPROVAL:

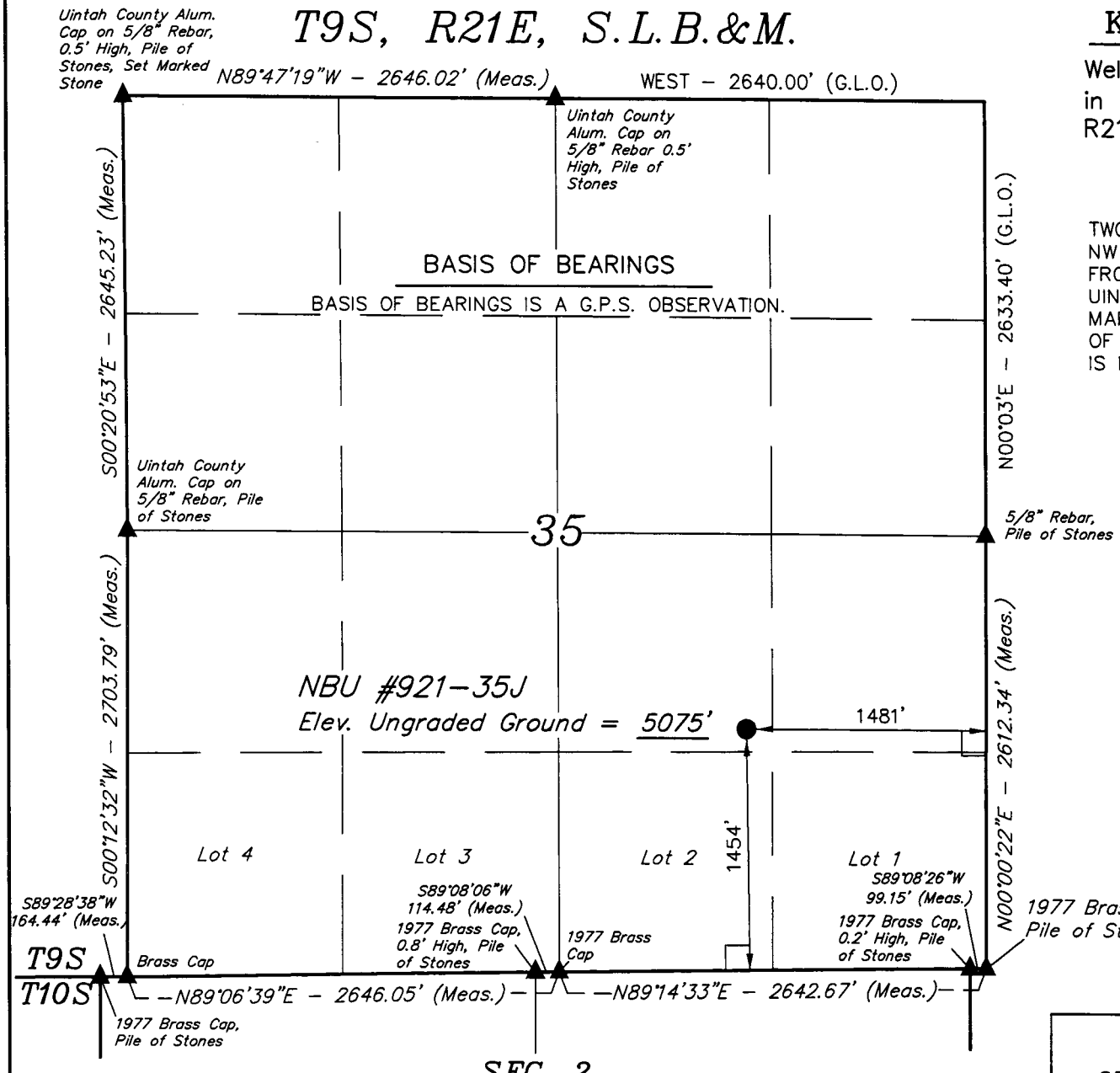
RECEIVED
MAY 15 2006
DIV. OF OIL, GAS & MINING

(11/2001) (See Instructions on Reverse Side)

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

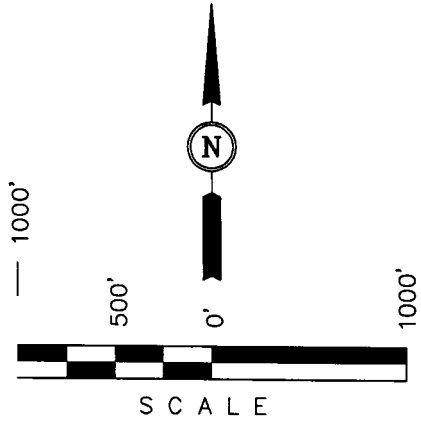
Kerr McGee Oil & Gas Onshore LP

Well location, NBU #921-35J, located as shown in the NW 1/4 SE 1/4 of Section 35, T9S, R21E, 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.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

(NAD 83)
LATITUDE = 39°59'21.34" (39.989261)
LONGITUDE = 109°30'53.13" (109.514758)
(NAD 27)
LATITUDE = 39°59'21.47" (39.989297)
LONGITUDE = 109°30'50.66" (109.514072)

LEGEND:

└ = 90° SYMBOL
● = PROPOSED WELL HEAD.
▲ = SECTION CORNERS LOCATED.

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

SCALE: 1" = 1000'	DATE SURVEYED: 02-24-06	DATE DRAWN: 03-22-06
PARTY: A.F. L.G. S.L.	REFERENCES: G.L.O. PLAT	
WEATHER: COLD	FILE: Kerr McGee Oil & Gas Onshore LP	

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

FORM 3

AMENDED REPORT ☐
(highlight changes)

APPLICATION FOR PERMIT TO DRILL

5. MINERAL LEASE NO: ML-22582	6. SURFACE: State
7. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
8. UNIT or CA AGREEMENT NAME: UNIT #891008900A	
9. WELL NAME and NUMBER: NBU 921-35J	
10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES	
11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWSE 35 9S 21E	
12. COUNTY: UINTAH	13. STATE: UTAH

1A. TYPE OF WORK: DRILL ☑ REENTER ☐ DEEPEN ☐

B. TYPE OF WELL: OIL ☐ GAS ☑ OTHER _____ SINGLE ZONE ☐ MULTIPLE ZONE ☑

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

3. ADDRESS OF OPERATOR: 1368 S. 1200 E. CITY VERNAL STATE UT ZIP 84078 PHONE NUMBER: (435) 781-7024

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 1454'FSL, 1481'FEL 626867X 39.999204 4427407Y -109.514037
AT PROPOSED PRODUCING ZONE:

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 17.65 MILES SOUTHEAST OF OURAY, UTAH

15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET): 1454'	16. NUMBER OF ACRES IN LEASE: 320.37	17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40.00
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET): REFER TO TOPO C	19. PROPOSED DEPTH: 9,500	20. BOND DESCRIPTION: RLB0005238
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 5075'GL	22. APPROXIMATE DATE WORK WILL START:	23. ESTIMATED DURATION:

PROPOSED CASING AND CEMENTING PROGRAM

24.

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	H-40	32.3#	2,230	315 SX CLASS G	1.18 YIELD	15.6 PPG
7 7/8"	4 1/2"	I-80	11.6#	9,500	1950 SX 50/50 POZ	1.31 YIELD	14.3 PPG

ATTACHMENTS

25.

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

☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
☑ EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER
☑ COMPLETE DRILLING PLAN
☐ FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE REGULATORY ANALYST

SIGNATURE Sheila Upchego DATE 5/8/2006

(This space for State use only)

API NUMBER ASSIGNED: 43-047-38105

Approved by the
Utah Division of
Oil, Gas and Mining
APPROVAL:
Date: 06-29-06
By:
(See Instructions on Reverse Side)

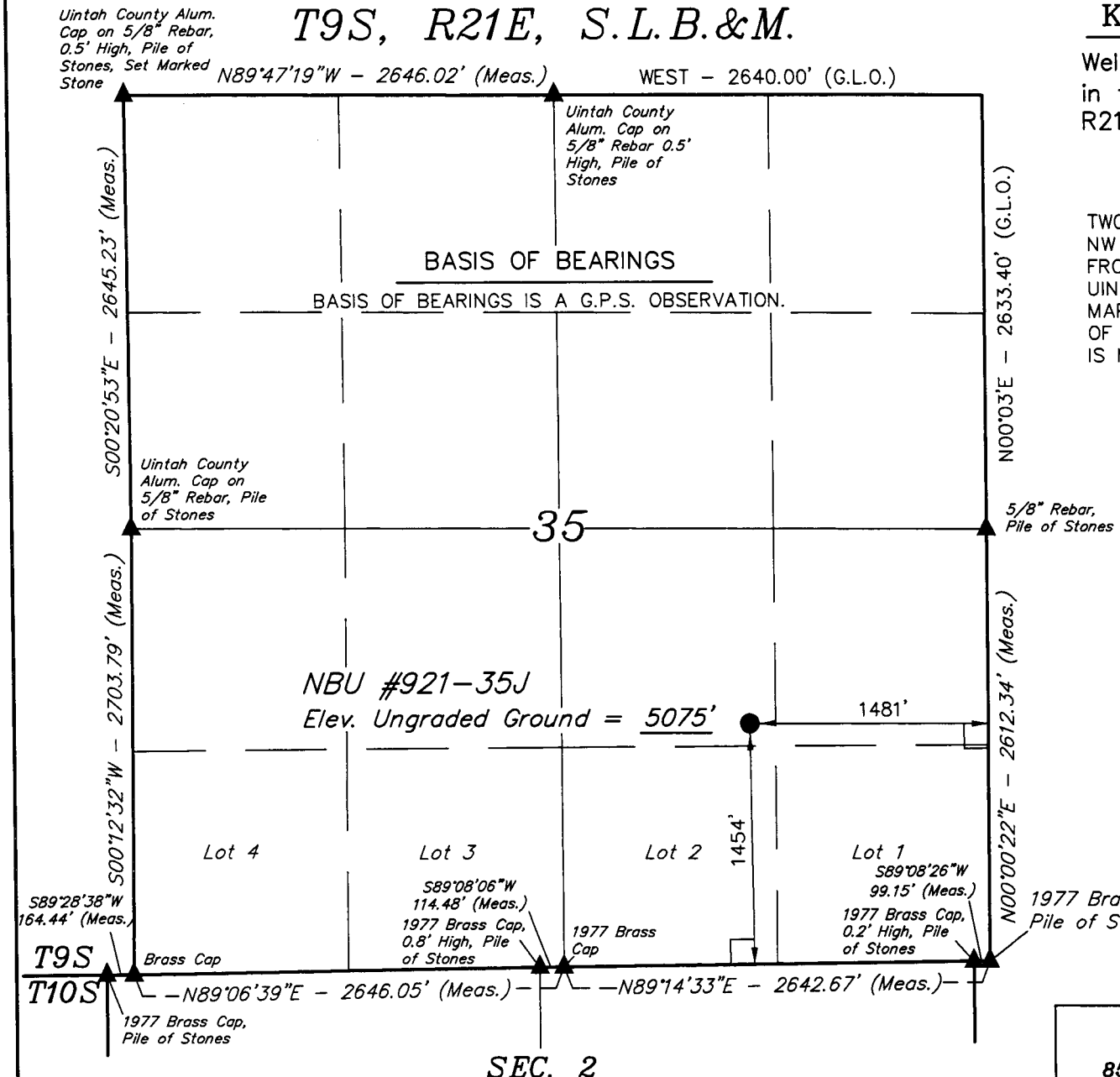
RECEIVED
MAY 15 2006
DIV. OF OIL, GAS & MINING

(11/2001)

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

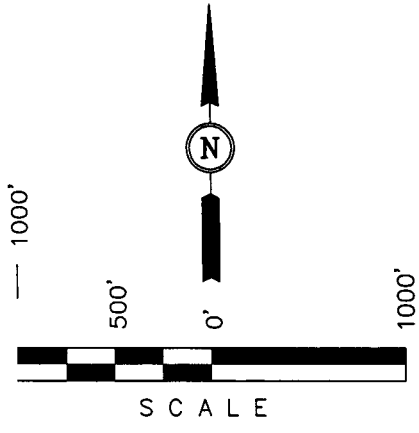
Kerr McGee Oil & Gas Onshore LP

Well location, NBU #921-35J, located as shown in the NW 1/4 SE 1/4 of Section 35, T9S, R21E, 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.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

LEGEND:

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

(NAD 83)
LATITUDE = 39°59'21.34" (39.989261)
LONGITUDE = 109°30'53.13" (109.514758)
(NAD 27)
LATITUDE = 39°59'21.47" (39.989297)
LONGITUDE = 109°30'50.66" (109.514072)

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

SCALE	DATE SURVEYED:	DATE DRAWN:
1" = 1000'	02-24-06	03-22-06
PARTY: A.F. L.G. S.L.	REFERENCES: G.L.O. PLAT	
WEATHER: COLD	FILE: Kerr McGee Oil & Gas Onshore LP	

NBU 921-35J
NWSE SEC 35-T9S-R21E
UINTAH COUNTY, UTAH
ML-22582

ONSHORE ORDER NO. 1

DRILLING PROGRAM

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

Formation	Depth
Uinta	0- Surface
Green River	1402'
Top of Birds Nest Water	1725'
Mahogany	2346'
Wasatch	4682'
Mesaverde	7388'
MVU2	8319'
MVL1	8926'
TD	9500'

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

Substance	Formation	Depth
	Green River	1402'
Water	Top of Birds Nest Water	1725'
	Mahogany	2346'
Gas	Wasatch	4682'
Gas	Mesaverde	7388'
Gas	MVU2	8319'
Gas	MVL1	8926'
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 9500' TD, approximately equals 5890 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 3800 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.

10. **Other Information:**

Please refer to the attached Drilling Program.

KerrMcGee

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	May 8, 2006	
WELL NAME	**NBU 921-35J**		TD	9,500' MD/TVD	
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah	ELEVATION	5,075' GL KB 5,090'
SURFACE LOCATION	NWSE SECTION 35, T9S, R21E 1454'FSL, 1481'FEL			BHL	Straight Hole
	Latitude: 39.989261	Longitude: 109.514758			
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: UDOGM (SURF & MINERALS), BLM, Tri-County Health Dept.				

LOGS	GEOLOGICAL FORMATION TOPS	DEPTH	MECHANICAL HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
			12-1/4"	9-5/8", 32.3#, H-40, STC **For wells w/ surf csg set below 2200' app 10 jts of 36# J55 will be run on bottom	Air mist
Catch water sample, if possible, from 0 to 4,682'					
	Green River @	**1,402'**			
	Top of Birds Nest Water @	**1,725'**			
	Preset f/ GL @ 2,230' MD				
	Note: 12.25" surface hole will usually be drilled ±400' below the bottom of lost circulation zone. Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.				
	Mahogany @	**2,346'**			
Mud logging program TBD Open hole logging program f/ TD - surf csg					Water/Fresh Water Mud
			7-7/8"	4-1/2",11.6#, I-80 or equivalent LTC casing	8.3-12.0 ppg
	Wasatch @	**4,682'**			
	Mverde @	**7,388'**			
	MVU2 @	**8,319'**			
	MVL1 @	**8,926'**			
	TD @	**9,500'**			Max anticipated Mud required 12.0 ppg

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								2270	1370	254000
SURFACE	9-5/8"	0	to	1830	32.30	H-40	STC	0.59********	1.60	4.03
								3520	2020	564000
	9-5/8"	1830	to	2230	36.00	J-55	STC	1.14********	1.94	8.94
								7780	6350	201000
PRODUCTION	4-1/2"	0	to	9500	11.60	I-80	LTC	2.03	1.07	2.09

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

2) MASP (Prod Casing) = Pore Pressure at TD - (.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 12.0 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 3838 psi

******** Burst SF is low but csg is stronger than formation at 2230 feet

******** EMW @ 2230 for 2270# is 19.6 ppg or 1.0 psi/ft

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl + .25 pps flocele	215	60%	15.60	1.18
Option 1							
	TOP OUT CMT (1)	250	20 gals sodium silicate + Premium cmt + 2% CaCl + .25 pps flocele	100		15.60	1.18
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**				
Option 2	LEAD	2000	Prem cmt + 16% Gel + 10 pps gilsonite +.25 pps Flocele + 3% salt BWOC	230	35%	11.00	3.82
	TAIL	500	Premium cmt + 2% CaCl + .25 pps flocele	180	35%	15.60	1.18
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	4,180'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	460	60%	11.00	3.38
	TAIL	5,320'	50/50 Poz/G + 10% salt + 2% gel +.1% R-3	1490	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.

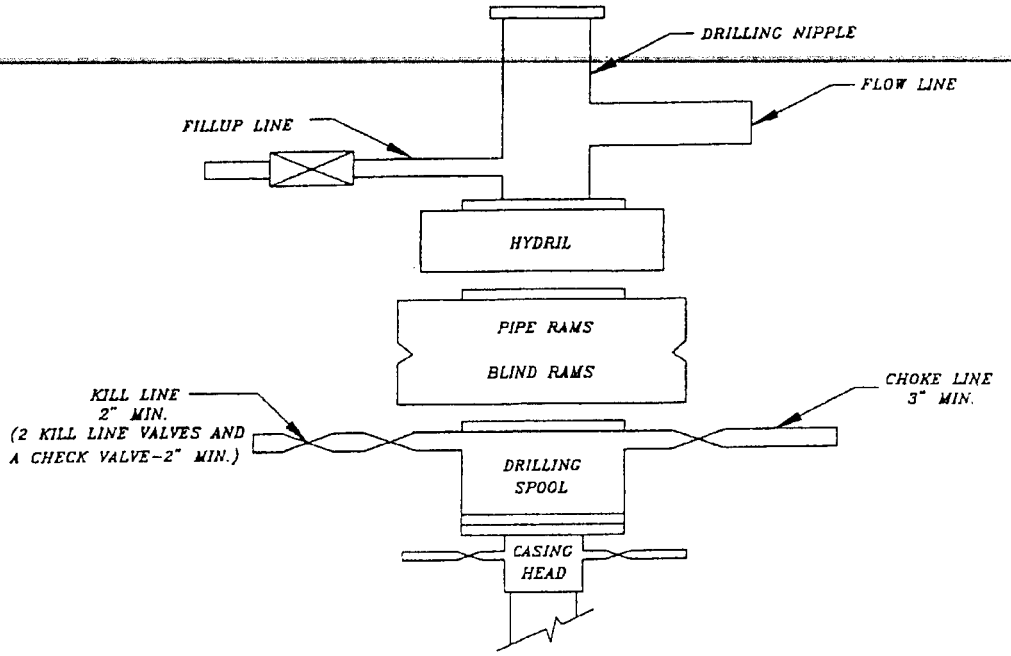
DRILLING ENGINEER: _____ **DATE:** _____

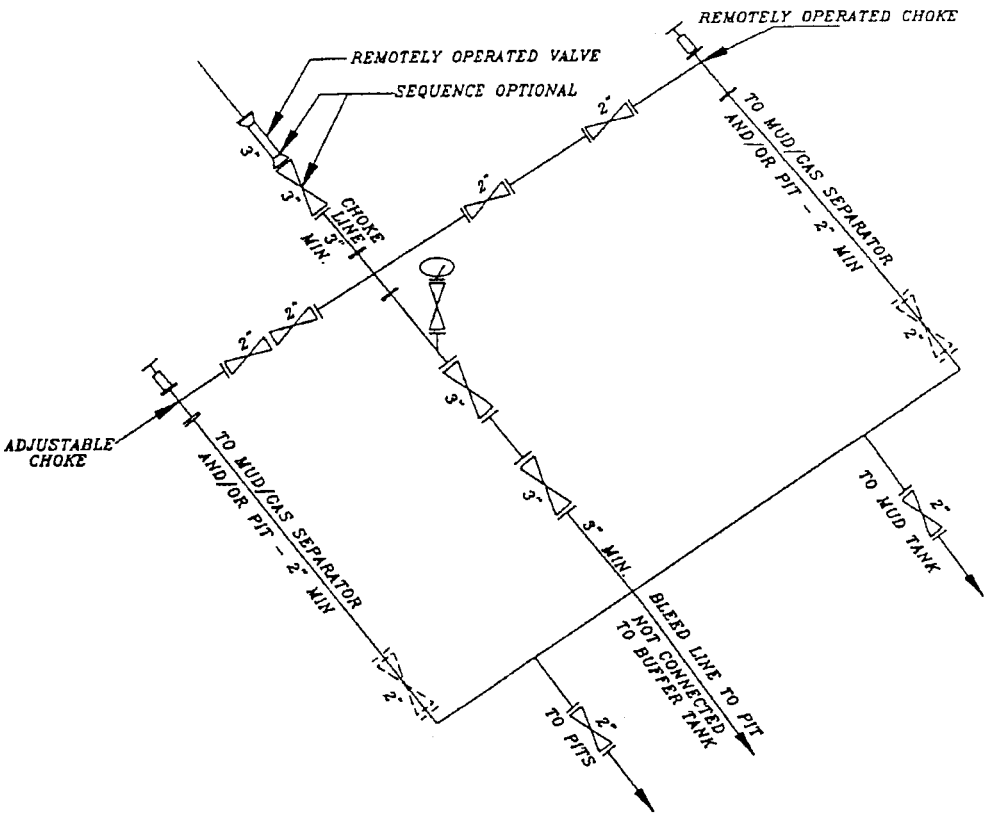
Brad Laney

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Randy Bayne

5M BOP STACK and CHOKE MANIFOLD SYSTEM





NBU 921-35J
NWSE SEC 35-T9S-R21E
Uintah County, UT
ML-22582

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.

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

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:**

Approximately 500' +/- of new access road is proposed. Refer to Topo Map B for the location of the proposed 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.

The access road was centerline flagged during time of staking.

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.

Approximately 35' of pipeline is proposed. Refer to Topo D for the proposed pipeline.

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.

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 by MOAC on 03/13/2006, Archaeological Report No. 06-97.

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:

Sheila Upchego
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East.
Vernal, UT 84078
(435) 781-7024

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 #RLB0005236.

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.

Sheila Upchego

5/8/2006
Date

Kerr-McGee Oil & Gas Onshore LP

NBU #921-35J

SECTION 35, T9S, R21E, 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 ON THE SEEP RIDGE ROAD 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 APPROXIMATLEY 3.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY, THEN SOUTHWESTWERLY DIRECTION APPROXIMATELY 2.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE WEST; TURN RIGHT AND PROCEED IN A WESTERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 0.15 MILES TO THE PROPOSED ACCESS TO THE SOUTHWEST; FOLLOW ROAD FLAGS IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 500' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 49.2 MILES.

Kerr-McGee Oil & Gas Onshore LP

NBU #921-35J

LOCATED IN UINTAH COUNTY, UTAH
SECTION 35, T9S, R21E, S.L.B.&M.

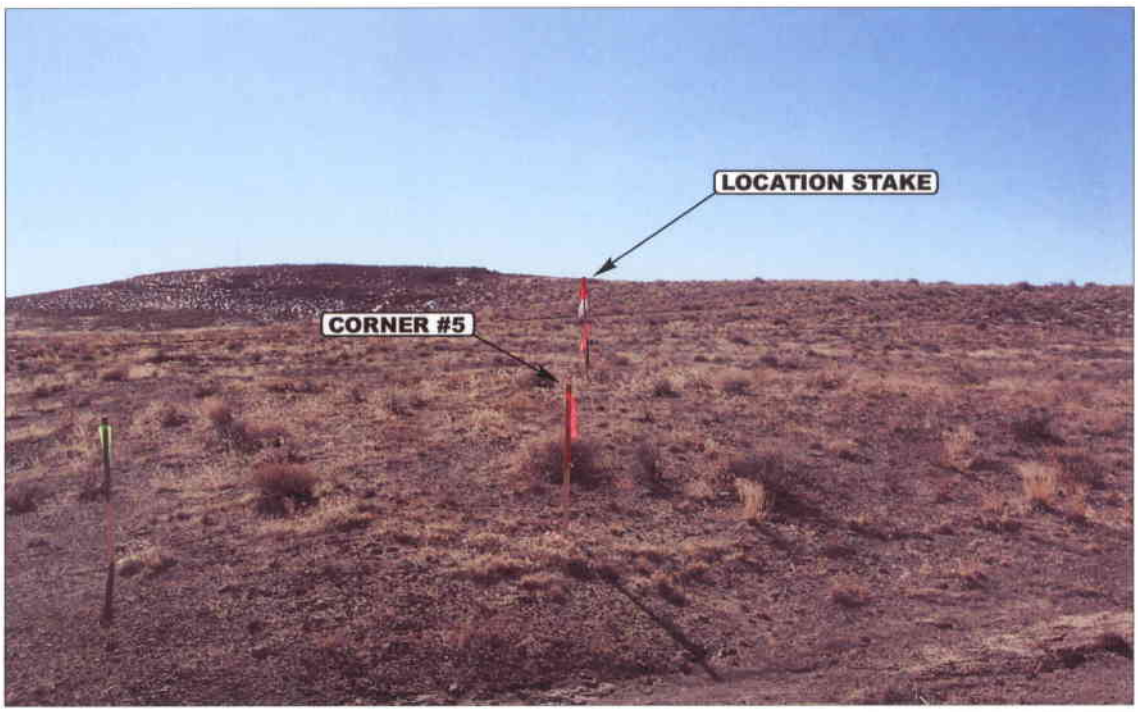
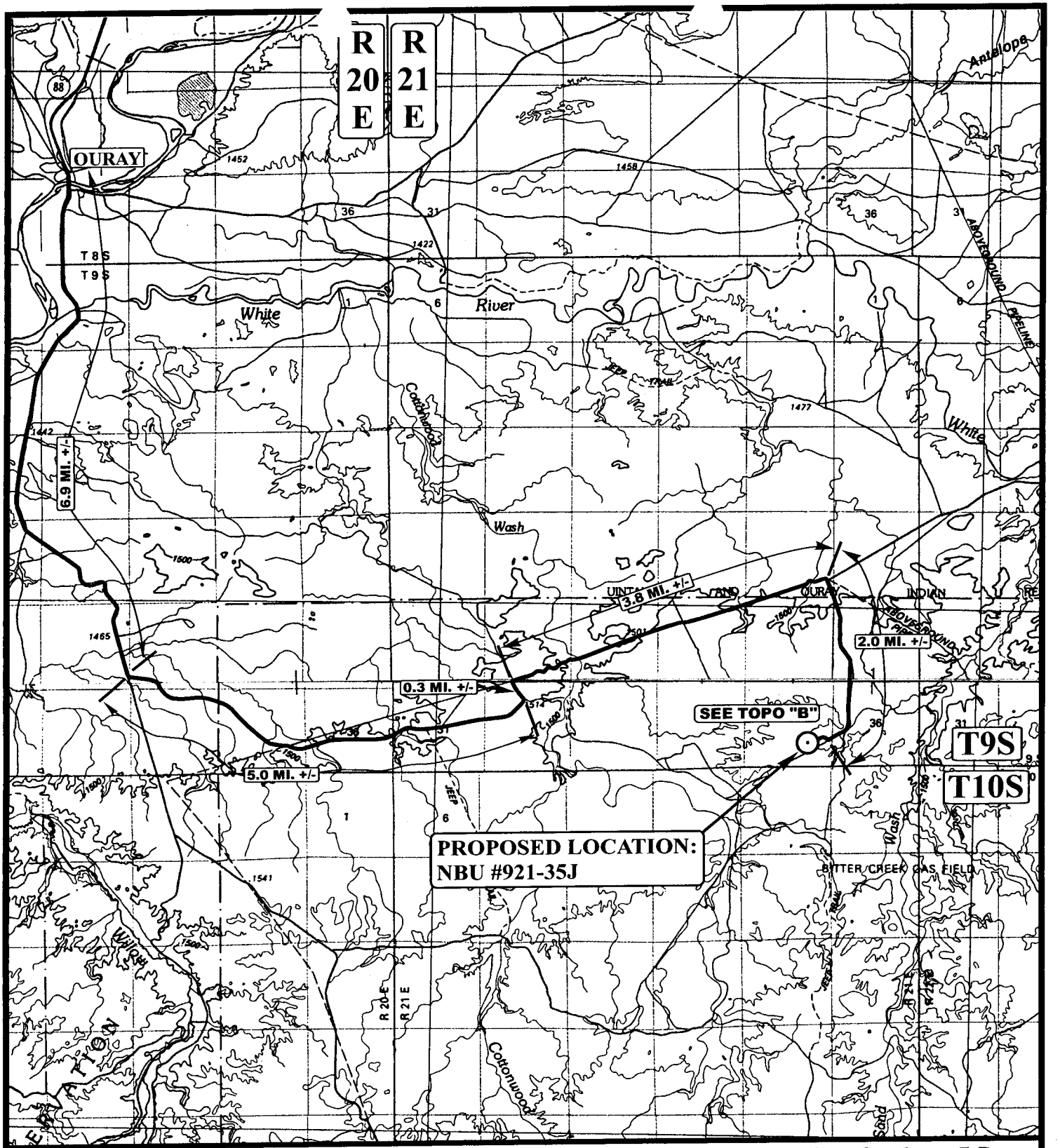


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE **CAMERA ANGLE: SOUTHEASTERLY**

PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS **CAMERA ANGLE: SOUTHWESTERLY**

- Since 1964 -
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com

LOCATION PHOTOS	03 MONTH	29 DAY	06 YEAR	PHOTO
TAKEN BY: A.F.	DRAWN BY: LDK	REVISED: 00-00-00		



LEGEND:

⊙ PROPOSED LOCATION

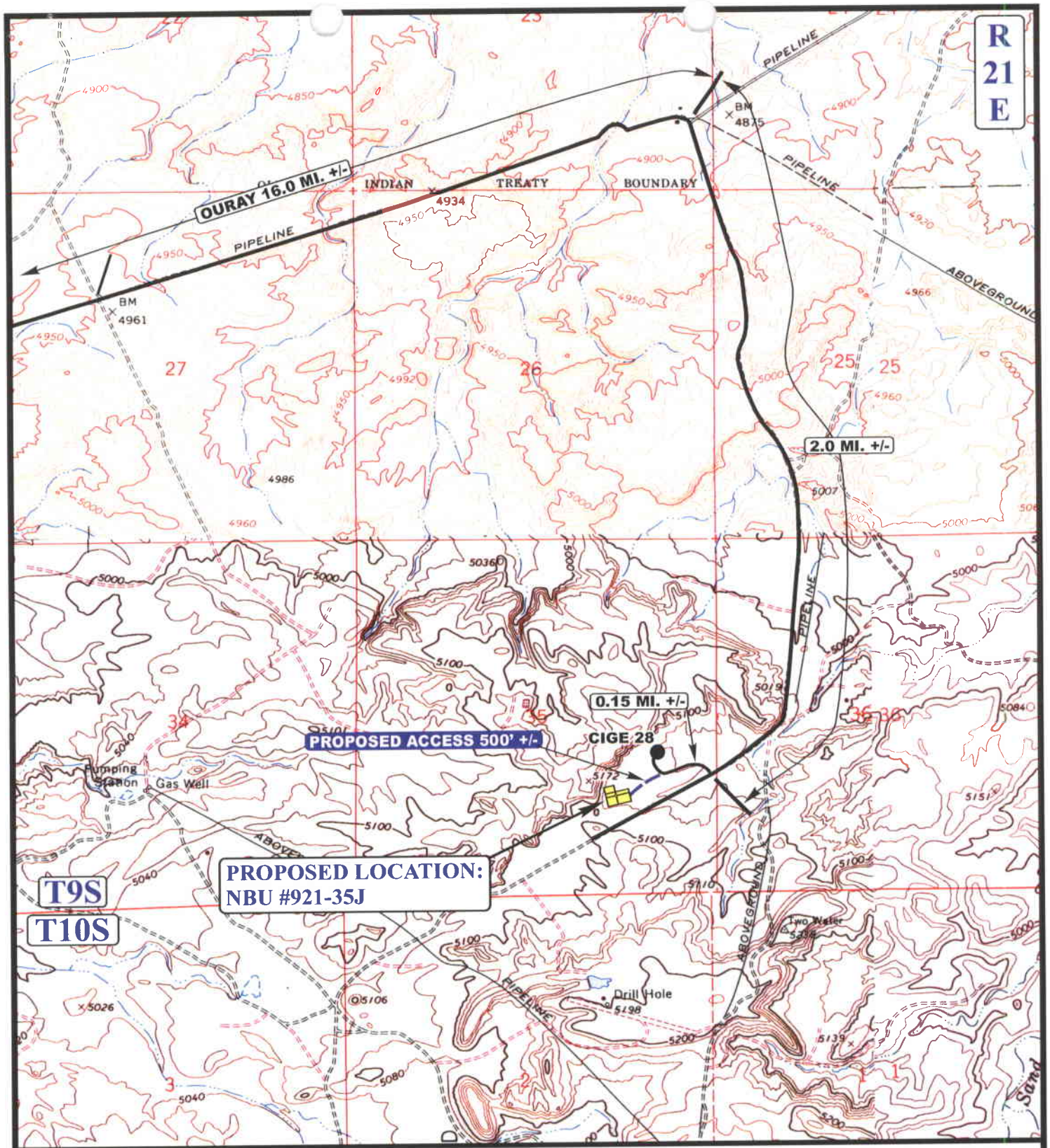
N

Kerr-McGee Oil & Gas Onshore LP

NBU #921-35J
SECTION 35, T9S, R21E, S.L.B.&M.
1454' FSL 1481' FEL

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

TOPOGRAPHIC MAP	03 MONTH	29 DAY	06 YEAR	A TOPO
SCALE: 1:100,000	DRAWN BY: LDK	REVISED: 00-00-00		



LEGEND:

EXISTING ROAD

PROPOSED ACCESS ROAD

N

Kerr-McGee Oil & Gas Onshore LP

NBU #921-35J

SECTION 35, T9S, R21E, S.L.B.&M.

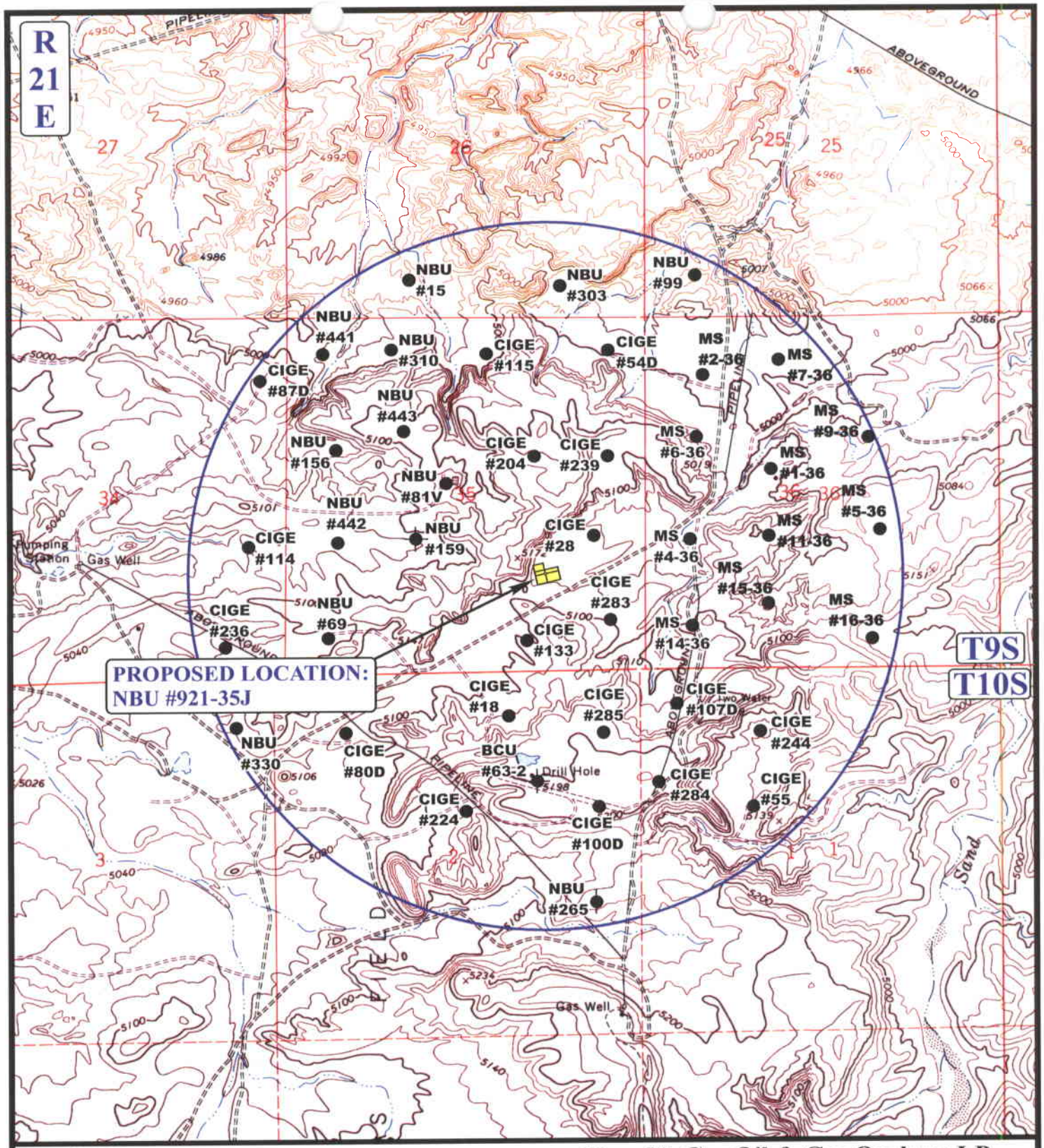
1454' FSL 1481' FEL

Uintah Engineering & Land Surveying

85 South 200 East Vernal, Utah 84078

(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	03 MONTH	29 DAY	06 YEAR	B TOPO
SCALE: 1" = 2000'	DRAWN BY: LDK	REVISED: 00-00-00		



LEGEND:

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

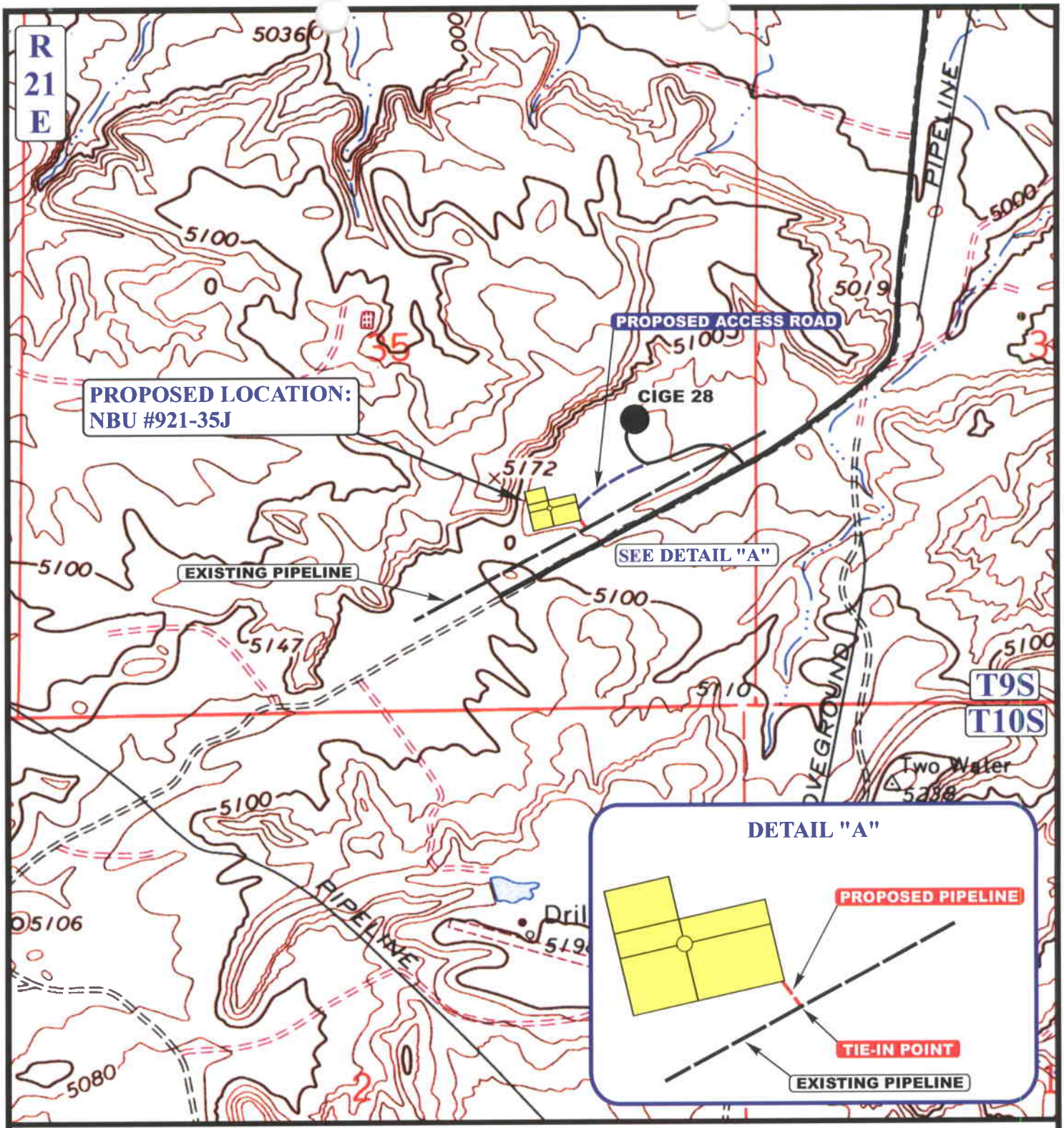
N

Kerr-McGee Oil & Gas Onshore LP

NBU #921-35J
SECTION 35, T9S, R21E, S.L.B.&M.
1454' FSL 1481' FEL

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

TOPOGRAPHIC MAP	03 MONTH	29 DAY	06 YEAR	C TOPO
SCALE: 1" = 2000'	DRAWN BY: LDK	REVISED: 00-00-00		



APPROXIMATE TOTAL PIPELINE DISTANCE = 35' +/-

LEGEND:

PROPOSED ACCESS ROAD

EXISTING PIPELINE

PROPOSED PIPELINE

N

Kerr-McGee Oil & Gas Onshore LP

NBU #921-35J
SECTION 35, T9S, R21E, S.L.B.&M.
1454' FSL 1481' FEL

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

TOPOGRAPHIC MAP	03 MONTH	29 DAY	06 YEAR	D TOPO
SCALE: 1" = 1000'	DRAWN BY: LDK	REVISED: 00-00-00		

Kerr-McGee Oil & Gas Onshore LP

NBU #921-35J

PIPELINE ALIGNMENT

LOCATED IN UINTAH COUNTY, UTAH
SECTION 35, T9S, R21E, S.L.B.&M.

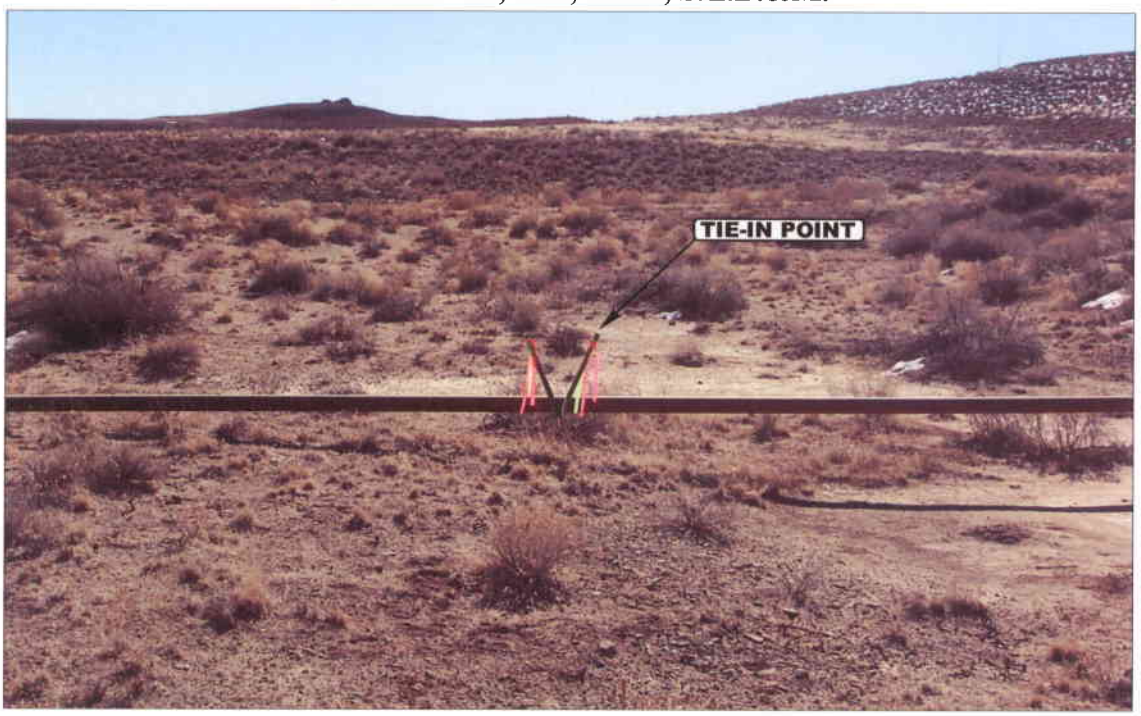


PHOTO: VIEW OF TIE-IN POINT **CAMERA ANGLE: SOUTHEASTERLY**

PHOTO: VIEW OF PIPELINE ALIGNMENT **CAMERA ANGLE: NORTHWESTERLY**

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com
- Since 1964 -

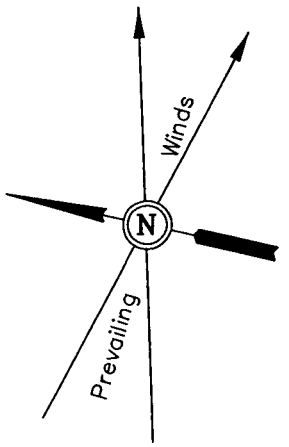
PIPELINE PHOTOS	03 MONTH	29 DAY	06 YEAR	PHOTO
TAKEN BY: A.F.	DRAWN BY: LDK	REVISED: 00-00-00		

Kerr-McGee Oil & Gas Onshore LP

FIGURE #1

LOCATION LAYOUT FOR

NBU #921-35J
SECTION 35, T9S, R21E, S.L.B.&M.
1454' FSL 1481' FEL



SCALE: 1" = 50'
DATE: 03-22-06
Drawn By: S.L.

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

Existing 4" Pipeline
Proposed Access Road
F-3.6' El. 69.3'
F-3.3' El. 69.6'
F-5.4' El. 67.5'
Sta. 3+50
58'
Round Corners as Needed
Approx. Toe of Fill Slope
200'
Pit Topsoil
PIPE TUBS
CATWALK
PIPE RACKS
Topsoil Stockpile
FLARE PIT
F-1.4' El. 71.5'
Blooie Line
C-1.7' El. 74.6'
El. 71.5'
C-8.6' (btm. pit)
RIG
135'
Sta. 1+50
100'
10'
58'
MUD TANKS
DOG HOUSE
TOILET
C-1.9' El. 74.8'
F-0.8' El. 72.1'
LIGHT PLANT
TRAILER
BOILER
RESERVE PITS (10' Deep)
Reserve Pit Backfill & Spoils Stockpile
15' WIDE BENCH
150'
1 1/2:1 Slope
MUD TANKS
PUMP HOUSE
COMPRESSOR
WATER TANK
BOOSTER
150'
Total Pit Capacity W/2' of Freeboard = 15,490 Bbls. ±
Total Pit Volume = 4,280 Cu. Yds.
TRASH
Sta. 0+50
C-1.4' El. 74.3'
PROPANE STORAGE
El. 77.8'
C-14.9' (btm. pit)
10'
58'
Sta. 0+00
C-2.2' El. 75.1'
C-1.6' El. 74.5'
Approx. Top of Cut Slope
C-1.8' El. 74.7'

REGISTERED LAND SURVEYOR No. 161319 ROBERT L. KAY STATE OF UTAH

NOTES:

Elev. Ungraded Ground At Loc. Stake = 5074.6'
FINISHED GRADE ELEV. AT LOC. STAKE = 5072.9'

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

Kerr-McGee Oil & Gas Onshore LP

FIGURE #2

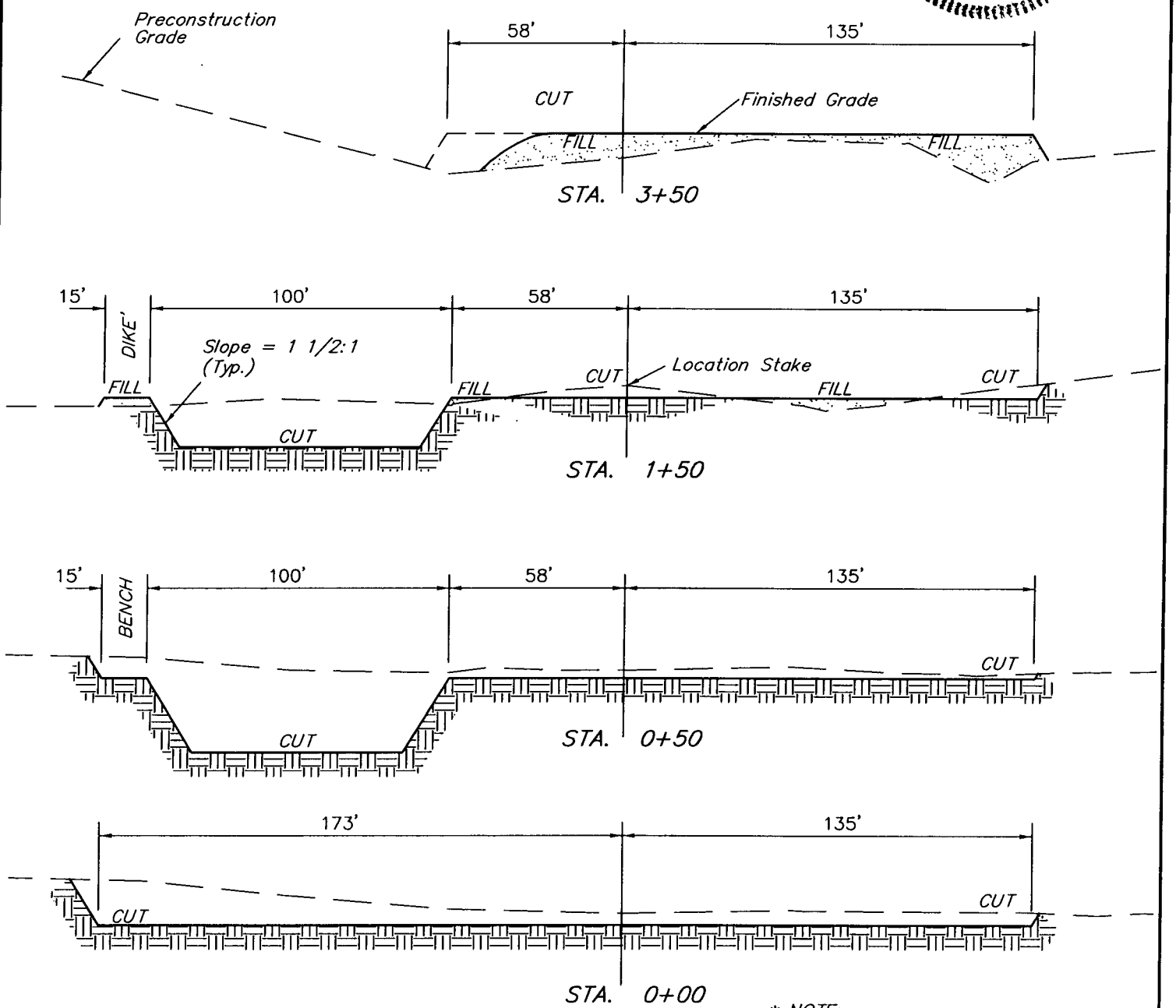
TYPICAL CROSS SECTIONS FOR

NBU #921-35J
SECTION 35, T9S, R21E, S.L.B.&M.
1454' FSL 1481' FEL

1" = 20'
X-Section Scale
1" = 50'

DATE: 03-22-06
Drawn By: S.L.

REGISTERED LAND SURVEYOR No. 161319 ROBERT STATE OF UTAH



* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

APPROXIMATE YARDAGES

CUT
(6") Topsoil Stripping = 1,760 Cu. Yds.
Remaining Location = 5,540 Cu. Yds.

TOTAL CUT = 7,300 CU.YDS.
FILL = 3,400 CU.YDS.

EXCESS MATERIAL = 3,900 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.) = 3,900 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation) = 0 Cu. Yds.

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

WORKSHEET

APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 05/15/2006

API NO. ASSIGNED: 43-047-38105

WELL NAME: NBU 921-35J

OPERATOR: KERR-MCGEE OIL & GAS (N2995)

CONTACT: SHEILA UPCHEGO

PHONE NUMBER: 435-781-7024

PROPOSED LOCATION:

NWSE 35 090S 210E

SURFACE: 1454 FSL 1481 FEL

BOTTOM: 1454 FSL 1481 FEL

COUNTY: UINTAH

LATITUDE: 39.98921 LONGITUDE: -109.5140

UTM SURF EASTINGS: 626867 NORTHINGS: 4427407

FIELD NAME: NATURAL BUTTES (630)

INSPECT LOCATN BY: / /		
Tech Review	**Initials**	**Date**
Engineering	DKD	6/29/06
Geology		
Surface		

LEASE TYPE: 3 - State

LEASE NUMBER: ML-22582

SURFACE OWNER: 3 - State

PROPOSED FORMATION: WSMVD

COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

✓ Plat

✓ Bond: Fed[] Ind[] Sta[] Fee[]
(No. RLB0005236)

N Potash (Y/N)

Y Oil Shale 190-5 (B) or 190-3 or 190-13

✓ Water Permit
(No. 43-8496)

N RDCC Review (Y/N)
(Date:)

NA Fee Surf Agreement (Y/N)

NA Intent to Commingle (Y/N)

LOCATION AND SITING:

___ R649-2-3.

Unit: NATURAL BUTTES

___ R649-3-2. General

Siting: 460 From Qtr/Qtr & 920' Between Wells

___ R649-3-3. Exception

✓ Drilling Unit

Board Cause No: 173-14

Eff Date: 12-2-1999

Siting: 460' fr u bdrys & uncomm tract

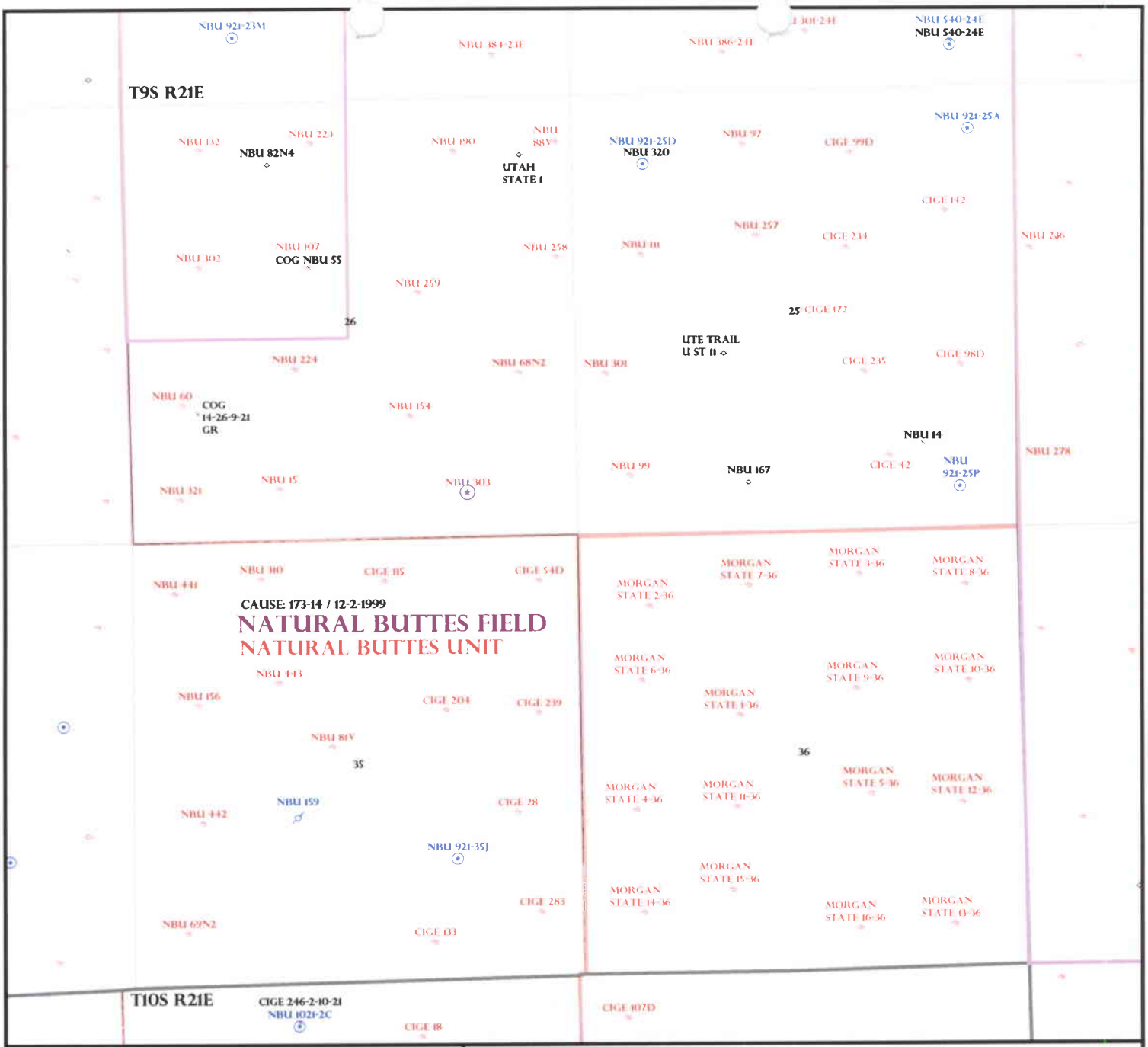
___ R649-3-11. Directional Drill

COMMENTS: Needs Presite (05-31-06)

STIPULATIONS: 1 - Oil Shale

2 - Statement of Basis

3 - Surface Csg Cmt St #



OPERATOR: KERR-MCGEE O&G (N2995)

SEC: 25,35 T. 9S R. 21E

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
- NF PP OIL
- NF 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

Utah Oil Gas and Mining

N
W E
S

PREPARED BY: DIANA WHITNEY

DATE: 19-MAY-2006

DIVISION OF OIL, GAS AND MINING
APPLICATION FOR PERMIT TO DRILL
STATEMENT OF BASIS

OPERATOR: KERR McGEE OIL & GAS ONSHORE LP
WELL NAME & NUMBER: NBU 921-35J
API NUMBER: 43-047-38105
LOCATION: 1/4,1/4 NWSE Sec: 35 TWP: 9S RNG: 21E 1454' FSL 1481' FEL

Geology/Ground Water:

Kerr McGee proposes to set 2,230' 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 4,100'. A search of Division of Water Rights records shows one water well within a 10,000 foot radius of the center of section 35. The well is approximately .75 miles from the proposed location. It produces from a depth of 2,640 and is listed as being used for oil field drilling water. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed surface casing and cement should adequately protect ground water in this area.

Reviewer: Brad Hill Date: 06/07/06

Surface:

The pre-site investigation of the surface was performed on 05/31/2006. This site is on State surface, and appears to be the best site for a well in this qtr/qtr. Ed Bonner of SITLA was invited to attend this surface inspection but was not present. Ben Williams from DWR stated that this site is classified as critical yearlong pronghorn habitat, but made no requests and had no concerns with drilling on this location.

Reviewer: Richard Powell **Date:** 05/31/2006

Conditions of Approval/Application for Permit to Drill:

1. A synthetic liner with a minimum thickness of 12 mils shall be properly installed and maintained in the reserve pit.

ON-SITE PREDRILL EVALUATION
Division of Oil, Gas and Mining

OPERATOR: KERR McGEE OIL & GAS ONSHORE LP
WELL NAME & NUMBER: NBU 921-35J
API NUMBER: 43-047-38105
LEASE: ML-22582 **FIELD/UNIT:** NATURAL BUTTES
LOCATION: 1/4,1/4 NWSE **Sec:** 35 **TWP:** 9S **RNG:** 21E 1454' FSL 1481' FEL
LEGAL WELL SITING: 460' from unit boundary and uncommitted tracts.
GPS COORD (UTM): 0626866 4427420 **SURFACE OWNER:** SITLA.

PARTICIPANTS

Richard Powell (DOGM), Ben Williams (DWR), Carroll Estes, Clay Einerson and Tony Kazeck (WESTPORT), David Kay (UELS)

REGIONAL/LOCAL SETTING & TOPOGRAPHY

Location is set on the north side of small valley, which slopes gradually to the northeast. The location site is quite flat. There is a large rocky ridge, which runs along the northwest side of the location, and more gradually sloped hills to the southeast. No drainages will be affected by this location.

SURFACE USE PLAN

CURRENT SURFACE USE: Livestock and Wildlife Grazing.

PROPOSED SURFACE DISTURBANCE: Location as proposed will be 350' by 308'. Proposed new access road approximately 500'.

LOCATION OF EXISTING WELLS WITHIN A 1-MILE RADIUS: See attached map from GIS database.

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: All production facilities will be on location and added after drilling well. Pipeline will not follow access road, but will go southeast from location approximately 35' to a tie-in point with the existing pipeline.

SOURCE OF CONSTRUCTION MATERIAL: All construction material will be borrowed from site during construction of location.

ANCILLARY FACILITIES: None required.

WILL DRILLING AT THIS LOCATION GENERATE PUBLIC INTEREST OR CONCERNS? (EXPLAIN): Unlikely.

WASTE MANAGEMENT PLAN:

Drilled cuttings will be settled into reserve pit. Liquids from pit will be allowed to evaporate. Formation water will be confined to storage tanks. Portable toilets, sewage holding tanks, and onsite sewage treatment equipment will be handled by commercial contractors and

regulated by the appropriate health authority. Trash will be contained in trash baskets and disposed of at an approved landfill.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: None.

FLORA/FAUNA: The area of location contains sagebrush, greasewood, sparse grasses, salt brush, halogeton, rabbit brush and prickly pear. Wildlife found in this area may include: Rodents, Raptors, Coyote, Pronghorn, Prairie Dogs and Rabbits.

SOIL TYPE AND CHARACTERISTICS: Brown silty clay soil with some rock fragments scattered on surface.

EROSION/SEDIMENTATION/STABILITY: It does not appear that construction will affect erosion or the potential of sediment leaving the site.

PALEONTOLOGICAL POTENTIAL: Per Carroll Estes study has been done by IPC Paleontological consultants.

RESERVE PIT

CHARACTERISTICS: 150' by 100' and ten feet deep. Reserve pit to be placed in cut.

LINER REQUIREMENTS (Site Ranking Form attached): A liner will be required for reserve pit. Site ranking score is 25.

SURFACE RESTORATION/RECLAMATION PLAN

As per SITLA

SURFACE AGREEMENT: As per SITLA

CULTURAL RESOURCES/ARCHAEOLOGY: Per Carroll Estes a study has been done by Montgomery Archaeology Consultants.

OTHER OBSERVATIONS/COMMENTS

ATTACHMENTS

PHOTOS OF THIS SITE WERE TAKEN AND PLACED ON FILE.

RICHARD POWELL	05/31/2006 12:35 PM
DOGM REPRESENTATIVE	DATE/TIME

E. .uation Ranking Criteria and Ranking S .re
For Reserve and Onsite Pit Liner Requirements

Site-Specific Factors	Ranking	Site Ranking
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	0
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	0
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	20	0
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	0
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	20
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid containing significant levels of hazardous constituents	15 20	5
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	0
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	0
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	0
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	0

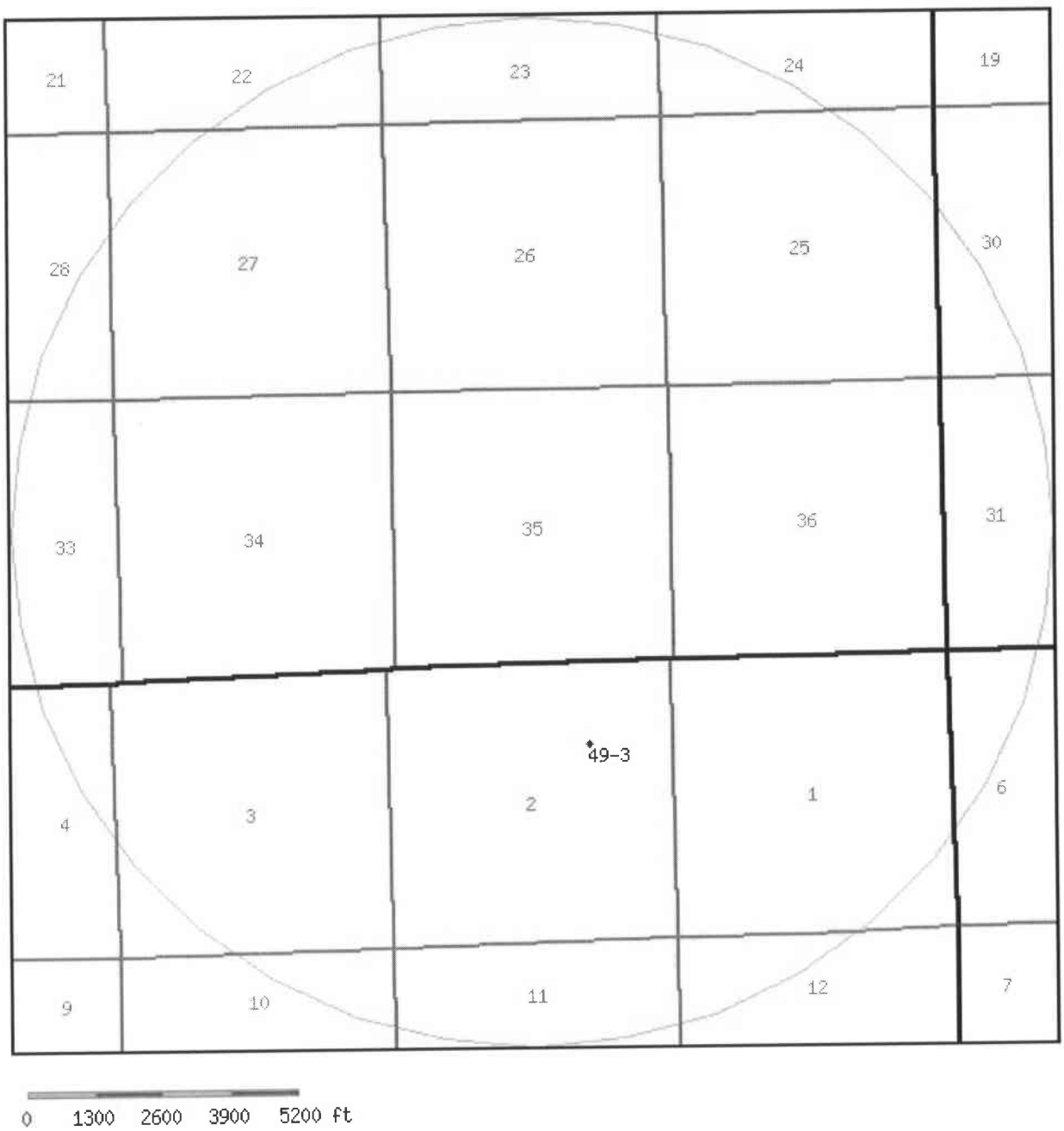
Final Score 25 (Level I Sensitivity)

Sensitivity Level I = 20 or more; total containment is required.
Sensitivity Level II = 15-19; lining is discretionary.
Sensitivity Level III = below 15; no specific lining is required.

WRPLAT Program Output Listing

Version: 2004.12.30.00 **Rundate: 06/07/2006 09:49 AM**

Radius search of 10000 feet from a point N2640 E2640 from the SW corner, section 35, Township 9S, Range 21E, SL b&m Criteria:wrtypes=W,C,E podtypes=U status=U,A,P usetypes=all

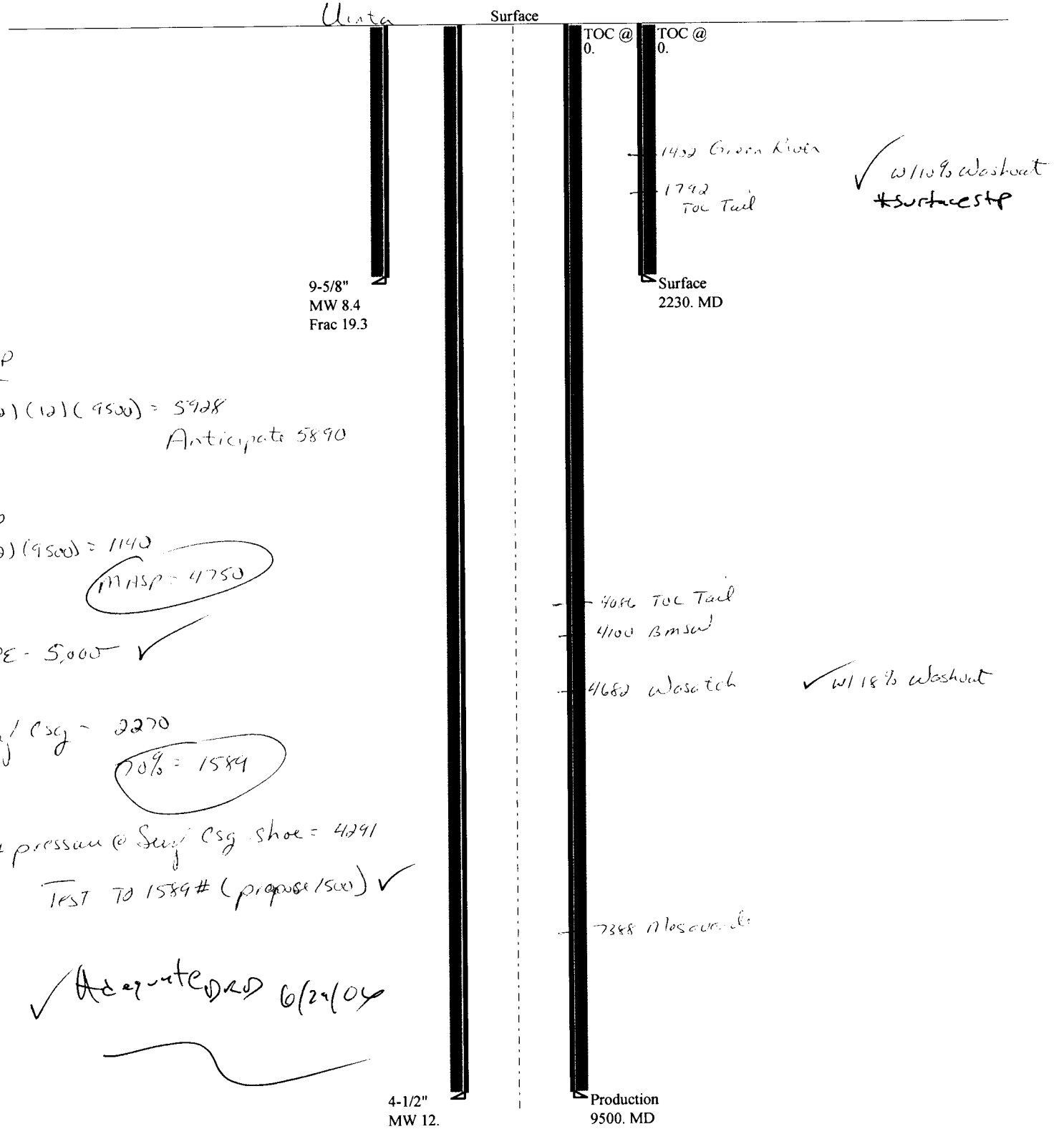


Water Rights

WR Number	Diversion Type/Location	Well Log	Status	Priority	Uses	CFS	ACFT	Owner I
49-3	Underground		P	19590617	O	0.026	0.000	DEKALB AGRICULT ASSOCIATION INCC
	S1650 W1564 NE 02 10S 21E SL							BOX 523

06-06 Kerr McGee NBU 9[illegible]-35J

Casing Schematic



BHP

(.052)(12)(9500) = 5928

Anticipate 5890

Gas

(.12)(9500) = 1140

MASP = 4750

BOPE - 5,000 ✓

Surf Csg - 2220

70% = 1584

Max pressure @ Surf Csg shoe = 4291

Test to 1584# (proposed 1500) ✓

✓ Adequate DKD 6/24/04

Well name:	**06-06 Kerr McGee NBU 921-35J**
Operator:	**Kerr McGee Oil & Gas**
String type:	Surface
Project ID:	43-047-38105
Location:	Uintah County

Design parameters:

Collapse

Mud weight: 8.400 ppg

Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 1,234 psi

Internal gradient: 0.447 psi/ft

Calculated BHP 2,230 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 air weight.

Neutral point: 1,977 ft

Environment:

H2S considered?	No
Surface temperature:	65 °F
Bottom hole temperature:	96 °F
Temperature gradient:	1.40 °F/100ft
Minimum section length:	185 ft
Cement top:	Surface

Non-directional string.

Re subsequent strings:

Next setting depth:	9,500 ft
Next mud weight:	12.000 ppg
Next setting BHP:	5,922 psi
Fracture mud wt:	19.250 ppg
Fracture depth:	2,230 ft
Injection pressure	2,230 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)
2	1800	9.625	32.30	H-40	ST&C	1800	1800	8.876	114.1
1	430	9.625	36.00	J-55	ST&C	2230	2230	8.796	30.6

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
2	785	1354	1.724	2038	2270	1.11	74	254	3.45 J
1	973	2020	2.076	2230	3520	1.58	15	394	25.45 J

Prepared by: Clinton Dworshak, Utah Div. of Oil & Mining

Phone: 801-538-5280

Date: June 13,2006
Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Collapse is based on a vertical depth of 2230 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	**06-06 Kerr McGee NBU 921-35J**
Operator:	**Kerr McGee Oil & Gas**
String type:	Production
Project ID:	43-047-38105
Location:	Uintah County

Design parameters:

Collapse

Mud weight: 12.000 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 1,678 psi
Internal gradient: 0.447 psi/ft
Calculated BHP 5,922 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 air weight.
Neutral point: 7,796 ft

Environment:

H2S considered? No
Surface temperature: 65 °F
Bottom hole temperature: 198 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 368 ft

Cement top: 0 ft

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	9500	4.5	11.60	N-80	LT&C	9500	9500	3.875	220.2

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	5922	6350	1.072	5922	7780	1.31	110	223	2.02 J

Prepared by: Clinton Dworshak
Utah Div. of Oil & Mining

Phone: 801-538-5280

Date: June 13,2006
Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
Collapse is based on a vertical depth of 9500 ft, a mud weight of 12 ppg The casing is considered to be evacuated for collapse purposes.
Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

State of Utah

Department of Natural Resources

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas & Mining

JOHN R. BAZA
Division Director

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

June 29, 2006

Kerr-McGee Oil & Gas Onshore LP
1368 S 1200 E
Vernal, UT 84078

Re: Natural Buttes Unit 921-35J Well, 1454' FSL, 1481' FEL, NW SE, Sec. 35, T. 9 South, R. 21 East, Uintah County, Utah

Gentlemen:

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

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-38105.

Sincerely,

Gil Hunt
Associate Director

pab
Enclosures

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

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

Operator: Kerr-McGee Oil & Gas Onshore LP

Well Name & Number Natural Buttes Unit 921-35J

API Number: 43-047-38105

Lease: ML-22582

Location: NW SE **Sec.** 35 **T.** 9 South **R.** 21 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 actions during drilling of this well:
   - 24 hours prior to cementing or testing casing
   - 24 hours prior to testing blowout prevention equipment
   - 24 hours prior to spudding the well
   - within 24 hours of any emergency changes made to the approved drilling program
   - prior to commencing operations to plug and abandon the well

   The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):
   - Dan Jarvis at (801) 538-5338
   - Carol Daniels at (801) 538-5284 (spud)

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.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

May 19, 2006

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2006 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 2006 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION

(Proposed PZ Wasatch-MesaVerde)

43-047-38100 NBU 921-25A Sec 25 T09 R21E 0493 FNL 0557 FEL
43-047-38092 NBU 921-25P Sec 25 T09 R21E 0475 FSL 0742 FEL
43-047-38105 NBU 921-35J Sec 35 T09 R21E 1454 FSL 1481 FEL
43-047-38108 NBU 921-30E Sec 30 T09 R21E 2251 FNL 0798 FWL
43-047-38107 NBU 921-30C Sec 30 T09 R21E 0629 FNL 2189 FWL
43-047-38109 NBU 1021-10P Sec 10 T10 R21E 0377 FSL 0559 FEL
43-047-38106 NBU 922-32K2 Sec 32 T09 R22E 2508 FSL 1724 FWL

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

/s/ Michael L. Coulthard

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

FORM 6

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

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP
Operator Account Number: N 2995
Address: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078
Phone Number: (435) 781-7024

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304738105	NBU 921-35J		NWSE	35	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	1/5/2007			1/11/07	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 01/05/2007 AT 1200 HRS.

C

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**	

Comments:

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**	

Comments:

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)

(5/2000)

To	From
Co./Dept.	Co.
Phone #	Phone #
Fax #	Fax #

SHEILA UPCHEGO
Name (Please Print)
Signature
SENIOR LAND SPECIALIST 1/8/2007
Title Date

RECEIVED
JAN 0 8 2007
DIV. OF OIL, GAS & MINING

FORM 9

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

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22582

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME: UNIT #891008900A

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

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

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

9. API NUMBER: 4304738105

3. ADDRESS OF OPERATOR: 1368 SOUTH 1200 EAST CITY VERNAL STATE UT ZIP 84078

PHONE NUMBER: (435) 781-7024

10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 1454'FSL, 1481'FEL

COUNTY: UINTAH

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWSE 35 9S 21E

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☑ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: WELL SPUD
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

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 PIPE. CMT W/28 SX READY MIX.

SPUD WELL LOCATION ON 01/05/2007 AT 1200 HRS.

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE SENIOR LAND ADMIN SPECIALIST

SIGNATURE DATE 1/8/2007

(This space for State use only)

RECEIVED
JAN 11 2007
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

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

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22582

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME: UNIT #891008900A

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

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

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

9. API NUMBER: 4304738105

3. ADDRESS OF OPERATOR: 1368 SOUTH 1200 EAST CITY VERNAL STATE UT ZIP 84078

PHONE NUMBER: (435) 781-7024

10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 1454'FSL, 1481'FEL

COUNTY: UINTAH

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWSE 35 9S 21E

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☑ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: SET SURFACE CSG.
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

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

MIRU BILL MARTIN AIR RIG ON 01/07/2007. DRILLED 12 1/4" SURFACE HOLE TO 2320'. RAN 9 5/8" 32.3# H-40 SURFACE CSG. LEAD CMT W/305 SX PREM CLASS G @15.8 PPG 1.15 YIELD. NO RETURNS TO PIT. TOP OUT W/145 SX PREM CLASS G @15.8 PPG 1.15 YIELD DOWN BACKSIDE WOC. 2ND TOP OUT W/200 SX PREM CLASS G @15.8 PPG 1.15 YIELD. DOWN BACKSIDE NO CMT TO SURFACE. 3RD TOP OUT W/250 SX PREM CLASS G @15.8 PPG 1.15 YIELD. DOWN BACKSIDE CMT TO SURFACE AND FELL BACK 45' +/- WILL READY MIX BACK TO SURFACE.

WORT

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE SENIOR LAND ADMIN SPECIALIST

SIGNATURE DATE 1/12/2007

(This space for State use only)

RECEIVED
JAN 16 2007
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

FORM 9

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

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22582

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME: UNIT #891008900A

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

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

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

9. API NUMBER: 4304738105

3. ADDRESS OF OPERATOR: 1368 SOUTH 1200 EAST CITY VERNAL STATE UT ZIP 84078

PHONE NUMBER: (435) 781-7024

10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 1454'FSL, 1481'FEL

COUNTY: UINTAH

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWSE 35 9S 21E

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☑ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: FINAL DRILLING OPERATIONS
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

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

FINISHED DRILLING FROM 2320' TO 9530' ON 03/01/2007. RAN 4 1/2" 11.6# I-80 PRODUCTION CSG. LEAD CMT W/350 SX PREM LITE II @11.0 PPG 3.38 YIELD. TAILED CMT W/1280 SX 50/50 POZ @14.3 PPG 1.31 YIELD. DISPLACED W/147.9 BBLS H2O LOST CIRCULATION W/42 BBLS LEFT TO DISPLACE HAD 5 BBL LEAD CMT TO RESERVE PIT PLUG DOWN AT 1230 HRS FLOATS HELD W/1.75 BBLS RETURNED TO INVENTORY SET & TEST MANDREL TEST GOOD. NIPPLE DOWN BOP & EQUIPMENT WASH AND CLEAN BOP AND RELATED EQUIPMENT WASH AND CLEAN PITS AND RELATED EQUIPMENT.

RELEASED PIONEER RIGN 52 ON 03/04/2007 AT 1900 HRS.

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE SENIOR LAND ADMIN SPECIALIST

SIGNATURE DATE 3/9/2007

(This space for State use only)

RECEIVED
MAR 14 2007
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

FORM 9

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

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22582

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME: UNIT #891008900A

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

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

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

9. API NUMBER: 4304738105

3. ADDRESS OF OPERATOR: 1368 SOUTH 1200 EAST VERNAL UT 84078

PHONE NUMBER: (435) 781-7024

10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 1454'FSL, 1481'FEL

COUNTY: UINTAH

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWSE 35 9S 21E

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: PRODUCTION START-UP
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

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

THE SUBJECT WELL LOCATION WAS PLACED ON PRODUCTION ON 03/25/2007 AT 8:45 AM.

PLEASE REFER TO THE ATTACHED CHRONOLOGICAL WELL HISTORY.

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE SENIOR LAND ADMIN SPECIALIST

SIGNATURE DATE 3/28/2007

(This space for State use only)

RECEIVED
APR 0 2 2007
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

Anadarko

Anadarko Petroleum Corporation
1368 S. 1200 East
Vernal, UT 84078

CHRONOLOGICAL WELL HISTORY

NBU 921-35J
NWSE, SEC. 35, T9S, R21E
UINTAH COUNTY, UT

DATE	Activity		Status	
12/11/06	LOCATION STARTED	Pioneer 52		
01/02/07	LOCATION COMPLETE	Pioneer 52	P/L IN, WOBR	
01/05/07	SET CONDUCTOR	Pioneer 52	WOAR	
01/07/07	AIR RIG SPUD	Pioneer 52	DRLG, WORT	
02/15/07	TD: 2320' Csg. 9 5/8" @ 2297'	MW: 8.3	SD: 2/XX/07	DSS: 0
	Move to NBU 921-35J. SDFN.			
02/16/07	TD: 2320' Csg. 9 5/8" @ 2297'	MW: 8.3	SD: 2/XX/07	DSS: 0
	Finish move to NBU 921-35J. RURT. Inspect derrick and sub. SDFN.			
02/20/07	TD: 3525' Csg. 9 5/8" @ 2297'	MW: 8.9	SD: 2/19/07	DSS: 2
	Spud @ 0100 hrs 2/19/07. Drill from 2320'-3181'. Lost 173 bbls mud. Mix LCM. Drill to 3525'. DA.			
02/21/07	TD: 4780' Csg. 9 5/8" @ 2297'	MW: 9.4	SD: 2/19/07	DSS: 3
	Drill from 3525'-4780'. DA.			
02/22/07	TD: 5785' Csg. 9 5/8" @ 2297'	MW: 9.7	SD: 2/19/07	DSS: 4
	Drill from 4780'-5785'. DA @ report time.			
02/23/07	TD: 6455' Csg. 9 5/8" @ 2297'	MW: 10.3	SD: 2/19/07	DSS: 5
	Drill from 5785'-6402'. Lost 90 bbls. Drill to 6455'. DA @ report time.			
02/26/07	TD: 8140' Csg. 9 5/8" @ 2297'	MW: 10.5	SD: 2/19/07	DSS: 8
	Drill from 6455'-8013'. TFNB. Drill to 8140'. DA @ report time.			
02/27/07	TD: 8899' Csg. 9 5/8" @ 2297'	MW: 11.0	SD: 2/19/07	DSS: 9
	Drill from 8140'-8899'. DA @ report time.			
02/28/07	TD: 9208' Csg. 9 5/8" @ 2297'	MW: 11.6	SD: 2/19/07	DSS: 10
	Drill from 8899'-9208'. DA @ report time.			
03/01/07	TD: 9530' Csg. 9 5/8" @ 2297'	MW: 11.6	SD: 2/19/07	DSS: 11
	TFNB. Drill from 9208'-9530' TD. CCH and short trip 10 STDs @ report time.			
03/02/07	TD: 9530' Csg. 9 5/8" @ 2297'	MW: 11.6	SD: 2/19/07	DSS: 12
	Short trip 10 STDs. CCH and POOH for logs. Run Triple Combo. TIH to shoe and build volume. CIH @ report time.			

03/05/07 TD: 9530' Csg. 9 5/8" @ 2297' MW: 11.6 SD: 2/19/07 DSS: 14
Lay down drill string. Run and cement 4 ½" Production Casing. Set slips and release rig @ 1900 hrs 3/3/07. RDRT and move to NBU 921-27N.

03/19/07 **MIRU**
Days On Completion: 1
Remarks: 7:00AM: HSM, RIG UP, ND WELL HEAD, NU BOP'S, RIG UP TBG. EQUIP., REMOVE PROTECTORS, MAKE UP 3 7/8" MILL & BIT SUB. TALLY, PICK UP & RUN 302 JTS, TAG UP @ 9483'. PBTD @ 9489', HOOK UP PUMP & LINES, CIRCULATE HOLE CLEAN, TRY TO SLACK OFF WHILE CIRCULATING. SOLID BOTTOM. PULL & LAY DOWN 12 JTS, EOT @ 9115. CLOSE IN WELL & SDFN.

03/20/07 **POOH W/TBG & TEST**
Days On Completion: 2
Remarks: HSM. CONT TO POOH W/TBG & MILL, LD TOT OF 51 JTS ON FLT, STAND BACK REMAINDER. LD MILL & SUB. ND BOP, NU FRAC VLVS. MIRU B&C QUICK TEST, PRES TEST FRAC VLVS & CSG TO 7500 PSI. RDMO B&C. MIRU CWLS & WEATHERFORD FRACTURING TECH. ALL STAGES WILL USE NALCO DVE-005 SCALE INHIBITOR (3 GPT IN PAD THRU HALF OF THE 1ST RAMP OF SAND & 10 GPT IN FLUSH); PERF GUNS WILL BE 3-3/8" EXPENDABLE (23 GM CHG, 40" PENE, 0.36" HOLE, 3 OR 4 SPF-120 OR 90 DEGREE PHASING RESPECTIVELY); 30/50 OTTAWA SAND; RECYCLED SLICK WATER FROM GOAT PASTURE FACILITY; CBPs ARE HALLIBURTON 8K 4.5".

STAGE 1: PU PERF GUN. RIH, PERF: 9429-33', 9383-88', 9332-34' & 9234-36'. 3, 4, 4 & 3 SPF EA RESPECTIVELY, TOT OF 46 HOLES. POOH, LD WL TLS. SWI, PREP TO FRAC IN MORNING. SDFN.

03/21/07 **FRAC**
Days On Completion: 3
Remarks: HSM. PRES TEST LINE TO 8500 PSI. ALL STAGES WILL USE NALCO DVE-005 SCALE INHIBITOR (3 GPT IN PAD THRU HALF OF THE 1ST RAMP OF SAND & 10 GPT IN FLUSH); PERF GUNS WILL BE 3-3/8" EXPENDABLE (23 GM CHG, 40" PENE, 0.36" HOLE, 3 OR 4 SPF-120 OR 90 DEGREE PHASING RESPECTIVELY); 30/50 OTTAWA SAND; RECYCLED SLICK WATER FROM GOAT PASTURE FACILITY; CBPs ARE HALLIBURTON 8K 4.5".
STAGE 1: OW: 1640 PSI, BRK: 3697 PSI, ISIP: 3050 PSI, FG: 0.76. ER: 49 BPM @ 4700 PSI, POC: 70% (32/46). FRAC STAGE W/ RECY SW. TOT SND: 60,430 LBS, TOT FL: 1794 BBL. ISIP: 3081 PSI, FG: 0.76. MP: 6733 PSI, MR: 54.8 BPM, AP: 4685 PSI, AR: 53.7 BPM. MU CWLS.

STAGE 2: PU CBP & PERF GUN. RIH SET CBP @ 9139', PU, PERF: 9107-09', 8995-97', 8856-60' & 8755-59'. 4, 4, 4 & 3 SPF EA RESPECTIVELY, TOT OF 44 HOLES. POOH, LD WL TLS. MU WFT. OW: 550 PSI, BRK: 2712 PSI, ISIP: 2237 PSI, FG: 0.68. ER: 56 BPM @ 4700 PSI. POC: 73% (32/44). FRAC STAGE W/RECY SW. TOT SND: 92,600 LBS, TOT FL: 2388 BBL. ISIP: 3034 PSI, FG: 0.77. MP: 6855 PSI, MR: 56.9 BPM, AP: 4647 PSI, AR: 56.5 BPM.

STAGE 3: PU CBP & PERF GUN. RIH SET CBP @ 8465', PU, PERF: 8434-40', 8263-66' & 8105-07'. 4 PSF EA, TOT OF 44 HOLES. POOH, LD WL TLS. MU WFT. OW: 430 PSI, BRK: 5285 PSI, ISIP: 2388 PSI, FG: 0.72. ER: 53 BPM @ 5000 PSI. POC: 64% (28/44). FRAC STAGE W/RECY SW. TOT SND: 21,575 LBS, TOT FL: 668 BBL. ISIP: 2641 PSI, FG: 0.77. MP: 5855 PSI, MR: 53.6 BPM, AP: 4294 PSI, AR: 53.1 BPM.

STAGE 4: PU CBP & PERF GUN. RIH SET CBP @ 7941', PU, PERF: 7905-11' & 7805-09'. 4 SPF EA, TOT OF 40 HOLES. POOH, LD WL TLS. MU WFT. OW: 380 PSI, BRK: 4517 PSI, ISIP: 2651 PSI, FG: 0.77. ER: 50 BPM @ 3850 PSI. POC: 63% (25/40). FRAC STG W/RECY

SW. TOT SND: 19,685 LBS, TOT FL: 630 BBL. ISIP: 2390 PSI, FG: 0.74. MP: 5966 PSI, MR: 59.9 BPM, AP: 4330 PSI, AR: 55.9 BPM.

STAGE 5: PU CBP & PERF GUN. RIH, SET CBP @ 7672'. PU, PERF: 7639-42', 7387-90' & 7354-59'. 4 SPF EA, TOT OF 44 HOLES. POOH, LD WL TLS. MU WFT. OW: 380 PSI, BRK: 2206 PSI, ISIP: 1639 PSI, FG: 0.65. ER: 51 BPM @ 3700 PSI. POC: 61% (27/44). FRAC STG W/RECY SW. TOT SND: 65,940 LBS, TOT FL: 1712 BBL. ISIP: 2081 PSI, FG: 0.71. MP: 4130 PSI, MR: 59, AP: 3188 PSI, AR: 51.5 BPM. MU CWLS.

STAGE 6: PU CBP & PERF GUN. RIH SET CBP @ 6855', PU, PERF: 6830-35' & 6502-08', 4 SPF EA, TOT OF 44 HOLES. POOH, LD WL TLS. MU WFT.OW: 370 PSI, BRK: 3193 PSI, ISIP: 1819 PSI, FG: 0.71. ER: 51 BPM @ 4300 PSI, POC: 66% (29/44). FRAC STG W/RECY SW. TOT SND: 19,850 LBS, TOT FL: 653 BBL. ISIP: 1907 PSI, FG: 0.72. MP: 4616 PSI, MR: 56.2 BPM, AP: 3442 PSI, AR: 53.6 BPM.

STAGE 7: PU CBP & PERF GUN. RIH SET CBP @ 5785', PU, PERF: 5748-55' & 5736-40'. 4 SPF EA, TOT OF 44 HOLES. POOH, LD WL TLS. MU WFT.OW: 245 PSI, BRK: 1262 PSI, ISIP: 979 PSI, FG: 0.60. ER: 51.3 BPM @ 3600 PSI. POC: 61% (27/44). FRAC STG W/RECY SW. TOT SND: 34,435 LBS, TOT FL: 742 BBL. ISIP: 1543 PSI, FG: 0.70. MP: 3655 PSI, MR: 51.9 BPM, AP: 2446 PSI, AR: 51.5 BPM. MU CWLS, PU KILL PLUG. RIH, SET CBP @ 5700'. POOH, LD WL TLS. RDMO CWLS & WFT. SWI, SDFN.

03/22/07 **D/O PLUGS**

Days On Completion: 4

Remarks: HSM. ND FRAC VLVS, NU BOP. PU FE POBS & BIT, RIH W/BIT, SUB & TBG. TAG KILL PLUG @ 5700'. X-OVER EQUIP TO PWR SWVL, RU PMP TO SWVL, EST CIRC. D/O PLUGS AS LISTED:

CBP #	FILL DPTH	CBP DPTH	PSI INCR
1	5700'	5700'	200
2	5765'	6785'	300
3	6835'	6855'	300
4	7650'	7672'	600
5	7920'	7941'	600
6	8450'	8465'	600
7	9125'	9139'	200

CONT TO RIH, C/O TO PBTD @ 9489'. CIRC HOLE CLN, POOH, LD 45 TJS TOT OF FLOAT. PU HNGR, LND TNG W/266 JTS IN HOLE (8330.13'), EOT @ 8357.16'. RD FLR, ND BOP, NU WH, DROP BALL. MU LINE TO PIT, RU PMP TO TBG. PMP OF BIT & SUB. TURN WELL OVER TO FBC (BRUCE & MIKE).

DC: $80,080 CCC: $346,790 CWC: $1,378,899

03/22/07 **FLOW BACK REPORT**: CP: 2175#, TP: 1800#, 27 BWPH, 16/64 CHK, TTL BBLS FLWD: 523 TODAYS LTR: 5679 BBLS, TTL LOAD RECD TO DATE: 523 BBLS

03/23/07 **FLOW BACK REPORT**: CP: 2700#, TP: 2100#, 22 BWPH, 16/64 CHK, TTL BBLS FLWD: 558 TODAYS LTR: 5121 BBLS, TTL LOAD RECD TO DATE: 1081 BBLS

03/24/07 **FLOW BACK REPORT**: CP: 2900#, TP: 2025#, 28 BWPH, 16/64 CHK, TTL BBLS FLWD: 592 TODAYS LTR: 4529 BBLS, TTL LOAD RECD TO DATE: 1673 BBLS

03/25/07 **WELL WENT ON SALES:** @ 8:45 AM, 1.5 MCF, 2025/2900 TBG, 2900 CSG, 20/64 CK, 20 BBWH

FLOW BACK REPORT: CP: 2750#, TP: 1725#, 30 BWPH, 20/64 CHK, TTL BBLS FLWD: 694 TODAYS LTR: 3835 BBLS, TTL LOAD RECD TO DATE: 2367 BBLS

ON SALES: 1335 MCF, 0 BC, 528 BW, TP: 1740#, CP: 2600#, 20/64 CHK, 18 HRS, LP: 118#.

03/26/07	**FLOW BACK REPORT**: CP: 2400#, TP: 1525#, 25 BWPH, 20/64 CHK, TTL BBLS FLWD: 625 TODAYS LTR: 3210 BBLS, TTL LOAD RECD TO DATE: 2992 BBLS
03/27/07	**FLOW BACK REPORT**: CP: 2225#, TP: 1425#, 30 BWPH, 20/64 CHK, TTL BBLS FLWD: 720 TODAYS LTR: 2395 BBLS, TTL LOAD RECD TO DATE: 3807 BBLS

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

AMENDED REPORT ☐ (highlight changes) FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: M-22582
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ DRY ☐ OTHER
7. UNIT or CA AGREEMENT NAME: UNIT #891008900A

b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER
8. WELL NAME and NUMBER: NBU 921-35J

2. NAME OF OPERATOR: KERR McGEE OIL & GAS ONSHORE LP
9. API NUMBER: 4304738105

3. ADDRESS OF OPERATOR: 1368 S 1200 E CITY VERNAL STATE UT ZIP 84078
PHONE NUMBER: (435) 781-7024
10 FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 1454'FSL, 1481'FEL
AT TOP PRODUCING INTERVAL REPORTED BELOW:
AT TOTAL DEPTH:
11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWSE 35 9S 21E
12. COUNTY: UINTAH
13. STATE: UTAH

14. DATE SPUDDED:	15. DATE T.D. REACHED:	16. DATE COMPLETED:	ABANDONED	READY TO PRODUCE	17. ELEVATIONS (DF, RKB, RT, GL):
1/5/2007	3/1/2007	3/25/2007	☐	☑	5075'GL

18. TOTAL DEPTH: MD 9,530 TVD	19. PLUG BACK T.D.: MD 9,489 TVD	20. IF MULTIPLE COMPLETIONS, HOW MANY? *	21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
CBL-CCL-GR, HRI/SD/DSN

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 H-40	32.3#		2,320		900			
7 7/8"	4 1/2 I-80	11.6#		9,530		1630			

RECEIVED
APR 23 2007
DIV. OF OIL, GAS & MINING

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"	8,357							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) WASATCH	5,736	6,835		
(B) MESAVERDE	7,354	9,433		
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)		SIZE	NO. HOLES	PERFORATION STATUS
5,736	6,835	0.36	88	Open ☑ Squeezed ☐
7,354	9,433	0.36	218	Open ☑ Squeezed ☐
				Open ☐ Squeezed ☐
				Open ☐ Squeezed ☐

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
5736'-6835'	PMP 1395 BBLS SLICK H2O & 54,285# 30/50 SD
7354'-9433'	PMP 7192 BBLS SLICK H2O & 260,230# 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

(5/2000)

(CONTINUED ON BACK)

31. INITIAL PRODUCTION — **INTERVAL A (As shown in item #26)**

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
3/25/2007	3/26/2007	18		0	1,395	720	FLOWING

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:
20/64	1,314	2,065					0	1,395	720	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:
3/25/2007	3/26/2007	18		0	1,395	720	FLOWING

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:
20/64	1,314	2,065					0	1,395	720	PROD

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)
WASATCH	4,692	7,351			
MESAVERDE	7,351				

35. ADDITIONAL REMARKS (Include plugging procedure)

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

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE SENIOR LAND ADMIN SPECIALIST

SIGNATURE DATE 4/17/2007

This report must be submitted within 30 days of

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

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

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

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

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

KerrMcGee

Kerr-McGee Oil & Gas Onshore LP
1099 18 STREET, SUITE 1200
DENVER, CO 80202

March 26, 2008

Division of Oil, Gas and Mining
ATTN: Gil Hunt
P.O. Box 145801
Salt Lake City, Utah 84114-5801

43-047-38105

RE: Water Disposal Well proposal NBU 921-35J SWD
1454' FSL, 1481' FEL (NW/4SE/4) Sec 35-9S-21E
Uintah County, Utah
Natural Buttes Unit

Dear Mr. Hunt,

Kerr-McGee Oil & Gas Onshore LP proposes to convert the NBU 921-35J into a saltwater disposal well down to 1580'-1890' in the Bird's Nest of the Green River formation. The well is owned by Kerr-McGee 100%. We must notify all owners within one-quarter mile of the well site prior to filing the UIC. Please feel free to contact me at (720) 929 6698 should you have any questions. Thank you for your assistance.

Sincerely,

James C. Colligan III
Landman

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

RECEIVED
APR 03 2008
DIV. OF OIL, GAS & MINING

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 WYNKOOP STREET
DENVER, CO 80202-1129
http://www.epa.gov/region8

APR 14 2009

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Carroll Estes
Kerr McGee Oil and Gas Onshore LP
1368 South 1200 East
Vernal, UT 84078

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

Re: FINAL Permit
EPA UIC Permit UT21189-08169
Well: NBU 921-35J SWD
NWSE Sec. 35-T9S-R21E
Uintah County, UT
API No.: 43-047-38105

Dear Mr. Estes:

Enclosed is your copy of the FINAL Underground Injection Control (UIC) Permit for the proposed NBU 921-35J SWD injection well. A Statement of Basis that discusses the conditions and requirements of this EPA UIC Permit, is also included.

The Public Comment period for this Permit ended on APR 03 2009. No comments on the Draft Permit were received during the Public Notice period; therefore the Effective Date for this EPA UIC Permit is the date of issuance. All conditions set forth herein refer to Title 40 Parts 124, 144, 146, and 147 of the Code of Federal Regulations (CFR) and are regulations that are in effect as of the Effective Date of this Permit.

Please note that under the terms and conditions of this Final Permit you are authorized only to construct the proposed injection well. Prior to commencing injection, you first must fulfill all "Prior to Commencing Injection" requirements of the Final Permit, Part II Section C.1, and obtain written Authorization to Inject from the EPA. It is your responsibility to be familiar with and to comply with all provisions of your Final Permit. The EPA forms referenced in the permit are available at http://www.epa.gov/safewater/uic/reportingforms.html. Guidance documents for Cement Bond Logging, Radioactive Tracer testing, Step Rate testing, Mechanical Integrity demonstration, Procedure in the Event of a Mechanical Integrity Loss, and other UIC guidances, are available at http://www.epa.gov/region8/water/uic/ deep_injection.html. Upon request, hard copies of the EPA forms and guidances can be provided.

RECEIVED
APR 20 2009
DIV. OF OIL, GAS & MIN

This EPA UIC Permit is issued for the operating life of the well unless terminated (Part III, Section B). The EPA may review this Permit at least every five (5) years to determine whether any action is warranted pursuant to 40 CFR § 144.36(a).

If you have any questions on the enclosed Final Permit or Statement of Basis, please call Bruce Suchomel of my staff at (303) 312-6001, or toll-free at (800) 227-8917, ext. 312-6001.

Sincerely,

Eddie A. Sierra
Acting Assistant Regional Administrator
Office of Partnerships and Regulatory Assistance

enclosure: Final UIC Permit
Statement of Basis

cc: Uintah & Ouray Business Committee
The Honorable Curtis Cesspooch, Chairman
Ronald Groves, Councilman
Irene Cuch, Vice Chairwoman
Steven Cesspooch, Councilman
Phillip Chimbraus, Councilman
Frances Poowegup, Councilwoman

Daniel Picard
BIA - Uintah & Ouray Indian Agency

with enclosures:

Ferron Secakulku
Director, Natural Resources
Ute Indian Tribe

Gil Hunt
Associate Director
Utah Division of Oil, Gas, and Mining

Fluid Minerals Engineering Office

BLM - Vernal Office

Robin Hansen
Fluid Minerals Engineering Office
BLM - Vernal Office

Larry Love
Director of Energy & Minerals Dept.
Ute Indian Tribe

EPA

UNDERGROUND INJECTION CONTROL PROGRAM

PERMIT

PREPARED: April 2009

Permit No. UT21189-08169

Class II Salt Water Disposal Well

NBU 921-35J SWD
Uintah County, UT

Issued To

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

Part I. AUTHORIZATION TO CONSTRUCT AND OPERATE

Under the authority of the Safe Drinking Water Act and Underground Injection Control (UIC) Program regulations of the U. S. Environmental Protection Agency (EPA) codified at Title 40 of the Code of Federal Regulations (40 CFR) Parts 2, 124, 144, 146, and 147, and according to the terms of this Permit,

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

is authorized to construct and to operate the following Class II injection well or wells:

NBU 921-35J SWD
1454 FSL 1481 FEL, NWSE S35, T9S, R21E
Uintah County, UT

EPA regulates the injection of fluids into injection wells so that injection does not endanger underground sources of drinking water (USDWs). EPA UIC Permit conditions are based on authorities set forth at 40 CFR Parts 144 and 146, and address potential impacts to USDWs.

Under 40 CFR Part 144, Subpart D, certain conditions apply to all UIC Permits and may be incorporated either expressly or by reference. General permit conditions for which the content is mandatory and not subject to site-specific differences are not discussed in this document. Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege, nor does it authorize injury to persons or property or invasion of other private rights, or any infringement of other Federal, State or local laws or regulations. (40 CFR §144.35) An EPA UIC Permit may be issued for the operating life of the injection well or project unless terminated for reasonable cause under 40 CFR §§144.39, 144.40 and 144.41, and may be reviewed at least once every five (5) years to determine if action is required under 40 CFR §144.36(a).

This Permit is issued for the life of the well(s) unless modified, revoked and reissued, or terminated under 40 CFR 144.39 or 144.40. This EPA Permit may be adopted, modified, revoked and reissued, or terminated if primary enforcement authority for a UIC Program is delegated to an Indian Tribe or State. Upon the effective date of delegation, reports, notifications, questions and other correspondence should be directed to the Indian Tribe or State Director.

Issue Date: APR 14 2009 Effective Date APR 14 2009

Eddie A. Sierra
Acting Assistant Regional Administrator*
Office of Partnerships and Regulatory Assistance

*NOTE: The person holding this title is referred to as the "Director" throughout this Permit.

PART II. SPECIFIC PERMIT CONDITIONS

Section A. WELL CONSTRUCTION REQUIREMENTS

These requirements represent the approved minimum construction standards for well casing and cement, injection tubing, and packer.

Details of the approved well construction plan are incorporated into this Permit as APPENDIX A. Changes to the approved plan that may occur during construction must be approved by the Director prior to being physically incorporated.

1. Casing and Cement.

The well or wells shall be cased and cemented to prevent the movement of fluids into or between underground sources of drinking water. The well casing and cement shall be designed for the life expectancy of the well and of the grade and size shown in APPENDIX A. Remedial cementing may be required if shown to be inadequate by cement bond log or other attempted demonstration of Part II (External) mechanical integrity.

2. Injection Tubing and Packer.

Injection tubing is required, and shall be run and set with a packer at or below the depth indicated in APPENDIX A. The packer setting depth may be changed provided it remains below the depth indicated in APPENDIX A and the Permittee provides notice and obtains the Director's approval for the change.

3. Sampling and Monitoring Devices.

The Permittee shall install and maintain in good operating condition:

(a) a "tap" at a conveniently accessible location on the injection flow line between the pump house or storage tanks and the injection well, isolated by shut-off valves, for collection of representative samples of the injected fluid; and

(b) one-half (1/2) inch female iron pipe fitting, isolated by shut-off valves and located at the wellhead at a conveniently accessible location, for the attachment of a pressure gauge capable of monitoring pressures ranging from normal operating pressures up to the Maximum Allowable Injection Pressure specified in APPENDIX C:

  (i) on the injection tubing; and

  (ii) on the tubing-casing annulus (TCA); and

(c) a pressure actuated shut-off device attached to the injection flow line set to shut-off the injection pump when or before the Maximum Allowable Injection Pressure (MAIP) specified in APPENDIX C is reached at the wellhead; and

(d) a non-resettable cumulative volume recorder attached to the injection line.

4. Well Logging and Testing

Well logging and testing requirements are found in APPENDIX B. The Permittee shall ensure the log and test requirements are performed within the time frames specified in APPENDIX B. Well logs and tests shall be performed according to current EPA-approved procedures. Well log and test results shall be submitted to the Director within sixty (60) days of completion of the logging or testing activity, and shall include a report describing the methods used during logging or testing and an interpretation of the test or log results.

5. Postponement of Construction or Conversion

The Permittee shall complete well construction within one year of the Effective Date of the Permit, or in the case of an Area Permit within one year of Authorization of the additional well. Authorization to construct and operate shall expire if the well has not been constructed within one year of the Effective Date of the Permit or Authorization and the Permit may be terminated under 40 CFR 144.40, unless the Permittee has notified the Director and requested an extension prior to expiration. Notification shall be in writing, and shall state the reasons for the delay and provide an estimated completion date. Once Authorization has expired under this part, the complete permit process including opportunity for public comment may be required before Authorization to construct and operate may be reissued.

6. Workovers and Alterations

Workovers and alterations shall meet all conditions of the Permit. Prior to beginning any addition or physical alteration to an injection well that may significantly affect the tubing, packer or casing, the Permittee shall give advance notice to the Director and obtain the Director's approval. The Permittee shall record all changes to well construction on a Well Rework Record (EPA Form 7520-12), and shall provide this and any other record of well workover, logging, or test data to EPA within sixty (60) days of completion of the activity.

A successful demonstration of Part I MI is required following the completion of any well workover or alteration which affects the casing, tubing, or packer. Injection operations shall not be resumed until the well has successfully demonstrated mechanical integrity and the Director has provided written approval to resume injection.

Section B. MECHANICAL INTEGRITY

The Permittee is required to ensure each injection well maintains mechanical integrity at all times. The Director, by written notice, may require the Permittee to comply with a schedule describing when mechanical integrity demonstrations shall be made.

An injection well has mechanical integrity if:

(a) There is no significant leak in the casing, tubing, or packer (Part I); and

(b) There is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the injection well bore (Part II).

1. Demonstration of Mechanical Integrity (MI).

The operator shall demonstrate MI prior to commencing injection and periodically thereafter. Well-specific conditions dictate the methods and the frequency for demonstrating MI and are discussed in the Statement of Basis. The logs and tests are designed to demonstrate both internal (Part I) and external (Part II) MI as described above. The conditions present at this well site warrant the methods and frequency required in Appendix B of this Permit.

In addition to these regularly scheduled demonstrations of MI, the operator shall demonstrate internal (Part I) MI after any workover which affects the tubing, packer or casing.

The Director may require additional or alternative tests if the results presented by the operator are not satisfactory to the Director to demonstrate there is no movement of fluid into or between USDWs resulting from injection activity. Results of MI tests shall be submitted to the Director as soon as possible but no later than sixty (60) days after the test is complete.

2. Mechanical Integrity Test Methods and Criteria

EPA-approved methods shall be used to demonstrate mechanical integrity. Ground Water Section Guidance No. 34 "Cement Bond Logging Techniques and Interpretation", Ground Water Section Guidance No. 37, "Demonstrating Part II (External) Mechanical Integrity for a Class II injection well permit", and Ground Water Section Guidance No. 39, "Pressure Testing Injection Wells for Part I (Internal) Mechanical Integrity" are available from EPA and will be provided upon request.

The Director may stipulate specific test methods and criteria best suited for a specific well construction and injection operation.

3. Notification Prior to Testing.

The Permittee shall notify the Director at least 30 days prior to any scheduled mechanical integrity test. The Director may allow a shorter notification period if it would be sufficient to enable EPA to witness the mechanical integrity test. Notification may be in the form of a yearly or quarterly schedule of planned mechanical integrity tests, or it may be on an individual basis.

4. Loss of Mechanical Integrity.

If the well fails to demonstrate mechanical integrity during a test, or a loss of mechanical integrity becomes evident during operation (such as presence of pressure in the TCA, water flowing at the surface, etc.), the Permittee shall notify the Director within 24 hours (see Part III Section E Paragraph 11(e) of this Permit) and the well shall be shut-in within 48 hours unless the Director requires immediate shut-in.

Within five days, the Permittee shall submit a follow-up written report that documents test results, repairs undertaken or a proposed remedial action plan.

Injection operations shall not be resumed until after the well has successfully been repaired and demonstrated mechanical integrity, and the Director has provided approval to resume injection.

Section C. WELL OPERATION

INJECTION BETWEEN THE OUTERMOST CASING PROTECTING UNDERGROUND SOURCES OF DRINKING WATER AND THE WELL BORE IS PROHIBITED.

Injection is approved under the following conditions:

1. Requirements Prior to Commencing Injection.

Well injection, including for new wells authorized by an Area Permit under 40 CFR 144.33 (c), may commence only after all well construction and pre-injection requirements herein have been met and approved. The Permittee may not commence injection until construction is complete, and

(a) The Permittee has submitted to the Director a notice of completion of construction and a completed EPA Form 7520-10 or 7520-12; all applicable logging and testing requirements of this Permit (see APPENDIX B) have been fulfilled and the records submitted to the Director; mechanical integrity pursuant to 40 CFR 146.8 and Part II Section B of this Permit has been demonstrated; and

(i) The Director has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the Permit; or

(ii) The Permittee has not received notice from the Director of his or her intent to inspect or otherwise review the new injection well within 13 days of the date of the notice in Paragraph 1a, in which case prior inspection or review is waived and the Permittee may commence injection.

2. Injection Interval.

Injection is permitted only within the approved injection interval, listed in APPENDIX C. Additional individual injection perforations may be added provided that they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6.

In order to establish how the Bird's Nest reacts to injection, permit conditions will require the injection well to undergo monitoring of annual fluid levels. During these tests, the injection well is shut-in and the static fluid level is allowed to stabilize. After the fluid level has stabilized, the static fluid level is measured, cumulative injected volume determined, and the fluid in the well is sampled and analyzed for specific gravity in order to determine the pressure in the Bird's Nest. This information will be tracked year-to-year in order to show the buildup of pressure in the Bird's Nest and the relationship between that pressure and the cumulative volume of fluid injected into the disposal well.

3. Injection Pressure Limitation

(a) The permitted Maximum Allowable Injection Pressure (MAIP), measured at the wellhead, is found in APPENDIX C. Injection pressure shall not exceed the amount the Director determines is appropriate to ensure that injection does not initiate new fractures or propagate existing fractures in the confining zone adjacent to USDWs. In no case shall injection pressure cause the movement of injection or formation fluids into a USDW.

(b) The Permittee may request a change of the MAIP, or the MAIP may be increased or decreased by the Director in order to ensure that the requirements in Paragraph (a) above are fulfilled. The Permitee may be required to conduct a step rate injection test or other suitable test to provide information for determining the fracture pressure of the injection zone. Change of the permitted MAIP by the Director shall be by modification of this Permit and APPENDIX C.

4. Injection Volume Limitation.

Injection volume is limited to the total volume specified in APPENDIX C.

5. Injection Fluid Limitation.

Injected fluids are limited to those which are brought to the surface in connection with conventional oil or natural gas production and may be commingled with waste waters from gas plants which are an integral part of production operations unless those waters are classified as a hazardous waste at the time of injection, pursuant to 40 CFR 144.6(b). The well also may be used to inject approved Class II wastes brought to the surface such as drilling fluids and spent well completion, treatment and stimulation fluids. Non-exempt wastes, including unused fracturing fluids or acids, gas plant cooling tower cleaning wastes, service wastes and vacuum truck wastes, are NOT approved. This well is NOT approved for commercial brine or other fluid disposal operation.

The source of injected fluids is limited to oil and gas production wells operated by the permittee, within the Natural Buttes field.

The following procedure describes how all water samples will be analyzed for the hydrocarbon content:

The water sample will be captured in a container while maintaining a volume of empty headspace in the container above the water sample. The headspace volume will be tested using gas chromatography for methane, ethane, propane, iso-butane, butane, iso-pentane and pentane resulting from the degassing of any dissolved gases from the water into the headspace of a sampling container. To analyze for other hydrocarbons, the water sample will be solvent extracted with DCM. The resulting extract will be analyzed by gas chromatography. These results will be submitted to the appropriate offices of BLM and EPA within thirty days of the completion of the specified laboratory analyses.

This well is NOT approved for commercial brine injection, industrial waste fluid disposal or injection of hazardous waste as defined by CFR 40 Part 261. The source of the injected fluids is limited to oil and gas production wells operated by the permittee.

6. Tubing-Casing Annulus (TCA)

The tubing-casing annulus (TCA) shall be filled with water treated with a corrosion inhibitor, or other fluid approved by the Director. The TCA valve shall remain closed during normal operating conditions and the TCA pressure shall be maintained at zero (0) psi.

If TCA pressure cannot be maintained at zero (0) psi, the Permittee shall follow the procedures in Ground Water Section Guidance No. 35 "Procedures to follow when excessive annular pressure is observed on a well."

Section D. MONITORING, RECORDKEEPING, AND REPORTING OF RESULTS

1. Monitoring Parameters, Frequency, Records and Reports.

Monitoring parameters are specified in APPENDIX D. Pressure monitoring recordings shall be taken at the wellhead. The listed parameters are to be monitored, recorded and reported at the frequency indicated in APPENDIX D even during periods when the well is not operating.

Monitoring records must include:

(a) the date, time, exact place and the results of the observation, sampling, measurement, or analysis, and;

(b) the name of the individual(s) who performed the observation, sampling, measurement, or analysis, and;

(c) the analytical techniques or methods used for analysis.

2. Monitoring Methods.

(a) Monitoring observations, measurements, samples, etc. taken for the purpose of complying with these requirements shall be representative of the activity or condition being monitored.

(b) Methods used to monitor the nature of the injected fluids must comply with analytical methods cited and described in Table 1 of 40 CFR 136.3 or Appendix III of 40 CFR 261, or by other methods that have been approved in writing by the Director.

(c) Injection pressure, annulus pressure, injection rate, and cumulative injected volumes shall be observed and recorded at the wellhead under normal operating conditions, and all parameters shall be observed simultaneously to provide a clear depiction of well operation.

(d) Pressures are to be measured in pounds per square inch (psi).

(e) Fluid volumes are to be measured in standard oil field barrels (bbl).

(f) Fluid rates are to be measured in barrels per day (bbl/day).

3. Records Retention.

(a) Records of calibration and maintenance, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained for a period of AT LEAST THREE (3) YEARS from the date of the sample, measurement, report, or application. This period may be extended anytime prior to its expiration by request of the Director.

(b) Records of the nature and composition of all injected fluids must be retained until three (3) years after the completion of any plugging and abandonment (P&A) procedures specified under 40 CFR 144.52(a)(6) or under Part 146 Subpart G, as appropriate. The Director may require the Permittee to deliver the records to the Director at the conclusion of the retention period. The Permittee shall continue to retain the records after the three (3) year retention period unless the Permittee delivers the records to the Director or obtains written approval from the Director to discard the records.

4. Annual Reports.

Whether the well is operating or not, the Permittee shall submit an Annual Report to the Director that summarizes the results of the monitoring required by Part II Section D and APPENDIX D. The report of fluids injected during the year must identify each new fluid source by well name and location, and the field name or facility name.

The first Annual Report shall cover the period from the effective date of the Permit through December 31 of that year. Subsequent Annual Reports shall cover the period from January 1 through December 31 of the reporting year. Annual Reports shall be submitted by February 15 of the year following data collection. EPA Form 7520-11 may be copied and shall be used to submit the Annual Report, however, the monitoring requirements specified in this Permit are mandatory even if EPA Form 7520-11 indicates otherwise.

Section E. PLUGGING AND ABANDONMENT

1. Notification of Well Abandonment, Conversion or Closure.

The Permittee shall notify the Director in writing at least forty-five (45) days prior to: 1) plugging and abandoning an injection well, 2) converting to a non-injection well, and 3) in the case of an Area Permit, before closure of the project.

2. *Well Plugging Requirements*

Prior to abandonment, the injection well shall be plugged with cement in a manner which isolates the injection zone and prevents the movement of fluids into or between underground sources of drinking water, and in accordance with 40 CFR 146.10 and other applicable Federal, State or local law or regulations. Tubing, packer and other downhole apparatus shall be removed. Cement with additives such as accelerators and retarders that control or enhance cement properties may be used for plugs; however, volume-extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.6 lb/gal shall be placed between all plugs. A minimum 50 ft surface plug shall be set inside and outside of the surface casing to seal pathways for fluid migration into the subsurface. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. Prior to placement of the cement plug(s) the well shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the Director.

3. *Approved Plugging and Abandonment Plan.*

The approved plugging and abandonment plan is incorporated into this Permit as APPENDIX E. Changes to the approved plugging and abandonment plan must be approved by the Director prior to beginning plugging operations. The Director also may require revision of the approved plugging and abandonment plan at any time prior to plugging the well.

4. *Forty Five (45) Day Notice of Plugging and Abandonment.*

The Permittee shall notify the Director at least forty-five (45) days prior to plugging and abandoning a well and provide notice of any anticipated change to the approved plugging and abanonment plan.

5. *Plugging and Abandonment Report.*

Within sixty (60) days after plugging a well, the Permittee shall submit a report (EPA Form 7520-13) to the Director. The plugging report shall be certified as accurate by the person who performed the plugging operation. Such report shall consist of either:

(a) A statement that the well was plugged in accordance with the approved plugging and abandonment plan; or

(b) Where actual plugging differed from the approved plugging and abandonment plan, an updated version of the plan, on the form supplied by the Director, specifying the differences.

6. *Inactive Wells.*

After any period of two years during which there is no injection the Permittee shall plug and abandon the well in accordance with Part II Section E Paragraph 2 of this Permit unless the Permittee:

(a) Provides written notice to the Director;

(b) Describes the actions or procedures the Permittee will take to ensure that the well will not endanger USDWs during the period of inactivity. These actions and procedures shall include compliance with mechanical integrity demonstration, Financial Responsibility and all other permit requirements designed to protect USDWs; and

(c) Receives written notice by the Director temporarily waiving plugging and abandonment requirements.

PART III. CONDITIONS APPLICABLE TO ALL PERMITS

Section A. EFFECT OF PERMIT

The Permittee is allowed to engage in underground injection in accordance with the conditions of this Permit. The Permittee shall not construct, operate, maintain, convert, plug, abandon, or conduct any other activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR 142 or may otherwise adversely affect the health of persons. Any underground injection activity not authorized by this Permit or by rule is prohibited. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of any other Federal, State or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any enforcement action brought under the provisions of Section 1431 of the Safe Drinking Water Act (SDWA) or any other law governing protection of public health or the environment, for any imminent and substantial endangerment to human health or the environment, nor does it serve as a shield to the Permittee's independent obligation to comply with all UIC regulations. Nothing in this Permit relieves the Permittee of any duties under applicable regulations.

Section B. CHANGES TO PERMIT CONDITIONS

1. Modification, Reissuance, or Termination.

The Director may, for cause or upon a request from the Permittee, modify, revoke and reissue, or terminate this Permit in accordance with 40 CFR 124.5, 144.12, 144.39, and 144.40. Also, this Permit is subject to minor modification for causes as specified in 40 CFR 144.41. The filing of a request for modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any condition of this Permit.

2. Conversions.

The Director may, for cause or upon a written request from the Permittee, allow conversion of the well from a Class II injection well to a non-Class II well. Conversion may not proceed until the Permittee receives written approval from the Director. Conditions of such conversion may include but are not limited to, approval of the proposed well rework, follow up demonstration of mechanical integrity, well-specific monitoring and reporting following the conversion, and demonstration of practical use of the converted configuration.

3. Transfer of Permit.

Under 40 CFR 144.38, this Permit is transferable provided the current Permittee notifies the Director at least thirty (30) days in advance of the proposed transfer date (EPA Form 7520-7) and provides a written agreement between the existing and new Permittees containing a specific date for transfer of Permit responsibility, coverage and liability between them. The notice shall adequately demonstrate that the financial responsibility requirements of 40 CFR 144.52(a)(7) will be met by the new Permittee. The Director may require modification or revocation and reissuance of the Permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the Safe Drinking Water Act; in some cases, modification or revocation and reissuance is mandatory.

4. Permittee Change of Address.

Upon the Permittee's change of address, or whenever the operator changes the address where monitoring records are kept, the Permittee must provide written notice to the Director within 30 days.

5. Construction Changes, Workovers, Logging and Testing Data

The Permittee shall give advance notice to the Director, and shall obtain the Director's written approval prior to any physical alterations or additions to the permitted facility. Alterations or workovers shall meet all conditions as set forth in this permit. The Permittee shall record any changes to the well construction on a Well Rework Record (EPA Form 7520-12), and shall provide this and any other record of well workovers, logging , or test data to EPA within sixty (60) days of completion of the activity.

Following the completion of any well workovers or alterations which affect the casing, tubing, or packer, a successful demonstration of mechanical integrity (Part III, Section F of this Permit) shall be made, and written authorization from the Director received, prior to resuming injection activities.

Section C. SEVERABILITY

The Provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby.

Section D. CONFIDENTIALITY

In accordance with 40 CFR Part 2 and 40 CFR 144.5, information submitted to EPA pursuant to this Permit may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the validity of the claim will be assessed in accordance with the procedures in 40 CFR Part 2 (Public Information). Claims of confidentiality for the following information will be denied:

- The name and address of the Permittee, and
- information which deals with the existence, absence or level of contaminants in drinking water.

Section E. GENERAL PERMIT REQUIREMENTS

1. Duty to Comply.

The Permittee must comply with all conditions of this Permit. Any noncompliance constitutes a violation of the Safe Drinking Water Act (SDWA) and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application; except that the Permittee need not comply with the provisions of this Permit to the extent and for the duration such noncompliance is authorized in an emergency permit under 40 CFR 144.34. All violations of the SDWA may subject the Permittee to penalties and/or criminal prosecution as specified in Section 1423 of the SDWA.

2. Duty to Reapply.

If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, under 40 CFR 144.37 the Permittee must apply for a new permit prior to the expiration date.

3. Need to Halt or Reduce Activity Not a Defense.

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

4. Duty to Mitigate.

The Permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Permit.

5. Proper Operation and Maintenance.

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit.

6. Permit Actions.

This Permit may be modified, revoked and reissued or teminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

7. Property Rights.

This Permit does not convey any property rights of any sort, or any exclusive privilege.

8. Duty to Provide Information.

The Permittee shall furnish to the Director, within a time specified, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this Permit. The Permittee is required to submit any information required by this Permit or by the Director to the mailing address designated in writing by the Director.

9. Inspection and Entry.

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and,

(d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any location.

10. Signatory Requirements.

All applications, reports or other information submitted to the Director shall be signed and certified according to 40 CFR 144.32. This section explains the requirements for persons duly authorized to sign documents, and provides wording for required certification.

11. Reporting Requirements.

(a) Planned changes. The Permittee shall give notice to the Director as soon as possible of any planned changes, physical alterations or additions to the permitted facility, and prior to commencing such changes.

(b) Anticipated noncompliance. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) Monitoring Reports. Monitoring results shall be reported at the intervals specified in this Permit.

(d) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than 30 days following each schedule date.

(e) Twenty-four hour reporting. The Permittee shall report to the Director any noncompliance which may endanger human health or the environment, including:

(i) Any monitoring or other information which indicates that any contaminant may cause endangerment to a USDW; or

(ii) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs.

Information shall be provided, either directly or by leaving a message, within twenty-four (24) hours from the time the permittee becomes aware of the circumstances by telephoning (800) 227-8917 and requesting EPA Region VIII UIC Program Compliance and Technical Enforcement Director, or by contacting the EPA Region VIII Emergency Operations Center at (303) 293-1788.

In addition, a follow up written report shall be provided to the Director within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

(f) Oil Spill and Chemical Release Reporting: The Permittee shall comply with all reporting requirements related to the occurence of oil spills and chemical releases by contacting the National Response Center (NRC) at (800) 424-8802, (202) 267-2675, or through the NRC website http://www.nrc.uscg.mil/index.htm.

(g) Other Noncompliance. The Permittee shall report all instances of noncompliance not reported under paragraphs Part III, Section E Paragraph 11(b) or Section E, Paragraph 11(e) at the time the monitoring reports are submitted. The reports shall contain the information listed in Paragraph 11(e) of this Section.

(h) Other information. Where the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Director, the Permittee shall promptly submit such facts or information to the Director.

Section F. FINANCIAL RESPONSIBILITY

1. Method of Providing Financial Responsibility.

The Permittee shall maintain continuous compliance with the requirement to maintain financial responsibility and resources to close, plug, and abandon the underground injection well(s). No substitution of a demonstration of financial responsibility shall become effective until the Permittee receives written notification from the Director that the alternative demonstration of financial responsibility is acceptable. The Director may, on a periodic basis, require the holder of a permit to revise the estimate of the resources needed to plug and abandon the well to reflect changes in such costs and may require the Permittee to provide a revised demonstration of financial responsibility.

2. Insolvency.

In the event of:

(a) the bankruptcy of the trustee or issuing institution of the financial mechanism; or

(b) suspension or revocation of the authority of the trustee institution to act as trustee; or

(c) the institution issuing the financial mechanism losing its authority to issue such an instrument

the Permittee must notify the Director in writing, within ten (10) business days, and the Permittee must establish other financial assurance or liability coverage acceptable to the Director within sixty (60) days after any event specified in (a), (b), or (c) above.

The Permittee must also notify the Director by certified mail of the commencement of voluntary or involuntary proceedings under Title 11 (Bankruptcy), U.S. Code naming the owner or operator as debtor, within ten (10) business days after the commencement of the proceeding. A guarantor, if named as debtor of a corporate guarantee, must make such a notification as required under the terms of the guarantee.

APPENDIX A

WELL CONSTRUCTION REQUIREMENTS

See diagram.

The NBU-921-35J Salt Water Disposal (SWD) well was drilled to a depth of 9530' in the Wasatch Formation.

FORMATION DATA:

* Base of USDWs: Publication 92 shows the depth at 2973'.
* Confining Zone: Green River Formation intervals between 1398' - 1580' and 1890' - 1966'.
* Permitted Injection Zone: Bird's Nest member of the Green River Formation between approximately 1580' - 1890'.

WELL CONSTRUCTION:

Surface casing (9-5/8 inch) was set at a depth of 2272', with an estimated borehole annular void between 602' - 1090', in a 12-1/4 inch hole using H-40 grade casing, 32.3 lb/ft.

Production casing (4-1/2 inch) was set at a depth of 9530' in a 7-7/8 inch hole using I-80 grade casing, 11.6 lb/ft.

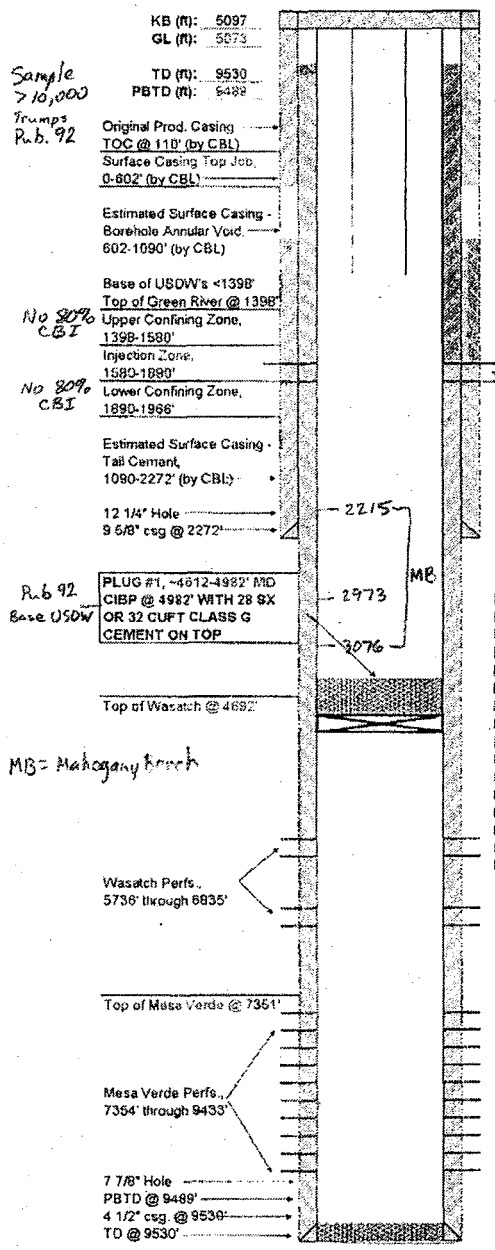
The packer will be set no higher than 100 feet above the top perforation.

WELL: NBU 921-35J
FIELD: NATURAL BUTTES
API # 43-047-38105
LEASE #: ML-22582
EPA PERMIT #:

CNTY: UINTAH
STATE: UTAH

FT.: 1454' FSL 1481' FEL
Q-Q: NWSE
SEC.: 35
TWS: 9S
RGE: 21E

IMPROVED MECHANICAL INTEGRITY WELLBORE DIAGRAM



CASING RECORD

HOLE (in)	SIZE (in)	WT (lb/ft)	GRADE	TOP (ft)	BTM (ft)
12 1/4	9 5/8	32.3	H-40	0	2272
7 7/8	4 1/2	11.6	I-80	0	9530

TUBING RECORD

SIZE (in)	WT (lb/ft)	GRADE	TOP (ft)	BTM (ft)
2 3/8	4.7	J-55	0	~1300

CONFINING ZONE RADIOACTIVE TRACER SURVEY
MIT PERFORATIONS 1879-1884' MD 4 SPF (20 HOLES)
PUMP 400 BBLS RECYCLED WATER WITH TRACERS

PERFORATION RECORD

ZONE	TOP (ft)	BTM (ft)	SPF	DATE SHOT	STATUS
Wasatch	5,736	5,740	4	03/21/07	CIBP-Excluded
Wasatch	5,748	5,755	4	03/21/07	CIBP-Excluded
Wasatch	6,502	6,508	4	03/21/06	CIBP-Excluded
Wasatch	6,830	6,835	4	03/21/06	CIBP-Excluded
Mesa Verde	7,354	7,358	4	03/21/06	CIBP-Excluded
Mesa Verde	7,387	7,390	4	03/21/06	CIBP-Excluded
Mesa Verde	7,639	7,642	4	03/21/06	CIBP-Excluded
Mesa Verde	7,805	7,809	4	03/21/06	CIBP-Excluded
Mesa Verde	7,905	7,911	4	03/21/06	CIBP-Excluded
Mesa Verde	8,105	8,107	4	03/21/06	CIBP-Excluded
Mesa Verde	8,263	8,266	4	03/21/06	CIBP-Excluded
Mesa Verde	8,434	8,440	4	03/21/06	CIBP-Excluded
Mesa Verde	8,755	8,759	3	03/21/06	CIBP-Excluded
Mesa Verde	8,856	8,860	4	03/21/06	CIBP-Excluded
Mesa Verde	8,995	8,997	4	03/21/06	CIBP-Excluded
Mesa Verde	9,107	9,109	4	03/21/06	CIBP-Excluded
Mesa Verde	9,234	9,236	3	03/20/06	CIBP-Excluded
Mesa Verde	9,332	9,334	4	03/20/06	CIBP-Excluded
Mesa Verde	9,383	9,388	4	03/20/06	CIBP-Excluded
Mesa Verde	9,429	9,433	3	03/20/06	CIBP-Excluded

UT21189-08169_constr.jpg

APPENDIX B

LOGGING AND TESTING REQUIREMENTS

Logs.
Logs will be conducted according to current UIC guidance. It is the responsibility of the Permittee to obtain and use guidance prior to conducting any well logging required as a condition of this permit.

WELL NAME: NBU 921-35J SWD

TYPE OF LOG	DATE DUE
Open Hole Log	Injection Well: Prior to injection.
TEMP	AoR Well 28: Prior to receiving authorization to inject and at least once annually thereafter. Log should be run from 100 feet below lower confining zone to surface.
TEMP	AoR Well CIGE 133: Prior to receiving authorization to inject and at least once annually thereafter. Log should be run from 100 feet below lower confining zone to surface.
TEMP	Injection Well: Prior to injection. CBL does not show adequate cement.
RATS	Injection Well: Prior to injection. CBL does not show adequate cement.

Tests.
Tests will be conducted according to current UIC guidance. It is the responsibility of the Permittee to obtain and use guidance prior to conducting any well test required as a condition of this permit.

APPENDIX B

LOGGING AND TESTING REQUIREMENTS

Logs.
Logs will be conducted according to current UIC guidance. It is the responsibility of the Permittee to obtain and use guidance prior to conducting any well logging required as a condition of this permit.

WELL NAME: NBU 921-35J SWD

TYPE OF LOG	DATE DUE
Open Hole Log	Injection Well: Prior to injection.
TEMP	AoR Well 28: Prior to receiving authorization to inject and at least once annually thereafter. Log should be run from 100 feet below lower confining zone to surface.
TEMP	AoR Well CIGE 133: Prior to receiving authorization to inject and at least once annually thereafter. Log should be run from 100 feet below lower confining zone to surface.
TEMP	Injection Well: Prior to injection. CBL does not show adequate cement.
RATS	Injection Well: Prior to injection. CBL does not show adequate cement.

Tests.
Tests will be conducted according to current UIC guidance. It is the responsibility of the Permittee to obtain and use guidance prior to conducting any well test required as a condition of this permit.

WELL NAME: NBU 921-35J SWD

TYPE OF TEST	DATE DUE
Injectate Sample	Inj. Well: A random representative sample of the injection water will be collected annually at sampling tap as described in the permit under Part II Sec.A.3(a) and analyzed for hydrocarbon content via the method found in the SOB accompanying the permit.
Injection Zone Water Sample	Injection well: Prior to receiving authorization to commence injection, a representative isolated sample of injection zone formation water will be tested for naturally occurring hydrocarbons.
Injection Zone Water Sample	Injection well: Prior to receiving authorization to commence injection, an isolated representative sample (stabilized specific conductivity from three successive swab runs); analyzed for TDS, pH, specific gravity, and specific conductivity.
Pore Pressure	Injection well: Prior to authorization to begin injection and at least once annually. (To monitor the Bird's Nest injection formation pressure buildup.)
Standard Annulus Pressure	Injection well: Prior to authorization to inject and at least once every five years after the last successful demonstration of Part I Mechanical Integrity.
Step Rate Test	Injection well: Prior to receiving authorization to commence injection.

APPENDIX C

OPERATING REQUIREMENTS

MAXIMUM ALLOWABLE INJECTION PRESSURE:

Maximum Allowable Injection Pressure (MAIP) as measured at the surface shall not exceed the pressure(s) listed below.

	MAXIMUM ALLOWED INJECTION PRESSURE (psi)
WELL NAME	ZONE 1 (Upper)
NBU 921-35J SWD	460

INJECTION INTERVAL(S):

Injection is permitted only within the approved injection interval listed below. Injection perforations may be altered provided they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6. Specific injection perforations can be found in Appendix A.

WELL NAME: NBU 921-35J SWD

	APPROVED INJECTION INTERVAL (KB, ft)		FRACTURE GRADIENT
FORMATION NAME	TOP	BOTTOM	(psi/ft)
Green River - Bird's Nest	1,580.00	1,890.00	0.732

ANNULUS PRESSURE:

The annulus pressure shall be maintained at zero (0) psi as measured at the wellhead. If this pressure cannot be maintained, the Permittee shall follow the procedures listed under Part II, Section C. 6. of this permit.

MAXIMUM INJECTION VOLUME:

There is no limitation on the number of barrels per day (bbls/day) of water that shall be injected into this well, provided further that in no case shall injection pressure exceed that limit shown in Appendix C.

APPENDIX D

MONITORING AND REPORTING PARAMETERS

This is a listing of the parameters required to be observed, recorded, and reported. Refer to the permit Part II, Section D, for detailed requirements for observing, recording, and reporting these parameters.

OBSERVE WEEKLY AND RECORD AT LEAST ONCE EVERY THIRTY DAYS	
OBSERVE AND RECORD	Injection pressure (psig)
	Annulus pressure(s) (psig)
	Injection rate (bbl/day)
	Fluid volume injected since the well began injecting (bbls)

ANNUALLY	
ANALYZE	Injected fluid total dissolved solids (mg/l)
	Injected fluid specific gravity
	Injected fluid specific conductivity
	Injected fluid pH

ANNUALLY	
REPORT	Each month's maximum and averaged injection pressures (psig)
	Each month's maximum and minimum annulus pressure(s) (psig)
	Each month's injected volume (bbl)
	Fluid volume injected since the well began injecting (bbl)
	Written results of annual injected fluid analysis
	Sources of all fluids injected during the year

In addition to these items, additional Logging and Testing results may be required periodically. For a list of those items and their due dates, please refer to APPENDIX B - LOGGING AND TESTING REQUIREMENTS.

APPENDIX E

PLUGGING AND ABANDONMENT REQUIREMENTS

See diagram.

The well shall be plugged in a manner that isolates the injection zone and prevents movement of fluid into or between USDWs and in accordance with other applicable Federal, State, or local law or regulation. Tubing, packers, and any downhole apparatus shall be removed. Class A, C, G, and H cements, with additives such as accelerators and retarders that control or enhance cement properties, may be used for plugs. However, volume extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.2 lb/gal shall be placed between all plugs. Within 60 days after plugging, the owner or operator shall submit Plugging Record (EPA Form 7520-13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. At a minimum, the following plugs are required:

PLUG NO. 1: Set a Cast Iron Bridge Plug (CIBP) or a Cast Iron Cement Retainer (CICR) at a depth of 4742', which is approximately 50' below the top of the Wasatch Formation. Set a 100' cement plug on top of the CIBP/CICR, which allows the top of the plug to be set at 4642', which is approximately 50' above the top of the Wasatch

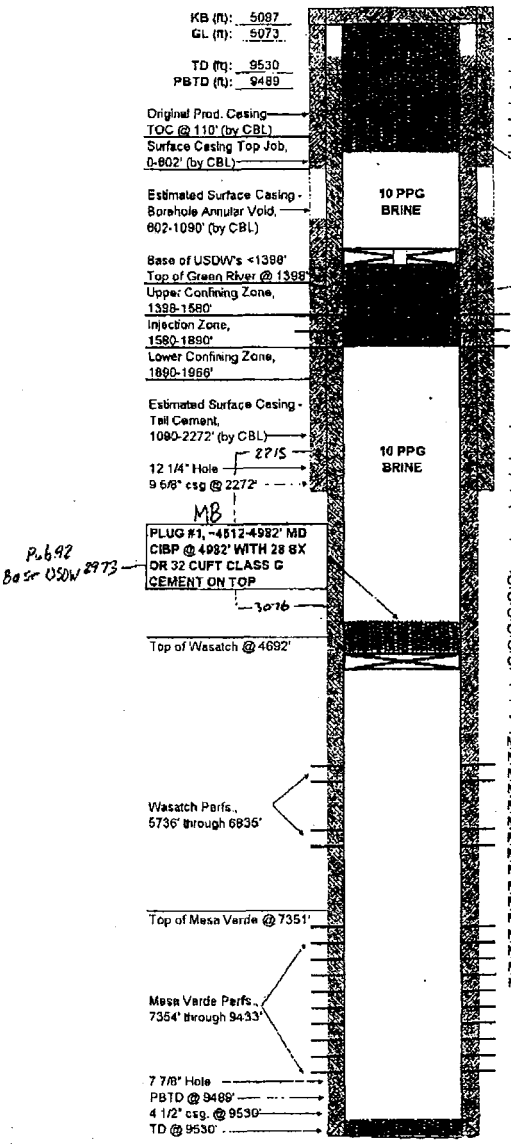
PLUG NO. 2: Set a CIBP or a CICR at a depth of 1944', which is approximately 50' below the open hole Bird's Nest injection interval. Set a 600' cement plug on top of the CIBP/CICR, which allows the top of the plug to be set at 1344', which is approximately 50' above the top of the Green River Formation.

PLUG NO. 3: Seal surface: Set a cement plug within the 4-1/2 inch casing to 500'.

NBU 921-35J SWD
UT 21189-08169

WELL:	NBU 921-35J	CNTY:	UINTAH	FT.:	1454' FSL 1481' FEL
FIELD:	NATURAL BUTTES	STATE:	UTAH	Q-Q:	NWSE
API #	43-047-38105			SEC.:	35
LEASE #:	ML-22582			TWS:	9S
EPA PERMIT #:				RGE:	21E

PROPOSED P&A'D WELLBORE DIAGRAM



P.692 Base USDW 2973

CASING RECORD

HOLE (in)	SIZE (in)	WT (lb/ft)	GRADE	TOP (ft)	BTM (ft)
12 1/4	9 5/8	32.3	H-40	0	2272
7 7/8	4 1/2	11.6	I-80	0	9530

PLUG #3, 0-500' WITH 114 SX OR 131 CUFT CLASS G CEMENT

PLUG #2, 1285-1890', CICR @ 1285' WITH 46 SX OR 53 CUFT CLASS G SQUEEZED BELOW

TUBING RECORD

SIZE (in)	WT (lb/ft)	GRADE	TOP (ft)	BTM (ft)

PERFORATION RECORD

ZONE	TOP (ft)	BTM (ft)	SPF	DATE SHOT	STATUS
Green River	1,590	1,596	4	--	Squeezed
Green River	1,634	1,648	4	--	Squeezed
Green River	1,724	1,756	4	--	Squeezed
Green River	1,762	1,804	4	--	Squeezed
Green River	1,830	1,854	4	--	Squeezed
Green River	1,858	1,884	4	--	Squeezed
Wasatch	5,736	5,740	4	03/21/07	CIBP-Excluded
Wasatch	5,748	5,755	4	03/21/07	CIBP-Excluded
Wasatch	6,502	6,508	4	03/21/06	CIBP-Excluded
Wasatch	6,830	6,835	4	03/21/06	CIBP-Excluded
Mesa Verde	7,354	7,359	4	03/21/06	CIBP-Excluded
Mesa Verde	7,387	7,390	4	03/21/06	CIBP-Excluded
Mesa Verde	7,639	7,642	4	03/21/06	CIBP-Excluded
Mesa Verde	7,805	7,809	4	03/21/06	CIBP-Excluded
Mesa Verde	7,906	7,911	4	03/21/06	CIBP-Excluded
Mesa Verde	8,105	8,107	4	03/21/06	CIBP-Excluded
Mesa Verde	8,263	8,266	4	03/21/06	CIBP-Excluded
Mesa Verde	8,434	8,440	4	03/21/06	CIBP-Excluded
Mesa Verde	8,755	8,759	3	03/21/06	CIBP-Excluded
Mesa Verde	8,858	8,860	4	03/21/06	CIBP-Excluded
Mesa Verde	8,995	8,997	4	03/21/06	CIBP-Excluded
Mesa Verde	9,107	9,109	4	03/21/06	CIBP-Excluded
Mesa Verde	9,234	9,236	3	03/20/06	CIBP-Excluded
Mesa Verde	9,332	9,334	4	03/20/06	CIBP-Excluded
Mesa Verde	9,383	9,388	4	03/20/06	CIBP-Excluded
Mesa Verde	9,429	9,433	3	03/20/06	CIBP-Excluded

UT 21189-08169

UT21189-08169_P&A.bmp

APPENDIX F

CORRECTIVE ACTION REQUIREMENTS

ANNUAL TEMPERATURE LOGGING FOR AOR WELLS (CIGE 133-35-9-2 and CIGE 28-35-9-21)

Wells within the Area of Review (AOR) that are shown in Appendix B1 were typically drilled and completed without running Cement Bond Logs (CBLs) to show the quality and top of cement behind the surface casing. For this reason, each well within Appendix B1 shall undergo annual temperature logging as proof that each well is completed in a manner that prevents fluids within the injection formation from migrating above or below the Bird's Nest through pathways behind the AOR well's surface casing.

These logs shall be submitted annually to the Director as part of the Annual Report.

If the results of Temperature logging shows any indication of Bird's Nest formation fluids moving out of zone, injection shall be shut-in and corrective action may be required in order to insure that Bird's Nests fluids remain within the Bird's Nest and do not migrate out of the approved injection zone.

STATEMENT OF BASIS

KERR-MCGEE OIL & GAS ONSHORE LP
NBU 921-35J SWD
UINTAH COUNTY, UT

EPA PERMIT NO. UT21189-08169

CONTACT: Bruce Suchomel
U. S. Environmental Protection Agency
Ground Water Program, 8P-W-GW
1595 Wynkoop Street
Denver, Colorado 80202-1129
Telephone: 1-800-227-8917 ext. 312-6001

This STATEMENT OF BASIS gives the derivation of site-specific UIC Permit conditions and reasons for them. Referenced sections and conditions correspond to sections and conditions in the Permit.

EPA UIC permits regulate the injection of fluids into underground injection wells so that the injection does not endanger underground sources of drinking water. EPA UIC permit conditions are based upon the authorities set forth in regulatory provisions at 40 CFR Parts 144 and 146, and address potential impacts to underground sources of drinking water. Under 40 CFR 144.35 Issuance of this permit does not convey any property rights of any sort or any exclusive privilege, nor authorize injury to persons or property of invasion of other private rights, or any infringement of other Federal, State or local laws or regulations. Under 40 CFR 144 Subpart D, certain conditions apply to all UIC Permits and may be incorporated either expressly or by reference. General Permit conditions for which the content is mandatory and not subject to site-specific differences (40 CFR Parts 144, 146 and 147) are not discussed in this document.

PART I. General Information and Description of Facility

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

on

April 1, 2008

submitted an application for an Underground Injection Control (UIC) Program Permit or Permit Modification for the following injection well or wells:

NBU 921-35J SWD
1454 FSL 1481 FEL, NWSE S35, T9S, R21E
Uintah County, UT

Regulations specific to Uintah-Ouray Indian Reservation injection wells are found at 40 CFR 147 Subpart TT.

The application, including the required information and data necessary to issue or modify a UIC Permit in accordance with 40 CFR Parts 144, 146 and 147, was reviewed and determined by EPA to be complete.

The Permit will expire upon delegation of primary enforcement responsibility (primacy) for applicable portions of the UIC Program to the Ute Indian Tribe or the State of Utah unless the delegated agency has the authority and chooses to adopt and enforce this Permit as a Tribal or State Permit.

TABLE 1.1 shows the status of the well or wells as "New", "Existing", or "Conversion" and for Existing shows the original date of injection operation. Well authorization "by rule" under 40 CFR Part 144 Subpart C expires automatically on the Effective Date of an issued UIC Permit.

TABLE 1.1

WELL STATUS / DATE OF OPERATION

CONVERSION WELLS

Well Name	Well Status	Date of Operation
NBU 921-35J SWD	Conversion	N/A

PART II. Permit Considerations (40 CFR 146.24)

Hydrogeologic Setting

THE UINTA FORMATION (0'-1398')

The Uinta Formation is calcareous shale, some limestone, claystone, siltstone, and sandstone. It is a fluvial facies in the eastern and western ends of the basin that interfingers with rocks similar in appearance to the overlying Duchesne River Formation. It grades laterally into thinner bedded calcareous lake deposits in the center of the basin.

The Uinta is very low to very high permeability. Largest primary intergranular permeability of the sandstone seems to be about the same as that of the median for sandstone in the Duchesne River Formation. Most of the formation is finer grained, and, therefore, of lower primary permeability than the Duchesne River Formation. Permeability is greatly increased where the Uinta Formation is fractured. In most of the area, the formation yields only a few gallons per minute of saline water to wells and springs. In some areas the water has high fluoride and boron concentrations. Locally, flowing wells yield fresh to slightly saline water. In the fluvial facies, particularly where the rocks are fractured, yields are larger.

THE GREEN RIVER FORMATION (1398'- 4692')

The Green River Formation is mostly lacustrine shale that contains some limestone, marlstone, and siltstone. The formation includes beds of oil shale and of carbonate evaporite. The Green River interfingers with both the overlying Uinta and the underlying Wasatch Formations, as well as laterally with other formations near the edges of the basin.

The Green River Formation is very low to low permeability except where fractured. Sandstones near oil-shale beds have values of transmissivity from 0.9 to 2.4 sq ft/day. In most of the basin the formation yields only saline or briny water, though in and near the areas of outcrop in the southern part of the basin the water is fresh to slightly saline, and in the area of the outcrop near Strawberry Reservoir the water is fresh where the formation is fractured.

BIRDS NEST MEMBER OF THE GREEN RIVER FORMATION (1580'-1890')

The Bird's Nest member (the proposed injection interval) occurs within the Green River formation. The Bird's Nest occurs at a depth between 1580'-1890' at the site of the injection well. The Bird's Nest consists of nahcolite nodules set in marlstone overlain by a zone of thin, brittle shale beds, and by a fine-grained homogeneous sandstone.

THE WASATCH FORMATION (4692'-7351')

In most of the basin, the Wasatch Formation is mainly lacustrine shale, sandstone, and conglomerate. It interfingers with the overlying and underlying formations and laterally with the North Horn, Currant Creek, and Green River Formations. The Wasatch outcrops only in the far eastern end of the northern Uinta Basin and in the canyons of deeply incised streams in the southern Uinta Basin.

The Wasatch Formation is very low to low permeability except where fractured. In the Greater Altamont-Bluebell oil field, the Wasatch sands reportedly have only 4 to 5 percent porosity, but are permeable because of fracturing. Much of the water produced with petroleum is moderately saline to very saline; generally, however, the water is less mineralized than is water from the Green River Formation.

THE MESAVERDE FORMATION (7351'-9530')

Continental deposits of shale, sandstone, and coal beds. Interfingers with the upper part of the underlying Mancos Shale and may interfinger with the overlying Currant Creek and North Horn Formations. Maximum thickness ranges from 550 to 4,000 feet in the western part of the basin and from 400 to 1,160 feet in the eastern part of the basin.

Very low to high permeability. In areas of outcrop, water in the formation is fresh to slightly saline, but samples of water from petroleum tests in the eastern part of the basin reportedly were very saline to briny.

(Reference: Base of Moderately Saline Ground Water in the Uinta Basin, UT. Technical Publication No.92; State of Utah-Department of Natural Resources; USGS Open File Report 87-394.)

Geologic Setting (TABLE 2.1)

TABLE 2.1
GEOLOGIC SETTING
NBU 921-35J SWD

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Lithology
Uintah	0	1,398	< 10,000	Calcerous shale, some limestone, claystone, siltstone, and sandstone.
Green River	1,398	4,692	> 10,000	Mostly lacustrine shale that contains some limestone, marlstone, and siltstone.
Mahogany Bench	2,215	3,076		Oil Shale.
Wasatch	4,692	7,351	3,000 - 35,000	Shale and claystone interbedded with conglomerate and sandstone.
Mesa Verde	7,351	9,530	> 10,000	Interbedded sandstone, siltstone, and shale with minor coal beds.

Proposed Injection Zone(s) (TABLE 2.2)

An injection zone is a geological formation, group of formations, or part of a formation that receives fluids through a well. The proposed injection zones are listed in TABLE 2.2.

Injection will occur into an injection zone that is separated from USDWs by a confining zone which is free of known open faults or fractures within the Area of Review.

The proposed injection into the Bird's Nest formation is of concern to nearby oil-shale mining interests in the area.

The Bird's Nest member of the Green River formation, proposed for injection, lies approximately 200 ft above the top of the Mahogany Shale formation. The Mahogany Shale is being proposed for oil-shale development in the vicinity of this injection well. Concerns have been raised regarding injection into the Bird's Nest and the effect of that injection on proposed oil-shale mining. Of

primary concern is the proximity of the Bird's Nest to the Mahogany shale, and the possibility of the injection causing water intrusion into the mine works.

Research conducted on this topic may be found in the report, "Final Environmental Baseline Report - Federal Prototype Oil Shale Leasing Program, Tracts U-a and U-b Utah, White River Shale Project," VTN Colorado, Inc., October 1977. This report, conducted in part to identify potential problems from adjacent aquifers on the proposed mining project, concludes that the "proposed mining program is not expected to create any interconnection between the bird's nest aquifer and the Douglas Creek member nor is it expected to create vertical flow from either aquifer into the mine workings. However, because of the lack of conclusive proof of the separation of aquifers, it would be advantageous to design an intensified monitoring program in the event that large flows are encountered in the workings."

"Providing that there are no subflows from the Bird's Nest aquifer into the workings, the only effect of development upon the movement of ground water and water level fluctuations will be during the sinking of the mine shaft through the bird's nest aquifer. Inflow to the shaft will be stopped as soon as practicable by cementing and casing as stipulated in the DDP. Inflows to the shaft will be temporary, as will be the effect upon water levels. Specific monitoring should not be necessary for this aspect of development."

Due to the high permeabilities found in the Bird's Nest, the injection wells operate on a vacuum during the early stages of the injection project life. Although each permit requires a well test designed to determine fracture pressures in the Bird's Nest, tests conducted on nearby Bird's Nest injection wells have been unable to build up pressure in the Bird's Nest needed to determine a fracture pressure.

In order to establish how the Bird's Nest reacts to injection, permit conditions will require the injection well to undergo monitoring of annual fluid levels. During these tests, the injection well is shut-in and the static fluid level is allowed to stabilize. After the fluid level has stabilized, the static fluid level is measured, cumulative injected volume determined, and the fluid in the well is sampled and analyzed for specific gravity in order to determine the pressure in the Bird's Nest. This information will be tracked year-to-year in order to show the buildup of pressure in the Bird's Nest and the relationship between that pressure and the cumulative volume of fluid injected into the disposal well.

Annually, and in conjunction with the Annual Report to the Director, the results of this monitoring shall be reported to the Director. This report shall include the results of the annual fluid level monitoring in order to determine how the Bird's Nest injection interval responds to the injected volumes.

The operator will collect a water sample from the injection zone and have a background analysis for hydrocarbon content prior to injection.

TABLE 2.2
INJECTION ZONES
NBU 921-35J SWD

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Fracture Gradient (psi/ft)	Porosity	Exempted?*
Green River - Bird's Nest	1,580	1,890	> 10,000	0.732		N/A

* **C - Currently Exempted**
E - Previously Exempted
P - Proposed Exemption
N/A - Not Applicable

Confining Zone(s) (TABLE 2.3)

A confining zone is a geological formation, part of a formation, or a group of formations that limits fluid movement above the injection zone. The confining zone or zones are listed in TABLE 2.3.

The upper confining zone is located between the depths of 1398' to 1580'. The upper confining zone consists of interbedded impermeable lacustrine shales, impermeable marlstones and low porosity siltstones. Density porosities in the siltstones (assuming 2.65 g/cc matrix density) range from 3 to 6%.

The lower confining zone is located between the depths of 1890' to 1966'. The lower confining zone consists of interbedded impermeable calcerous shales with minor amounts of low porosity siltstones. The lower confining zone is needed to protect the underlying Mahogany Shale.

TABLE 2.3
CONFINING ZONES
NBU 921-35J SWD

Formation Name	Formation Lithology	Top (ft)	Base (ft)
Green River - Upper Confining Zone	Mostly lacustrine shale that contains some limestone, marlstone, and siltstone.	1,398	1,580
Green River - Lower Confining Zone	Mostly lacustrine shale that contains some limestone, marlstone, and siltstone.	1,890	1,966

Underground Sources of Drinking Water (USDWs) (TABLE 2.4)

Aquifers or the portions thereof which contain less than 10,000 mg/l total dissolved solids (TDS) and are being or could in the future be used as a source of drinking water are considered to be USDWs. The USDWs in the area of this facility are identified in TABLE 2.4.

The location of USDWs has been predicted from the State of Utah Technical Publication No. 92 entitled "Base of Moderately Saline Ground Water in the Uinta Basin, Utah," U.S. Geologic Survey Open File Report 87-394. This prediction identified the depth of 2973' below the ground level as

the probable base of USDWs in the area, with the USDWs being interspersed above this base. The Bird's Nest exists within this area, however the operator has successfully shown that fluid samples within the Bird's Nest, though it lies within the Publication No. 92 identified area of USDWs, are above 10,000 mg/l for total dissolved solids..

TABLE 2.4
UNDERGROUND SOURCES OF DRINKING WATER (USDW)
NBU 921-35J SWD

Formation Name	Formation Lithology	Top (ft)	Base (ft)	TDS (mg/l)
Uintah (Tech Pub 92)	Calcerous shale, some limestone, claystone, siltstone, and sandstone.	0	2,973	< 10,000

PART III. Well Construction (40 CFR 146.22)

TABLE 3.1
WELL CONSTRUCTION REQUIREMENTS
NBU 921-35J SWD

Casing Type	Hole Size (in)	Casing Size (in)	Cased Interval (ft)	Cemented Interval (ft)
Tubing	7.88	2.38	0 - 9,530	-
Long String	7.88	4.50	0 - 9,530	110 - 9,530
Surface (tail job)	12.25	9.63	0 - 2,272	1,090 - 2,272
Surface (top job)	12.25	9.63	0 - 2,272	0 - 602

The approved well completion plan will be incorporated into the Permit as APPENDIX A and will be binding on the Permittee. Modification of the approved plan is allowed under 40 CFR 144.52(a)(1) provided written approval is obtained from the Director prior to actual modification.

Casing and Cementing (TABLE 3.1)

The construction plan for the well or wells proposed for conversion to an injection well was evaluated and determined to be in conformance with standard practices and guidelines that ensure well injection does not result in the movement of fluids into USDWs. Well construction and conversion details for the well or wells are shown in TABLE 3.1.

The cement bond log required as part of this permit will need to meet the requirements for establishing Part II Mechanical Integrity. For 5-1/2" pipe, guidelines require 80% or greater bonding for 18 continuous feet through the confining zone(s).

In the event that the cement bond log does not meet this threshold, the injection well will be required to perform periodic Radioactive Tracer Surveys and Temperature Logs to prove confinement of fluids within the injection interval (Part II Mechanical Integrity).

Tubing and Packer

Injection tubing is required to be installed from a packer up to the surface inside the well casing. The packer will be set above the uppermost perforation. The tubing and packer are designed to prevent injection fluid from coming into contact with the outermost casing.

Tubing-Casing Annulus (TCA)

The TCA allows the casing, tubing and packer to be pressure-tested periodically for mechanical integrity, and will allow for detection of leaks. The TCA will be filled with fresh water treated with a corrosion inhibitor or other fluid approved by the Director.

Monitoring Devices

The permittee will be required to install and maintain wellhead equipment that allows for monitoring pressures and providing access for sampling the injected fluid. Required equipment may include but is not limited to: 1) shut-off valves located at the wellhead on the injection tubing and on the TCA; 2) a flow meter that measures the cumulative volume of injected fluid; 3) fittings or pressure gauges attached to the injection tubing and the TCA for monitoring the injection and TCA pressure; and 4) a tap on the injection line, isolated by shut-off valves, for sampling the injected fluid.

All sampling and measurement taken for monitoring must be representative of the monitored activity.

PART IV. Area of Review, Corrective Action Plan (40 CFR 144.55)

Temperature Logging for Area of Review wells:

Although each of the wells in the area of review is shown to contain a volume of cement necessary to cover the Bird's Nest injection zone, cementing records indicate that routine problems have occurred while attempting to cement casing strings across the Bird's Nest. For wells designed with surface casing covering the Bird's Nest, a typical cement job involves pumping a volume of cement calculated to circulate cement to the surface. Once primary pumping is complete, pumping ceases and the level of the cement is monitored at the surface. While monitoring, cement typically falls back into the well, presumably into the Bird's Nest. Cement is then added to the annulus at the surface (top job) in several stages until the cement stops falling. Since surface casing strings are rarely logged with cement bond logging tools, there is no direct measurement of the quality of cement behind these casing strings.

In order to verify that these wells are cased and cemented in a manner to prevent fluid movement from the injection formation into USDWs, these Area of Review wells are required to undergo annual Temperature logging. Temperature logs will be conducted after the Area of Review wells are shut-in and the temperature in the wells is recovering to the background temperature. Review of the logging results will be performed to identify any Bird's Nest fluids which appear to be moving out of the Bird's Nest formation through channels behind casing. The results will be evaluated annually to determine if the requirement can be removed.

If the results of Temperature logging shows any indication of Bird's Nest formation fluids moving out of zone, injection shall be shut-in and corrective action performed to insure that Bird's Nests fluids will remain within the Bird's Nest and will not migrate into USDWs.

There are no gilsonite veins or drinking water wells in the nearby area.

The logging program requirements are discussed in the Permit in Appendix B - Logging and Testing Requirements, and in Appendix D - Monitoring and Reporting Parameters.

TABLE 4.1
AOR AND CORRECTIVE ACTION

Well Name	Type	Status (Abandoned Y/N)	Total Depth (ft)	TOC Depth (ft)	CAP Required (Y/N)
CIGE 133-35-9-2	Producer	No	6,065	1,494	Yes
CIGE 283	Producer	No	9,590	210	No
CIGE-NBU 28-35-9-21	Producer	No	6,061	1,500	Yes

TABLE 4.1 lists the wells in the Area of Review ("AOR") and shows the well type, operating status, depth, top of casing cement ("TOC") and whether a Corrective Action Plan ("CAP") is required for the well.

Area Of Review

Applicants for Class I, II (other than "existing" wells) or III injection well Permits are required to

identify the location of all known wells within the injection well's Area of Review (AOR) which penetrate the injection zone, or in the case of Class II wells operating over the fracture pressure of the formation, all known wells within the area of review that penetrate formations which may be affected by increased pressure. Under 40 CFR 146.6 the AOR may be a fixed radius of not less than one quarter (1/4) mile or a calculated zone of endangering influence. For Area Permits, a fixed width of not less than one quarter (1/4) mile for the circumscribing area may be used.

Corrective Action Plan

For wells in the AOR which are improperly sealed, completed, or abandoned, the applicant shall develop a Corrective Action Plan (CAP) consisting of the steps or modifications that are necessary to prevent movement of fluid into USDWs.

The CAP will be incorporated into the Permit as APPENDIX F and become binding on the permittee.

TABLE 4.1 lists the wells in the AOR, and shows the well type, operating status, depth, top of casing cement and whether a CAP is required for this well.

There is no corrective action being required prior to the well receiving authorization to begin injection.

Two of the Area of Review (AoR) wells require demonstration that fluid movement behind pipe is not occurring. This corrective action plan is incorporated into Appendix B. If the results of any of the temperature logging show any indication of Bird's Nest formation fluids moving out of zone, injection shall be shut-in and corrective action will be required in order to insure that Bird's Nest fluids remain within the Bird's Nest and do not migrate out of the improved injection zone.

PART V. Well Operation Requirements (40 CFR 146.23)

TABLE 5.1
INJECTION ZONE PRESSURES
NBU 921-35J SWD

Formation Name	Depth Used to Calculate MAIP (ft)	Fracture Gradient (psi/ft)	Initial MAIP (psi)
Green River - Bird's Nest	1,580	0.732	460

Approved Injection Fluid

The approved injection fluid is limited to Class II injection well fluids pursuant to 40 CFR § 144.6(b). For disposal wells injecting water brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production, the fluid may be commingled and the well used to inject other Class II wastes such as drilling fluids and spent well completion, treatment and stimulation fluid. Injection of non-exempt wastes, including unused fracturing fluids or acids, gas plant cooling tower cleaning wastes, service wastes, and vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt waste, is prohibited.

A random representative sample of the injection water will be collected annually at the sampling tap as described in the Permit under Part II Section A.3(a) and analyzed for hydrocarbon content.

In addition, upon completion of the new injection well and prior to receiving authorization to commence injection operations, a one time representative isolated sample of the injection zone formation water will be tested for naturally occurring hydrocarbons.

Pursuant to discussions between EPA, BLM, and the operator, a "Bird's Nest" specific water sampling procedure is required to test for the amount and types of hydrocarbons that will be injected into the Bird's Nest zone after treatment. The procedure in Permit Section C, Paragraph 5, describes how all water samples will be analyzed for hydrocarbon content.

This well is NOT approved for commercial brine injection, industrial waste fluid disposal or injection of hazardous waste as defined by CFR 40 Part 261. The source of the injected fluids is limited to oil and gas production wells operated by the permittee.

Injection Pressure Limitation

Injection pressure, measured at the wellhead, shall not exceed a maximum calculated to assure that the pressure used during injection does not initiate new fractures or propagate existing fractures in the confining zones adjacent to the USDWs.

Similar injection wells completed into the Bird's Nest have been unable to establish a fracture pressure. These wells initially take fluid on a vacuum, and pressure buildup within the Bird's Nest does not occur during the step-rate test. For that reason, the initial injection pressure is set at 460 psi (equivalent to a formation fracture gradient of 0.732 psi/ft). The 0.732 psi/ft, in comparison with other well-known formation fracture pressures in the Uinta basin, is sufficiently low to ensure that a 460 psi injection pressure is not likely to cause fractures within the Bird's Nest.

Since these wells initially operate on a vacuum, little is known about the Bird's Nest as an injection formation. The operator is required to monitor the pressure in the Bird's Nest annually by recording a stabilized static fluid level.

The results of this fluid level monitoring shall be reported to the Director as part of the required Annual Report.

The applicant submitted injection fluid density and injection zone data which was used to calculate a formation fracture pressure and to determine the maximum allowable injection pressure (MAIP), as measured at the surface, for this Permit.

TABLE 5.1 lists the fracture gradient for the injection zone and the approved MAIP, determined according to the following formula:

$$FP = [fg - (0.433 * sg)] * d$$

FP = formation fracture pressure (measured at surface)
fg = fracture gradient (from submitted data or tests)
sg = specific gravity (of injected fluid)
d = depth to top of injection zone (or top perforation)

Injection Volume Limitation

Cumulative injected fluid volume limits are set to assure that injected fluids remain within the boundary of the exempted area. Cumulative injected fluid volume is limited when injection occurs into an aquifer that has been exempted from protection as a USDW.

Mechanical Integrity (40 CFR 146.8)
An injection well has mechanical integrity if:

1. there is no significant leak in the casing, tubing, or packer (Part I); and
2. there is no significant fluid movement into a USDW through vertical channels adjacent to the injection well bore (Part II).

The Permit prohibits injection into a well which lacks mechanical integrity.

The Permit requires that the well demonstrate mechanical integrity prior to injection and periodically thereafter. A demonstration of mechanical integrity includes both internal (Part I) and external (Part II). The methods and frequency for demonstrating Part I and Part II mechanical integrity are dependent upon well-specific conditions as explained below.

PART VI. Monitoring, Recordkeeping and Reporting Requirements

Injection Well Monitoring Program
At least once a year the permittee must analyze a sample of the injected fluid for total dissolved solids (TDS), specific conductivity, pH, and specific gravity. This analysis shall be reported to EPA annually as part of the Annual Report to the Director. Any time a new source of injected fluid is added, a fluid analysis shall be made of the new source.

Possible conflict with oil-shale mining in the area:

The Bird's Nest member of the Green River formation, proposed for injection, lies approximately 200 ft above the top of the Mahogany Shale formation. The Mahogany Shale is being proposed for oil-shale development in the vicinity of this injection well. Concerns have been raised regarding injection into the Bird's Nest and the effect of that injection on proposed oil-shale mining. Of primary concern is the proximity of the Bird's Nest to the Mahogany shale, and the possibility of the injection increasing water intrusion into the mine works.

Research conducted on this topic may be found in the report, "Final Environmental Baseline Report - Federal Prototype Oil Shale Leasing Program, Tracts U-a and U-b Utah, White River Shale Project," VTN Colorado, Inc., October 1977. This report, conducted in part to identify potential problems from adjacent aquifers on the proposed mining project, concludes that the "proposed mining program is not expected to create any interconnection between the bird's nest aquifer and the Douglas Creek member nor is it expected to create vertical flow from either aquifer into the mine workings. However, because of the lack of conclusive proof of the separation of aquifers, it would be advantageous to design an intensified monitoring program in the event that large flows are encountered in the workings."

"Providing that there are no subflows from the bird's nest aquifer into the workings, the only effect of development upon the movement of ground water and water level fluctuations will be during the sinking of the mine shaft through the bird's nest aquifer. Inflow to the shaft will be stopped as soon as practicable by cementing and casing as stipulated in the DDP. Inflows to the shaft will be temporary, as will be the effect upon water levels. Specific monitoring should not be necessary for

this aspect of development."

Due to the high permeabilities found in the Bird's Nest, the injection wells operate on a vacuum during the early stages of the injection project life. Although each permit requires a well test designed to determine fracture pressures in the Bird's Nest, tests conducted on nearby Bird's Nest injection wells have been unable to build up pressure in the Bird's Nest to a degree needed to determine a fracture pressure.

In order to establish how the Bird's Nest reacts to injection, permit conditions require the injection well to undergo annual fluid level determinations. During these tests, the injection well is shut-in and the static fluid level allowed to stabilize. After the fluid level has stabilized, the static fluid level is measured, cumulative injected volume determined, and the fluid in the well is sampled and analyzed for specific gravity in order to determine the pressure in the Bird's Nest. This information will be tracked year-to-year in order to show the buildup of pressure in the Bird's Nest and the relationship between that pressure and the cumulative volume of fluid injected into the disposal well.

Annually, and in conjunction with the Annual Report to the Director, the results of this monitoring shall be reported to the Director. This report shall include the results of the annual fluid level monitoring in order to determine how the Bird's Nest injection interval responds to the injected volumes.

Temperature Logging at the location of the Area of Review wells:

In order to verify that these wells are cased and cemented in a manner to prevent fluid movement from the injection formation into USDWs, these Area of Review wells are required to undergo annual Temperature logging. Temperature logs will be conducted after the Area of Review wells are shut-in and the temperature in the wells is recovering to the background temperature. Review of the logging results will be performed to identify any Bird's Nest fluids which appear to be moving out of the Bird's Nest formation through channels behind casing.

If the results of Temperature logging shows any indication of Bird's Nest formation fluids moving out of zone, injection shall be shut-in and corrective action performed to insure that Bird's Nests fluids will remain within the Bird's Nest and will not migrate into USDWs.

The logging program requirements are discussed in the Permit in Appendix B - Logging and Testing Requirements, and in Appendix D - Monitoring and Reporting Parameters.

Instantaneous injection pressure, injection flow rate, cumulative fluid volume and TCA pressures must be observed on a weekly basis. A recording, at least once every thirty (30) days, must be made of the injection pressure, annulus pressure, monthly injection flow rate and cumulative fluid volume. This information is required to be reported annually as part of the Annual Report to the Director.

PART VII. Plugging and Abandonment Requirements (40 CFR 146.10)

Plugging and Abandonment Plan

Prior to abandonment, the well shall be plugged in a manner that isolates the injection zone and prevents movement of fluid into or between USDWs, and in accordance with any applicable Federal, State or local law or regulation. Tubing, packer and other downhole apparatus shall be removed. Cement with additives such as accelerators and retarders that control or enhance

cement properties may be used for plugs; however, volume-extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.6 lb/gal shall be placed between all plugs. A minimum 50 ft surface plug shall be set inside and outside of the surface casing to seal pathways for fluid migration into the subsurface. Within sixty (60) days after plugging the owner or operator shall submit Plugging Record (EPA Form 7520 13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. The plugging and abandonment plan is described in Appendix E of the Permit.

PART VIII. Financial Responsibility (40 CFR 144.52)

Demonstration of Financial Responsibility

The permittee is required to maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner prescribed by the Director. The permittee shall show evidence of such financial responsibility to the Director by the submission of a surety bond, or other adequate assurance such as financial statements or other materials acceptable to the Director. The Regional Administrator may, on a periodic basis, require the holder of a lifetime permit to submit a revised estimate of the resources needed to plug and abandon the well to reflect inflation of such costs, and a revised demonstration of financial responsibility if necessary. Initially, the operator has chosen to demonstrate financial responsibility with:

Financial Statement, received October 1, 2008.

Surety Bond, received September 22, 2008

Evidence of continuing financial responsibility is required to be submitted to the Director annually.

API Well No: 43047381050000

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

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-22582

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

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

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

9. API NUMBER: 43047381050000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1454 FSL 1481 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 35 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
✓ SUBSEQUENT REPORT Date of Work Completion: 4/26/2010	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

THE OPERATOR PREVIOUSLY SUBMITTED PLANS AND RECEIVED APPROVAL TO CONVERT THIS WELL TO A SWD WELL. PLANS HAVE CHANGED AND THIS WELL WILL NO LONGER BE CONVERTED TO AN SWD WELL AND WILL CONTINUE TO BE A PRODUCING WELL. INSTEAD, THE OPERATOR WILL PROPOSE THE DRILLING OF A NEW TWIN WELL THAT WILL BE UTILIZED AS A SWD WELL. AN APD WILL FOLLOW IN THE NEAR FUTURE.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

April 27, 2010

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 4/26/2010

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

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER:
ML-22582

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

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

2. NAME OF OPERATOR:
Kerr-McGee Oil & Gas Onshore, LP

9. API NUMBER:
43047381050000

3. ADDRESS OF OPERATOR:
PO Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217-3779

PHONE NUMBER:
720-929-6485

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
1454 FSL 1481 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NWSE Section: 35 Township: 9S Range: 21E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 10/29/2019	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	✓ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

Kerr-McGee Oil & Gas Onshore, LP respectfully requests to plug and abandon the Subject well. Please see the attached procedure for details. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: December 05, 2019

By: Ellis McJohnson

Please Review Attached Conditions of Approval

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Chelsie Pratt	435-781-9774	Regulatory
SIGNATURE		**DATE**
N/A		10/22/2019

RECEIVED: Oct. 22, 2019

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047381050000

1. Notify the Division at least 24 hours prior to conducting abandonment operations. Please call Bart Kettle at 435-820-0862.

2. All cement plugs must be of approved materials and mixed to provide acceptable compressive strength.

Plug #4: Move plug proposed at 3181' – 2971' to cover Parachute Creek bottom to 2832' – 2622'. Revised base of Parachute Creek at 2732' correlates to stratigraphic depth referenced in Rule R649-3-31.3. All other plugs shall be with volumes and placement depths as proposed in operator's submitted plan.

3. All balanced plugs shall be tagged to ensure that they are at the depths specified.

4. All annuli shall be cemented from a minimum depth of 100' to the surface.

5. Surface reclamation shall be done in accordance with R649-3-34 – Well Site Restoration.

6. All requirements in the Oil and Gas Conservation General Rule R649-3-24 shall apply.

7. If there are any changes to the procedure or the wellbore configuration, notify Dustin Doucet at 801-538-5281 (ofc) or 801-733-0983 (home) prior to continuing with the procedure.

8. All other requirements for notice and reporting in the Oil and Gas Conservation General Rules shall apply.

RECEIVED: Dec. 05, 2019

NBU 921-35J
1454' FSL & 1481' FEL
NWSE SEC. 35, T9S, R21E
UINTAH UT

KBE:	5097'	**API NUMBER:**	4304738105
GLE:	5073'	**LEASE NUMBER:**	STATE ML-22582
TD:	9530'	**LAT/LONG:**	39.989261/-109.514758
PBTD:	9469'		

CASING : 12.25" hole drilled to 2320'
SURFACE 9.625" 32.3# H-40 @ 2274' from GL plus 24' KB equals 2298'

7.875" hole drilled to 9530'
PRODUCTION 4.5" 11.6# I-80 8rd LTC @ 9514'
Est. TOC @ 116' CBL DATED 3/16/2007
Drilling report states 5 bbls of Lead cement to surface

PERFORATIONS: WASATCH-MESAVERDE TOP-BOTTOM 5736'-9433'
W (5736'-7390') MV (7639'-9433')

TUBING: 259 joints of 2.375" 4.7# J-55 tubing at 8364' (installed 12/10/2009)

Tubular/Borehole	ID inches	Drift inches	Collapse psi	Burst psi	Capacities		
					Gal./ft.	Cuft/ft.	Bbl./ft.
2.375" 4.7# J-55 tbg	1.995	1.901	8100	7700	0.1624	0.02171	0.00387
4.5" 11.6# I-80 csg	4	3.875	6350	7780	0.65282	0.08727	0.01554
9.625" 32.3# H-40 csg	9.001	8.845	1400	2270	3.30549	0.44188	0.0787

Annular Capacities	Gal./ft.	Cuft/ft.	Bbl./ft.
2.375" tbg. X 4.5" csg	0.42272	0.05651	0.01006
4.5" csg. X 9.625" 32.3# csg	2.47927	0.33143	0.05903
4.5" csg X 7.875 borehole	1.70406	0.2278	0.04057

GEOLOGIC INFORMATION:

Formation	**Depth to top, ft.**
Uinta	Surface
Top Green River	1420'
Top Mahogany	2214'
Base Parachute	3076'
Top Wasatch	4690'
Top Mesaverde	7417'

http://digitallibrary.utah.gov/awweb/awarchive?type=file&item=55737
BMSW Elevation ~3699' MSL
BMSW Depth ~1400'

BL 10/21/2019

RECEIVED: Oct. 22, 2019

NBU 921-35J PLUG & ABANDONMENT PROCEDURE

GENERAL

- H2S MAY BE PRESENT. CHECK FOR H2S AND TAKE APPROPRIATE PRECAUTIONS.
- BLOW DOWN BRADEN HEAD AND SURFACE CASING AS NEEDED AS PER SOP.
- CEMENT QUANTITIES BELOW ASSUME NEAT CLASS G, 15.8ppg, YIELD 1.145 CUFT/SX. IF A DIFFERENT PRODUCT IS USED, WELLSITE PERSONNEL ARE RESONSIBLE FOR CORRECTING QUANTITIES TO YIELD THE STATED SLURRY VOLUME.
- TREATED FRESH WATER WILL BE PLACED BETWEEN ALL PLUGS INSTEAD OF BRINE.
- ALL DISPLACEMENT FLUID SHALL CONTAIN CORROSION INHIBITOR AND BIOCIDE. PREMIX 5 GALLONS PER 100 BBLS FLUID AND IS TO BE PLACED BETWEEN ALL PLUGS.
- NOTIFY APPROPRIATE AGENCY 48 HOURS BEFORE MOVING ON LOCATION.

PERTINENT WELL HISTORY: 259 joints of 2.375" 4.7# J-55 tubing at 8364' (installed 12/10/2009)

PROCEDURE

Note: Approx. **123 SXS** Class "G" cement needed for procedure & **(2) 4.5" CIBP**

Note: YES GYRO ON RECORD. (IF GYRO NEEDED, A GPS READING WILL NEED TO BE TAKEN AT THE WELL SITE AND RECORDED IN OPENWELLS. PLEASE TAKE IT TO THE 6TH DECIMAL PLACE).

1. MIRU. KILL WELL AS NEEDED. ND WH, NU AND TEST BOPE.

2. SCAN OOH W/ TBG, & L/D BAD AND/OR UNNEEDED JOINTS. RU WIRELINE AND MAKE A GAUGE RING RUN TO CHECK FOR FILL PER FOREMAN DISCRETION.

PERFORATIONS					
Top	Btm	SPF	No. Holes	Diameter	Phasing
5736	5740	4	16	0.36	90
5748	5755	4	28	0.36	90
6502	6508	4	24	0.36	90
6830	6835	4	20	0.36	90
7354	7359	4	20	0.36	90
7387	7390	4	12	0.36	90
7639	7642	4	12	0.36	90
7805	7809	4	16	0.36	90
7905	7911	4	24	0.36	90
8105	8107	4	8	0.36	90
8263	8266	4	12	0.36	90
8434	8440	4	24	0.36	90
8755	8759	3	12	0.36	120
8856	8860	4	16	0.36	90
8995	8997	4	8	0.36	90
9107	9109	4	8	0.36	90
9234	9236	3	6	0.36	120
9332	9334	4	8	0.36	90
9383	9388	4	20	0.36	90
9429	9433	3	12	0.36	120

3. ISOLATE MV PERFORATIONS (7639'-9433'): RIH ON WIRELINE OR TUBING W/ 4.5" CIBP. SET @ ~7539', (100' above top perf at 7639'). SET A 227FT BALANCED CMT PLUG F/ 7539' to 7312'(18 SXS, 19.81 FT3, 3.53 BBLS). **NOTE: THIS PLUG COVERS/ISOLATES BOTH THE MV PERFS AND MV TOP WHICH IS AT 7417'. IT ALSO COVERS TWO SETS OF WASATCH PERFS AT 7354'-59' AND 7387'-90'.**

4. ISOLATE W PERFORATIONS (5736'-7390'): RIH ON WIRELINE OR TUBING W/ 4.5" CIBP. SET @ ~5686', (50' above top perf at 5736'). RELEASE CIBP, PUH 10', CIRC ENTIRE HOLE W/ TREATED FRESH WATER AND PRESSURE TEST CASING. SET A 105FT BALANCED CMT PLUG F/ 5686' to 5581'(8 SXS, 9.16 FT3, 1.64 BBLS).

RECEIVED: Oct. 22, 2019

5. PROTECT WASATCH TOP (4690'): PUH WITH TUBING AND PUMP A MINIMUM OF (210FT) CMT F/ 4795' to 4585' (16 SXS, 18.32 FT3, 3.27 BBLS).

6. PROTECT PARACHUTE BASE (3076'): PUH WITH TUBING AND PUMP A MINIMUM OF (210FT) CMT F/ 3181' to 2971' (16 SXS, 18.32 FT3, 3.27 BBLS).

7. PROTECT CASING SHOE (2298'): PUH WITH TUBING AND PUMP A MINIMUM OF (105FT) CMT F/ 2348' to 2243' (8 SXS, 9.16 FT3, 1.64 BBLS).

8. PROTECT GREEN RIVER (1420'): PUH WITH TUBING AND PUMP A MINIMUM OF (210FT) CMT F/ 1525' to 1315' (16 SXS, 18.32 FT3, 3.27 BBLS). **COMBINE WITH STEP 9 PLUG.**

9. PROTECT BMSW (1400'): PUH WITH TUBING AND PUMP A MINIMUM OF (210FT) CMT F/ 1505' to 1295' (16 SXS, 18.32 FT3, 3.27 BBLS). **COMBINE WITH STEP 8 PLUG. PLUG WILL GO FROM 1525' TO 1295' (230'). TOTAL VOLUME FOR COMBINED PLUGS IS: (18 SXS, 20.07 FT3, 3.57 BBLS)**

10. PROTECT SURFACE (105'): PUH WITH TUBING AND PUMP A MINIMUM OF (105 FT) CMT F/ 105'-0' (8 SXS, 9.16 FT3, 1.64 BBLS). POOH AND RUN 1 INCH TUBING DOWN THE PRODUCTION/SURFACE CASING ANNULUS TO AS DEEP AS POSSIBLE AND CEMENT TO SURFACE(31 SXS, 34.80 FT3, 6.20 BBLS).

11. CUT OFF WELLHEAD AND INSTALL MARKER PER REGULATIONS.

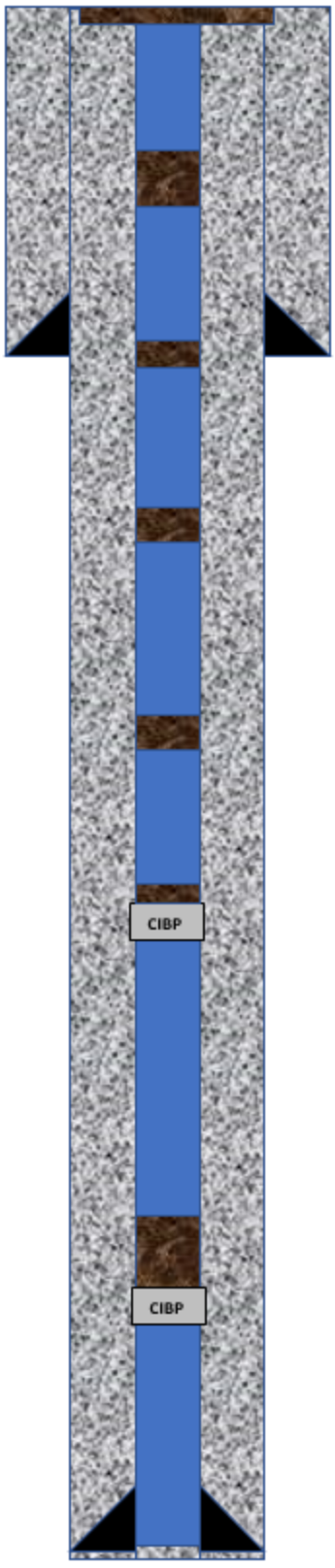
12. RDMO. TURN OVER TO OPERATIONS FOR SURFACE REHAB. SURFACE RECLAMATION TO BE PERFORMED IN ACCORDANCE TO REGULATIONS.

BL 10/21/2019

RECEIVED: Oct. 22, 2019

NBU 921-35J

Total SXS: 123, Total CIBP: 2



<- Plug for Surface inside 4.5" at 0' from 0' to 105' with 8 SXS,105 ft.
<- Plug for annular space from 0' to 105' with 31 SXS,105 ft.

<- TOC at 116'

<- **Combine two plugs into one plug from 1525' to 1295' with 18 SXS, 230 ft.**
<- Plug for BMSW at 1400' from 1505' to 1295' with 16 SXS,210 ft.
<- Plug for GreenRiver at 1420' from 1525' to 1315' with 16 SXS,210 ft.

<- Plug for Surface Shoe at 2298' from 2348' to 2243' with 8 SXS,105 ft.

<- Plug for Parachute Base at 3076' from 3181' to 2971' with 16 SXS,210 ft.

<- Plug for Wasatch at 4690' from 4795' to 4585' with 16 SXS,210 ft.

<- Plug above CIBP at 5686' from 5686' to 5581' with 8 SXS,105 ft.
<-CIBP Above Perfs at 5686'
<-Top W Perf at 5736'

<-**NOTE: THIS PLUG ISOLATES MV PERFS AND MV TOP AND TWO SETS OF WASATCH PERFS**
<- Plug above CIBP at 7539' from 7539' to 7312' with 18 SXS,227 ft.
<-CIBP Above Perfs at 7539'
<-Top MV Perf at 7639'

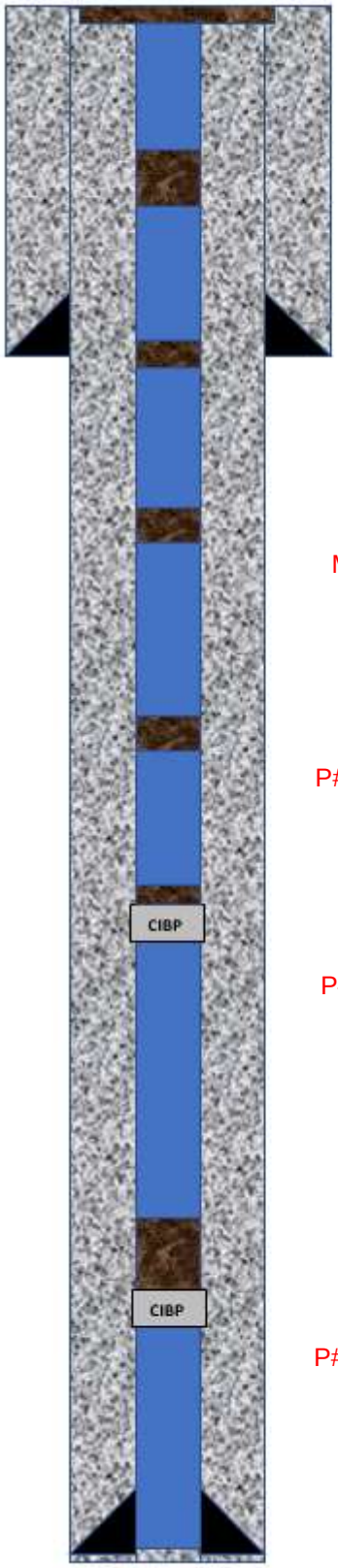
<-PBTD at 9469'
<- Production Casing Shoe at 9514'
<-TD at 9530'

BL 10/21/2019

RECEIVED: Oct. 22, 2019

NBU 921-35J

Total SXS: 123, Total CIBP: 2



<- Plug for Surface inside 4.5" at 0' from 0' to 105' with 8 SXS,105 ft.
<- Plug for annular space from 0' to 105' with 31 SXS,105 ft. OK
<- TOC at 116'

P#7: inside 4.5" 8 x 1.15 x 11.459 = 105' 105' - 0'
4.5" x 9.625" 31 x 1.15 x 3.017 = 107' 105' - 0'

<- Combine two plugs into one plug from 1525' to 1295' with 18 SXS, 230 ft.
<- Plug for BMSW at 1400' from 1505' to 1295' with 16 SXS,210 ft.
<- Plug for GreenRiver at 1420' from 1525' to 1315' with 16 SXS,210 ft. OK

P#6: 18 x 1.15 x 11.459= 237' 1525' - 1288'

<- Plug for Surface Shoe at 2298' from 2348' to 2243' with 8 SXS,105 ft.

P#5: 8 x 1.15 x 11.459= 105' 2348' - 2243' OK

Parachute Creek base at 2732'

<- Plug for Parachute Base at 3076' from 3181' to 2971' with 16 SXS,210 ft.

Move P#4 to 2832': 16 x 1.15 x 11.459 = 210' 2832' - 2622'

<- Plug for Wasatch at 4690' from 4795' to 4585' with 16 SXS,210 ft.

P#3: 16 x 1.15 x 11.459 = 210' 4795' - 4585' OK

<- Plug above CIBP at 5686' from 5686' to 5581' with 8 SXS,105 ft.
<-CIBP Above Perfs at 5686' OK
<-Top W Perf at 5736'

P#2: 8 x 1.15 x 11.459 = 105' 5686' - 5581'

<-NOTE: THIS PLUG ISOLATES MV PERFS AND MV TOP AND TWO SETS OF WASATCH PERFS
<- Plug above CIBP at 7539' from 7539' to 7312' with 18 SXS,227 ft.
<-CIBP Above Perfs at 7539' OK
<-Top MV Perf at 7639'

P#1: 18 x 1.15 x 11.459 = 237' 7539' - 7302'

<-PBTD at 9469'
<- Production Casing Shoe at 9514'
<-TD at 9530'

Capacity (ft/CF)
4.500 (11.6#) 11.459
4.500 x 9.625 3.017

BL 10/21/2019

RECEIVED: Dec. 05, 2019

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

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ML-22582

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

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

2. NAME OF OPERATOR: Kerr-McGee Oil & Gas Onshore, LP

9. API NUMBER: 43047381050000

3. ADDRESS OF OPERATOR: PO Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217-3779

PHONE NUMBER: 720-929-6485

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1454 FSL 1481 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSE Section: 35 Township: 9S Range: 21E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☑ SUBSEQUENT REPORT Date of Work Completion: 12/17/2019	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☑ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

Kerr McGee Oil & Gas Onshore has concluded the plug and abandonment operations on the subject well. Plugging Activities were Witnessed by: Richard Powell, State Representative GPS reading at wellhead: LAT 39.989261, LONG -109.514758 Please see the attached operations summary report for details. Please contact the undersigned with any questions and or comments. Thank you

February 24, 2020

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Chelsie Pratt	435-781-9774	Regulatory
SIGNATURE N/A		**DATE** 12/31/2019

RECEIVED: Dec. 31, 2019

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-35J		Spud date: 2/19/2007	
Project: UTAH-UINTAH	Site: NBU 921-35J		Rig name no.: Rig #1/1
Event: ABANDONMENT	Start date: 12/11/2019		End date: 12/17/2019
Active datum: RKB @5,098.99usft (above Mean Sea Level)	UWI: NBU 921-35J		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD from (usft)	Operation
12/13/2019	7:00 - 7:15	0.25	ABANDP	48		P		HSM/ JSA
	7:15 - 8:30	1.25	ABANDP	30	F	P		SICP 1300 PSI, CONTROL W/ 50 BBLS TMAC, NDWH, NUBOP.
	8:30 - 13:15	4.75	ABANDP	31	I	P		RU FLOOR & TBG EQUIP, MIRU SCANNERS, POOH SCAN 259 JTS TBG, 92 YELLOW BAND & 167 RED BAND, RD SCANNERS.
	13:15 - 17:00	3.75	ABANDP	31	G	P		PU 4 1/2" CICR, RIH W/ 142 JTS TBG, EOT @ 4558', SWI, DRAIN UP EQUIP, SDFWE.
12/16/2019	7:00 - 7:15	0.25	ABANDP	48		P		HSM/ JSA
	7:15 - 9:30	2.25	ABANDP	31	G	P		SICP 1250 PSI, CONTROL W/ 30 BBLS TMAC, CONT TO RIH W/ 94 JTS TBG (236 TOT), SET CICR @ 7532'.
	9:30 - 11:30	2.00	ABANDP	51	D	P		MIRU CEMENTERS, PUMP 18 SXS CMT 7532'- 7295'.
	11:30 - 14:00	2.50	ABANDP	31	I	P		LD 59 JTS TBG, STD BK 177 JTS.
	14:00 - 15:30	1.50	ABANDP	31	G	P		PU CICR RIH W/ 177 JTS TBG SET @ 5679'.
	15:30 - 17:00	1.50	ABANDP					CIRC CSG W/ 85 BBLS TMAC, PRESS TEST @ 750 PSI (GOOD). PUMP 8 SXS CMT, 5679'- 5574'. LD 28 JTS TBG, SWI DRAIN UP EQUIP, SDFN.
12/17/2019	7:00 - 7:15	0.25	ABANDP	48		P		HSM/ JSA
	7:15 - 16:30	9.25	ABANDP	51	D	P		SICP 0 PSI, PUMP 16 SXS CMT, 4790'- 4580'. LD 61 JTS TBG, PUMP 17 SXS CMT, 2841'- 2617'. LD 15 JTS TBG, PUMP 9 SXS CMT, 2359'- 2241'. LD 26 JTS TBG, PUMP 18 SXS CMT, 1525'- 1288'. LD 47 JTS TBG, RD FLOOR & TBG EQUIP, NDBOP, RDMO, DIG AROUND WELLHEAD & CUT OFF, PUMP 8 SXS CMT 105' - SURFACE IN 4 1/2" CSG & 35 SXS CMT 105'- SURFACE IN 4 1/2" X 8 5/8" ANNULUS , WELD ON MARKER PLATE, BACKFILL, MOVE RIG & EQUIP TO NATURAL COTTON 53-28, MIRU, SPOT EQUIP, SDFN. ALL CMT PUMPED CLASS G 15.8 PPG YEILD 1.15 CUFT/ SX, PUMPED 132 SXS TOTAL. STATE REP RICHARD POWELL GPS LAT 39.989261 LONG -109.514758

RECEIVED: Dec. 31, 2019

Division of Oil, Gas and Mining
Operator Change/Name Change Worksheet-for State use only

Effective Date: 6/30/2020

FORMER OPERATOR:	NEW OPERATOR:
Kerr-McGee Oil and Gas Onshore, L.P.	Caerus Uinta, LLC
Groups: 10/9/2020 sent list to operators to review.	

WELL INFORMATION:

Well Name	API Number	Town	Dir	Range	Dir	Sec	Entity Number	Type	Status
See Attached list									

see operator file

Total Well Count: 3508
Pre-Notice Completed: 11/10/2020

OPERATOR CHANGES DOCUMENTATION:

1. Sundry or legal documentation was received from the **FORMER** operator on: 8/11/2020
2. Sundry or legal documentation was received from the **NEW** operator on: 8/11/2020
3. New operator Division of Corporations Business Number: 11801118-0161

REVIEW:

Receipt of Acceptance of Drilling Procedures for APD on: 10/16/2020
Reports current for Production/Disposition & Sundries: 11/10/2020
OPS/SI/TA well(s) reviewed for full cost bonding: Approved by Dustin 11/9/2020
UIC5 on all disposal/injection/storage well(s) Approved on: Approved by Dayne 10/16/2020
Surface Facility(s) included in operator change:

East Bench
Archie Bench
Bonanza
Bridge
Goat Pasture
Goat Pasture Manifold
Morgan State 921-36P
Morgan States
NBU 1022-14B
NBU 921-25A
NBU 922-29J
NBU 922-32N
Pipeline
Sage Grouse
Sand Wash

NEW OPERATOR BOND VERIFICATION:

State/fee well(s) covered by Bond Number(s): 6135000111
LPM9344488-Shut-In Bond

DATA ENTRY:

Well(s) update in the RBDMS on: 11/19/2020
Group(s) update in RDBMS on: 11/19/2020
Surface Facilities update in RBDMS on: 11/19/2020
Entities Updated in RBDMS on: 11/19/2020

COMMENTS: Shut-In Wells that were reviewed.
CIGE 236 4304732861
CIGE 42 4304730492
CIGE 55 4304730512
Love 1121-16N 4304736256
Morgan State 16-36 4304733093
NBU 341-29E 4304733055
NBU 691-29E 4304750027
NBU 921-33F 4304736391
NBU 99 4304731745
Ouray SWD 1 4304733449
State 1022-32O 4304735315
State 921-32M 4304734872

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

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5. LEASE DESIGNATION AND SERIAL NUMBER: U-02278-ST

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: CIGE 20

2. NAME OF OPERATOR: CAERUS UINTA LLC

9. API NUMBER: 43047304850000

3. ADDRESS OF OPERATOR: 1001 17TH ST. STE 1600 CITY DENVER STATE CO ZIP 80202

PHONE NUMBER: 303-565-4600

10. FIELD AND POOL, OR WILDCAT:

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 1162 FSL 1365 FWL

COUNTY: UINTAH

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 20 10S 21E S

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start: 06/30/2020	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☑ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☒ OTHER: Transfer remediation liabilities
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

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

Effective June 30, 2020, operation of the following wells was taken over by:
Caerus Uinta LLC
1001 17th Street, Suite 1600
Denver, CO 80202
303-565-4600

The previous Operator was Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779

William C. Irons
Attorney-in-Fact

Please see the attached wells for a complete list that will be transferred upon approval. As the Attorney-in-Fact for Kerr-McGee Oil & Gas Onshore LP I ask that you accept this letter as Kerr-McGee's official resignation and request to transfer operating rights to Caerus Uinta LLC, whose operator number is 105039. UDOGM Bond# 6135000111 and BLM Bond# COB000387.

Kerr-McGee will be transferring cleanup/soils remediation to Caerus Uinta LLC for Incident #5772. The new contact for Caerus is Grizz Oleen, EHS Field Lead (435) 790-9669.

NAME (PLEASE PRINT) Aubree Besant TITLE Director of Land

SIGNATURE DATE

(This space for State use only)

APPROVED

By: Rachel Medina
Utah Division of
Oil, Gas, and Mining

RECEIVED

AUG 11 2020

DIV OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

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

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER: U-02278-ST	
SUNDRY NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER	8. WELL NAME and NUMBER: CIGE 20
2. NAME OF OPERATOR: CAERUS UINTA LLC	9. API NUMBER: 43047304850000
3. ADDRESS OF OPERATOR: 1001 17TH ST. STE 1600 CITY DENVER STATE CO ZIP 80202 — PHONE NUMBER: 303-565-4600	10. FIELD AND POOL, OR WILDCAT:
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1162 FSL 1365 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SESW 20 10S 21E S	COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: 06/30/2020	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☑ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☒ OTHER: Transfer remediation liabilities
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

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

Effective June 30, 2020, operation of the following wells was taken over by:
Caerus Uinta LLC
1001 17th Street, Suite 1600
Denver, CO 80202
303-565-4600

The previous Operator was Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779

William C. Irons
Attorney-in-Fact

Please see the attached wells for a complete list that will be transferred upon approval. As the Attorney-in-Fact for Kerr-McGee Oil & Gas Onshore LP I ask that you accept this letter as Kerr-McGee's official resignation and request to transfer operating rights to Caerus Uinta LLC, whose operator number is 105039. UDOGM Bond# 6135000111 and BLM Bond# COB000387.

Kerr-McGee will be transferring cleanup/soils remediation to Caerus Uinta LLC for Incident #5772. The new contact for Caerus is Grizz Oleen, EHS Field Lead (435) 790-9669.

NAME (PLEASE PRINT) Aubree Besant TITLE Director of Land

SIGNATURE Aubree Besant DATE July 17, 2020

RECEIVED

(This space for State use only)

APPROVED

By: Rachel Medina
Utah Division of
Oil, Gas, and Mining

AUG 11 2020

DIV OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

KODA

October 2, 2025

Utah Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple
Suite 1210
Salt Lake City, UT 84116
Attn: MykelLynn Bryson

RE: Notice of Name Change – Caerus Uinta, LLC

To Whom It May Concern:

Effective September 1, 2025, Caerus Uinta, LLC has changed its name to **KODA GNB, LLC**. KODA Uinta, LLC remains a wholly owned subsidiary of KODA Holdings, LLC.

This is a name change only; there is no change to addresses, tax identification numbers, or bank accounts.

Enclosed for your processing and records are the following:

1. Delaware Secretary of State Name Change Certificate
2. Updated W9 showing name change
3. Name Change Rider B014249 - Blanket Bond
4. Name Change Rider 612418229 - Blanket Idle well Bond
5. Name Change Rider B013581 – Pipeline Pit 1 & 2
6. Name Change Rider B013582 – Bonanza Pit 1 & 2
7. Name Change Rider B013583 – Goat Pasture Pit 1 & 2

Please feel free to contact me at aly.schuster@kodares.com or 720-500-0140 should you have any questions or need any additional information.

Sincerely,
KODA GNB, LLC

Aly Schuster
Senior Landman

Enclosure

1401 Wynkoop St, Suite 300
Denver, CO 80202

owners@kodares.com | www.kodaresources.com

Delaware

The First State

I, CHARUNI PATIBANDA-SANCHEZ, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "CAERUS UINTA LLC", CHANGING ITS NAME FROM "CAERUS UINTA LLC" TO "KODA GNB, LLC", FILED IN THIS OFFICE ON THE TWENTY-NINTH DAY OF AUGUST, A.D. 2025, AT 9:14 O'CLOCK P.M.

C. P. Sanchez

Charuni Patibanda-Sanchez, Secretary of State

7877090 8100
SR# 20253839085

Authentication: 204623735
Date: 09-02-25

You may verify this certificate online at corp.delaware.gov/authver.shtml

State of Delaware
Secretary of State
Division of Corporations
Delivered 09:11 PM 08/29/2025
FILED 09:14 PM 08/29/2025
SR 20253839085 - File Number 7877090

STATE OF DELAWARE
CERTIFICATE OF AMENDMENT

1. Name of Limited Liability Company: Caerus Uinta LLC

2. The Certificate of Formation of the limited liability company is hereby amended as follows:

The name of the limited liability company is: KODA GNB, LLC.

IN WITNESS WHEREOF, the undersigned have executed this Certificate on the 29th day of August, A.D. 2025.

By: RH
Authorized Person(s)

Name: Ryan Midgett
Print or Type