

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

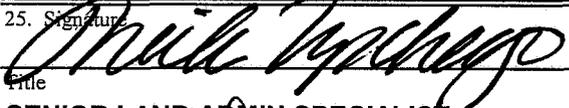
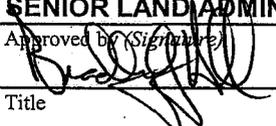
FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. <b>UTU-02278-A</b>
b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator <b>KERR MCGEE OIL &amp; GAS ONSHORE LP</b>		7. If Unit or CA Agreement, Name and No. <b>UNIT #891008900A</b>
3A. Address <b>1368 SOUTH 1200 EAST VERNAL, UT 84078</b>	3b. Phone No. (include area code) <b>(435) 781-7024</b>	8. Lease Name and Well No. <b>NBU 1021-23C</b>
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface <b>NE/NW 567' <del>502</del>, 2203' FWL 626 475X 39. 939252</b> At proposed prod. Zone <b>FNL 44218544 - 109. 519701</b>		9. API Well No. <b>43-047-39590</b>
14. Distance in miles and direction from nearest town or post office* <b>17.3 +/- MILES SOUTH OF OURAY, UTAH</b>		10. Field and Pool, or Exploratory <b>NATURAL BUTTES</b>
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>567'</b>	16. No. of Acres in lease <b>1040.00</b>	11. Sec., T., R., M., or Blk. and Survey or Area <b>SEC. 23, T10S, R21E</b>
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>REFER TO TOPO C</b>	17. Spacing Unit dedicated to this well <b>40.00</b>	12. County or Parish <b>UINTAH</b>
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>5265'GL</b>	19. Proposed Depth <b>9210'</b>	13. State <b>UTAH</b>
22. Approximate date work will start*		20. BLM/BIA Bond No. on file <b>BOND NO: WYB000291</b>
23. Estimated duration		

24. Attachments

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

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

25. Signature 	Name (Printed/Typed) <b>SHEILA UPCHEGO</b>	Date <b>8/15/2007</b>
Title <b>SENIOR LAND ADMIN SPECIALIST</b>		
Approved by (Signature) 	Name (Printed/Typed) <b>BRADLEY G. HILL</b>	Date <b>08-29-07</b>
Title <b>ENVIRONMENTAL MANAGER</b>		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

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

\*(Instructions on reverse)

Federal Approval of this  
Action is Necessary

RECEIVED  
AUG 21 2007  
DIV. OF OIL, GAS & MINING

# T10S, R21E, S.L.B.&M.

1977 Brass Cap  
Flush W/2.5' High  
Pile of Stones

N89°52'46"E - 2672.69' (Meas.)

N89°52'41"E - 2673.02' (Meas.)

1977 Brass Cap  
0.8' High Pile  
of Stones

1977 Brass Cap  
1.5' High Pile  
of Stones

NBU #1021-23C  
Elev. Ungraded Ground = 5266'

2203'

23

1977 Brass Cap  
0.5' High Pile  
of Stones

Brass Cap

1977 Brass Cap  
0.2' High Pile  
of Stones

1977 Brass Cap  
0.6' High Pile  
of Stones

N89°58'22"E - 2664.78' (Meas.)

N89°59'56"W - 2665.94' (Meas.)

1977 Brass Cap  
0.4' Above 2.0'  
High Pile of  
Stones

## LEGEND:

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

(NAD 83)  
LATITUDE = 39°56'21.31" (39.939253)  
LONGITUDE = 109°31'13.58" (109.520439)  
(NAD 27)  
LATITUDE = 39°56'21.43" (39.939286)  
LONGITUDE = 109°31'11.11" (109.519753)

## Kerr McGee Oil & Gas Onshore LP

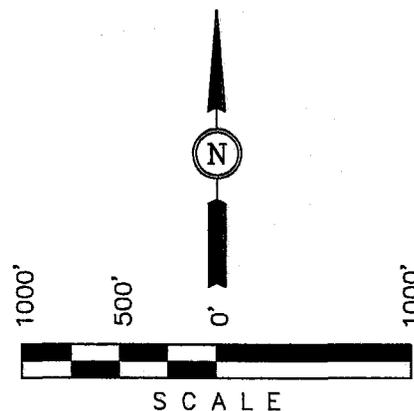
Well location, NBU #1021-23C, located as shown in the NE 1/4 NW 1/4 of Section 23, T10S, R21E, S.L.B.&M. Uintah County, Utah.

### 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, UTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5238 FEET.

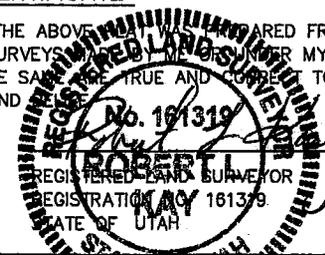
### BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



### CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE IS A TRUE AND CORRECT COPY OF THE ORIGINAL AS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



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

SCALE 1" = 1000'	DATE SURVEYED: 10-18-06	DATE DRAWN: 10-24-06
PARTY G.O. D.H. C.H.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE Kerr McGee Oil & Gas Onshore LP	

NBU #1021-23C  
NE/NW SEC 23, T10S, R21E  
UINTAH COUNTY, UTAH  
UTU-02278-A

ONSHORE ORDER NO. 1

***DRILLING PROGRAM***

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

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	1150'
Top of Birds Nest Water	1408'
Mahogany	2015'
Wasatch	4348'
Mesaverde	7075'
MVU2	8046'
MVL1	8613'
TD	9210'

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

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River	1150'
	Top of Birds Nest Water	1408'
	Mahogany	2015'
Gas	Wasatch	4348'
Gas	Mesaverde	7075'
Gas	MVU2	8046'
Gas	MVL1	8613'
Water	N/A	
Other Minerals	N/A	

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

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

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

*Please see the Natural Buttes Unit SOP.*

5. **Drilling Fluids Program:**

*Please see the Natural Buttes Unit SOP.*

6. **Evaluation Program:**

*Please see the Natural Buttes Unit SOP.*

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 9210' TD, approximately equals 5710 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 3684 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. **Anticipated Starting Dates:**

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

9. **Variances:**

*Please see Natural Buttes Unit SOP.*

10. **Other Information:**

*Please see Natural Buttes Unit SOP.*



# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE August 15, 2007  
 WELL NAME NBU 1021-23C TD 9,210' MD/TVD  
 FIELD Natural Buttes COUNTY Uintah STATE Utah ELEVATION 5,266' GL KB 5,281'  
 SURFACE LOCATION NE/NW SEC. 23, T10S, R21E 567'FNL, 2203'FWL BHL Straight Hole  
 Latitude: 39.939253 Longitude: 109.520439  
 OBJECTIVE ZONE(S) Wasatch/Mesaverde  
 ADDITIONAL INFO Regulatory Agencies: BLM (SURF & MINERALS), UDOGM, Tri-County Health Dept.

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
			12-1/4"	9-5/8", 32.3#, H-40, STC	Air mist
<p>Catch water sample, if possible, from 0 to 4,348'</p> <p style="margin-left: 40px;">Green River @ 1,150'</p> <p style="margin-left: 40px;">Top of Birds Nest Water @ 1408'</p> <p style="margin-left: 80px;">Preset f/ GL @ 2,000' MD</p> <p>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 actual depth of the loss zone.</p>					
	Mahogany @	2,015'			Water/Fresh Water Mud
<p>Mud logging program TBD</p> <p>Open hole logging program f/ TD - surf csg</p>			7-7/8"	4-1/2", 11.6#, I-80 or equivalent LTC casing	8.3-11.5 ppg
	Wasatch @	4,348'			
	Mverde @	7,075'			
	MVU2 @	8,046'			
	MVL1 @	8,613'			
		TD @ 9,210'			Max anticipated Mud required 11.5 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 2000	32.30	H-40	STC	0.65*****	1.46	4.49
PRODUCTION	4-1/2"	0 to 9210	11.60	I-80	LTC	2.23	1.15	201000

- 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 = 11.5 ppg) .22 psi/ft = gradient for partially evac wellbore
- (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)
- MASP 3481 psi
- \*\*\*\*\* Burst SF is low but csg is much stronger than formation at 2000'. EMW @ 2000' for 2270# is 21.8 ppg or 1.13 psi/ft

**CEMENT PROGRAM**

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE Option 1	LEAD	500	Premium cmt + 2% CaCl + .25 pps flocele	215	60%	15.60	1.18
	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt + 2% CaCl + .25 pps flocele	50		15.60	1.18
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
<b>NOTE: If well will circulate water to surface, option 2 will be utilized</b>							
SURFACE Option 2	LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite +.25 pps Flocele + 3% salt BWOC	170	35%	11.00	3.82
	TAIL	500	Premium cmt + 2% CaCl + .25 pps flocele	180	35%	15.60	1.18
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,840'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	420	60%	11.00	3.38
	TAIL	5,370'	50/50 Poz/G + 10% salt + 2% gel +.1% R-3	1500	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.

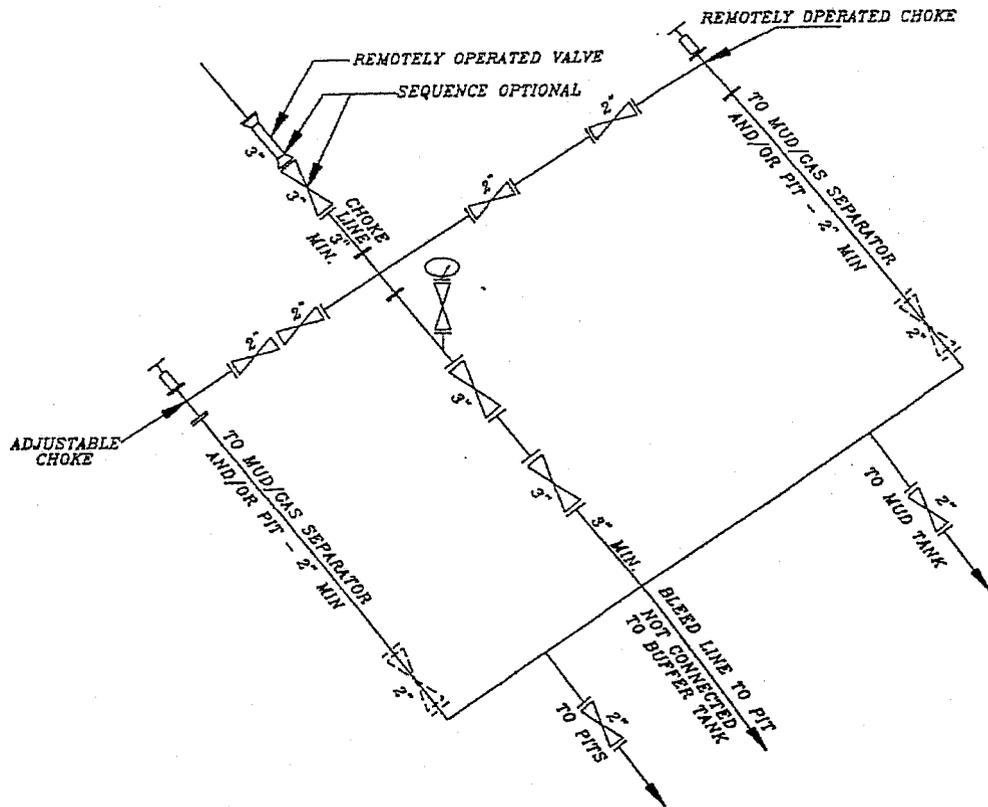
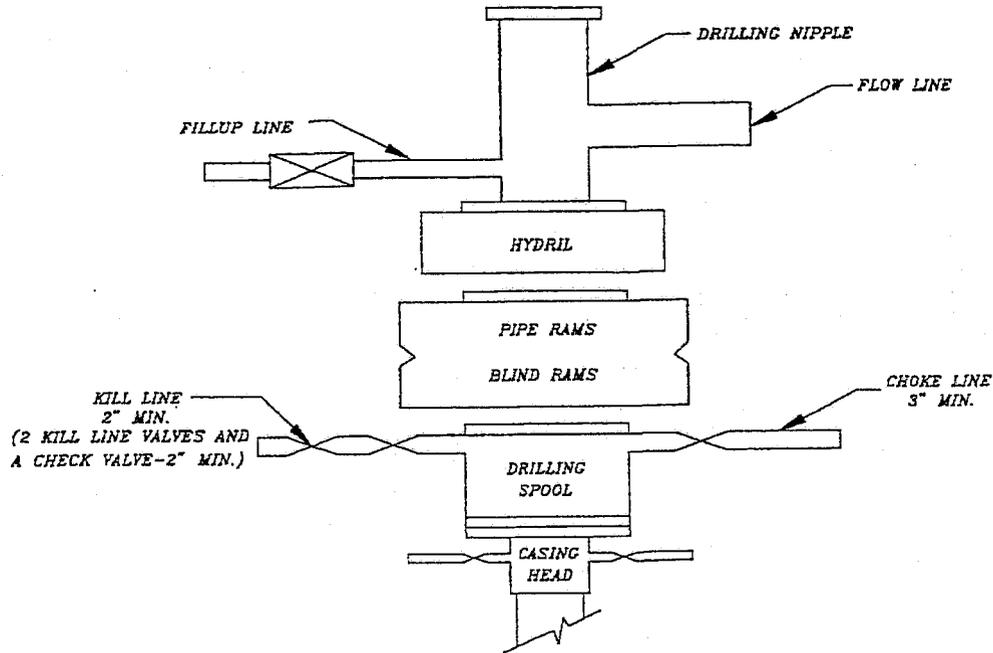
DRILLING ENGINEER: \_\_\_\_\_  
Brad Laney

DRILLING SUPERINTENDENT: \_\_\_\_\_  
Randy Bayne

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

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

# 5M BOP STACK and CHOKE MANIFOLD SYSTEM



NBU #1021-23C  
NE/NW SEC 23, T10S, R21E  
UINTAH COUNTY, UTAH  
UTU-02278-A

ONSHORE ORDER NO. 1

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

1. **Existing Roads:**

Refer to the attached location directions.

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

2. **Planned Access Roads:**

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

Approximately 50' +/- of access road is proposed.. Please refer to the attached Topo Map B.

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

Please refer to Topo Map C.

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

*Please see the Natural Buttes Unit SOP.*

Approximately 946' +/- of 4" steel pipeline is proposed pipeline. Please refer to the attached Please refer to Topo Map D

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

The pipeline shall be installed on surface within the access corridor for the well location. As a Best Management Practice (BMP), the pipeline would be buried within the access road corridor if possible. The construction of pipelines requires the corridor of 30 feet.

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

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

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

*Please see the Natural Buttes SOP.*

**6. Source of Construction Materials:**

*Please see the Natural Buttes SOP.*

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

*Please see the Natural Buttes SOP.*

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 (*Request is in lieu of filing Form 3160-5, after initial production*).

**8. Ancillary Facilities:**

*Please see the Natural Buttes SOP.*

**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.

A 20 mil reserve pit liner with felt will be used. As discussed at the on-site inspection.

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

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

*Please see the Natural Buttes SOP.*

When the pit is backfilled, the topsoil pile shall be spread on the location up to the rig anchor points. The location will be reshaped to the original contour to the extent possible. The following seed mixture will be used to reclaim the surface for interim reclamation using appropriate reclamation methods. A total of 12 lbs/acre will be used if the seeds are drilled (24 lbs/acre if the seeds are broadcast). The per acre requirements for *drilled* seed are:

Winterfat	8 lbs.
Galleta Grass	8 lbs.
Black Sagebrush	4 lbs

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

**11. Surface Ownership:**

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

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

**12. Other Information:****WILDLIFE STIPUATIONS:**

**ANTELOPE:** No construction or drilling activities May 15<sup>th</sup> – June 20<sup>th</sup>.

A Class III Archaeological Survey Report, has been performed and will be submitted when report becomes available.

The paleontological survey has been performed and will be submitted when report becomes available.

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 with the boundaries of the unit.

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

Sheila Ucphego  
Senior Land Admin Specialist  
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.

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

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

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by BLM Nationwide Bold #WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by the Operator, its contractors, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

  
Sheila Upchego

8/15/2007  
Date

# Kerr-McGee Oil & Gas Onshore LP

NBU #1021-23C

SECTION 23, T10S, 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; TURN LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 11.2 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 6.1 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE SOUTH; FOLLOW ROAD FLAGS IN A SOUTHERLY DIRECTION APPROXIMATELY 50' TO PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 48.3 MILES.

# Kerr-McGee Oil & Gas Onshore LP

NBU #1021-23C

LOCATED IN UINTAH COUNTY, UTAH  
SECTION 23, T10S, R21E, S.L.B.&M.

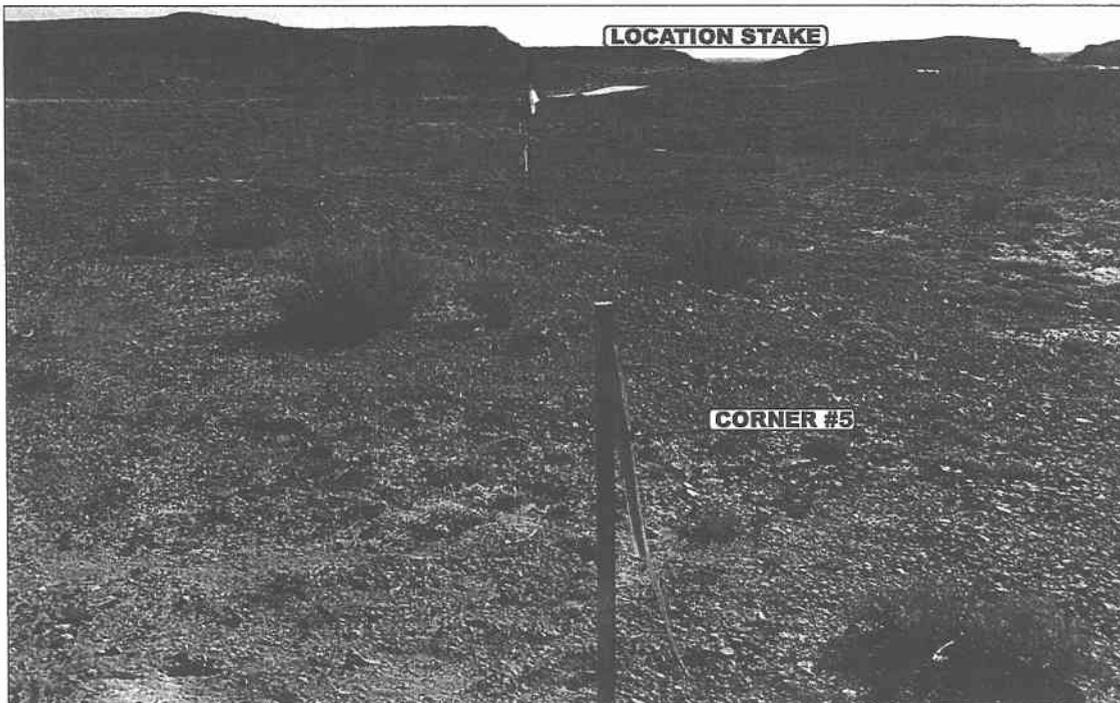


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: SOUTHEASTERLY

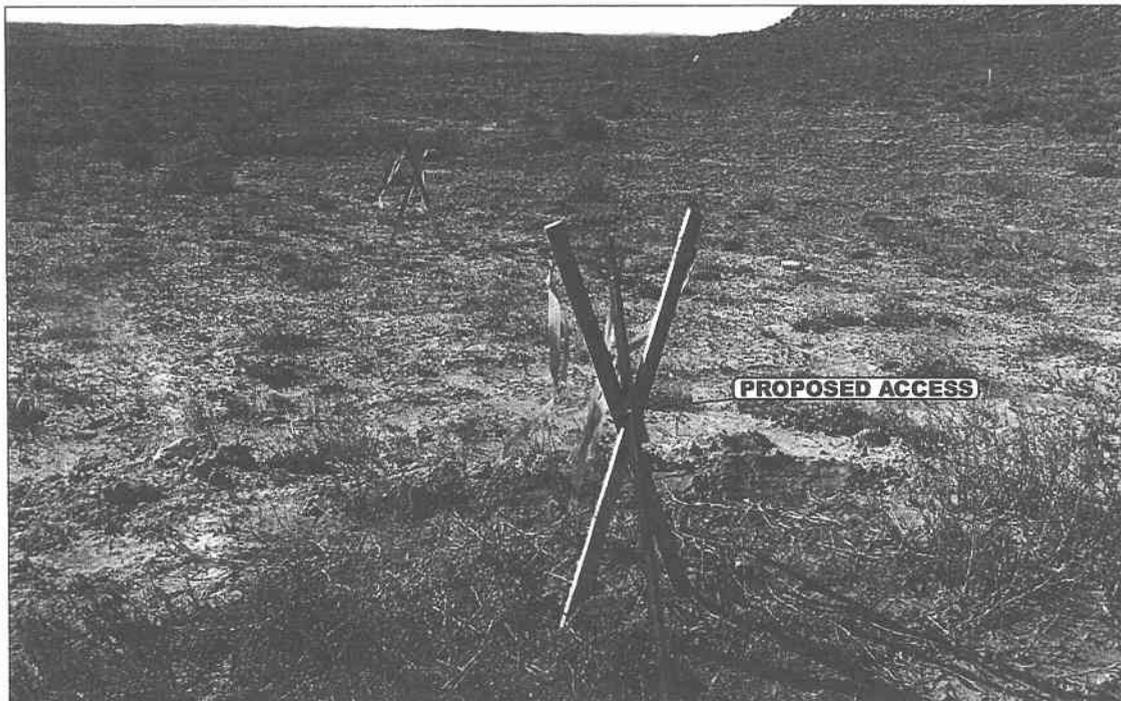


PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: SOUTHWESTERLY



- Since 1964 -

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

LOCATION PHOTOS

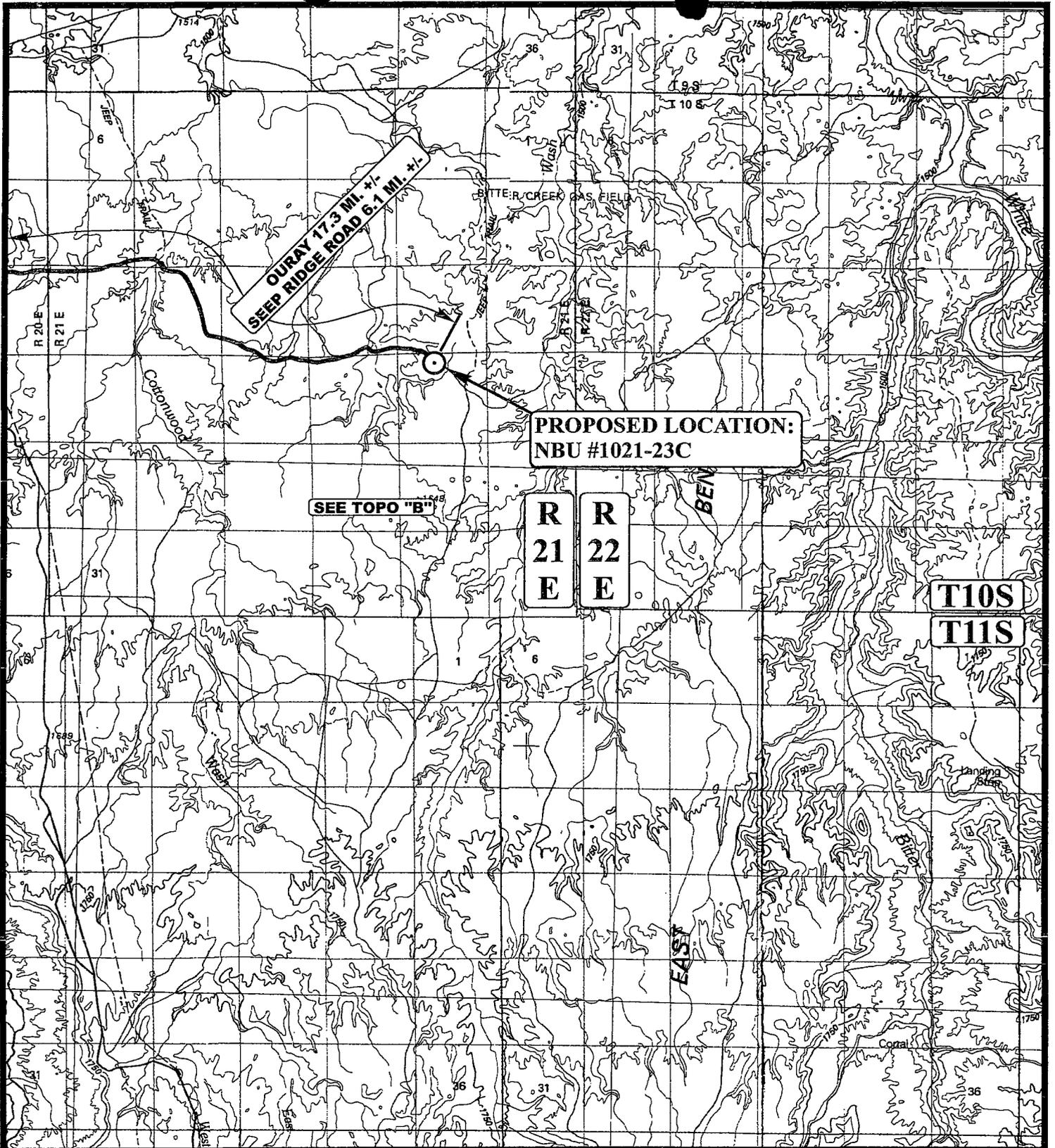
10 | 25 | 06  
MONTH | DAY | YEAR

PHOTO

TAKEN BY: L.K.

DRAWN BY: C.P.

REVISED: 00-00-00



**LEGEND:**

○ PROPOSED LOCATION

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

**NBU #1021-23C**

**SECTION 23, T10S, R21E, S.L.B.&M.**

**567' FNL 2203' FWL**



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

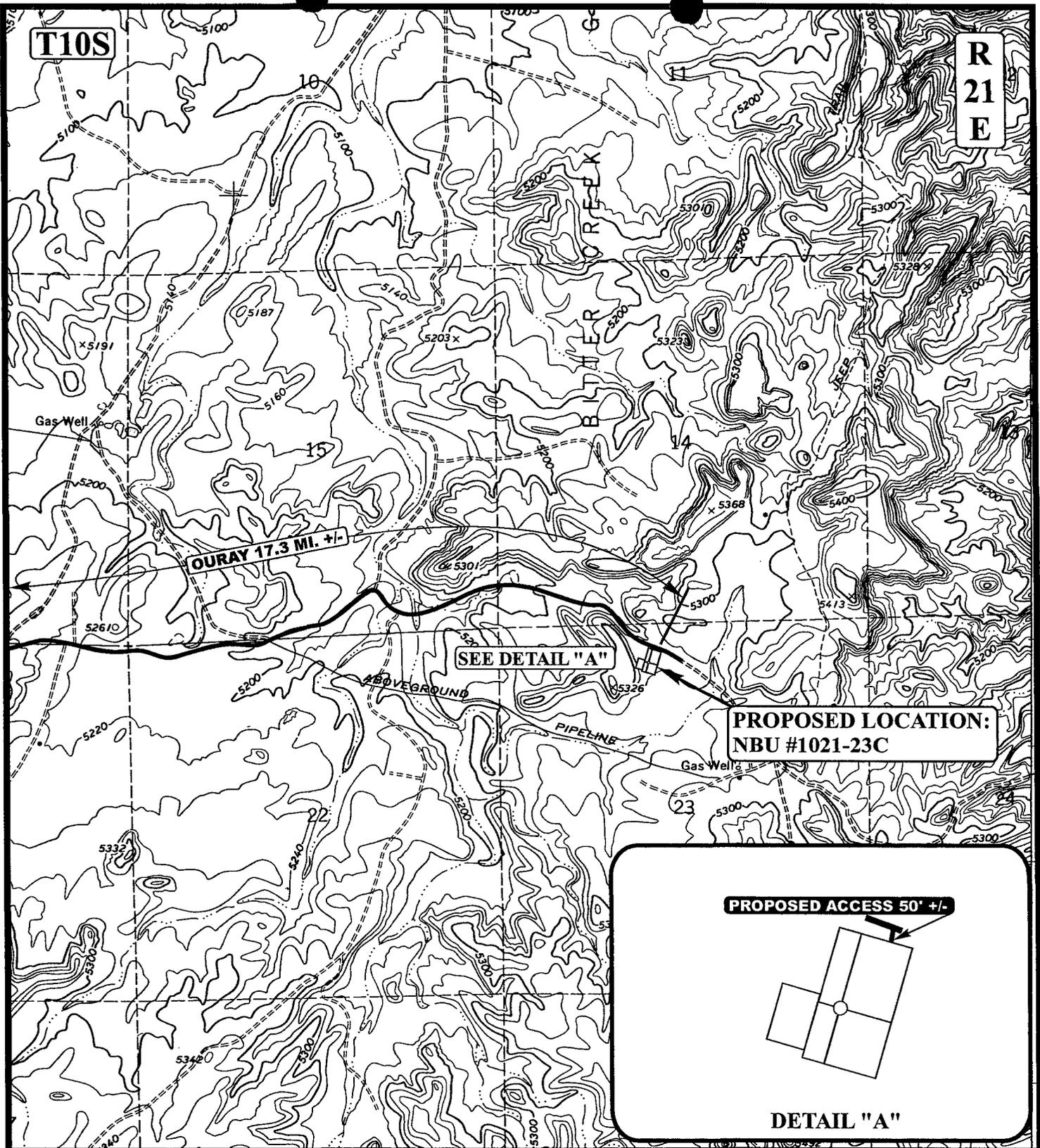


**TOPOGRAPHIC**  
**MAP**

<b>10</b>	<b>25</b>	<b>06</b>
MONTH	DAY	YEAR

**SCALE: 1:100,000** **DRAWN BY: C.P.** **REVISED: 00-00-00**





**LEGEND:**

- EXISTING ROAD
- PROPOSED ACCESS ROAD



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

**NBU #1021-23C**

**SECTION 23, T10S, R21E, S.L.B.&M.**

**567' FNL 2203' FWL**



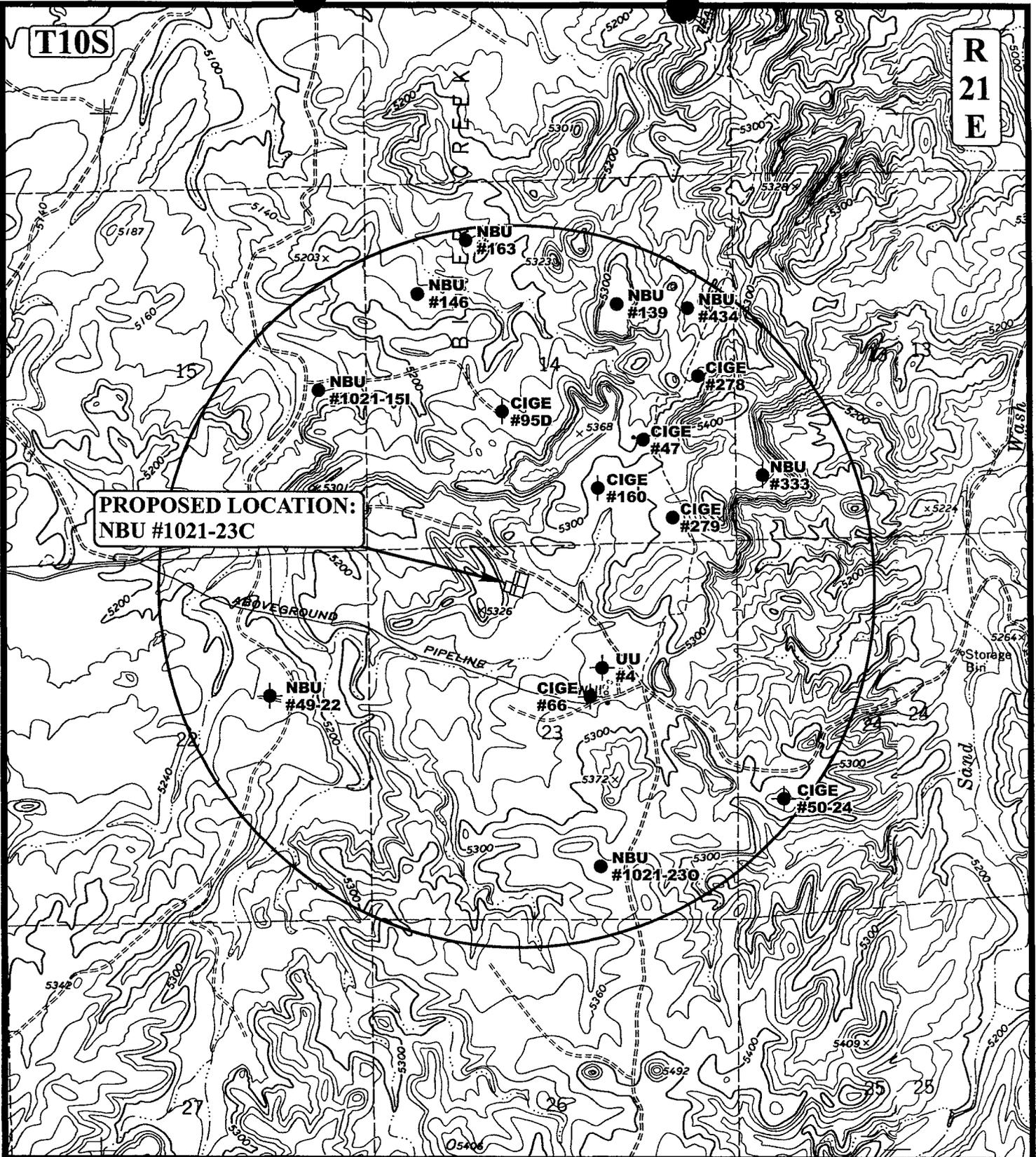
**Utah Engineering & Land Surveying**  
 85 South 200 East Vernal, Utah 84078  
 (435) 789-1017 \* FAX (435) 789-1813

**TOPOGRAPHIC**  
**MAP**

<b>10</b>	<b>25</b>	<b>06</b>
MONTH	DAY	YEAR

SCALE: 1" = 2000' DRAWN BY: C.P. REVISED: 00-00-00





**LEGEND:**

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

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

**NBU #1021-23C**  
**SECTION 23, T10S, R21E, S.L.B.&M.**  
**567' FNL 2203' FWL**

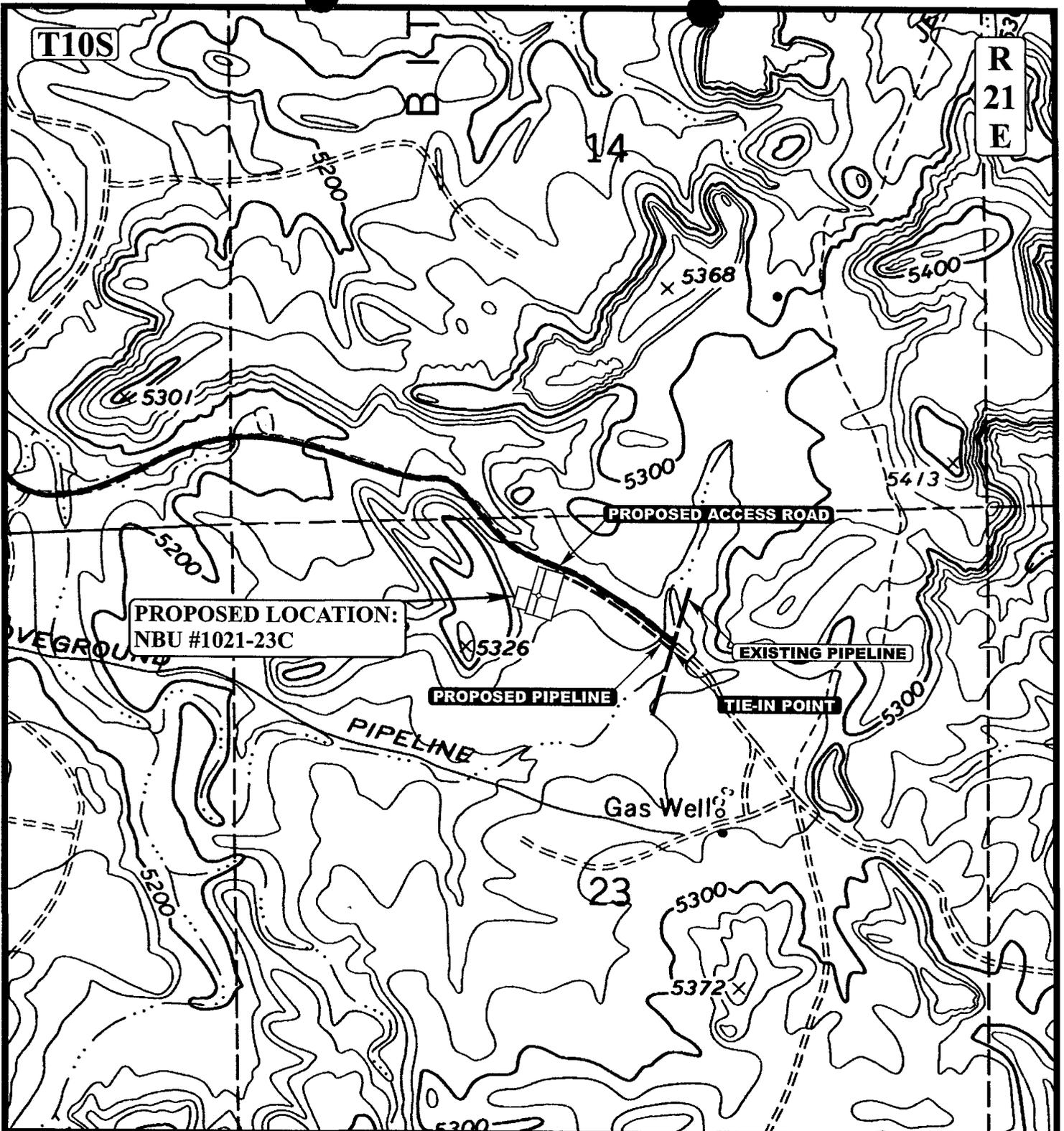


**Uintah Engineering & Land Surveying**  
 85 South 200 East Vernal, Utah 84078  
 (435) 789-1017 \* FAX (435) 789-1813



**TOPOGRAPHIC MAP** **10 25 06**  
 MONTH DAY YEAR  
 SCALE: 1" = 2000' DRAWN BY: C.P. REVISED: 00-00-00





APPROXIMATE TOTAL PIPELINE DISTANCE = 946' +/-

**LEGEND:**

-  PROPOSED ACCESS ROAD
-  EXISTING PIPELINE
-  PROPOSED PIPELINE



Kerr-McGee Oil & Gas Onshore LP

NBU #1021-23C

SECTION 23, T10S, R21E, S.L.B.&M.

567' FNL 2203' FWL



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

TOPOGRAPHIC  
 MAP

10	25	06
MONTH	DAY	YEAR

SCALE: 1" = 1000' DRAWN BY: C.P. REVISED: 00-00-00



# Kerr-McGee Oil & Gas Onshore LP

NBU #1021-23C

PIPELINE ALIGNMENT

LOCATED IN UINTAH COUNTY, UTAH

SECTION 23, T10S, R21E, S.L.B.&M.



PHOTO: VIEW FROM TIE-IN POINT

CAMERA ANGLE: NORTHWESTERLY

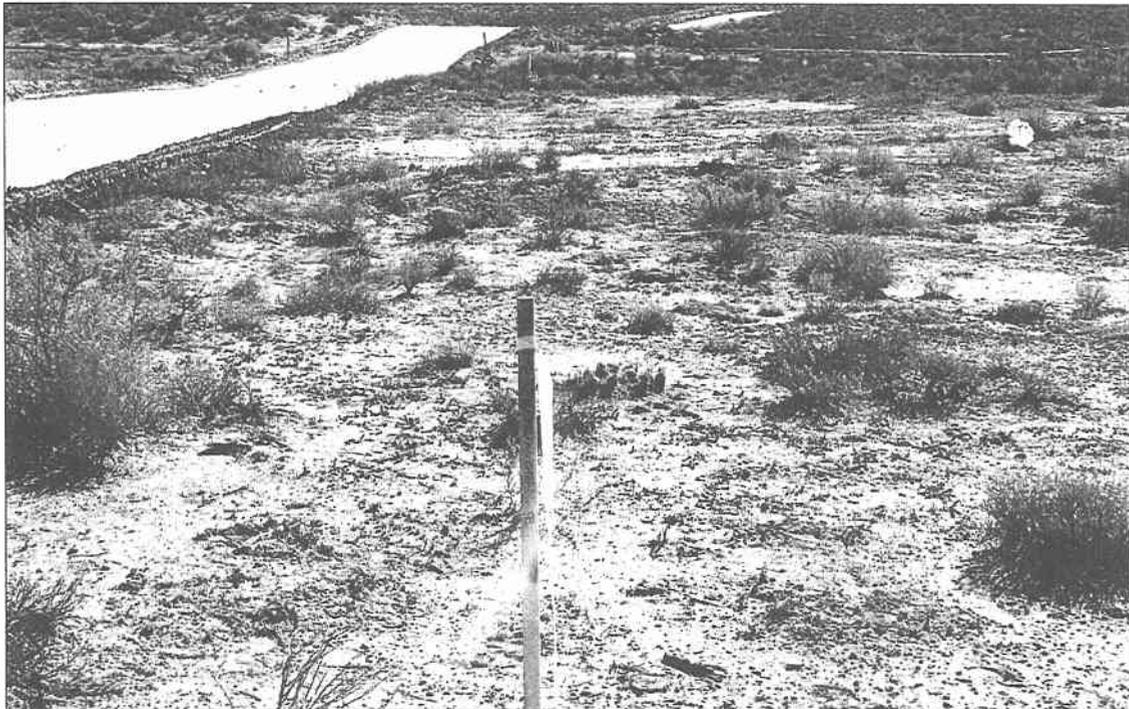


PHOTO: VIEW OF PIPELINE ALIGNMENT

CAMERA ANGLE: SOUTHEASTERLY



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

- Since 1964 -

PIPELINE PHOTOS

10 | 25 | 06  
MONTH | DAY | YEAR

PHOTO

TAKEN BY: L.K.

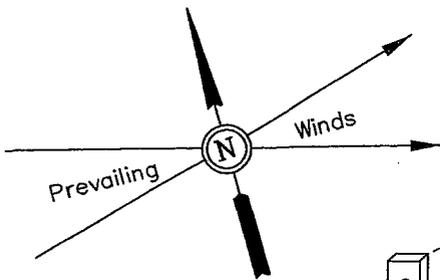
DRAWN BY: C.P.

REVISED: 00-00-00

# Kerr-McGee Oil & Gas Onshore LP

## LOCATION LAYOUT FOR

NBU #1021-23C  
SECTION 23, T10S, R21E, S.L.B.&M.  
567' FNL 2203' FWL

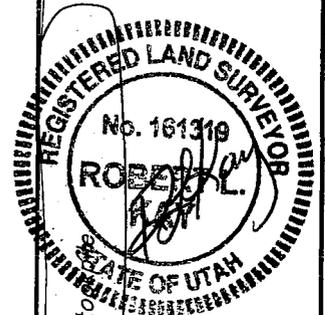


SCALE: 1" = 50'  
DATE: 10-26-06  
Drawn By: C.H.

Approx. Top of Cut Slope

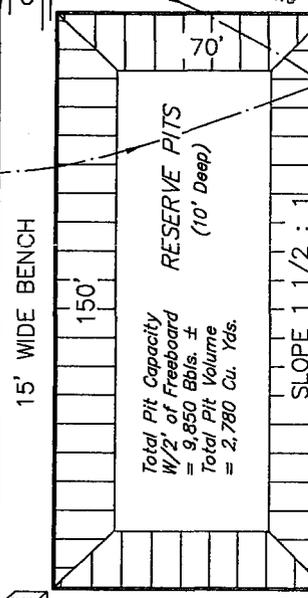
**NOTE:**

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



El. 74.3'  
C-19.3'  
(btm. pit)

Existing Drainage

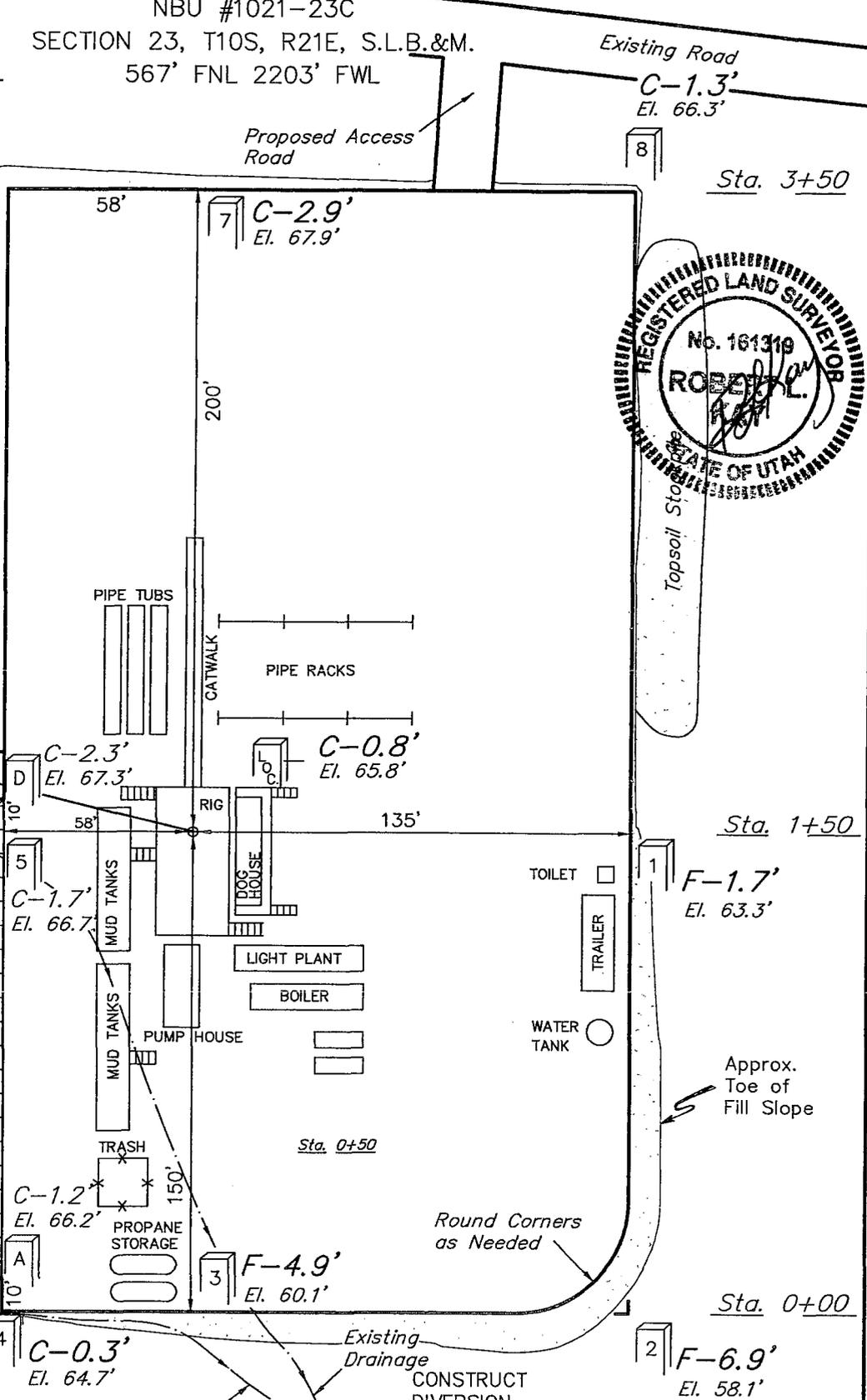


El. 76.7'  
C-21.7'  
(btm. pit)

**NOTES:**

Reserve Pit Backfill & Spoils Stockpile

Elev. Ungraded Ground At Loc. Stake = 5265.8'  
FINISHED GRADE ELEV. AT LOC. STAKE = 5265.0'



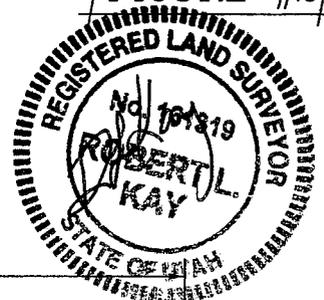
**FIGURE #1**

# Kerr-McGee Oil & Gas Onshore LP

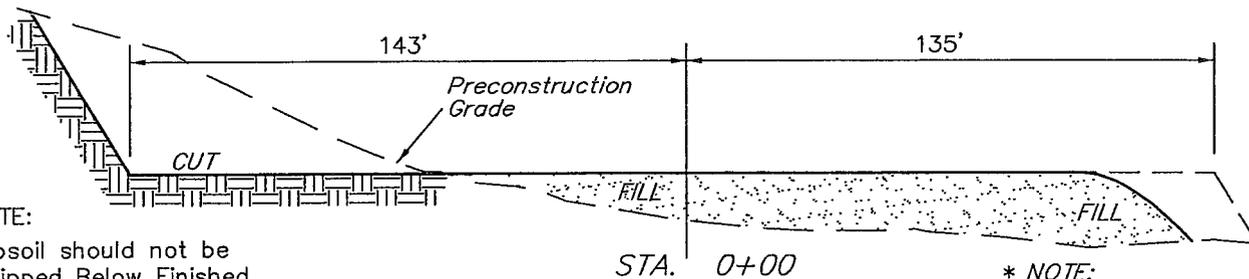
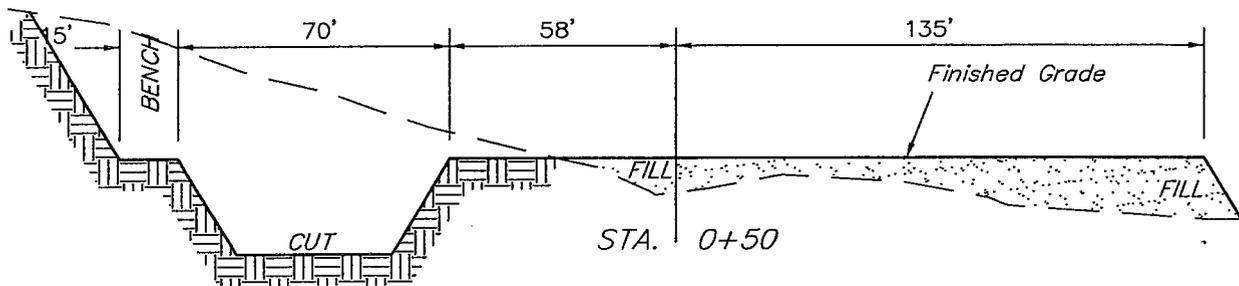
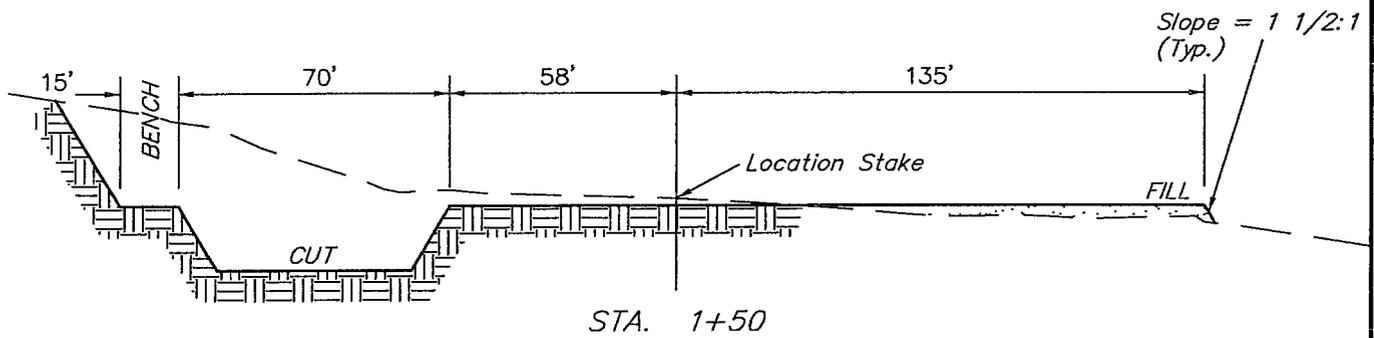
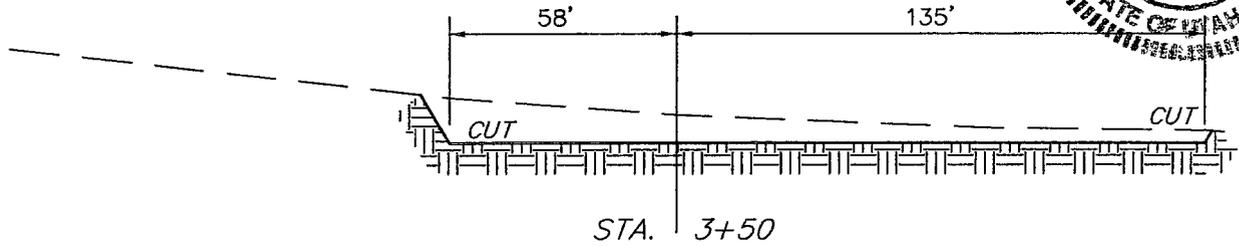
FIGURE #2

## TYPICAL CROSS SECTIONS FOR

NBU #1021-23C  
SECTION 23, T10S, R21E, S.L.B.&M.  
567' FNL 2203' FWL



1" = 20'  
X-Section Scale  
1" = 50'  
DATE: 10-26-06  
Drawn By: C.H.



NOTE:  
Topsoil should not be Stripped Below Finished Grade on Substructure Area.

\* NOTE:  
FILL QUANTITY INCLUDES 5% FOR COMPACTION

### APPROXIMATE YARDAGES

CUT	
(6") Topsoil Stripping	= 1,790 Cu. Yds.
Remaining Location	= 8,920 Cu. Yds.
<b>TOTAL CUT</b>	<b>= 10,710 CU.YDS.</b>
<b>FILL</b>	<b>= 4,270 CU.YDS.</b>

EXCESS MATERIAL	= 6,440 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 3,180 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	= 3,260 Cu. Yds.

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

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 08/21/2007

API NO. ASSIGNED: 43-047-39570

WELL NAME: NBU 1021-23C  
 OPERATOR: KERR-MCGEE OIL & GAS ( N2995 )  
 CONTACT: SHEILA UPCHEGO

PHONE NUMBER: 435-781-7024

PROPOSED LOCATION:

NEW 23 <sup>N</sup> 100S 210E  
 SURFACE: 0567 ~~FSL~~ 2203 FWL  
 BOTTOM: 0567 ~~FSL~~ 2203 FWL  
 COUNTY: UINTAH  
 LATITUDE: 39.92764 LONGITUDE: -109.5196  
 UTM SURF EASTINGS: 626505 NORTHINGS: 4420565  
 FIELD NAME: NATURAL BUTTES ( 630 )

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

LEASE TYPE: 1 - Federal  
 LEASE NUMBER: UTU-02278-A  
 SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: WSMVD  
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

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

LOCATION AND SITING:

- R649-2-3.
- Unit: NATURAL BUTTES
- R649-3-2. General
- Siting: 460 From Qtr/Qtr & 920' Between Wells
- R649-3-3. Exception
- Drilling Unit
  - Board Cause No: 173-14
  - Eff Date: 12-2-99
  - Siting: 460 fr U Ldry & UNCOMMON Tract
- R649-3-11. Directional Drill

COMMENTS:

*See separate file*

STIPULATIONS:

*1- Federal Approval  
2- OIL SHALE*



# 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)

August 29, 2007

Memorandum

To: Assistant District Manager Minerals, Vernal District  
From: Michael Coulthard, Petroleum Engineer  
Subject: 2007 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 2007 within the Natural Buttes Unit, Uintah County, Utah.

API#	WELL NAME	LOCATION
------	-----------	----------

(Proposed PZ Wasatch/MesaVerde)

43-047-39540	NBU 922-30L-T	Sec 30 T09S R22E 2106 FSL 0817 FWL
43-047-39542	NBU 1021-14B	Sec 14 T10S R21E 0439 FNL 2355 FEL
43-047-39543	NBU 1021-14F	Sec 14 T10S R21E 2404 FNL 2387 FWL
43-047-39544	NBU 1021-150	Sec 15 T10S R21E 1127 FSL 2304 FEL
43-047-39545	NBU 1021-15K	Sec 15 T10S R21E 2277 FSL 2041 FWL
43-047-39546	NBU 1021-15L	Sec 15 T10S R21E 2188 FSL 0783 FWL
43-047-39547	NBU 1021-15F	Sec 15 T10S R21E 2164 FNL 1915 FWL
43-047-39548	NBU 1021-15J	Sec 15 T10S R21E 2361 FSL 2372 FEL
43-047-39563	NBU 1021-15P	Sec 15 T10S R21E 1214 FSL 1262 FEL
43-047-39564	NBU 1021-22C	Sec 22 T10S R21E 0902 FNL 2194 FWL
43-047-39549	NBU 1021-22K	Sec 22 T10S R21E 2088 FSL 2006 FWL
43-047-39550	NBU 1021-22A	Sec 22 T10S R21E 0668 FNL 0469 FEL
43-047-39551	NBU 1021-22L	Sec 22 T10S R21E 2114 FSL 0725 FWL
43-047-39565	NBU 1021-22D	Sec 22 T10S R21E 0769 FNL 0641 FWL
43-047-39566	NBU 1021-22E	Sec 22 T10S R21E 2000 FNL 0860 FWL
43-047-39567	NBU 1021-23E	Sec 23 T10S R21E 2201 FNL 0846 FWL
43-047-39569	NBU 1021-23B	Sec 23 T10S R21E 0175 FNL 2391 FEL
43-047-39557	NBU 1021-23K	Sec 23 T10S R21E 2021 FSL 2152 FWL
43-047-39558	NBU 1021-23N	Sec 23 T10S R21E 0699 FSL 2196 FWL
43-047-39559	NBU 1021-23D	Sec 23 T10S R21E 0065 FNL 0460 FWL
43-047-39560	NBU 1021-23L	Sec 23 T10S R21E 2126 FSL 1227 FWL

✓ 43-047-39570 NBU 1021-23C Sec 23 T10S R21E 0567 FSL 2203 FWL  
43-047-39572 NBU 1021-23J Sec 23 T10S R21E 1906 FSL 2167 FEL  
43-047-39574 NBU 1021-23M Sec 23 T10S R21E 0233 FSL 0552 FWL  
43-047-39575 NBU 1021-25J Sec 25 T10S R21E 1621 FSL 1890 FEL  
43-047-39561 NBU 1021-25K Sec 25 T10S R21E 1848 FSL 2394 FWL  
43-047-39579 NBU 1021-26E Sec 26 T10S R21E 1706 FNL 0992 FWL  
43-047-39580 NBU 1021-26D Sec 26 T10S R21E 0695 FNL 0614 FWL  
43-047-39578 NBU 1021-25F Sec 25 T10S R21E 2477 FNL 2323 FWL  
43-047-39541 NBU 1021-3I Sec 03 T10S R21E 1371 FSL 1121 FEL

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

/s/ Michael L. Coulthard

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

MCoulthard:mc:8-29-07



JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil Gas and Mining

JOHN R. BAZA  
Division Director

August 29, 2007

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

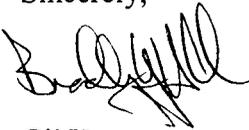
Re: NBU 1021-23C Well, 567' FNL, 2203' FWL, NE NW, Sec. 23, T. 10 South, R. 21 East, Uintah County, Utah

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 43-047-39570.

Sincerely,

  
for Gil Hunt  
Associate Director

pab  
Enclosures

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

Operator: Kerr-McGee Oil & Gas Onshore LP  
Well Name & Number NBU 1021-23C  
API Number: 43-047-39570  
Lease: UTU-02278-A

Location: NE NW                      Sec. 23              T. 10 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

Notify the Division within 24 hours of spudding the well.

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

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

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

3. Reporting Requirements

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

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

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



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Vernal Field Office

170 South 500 East

Vernal, UT 84078

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



IN REPLY REFER TO:

3160

UT08300

February 25, 2008

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

43-047-39570

Re: Well No. NBU 1021-23C  
NENW, Sec. 23, T10S, R21E  
Uintah County, Utah  
Lease No. UTU-02278-A  
Natural Buttes Unit

Dear Ms. White:

The Application for Permit to Drill (APD) the above referenced well submitted August 16, 2007, is being returned unapproved per your request to this office in an email message to Natural Resource Specialist Verlyn Pindell on February 13, 2008. If you intend to drill at this location at a future date, a new APD must be submitted.

If you have any questions regarding this matter, please contact me at (435) 781-4455.

Sincerely,

*Cindy Severson*

Cindy Severson  
Land Law Examiner

Enclosures

cc: UDOGM – Diana Mason

RECEIVED

MAR 10 2008

DIV. OF OIL, GAS & MINING



JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil Gas and Mining

JOHN R. BAZA  
Division Director

March 11, 2008

Raleen White  
Kerr McGee O&G Onshore LP  
1368 South 1200 East  
Vernal UT 84078

NBU 1021-23C  
43 047 39570  
10S 21E 23

Re: APDs Rescinded at the request of Kerr-McGee O&G Onshore LP

Dear Ms. White:

Enclosed find the list of APDs that you requested to be rescinded to Kerr-McGee O&G Onshore LP. No drilling activity at these locations has been reported to the division. Therefore, approval to drill these wells is hereby rescinded, effective March 10, 2008.

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

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

Sincerely,

  
Diana Mason  
Environmental Scientist

cc: Well File  
Bureau of Land Management, Vernal

Federal 920-35M  
Federal 1021-34L  
Federal 1021-34O  
Federal 1021-23I  
Federal 1021-23H  
NBU 1021-3I  
NBU 1021-6E  
NBU 1021-5MT  
NBU 1021-12M  
NBU 1021-12K  
NBU 1021-11J  
NBU 1021-11N  
NBU 1021-11O  
NBU 1021-14B  
NBU 1021-14F  
NBU 1021-15J  
NBU 1021-15K  
NBU 1021-15O  
NBU 1021-23C  
NBU 1021-23D  
NBU 1021-23E  
NBU 1021-23B  
NBU 1021-23J  
NBU 1021-23K  
NBU 1021-23N  
NBU 1021-23M  
NBU 1021-22E  
NBU 1021-22C  
NBU 1021-22L  
NBU 1021-22K  
NBU 1021-22D  
LOVE UNIT 1122-18F  
LOVE UNIT 1122-18O  
LOVE UNIT 1122-18N  
LOVE UNIT 1122-19F  
LOVE UNIT 1122-15J  
LOVE 1121-2B  
LOVE 1121-7J  
LOVE 1121-14J  
LOVE 1121-14L  
LOVE 1121-15J