

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

FORM 3

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL		1. WELL NAME and NUMBER NBU 1022-12F4CS
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>		3. FIELD OR WILDCAT NATURAL BUTTES
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO		5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. OPERATOR PHONE 720 929-6515
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217		9. OPERATOR E-MAIL julie.jacobson@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UT ST UO 01997-A ST	11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>	
12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>		13. NAME OF SURFACE OWNER (if box 12 = 'fee')
14. SURFACE OWNER PHONE (if box 12 = 'fee')		15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')
16. SURFACE OWNER E-MAIL (if box 12 = 'fee')		17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')
18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>		19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	2462 FNL 2342 FWL	SE	12	10.0 S	22.0 E	S
Top of Uppermost Producing Zone	2401 FNL 2141 FWL	SE	12	10.0 S	22.0 E	S
At Total Depth	2401 FNL 2141 FWL	SE	12	10.0 S	22.0 E	S

21. COUNTY UINTAH	22. DISTANCE TO NEAREST LEASE LINE (Feet) 2401	23. NUMBER OF ACRES IN DRILLING UNIT 1674
24. ELEVATION - SURFACE 5200	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 551	26. PROPOSED DEPTH MD: 8473 TVD: 8465
27. ELEVATION - GROUND LEVEL 5200	28. BOND NUMBER 22013542	29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-8496

Hole, Casing, and Cement Information										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
Surf	11	8.625	0 - 2180	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8
							Class G	270	1.15	15.8
Prod	7.875	4.5	0 - 8473	11.6	I-80 LT&C	12.5	Premium Lite High Strength	270	3.38	11.0
							50/50 Poz	1150	1.31	14.3

ATTACHMENTS

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

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP

NAME Gina Becker	TITLE Regulatory Analyst II	PHONE 720 929-6086
SIGNATURE	DATE 09/13/2011	EMAIL gina.becker@anadarko.com
API NUMBER ASSIGNED 43047519640000	APPROVAL  Permit Manager	

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 1022-12F4CS**

Surface: 2462 FNL / 2342 FWL SENW
 BHL: 2401 FNL / 2141 FWL SENW

Section 12 T10S R22E

Uintah County, Utah
 Mineral Lease: UT ST UO 01197-A ST

ONSHORE ORDER NO. 1**DRILLING PROGRAM**

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

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1077	
Birds Nest	1361	Water
Mahogany	1725	Water
Wasatch	4117	Gas
Mesaverde	6284	Gas
MVU2	7246	Gas
MVL1	7800	Gas
TVD	8465	
TD	8473	

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 bottom hole pressure calculated at 8465' TVD, approximately equals
 5,418 psi 0.64 psi/ft = actual bottomhole gradient

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

Maximum anticipated surface pressure equals approximately 3,543 psi (bottom hole pressure
 minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press. (MASP) = (Pore Pressure at next csg point -
 (0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

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

9. Variances:

*Please refer to the attached Drilling Program.
 Onshore Order #2 – Air Drilling Variance*

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

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

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

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

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

Background

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

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

The air rig is then mobilized to drill the surface casing hole by drilling a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

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

Variance for BOPE Requirements

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

Variance for Mud Material Requirements

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

Variance for Special Drilling Operation (surface equipment placement) Requirements

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

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

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

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

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

Conclusion

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

10. **Other Information:**

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	COLLAPSE	TENSION	
CONDUCTOR	14"	0-40'							
SURFACE	8-5/8"	0 to 2,180	28.00	IJ-55	LTC	3,390	1,880	348,000	N/A
						2.48	1.84	6.51	N/A
PRODUCTION	4-1/2"	0 to 8,473	11.60	I-80	LTC/BTC	7,780	6,350	279,000	367,000
						1.11	1.15	3.51	4.62

Surface casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe
Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE Option 1	LEAD 500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
	TOP OUT CMT (6 jobs) 1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
NOTE: If well will circulate water to surface, option 2 will be utilized						
SURFACE Option 2	LEAD 1,680'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	160	35%	11.00	3.82
	TAIL 500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD 3,613'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	270	20%	11.00	3.38
	TAIL 4,860'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,150	35%	14.30	1.31

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

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

FLOAT EQUIPMENT & CENTRALIZERS

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

ADDITIONAL INFORMATION

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

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

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

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

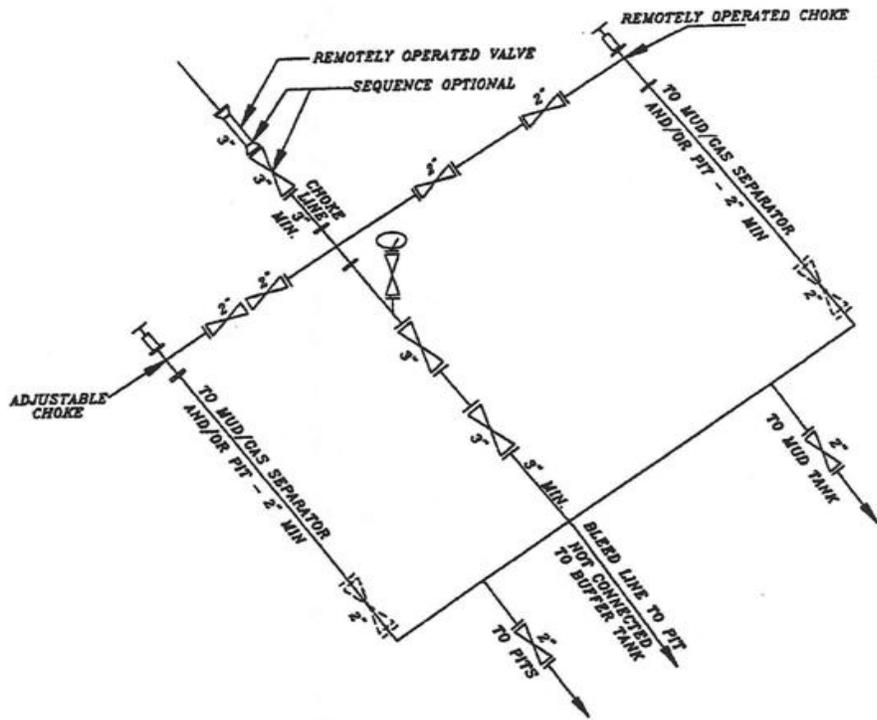
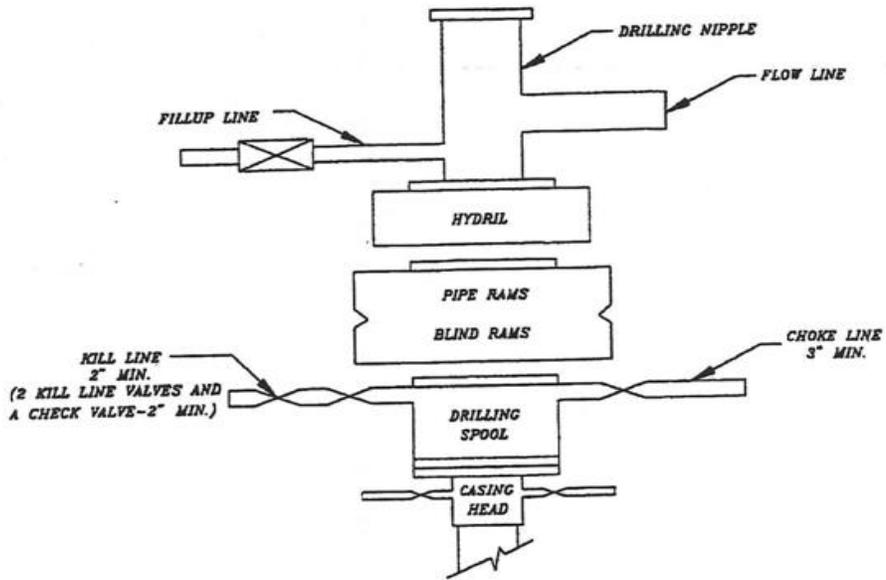
DRILLING ENGINEER: _____
Nick Spence / Danny Showers

DATE: _____

DRILLING SUPERINTENDENT: _____
Kenny Gathings / Lovel Young

DATE: _____

EXHIBIT A
NBU 1022-12F4CS

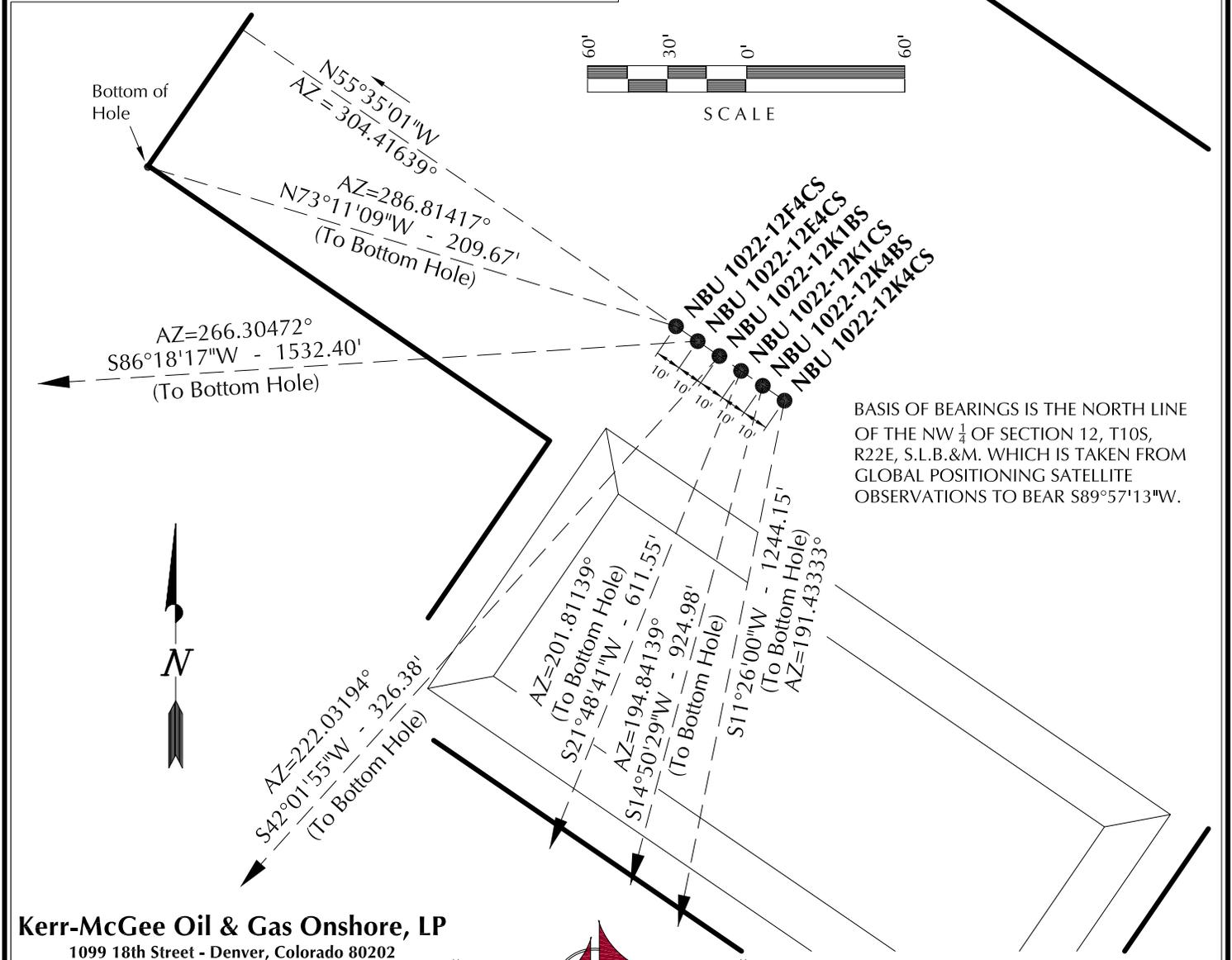


SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
NBU 1022-12K4CS	39°57'49.906"	109°23'21.286"	39°57'50.029"	109°23'18.836"	2490' FNL 2384' FWL	39°57'37.860"	109°23'24.465"	39°57'37.983"	109°23'22.016"	1573' FSL 2146' FWL
NBU 1022-12K4BS	39°57'49.962"	109°23'21.392"	39°57'50.085"	109°23'18.942"	2484' FNL 2375' FWL	39°57'41.130"	109°23'24.443"	39°57'41.253"	109°23'21.994"	1904' FSL 2145' FWL
NBU 1022-12K1CS	39°57'50.018"	109°23'21.498"	39°57'50.141"	109°23'19.048"	2479' FNL 2367' FWL	39°57'44.410"	109°23'24.421"	39°57'44.533"	109°23'21.972"	2236' FSL 2144' FWL
NBU 1022-12K1BS	39°57'50.074"	109°23'21.604"	39°57'50.197"	109°23'19.154"	2473' FNL 2359' FWL	39°57'47.681"	109°23'24.412"	39°57'47.804"	109°23'21.962"	2567' FSL 2142' FWL
NBU 1022-12E4CS	39°57'50.130"	109°23'21.709"	39°57'50.253"	109°23'19.260"	2467' FNL 2350' FWL	39°57'49.166"	109°23'41.345"	39°57'49.289"	109°23'38.894"	2565' FNL 822' FWL
NBU 1022-12F4CS	39°57'50.186"	109°23'21.815"	39°57'50.309"	109°23'19.366"	2462' FNL 2342' FWL	39°57'50.787"	109°23'24.392"	39°57'50.910"	109°23'21.942"	2401' FNL 2141' FWL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 1022-12K4CS	-1,219.5'	-246.6'	NBU 1022-12K4BS	-894.1'	-236.9'	NBU 1022-12K1CS	-567.8'	-227.2'	NBU 1022-12K1BS	-242.4'	-218.5'
NBU 1022-12E4CS	-98.8'	-1,529.2'	NBU 1022-12F4CS	60.7'	-200.7'						



BASIS OF BEARINGS IS THE NORTH LINE OF THE NW 1/4 OF SECTION 12, T10S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR S89°57'13\"/>

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

WELL PAD - NBU 1022-12F4

WELL PAD INTERFERENCE PLAT
WELLS - NBU 1022-12K4CS, NBU 1022-12K4BS, NBU 1022-12K1CS, NBU 1022-12K1BS, NBU 1022-12E4CS & NBU 1022-12F4CS LOCATED IN SECTION 12, T10S, R22E, S.L.B.&M., UTAH COUNTY, UTAH.

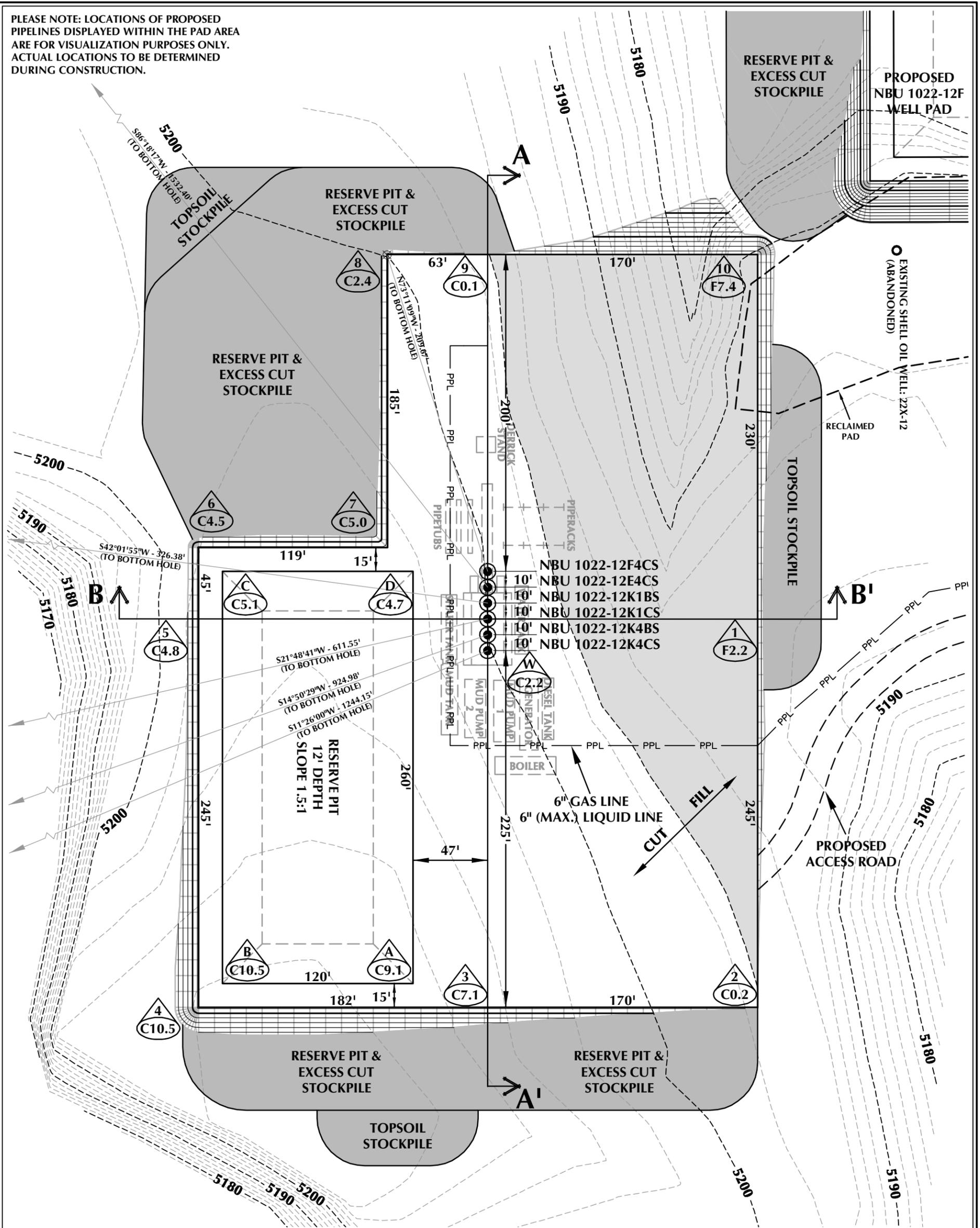


609 CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

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

DATE SURVEYED: 01-31-11	SURVEYED BY: R.Y.	SHEET NO: 7
DATE DRAWN: 02-11-11	DRAWN BY: E.M.S.	
SCALE: 1" = 60'		7 OF 18

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



WELL PAD - NBU 1022-12F4 DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5199.7'
 FINISHED GRADE ELEVATION = 5197.5'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.65 ACRES
 TOTAL DAMAGE AREA = 6.49 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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

WELL PAD - NBU 1022-12F4
WELL PAD - LOCATION LAYOUT
 NBU 1022-12K4CS, NBU 1022-12K4BS,
 NBU 1022-12K1CS, NBU 1022-12K1BS,
 NBU 1022-12E4CS & NBU 1022-12F4CS
 LOCATED IN SECTION 12, T10S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH



609 CONSULTING, LLC
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 Sheridan, WY 82801
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WELL PAD QUANTITIES

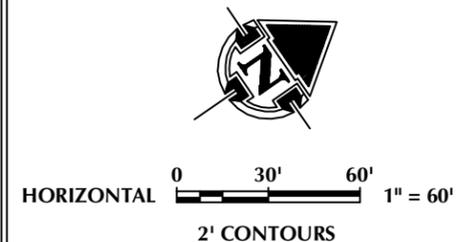
TOTAL CUT FOR WELL PAD = 16,630 C.Y.
 TOTAL FILL FOR WELL PAD = 10,730 C.Y.
 TOPSOIL @ 6" DEPTH = 2,943 C.Y.
 EXCESS MATERIAL = 5,900 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
 +/- 11,020 C.Y.
 RESERVE PIT CAPACITY (2' OF FREEBOARD)
 +/- 42,290 BARRELS

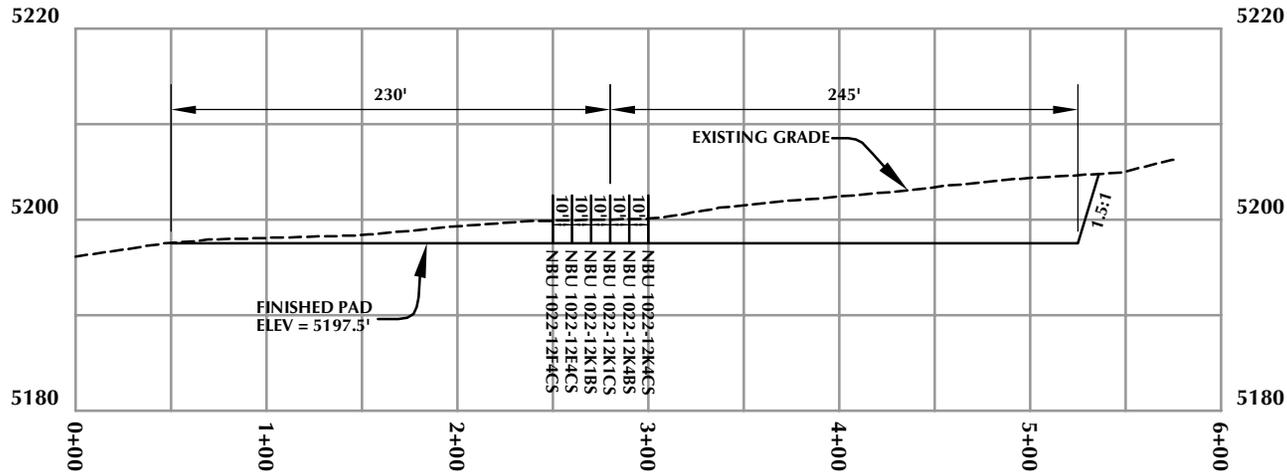
WELL PAD LEGEND

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

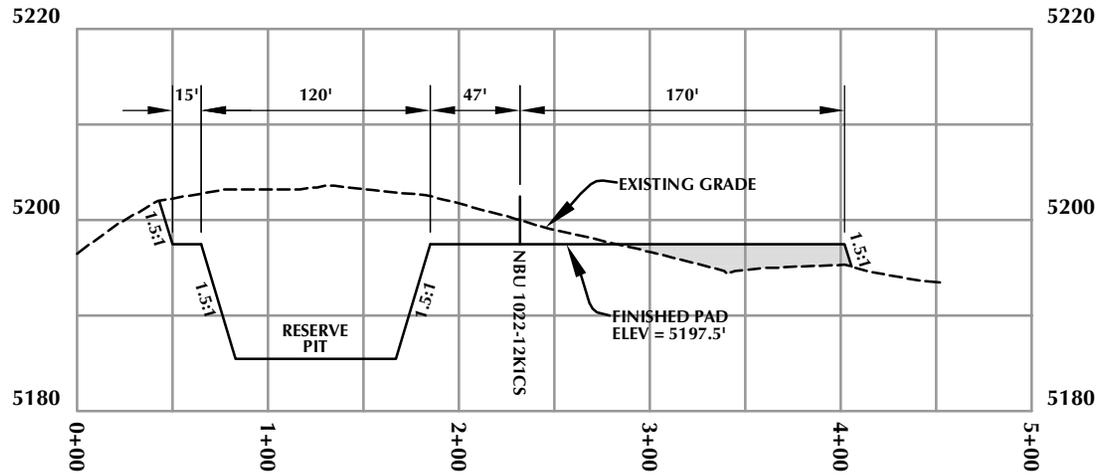


TIMBERLINE ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078
 (435) 789-1365

SCALE: 1"=60' DATE: 3/8/11 SHEET NO: 8 OF 18
 REVISED: TAR 4/15/11



CROSS SECTION A-A'



CROSS SECTION B-B'

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

WELL PAD - NBU 1022-12F4

WELL PAD - CROSS SECTIONS
NBU 1022-12K4CS, NBU 1022-12K4BS,
NBU 1022-12K1CS, NBU 1022-12K1BS,
NBU 1022-12E4CS & NBU 1022-12F4CS
LOCATED IN SECTION 12, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH



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(435) 789-1365



Scale: 1"=100'

Date: 3/8/11

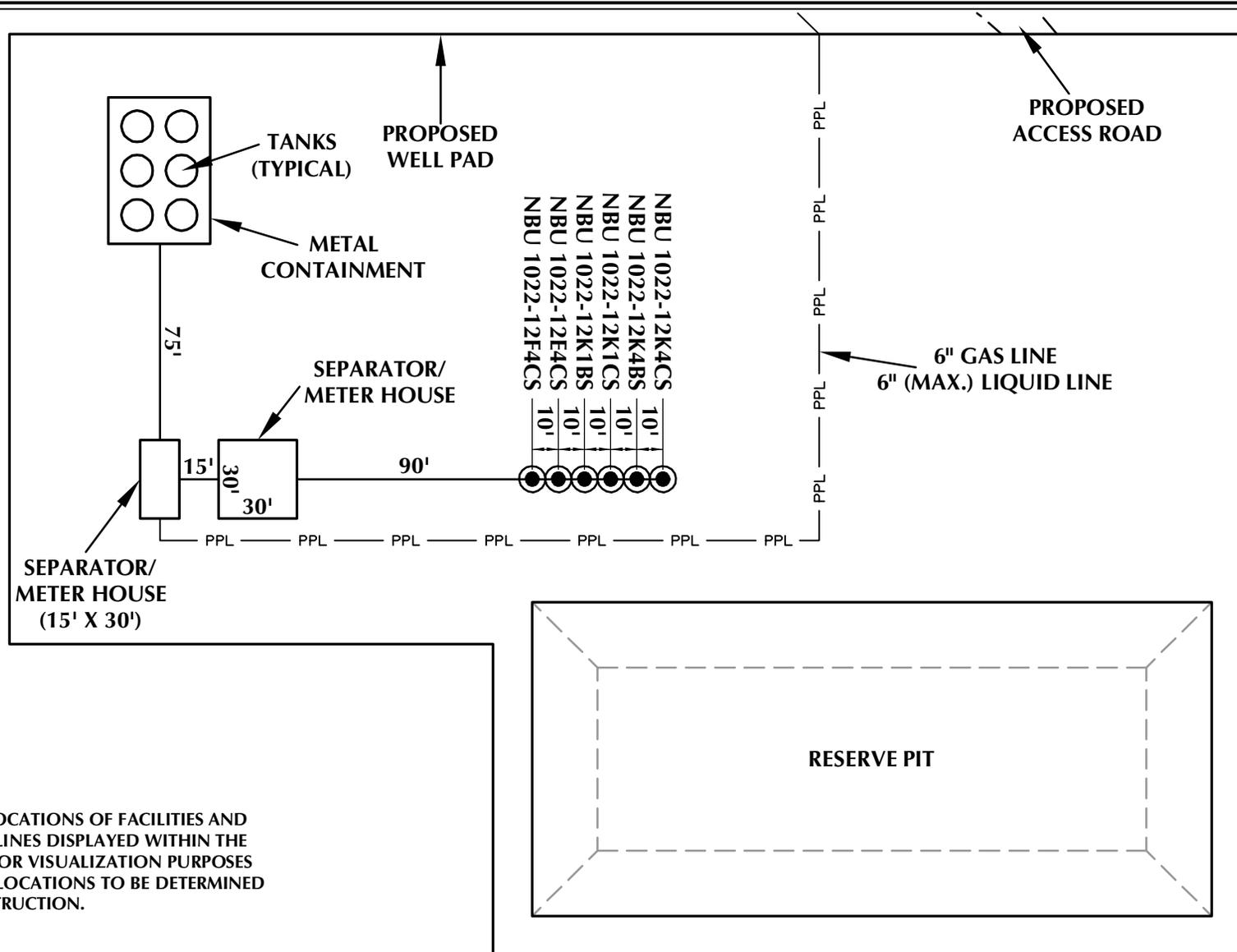
SHEET NO:

REVISED:

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9 OF 18

RECEIVED: September 13, 2011



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

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

WELL PAD - NBU 1022-12F4

WELL PAD - FACILITIES DIAGRAM

NBU 1022-12K4CS, NBU 1022-12K4BS,
NBU 1022-12K1CS, NBU 1022-12K1BS,
NBU 1022-12E4CS & NBU 1022-12F4CS
LOCATED IN SECTION 12, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH



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Phone 307-674-0609
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WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE



HORIZONTAL 0 30' 60' 1" = 60'

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

(435) 789-1365

Scale: 1"=60'

Date: 3/8/11

SHEET NO:

REVISED:

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4/15/11

10 10 OF 18

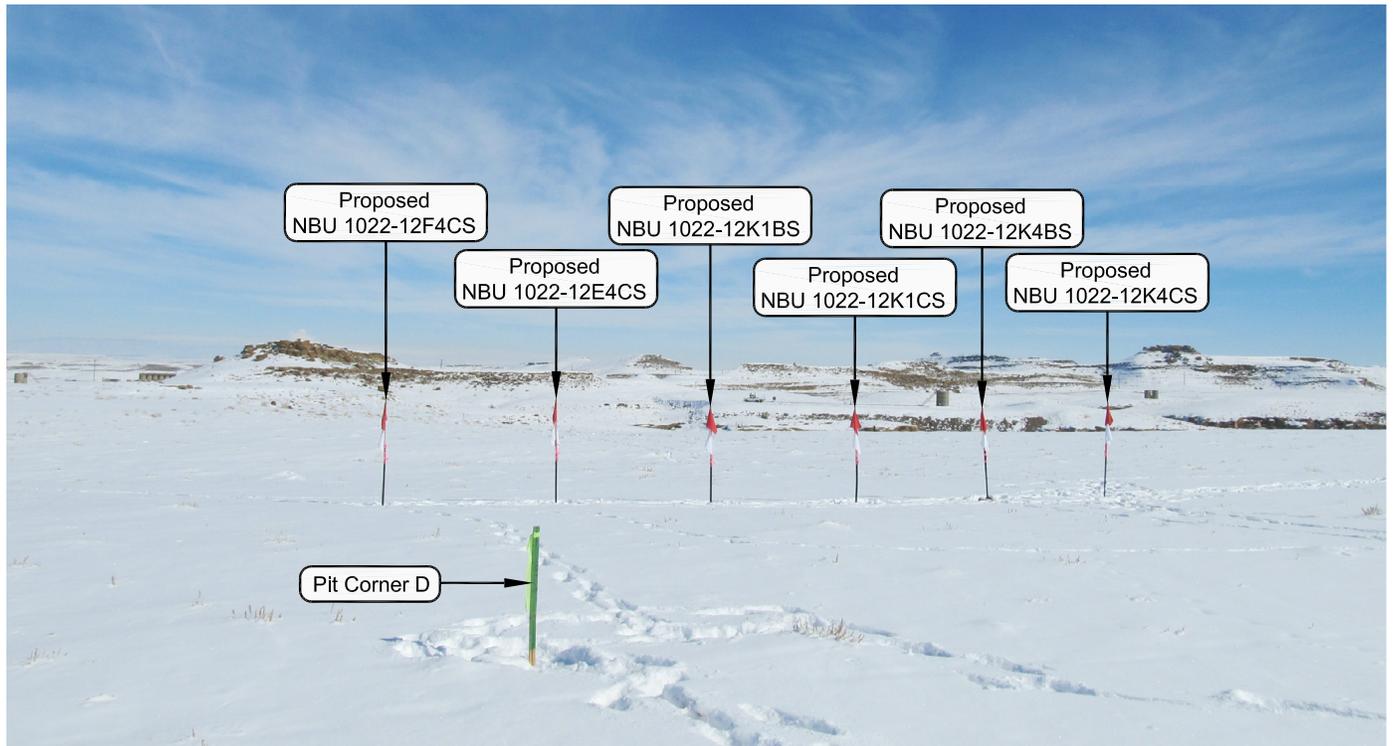


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHEASTRLY

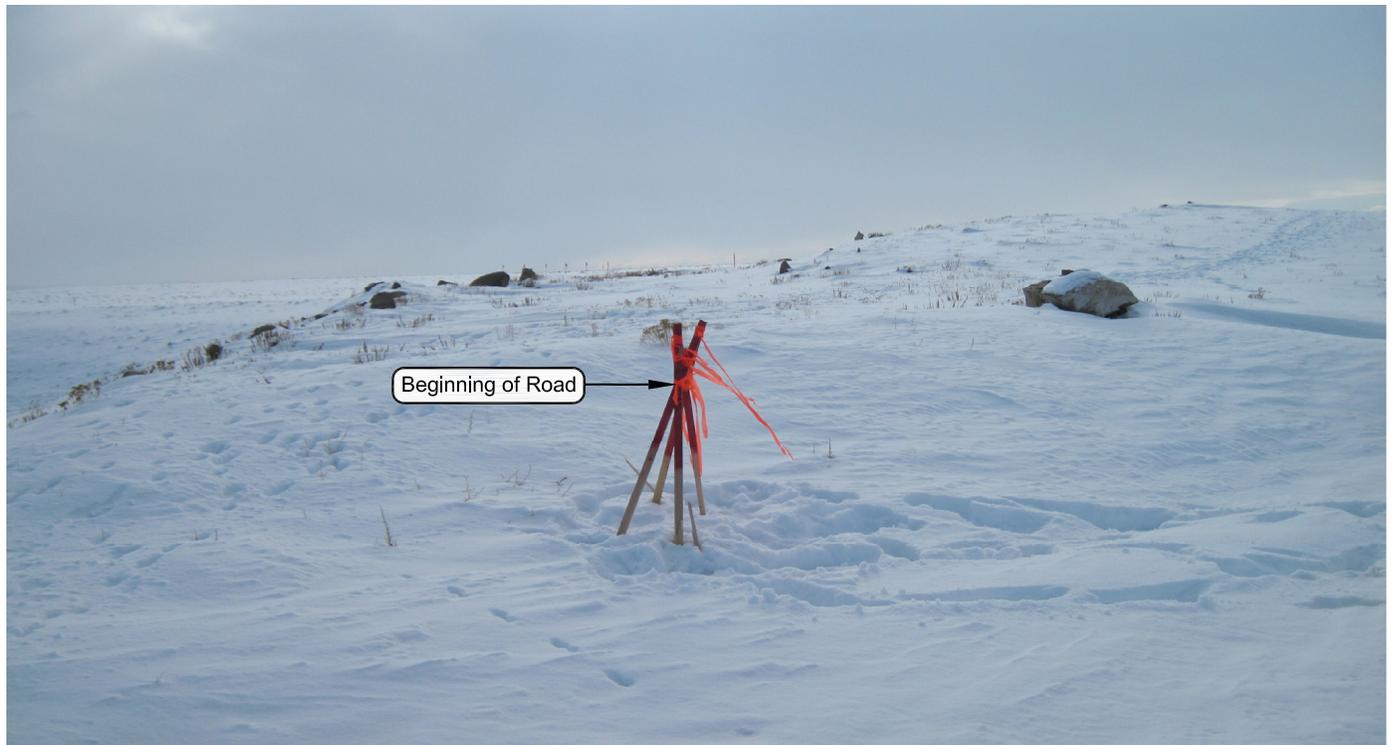


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: SOUTHWESTERLY

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

WELL PAD - NBU 1022-12F4

LOCATION PHOTOS

NBU 1022-12K4CS, NBU 1022-12K4BS,
 NBU 1022-12K1CS, NBU 1022-12K1BS,
 NBU 1022-12E4CS & NBU 1022-12F4CS
 LOCATED IN SECTION 12, T10S, R22E,
 S.L.B.&M., Uintah County, Utah.



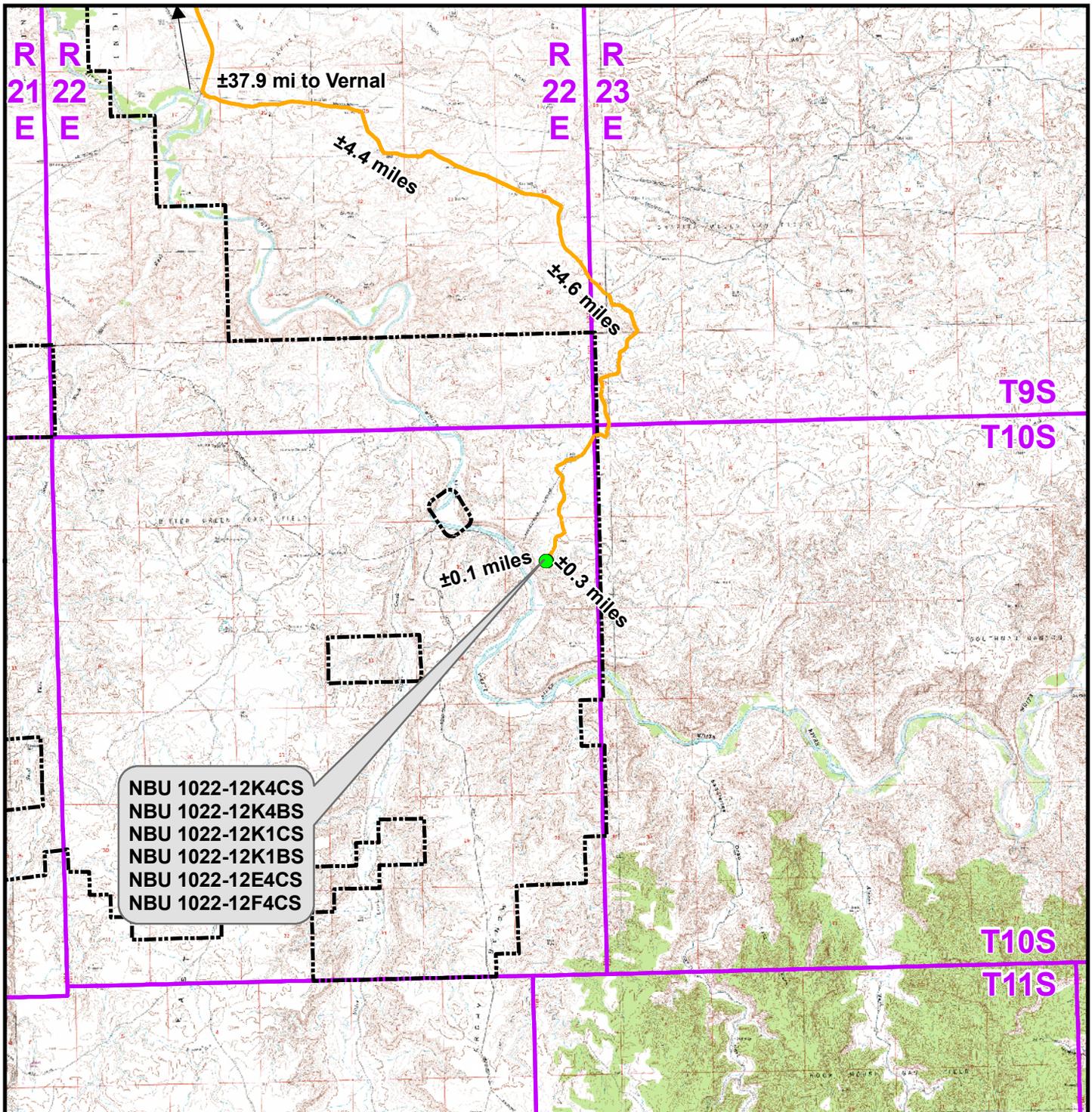
CONSULTING, LLC
 2155 North Main Street
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

TIMBERLINE

(435) 789-1365

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

DATE PHOTOS TAKEN: 02-11-11	PHOTOS TAKEN BY: M.S.B.	SHEET NO: 11
DATE DRAWN: 02-11-11	DRAWN BY: E.M.S.	
Date Last Revised:		11 OF 18



Legend

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

Distance From Well Pad - NBU 1022-12F4 To Unit Boundary: ±2,912ft

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

WELL PAD - NBU 1022-12F4

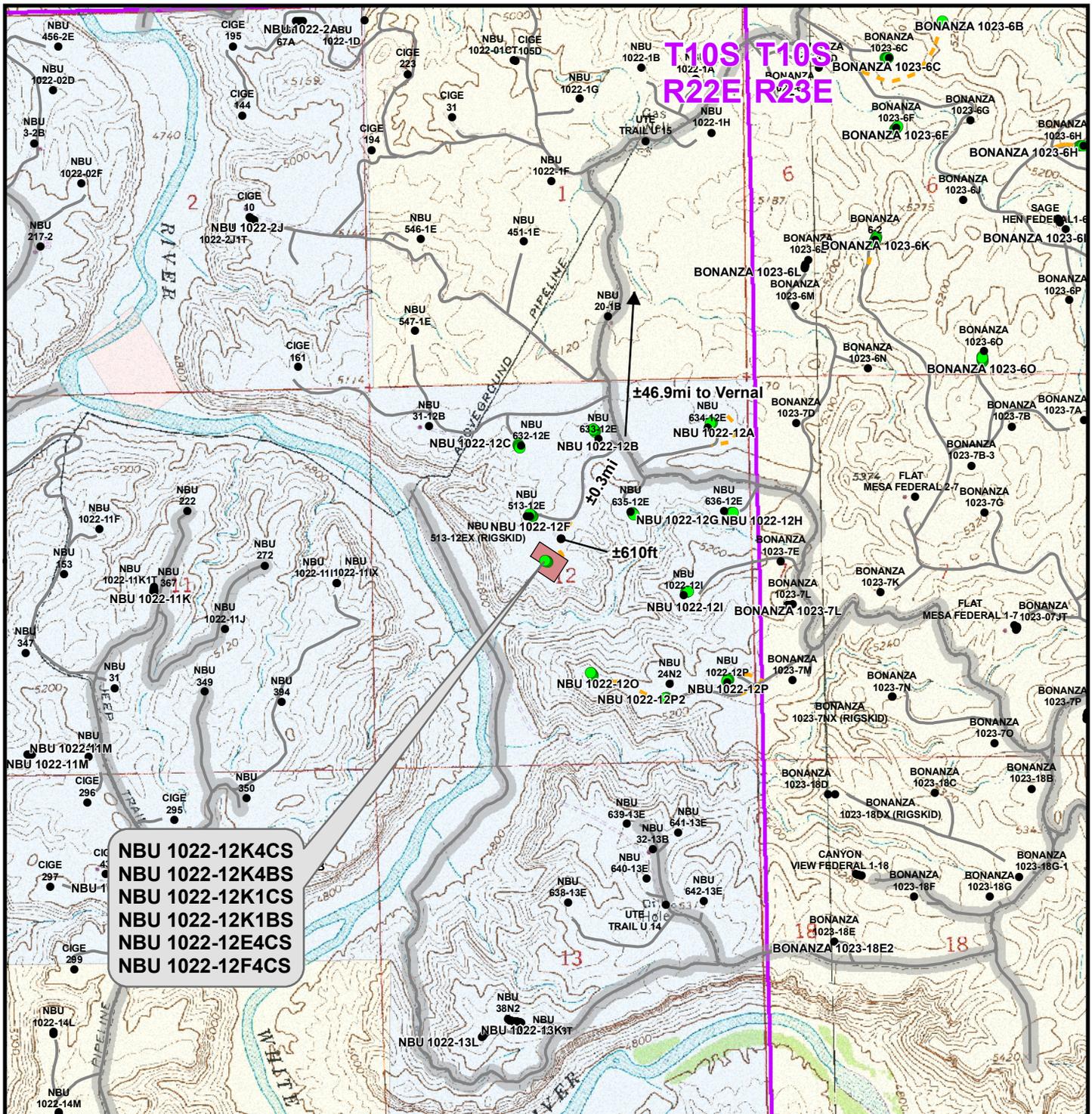
TOPO A

NBU 1022-12K4CS, NBU 1022-12K4BS,
 NBU 1022-12K1CS, NBU 1022-12K1BS,
 NBU 1022-12E4CS & NBU 1022-12F4CS
 LOCATED IN SECTION 12, T10S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH

609
 CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone (307) 674-0609
 Fax (307) 674-0182



Scale: 1:100,000	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 8 Mar 2011	12
Revised:	Date:	



Legend

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

Total Proposed Road Length: ±610ft

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

WELL PAD - NBU 1022-12F4

TOPO B

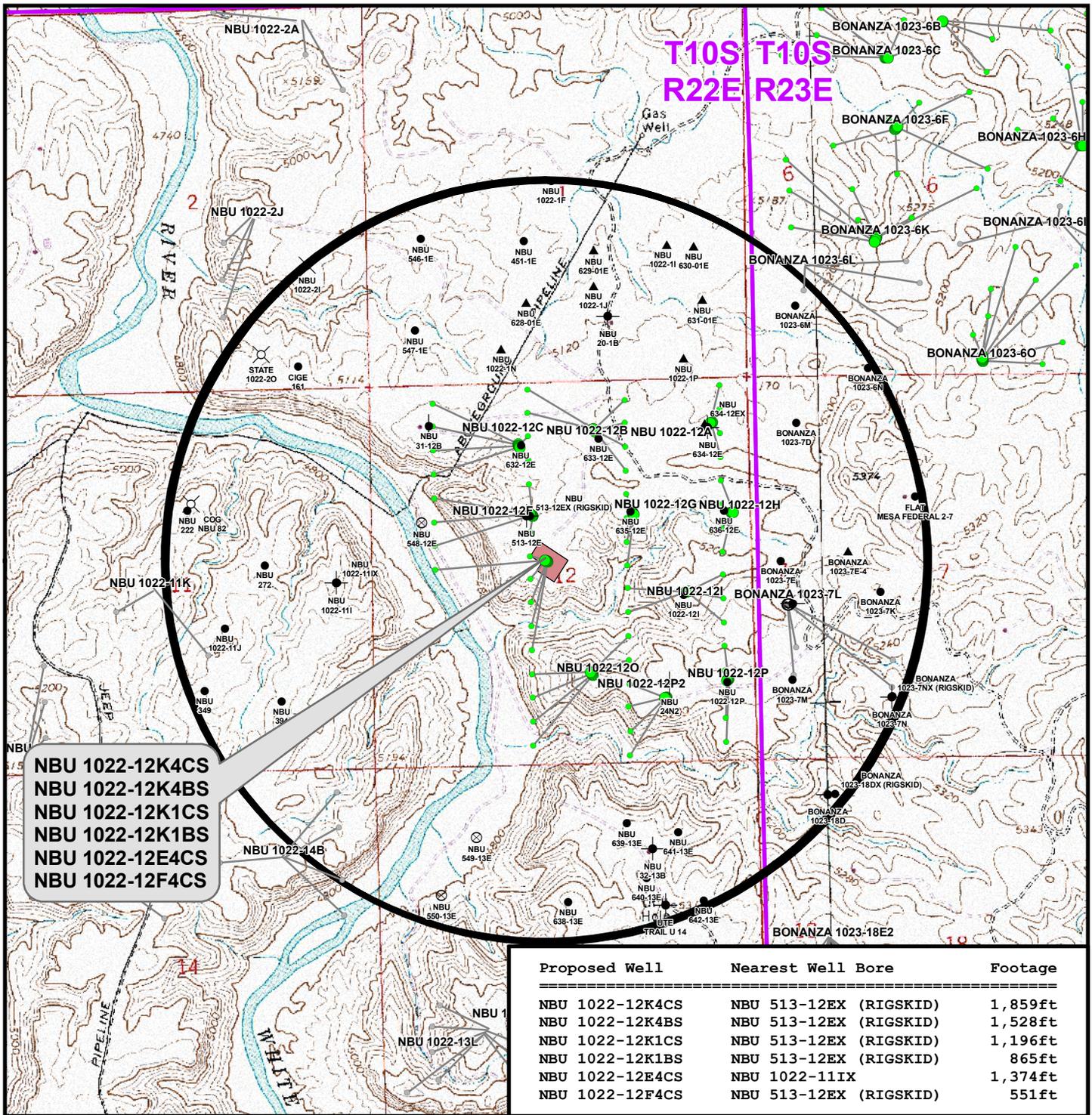
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NBU 1022-12K1CS, NBU 1022-12K1BS,
NBU 1022-12E4CS & NBU 1022-12F4CS
LOCATED IN SECTION 12, T10S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH



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



Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 13 13 of 18
Drawn: TL	Date: 8 Mar 2011	
Revised:	Date:	



Legend

- Well - Proposed
- Bottom Hole - Proposed
- Well Pad
- Well Path
- Bottom Hole - Existing
- Well - 1 Mile Radius
- Producing
- ⊕ Active
- ⊙ Spudded (Drilling commenced; Not yet completed)
- ⊙ Approved permit (APD); not yet spudded
- ⊙ New Permit (Not yet approved or drilled)
- ⊕ Inactive
- ⊗ Drilling Operations Suspended
- Temporarily-Abandoned
- Shut-In
- Plugged and Abandoned
- ⊙ Location Abandoned
- ⊙ Dry hole marker, buried
- ⊙ Returned APD (Unapproved)

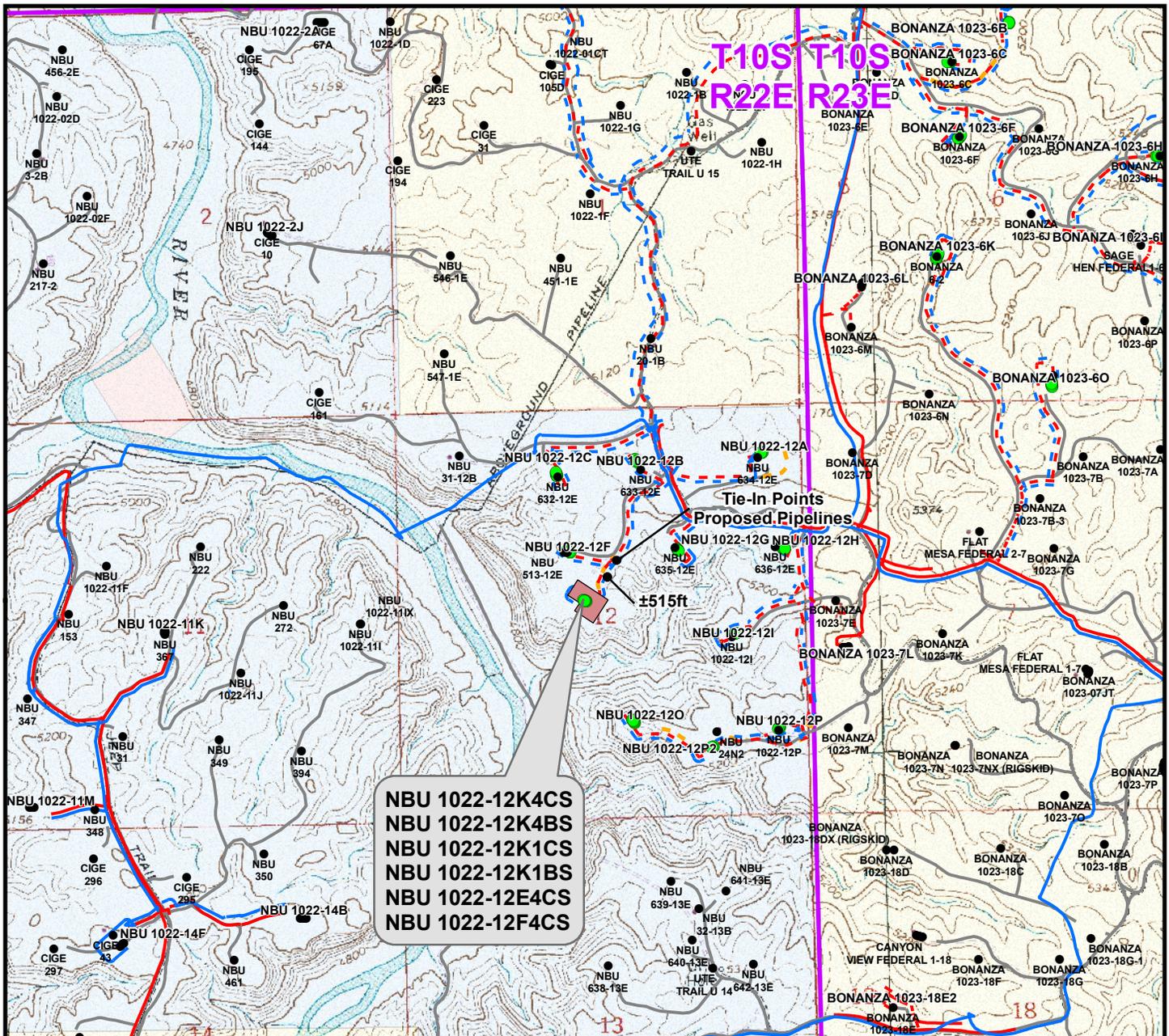
Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1022-12F4

TOPO C
NBU 1022-12K4CS, NBU 1022-12K4BS,
NBU 1022-12K1CS, NBU 1022-12K1BS,
NBU 1022-12E4CS & NBU 1022-12F4CS
LOCATED IN SECTION 12, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH



Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 8 Mar 2011	14
Revised:	Date:	



Proposed Liquid Pipeline	Length	Proposed Gas Pipeline	Length
Proposed 6" (Max.) (Meter House to Edge of Pad)	±470ft	Proposed 6" (Meter House to Edge of Pad)	±470ft
Proposed 6" (Max.) (Edge of Pad to 12F Intersection)	±515ft	Proposed 6" (Edge of Pad to 12F Intersection)	±515ft
TOTAL PROPOSED LIQUID PIPELINE =	±985ft	TOTAL PROPOSED GAS PIPELINE =	±985ft

Legend

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

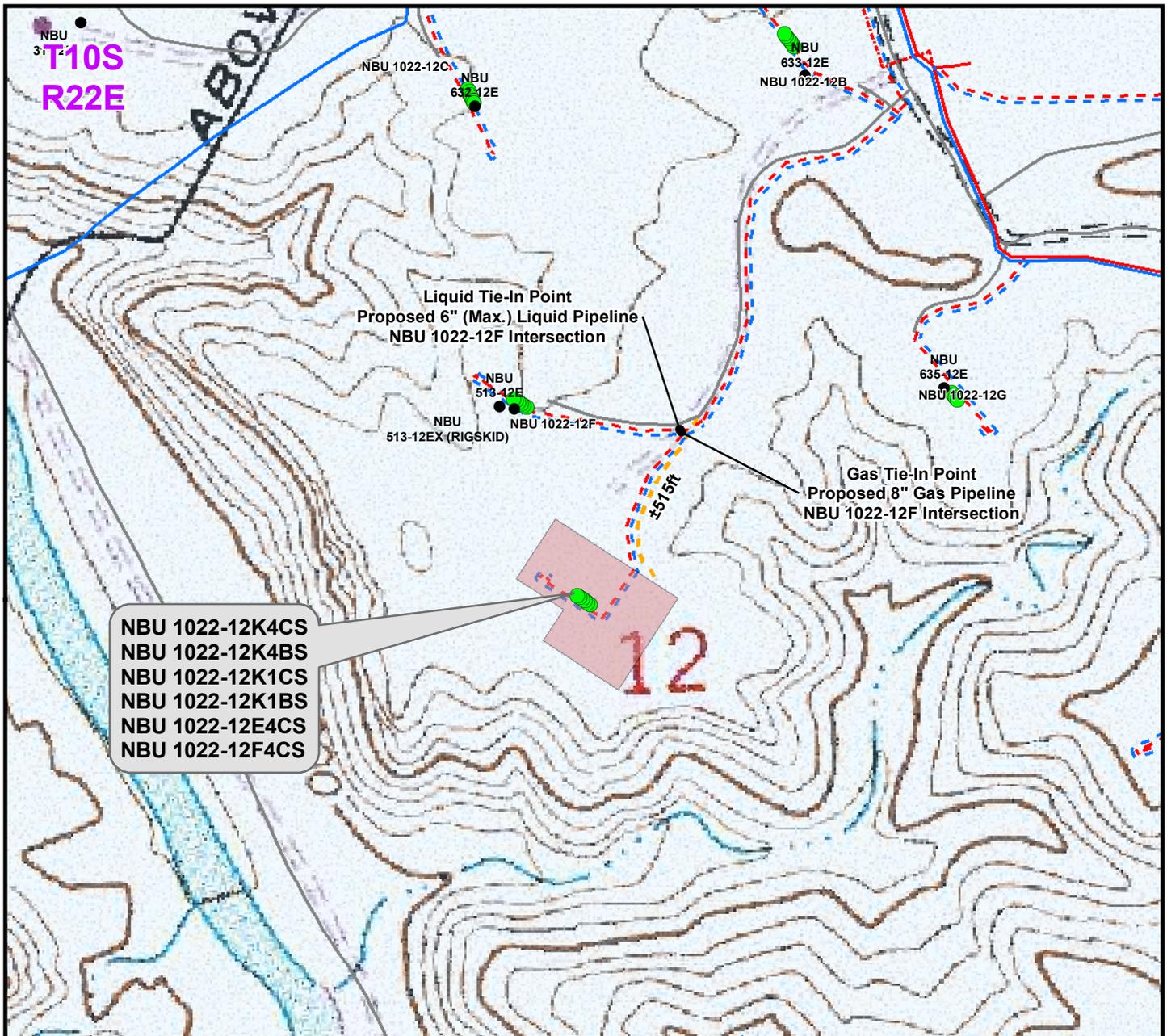
Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1022-12F4

TOPO D
 NBU 1022-12K4CS, NBU 1022-12K4BS,
 NBU 1022-12K1CS, NBU 1022-12K1BS,
 NBU 1022-12E4CS & NBU 1022-12F4CS
 LOCATED IN SECTION 12, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH

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

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 15
Drawn: JFE	Date: 8 Mar 2011	15 of 18
Revised: TL	Date: 19 Apr 2011	



NBU 1022-12K4CS
 NBU 1022-12K4BS
 NBU 1022-12K1CS
 NBU 1022-12K1BS
 NBU 1022-12E4CS
 NBU 1022-12F4CS

Proposed Liquid Pipeline	Length	Proposed Gas Pipeline	Length
Proposed 6" (Max.) (Meter House to Edge of Pad)	±470ft	Proposed 6" (Meter House to Edge of Pad)	±470ft
Proposed 6" (Max.) (Edge of Pad to 12F Intersection)	±515ft	Proposed 6" (Edge of Pad to 12F Intersection)	±515ft
TOTAL PROPOSED LIQUID PIPELINE =	±985ft	TOTAL PROPOSED GAS PIPELINE =	±985ft

Legend

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

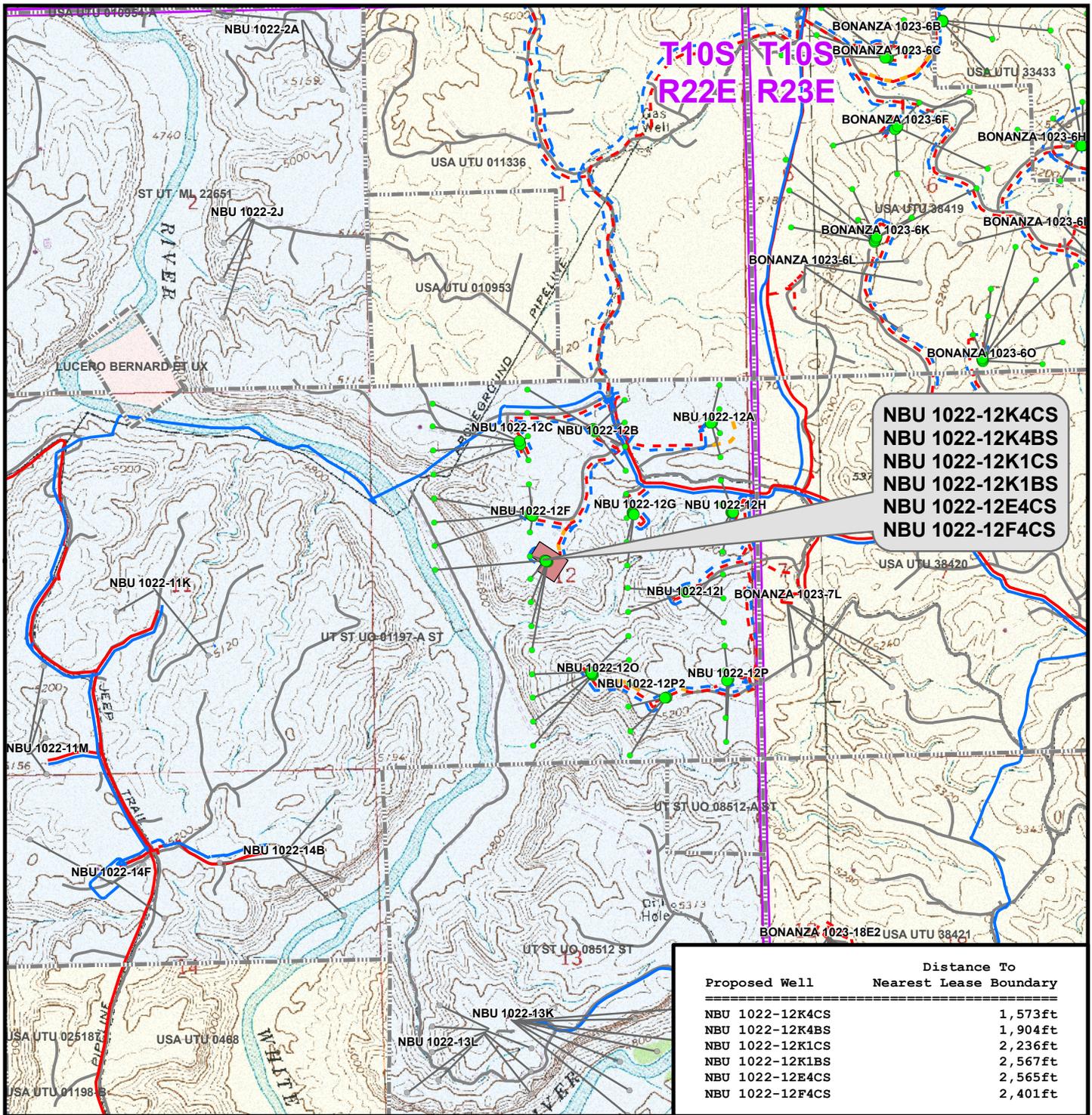
Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1022-12F4
TOPO D2 (PAD & PIPELINE DETAIL)
 NBU 1022-12K4CS, NBU 1022-12K4BS,
 NBU 1022-12K1CS, NBU 1022-12K1BS,
 NBU 1022-12E4CS & NBU 1022-12F4CS
 LOCATED IN SECTION 12, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH

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



Scale: 1" = 500ft	NAD83 USP Central	Sheet No:
Drawn: JFE	Date: 8 Mar 2011	16
Revised: TL	Date: 19 Apr 2011	



Legend

- Well - Proposed (Green dot)
- Bottom Hole - Proposed (Grey dot)
- Bottom Hole - Existing (Black dot)
- Well Path (Grey line)
- Well Pad (Red shaded area)
- Lease Boundary (Dashed line)
- Gas Pipeline - Proposed (Red dashed line)
- Gas Pipeline - To Be Upgraded (Red dotted line)
- Gas Pipeline - Existing (Red solid line)
- Liquid Pipeline - Proposed (Blue dashed line)
- Liquid Pipeline - Existing (Blue solid line)
- Road - Proposed (Yellow dashed line)
- Road - Existing (Grey solid line)
- Bureau of Land Management (Yellow shaded area)
- Indian Reservation (Pink shaded area)
- State (Light blue shaded area)
- Private (White shaded area)

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

WELL PAD - NBU 1022-12F4

TOPO E
 NBU 1022-12K4CS, NBU 1022-12K4BS,
 NBU 1022-12K1CS, NBU 1022-12K1BS,
 NBU 1022-12E4CS & NBU 1022-12F4CS
 LOCATED IN SECTION 12, T10S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH

609
 CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone (307) 674-0609
 Fax (307) 674-0182

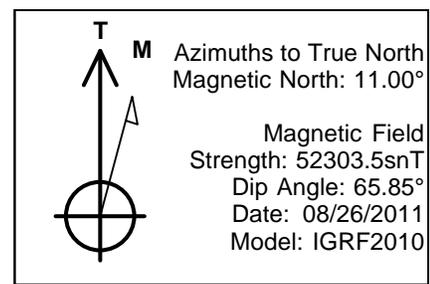


Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 8 Mar 2011	17 17 of 18
Revised: TL	Date: 19 Apr 2011	

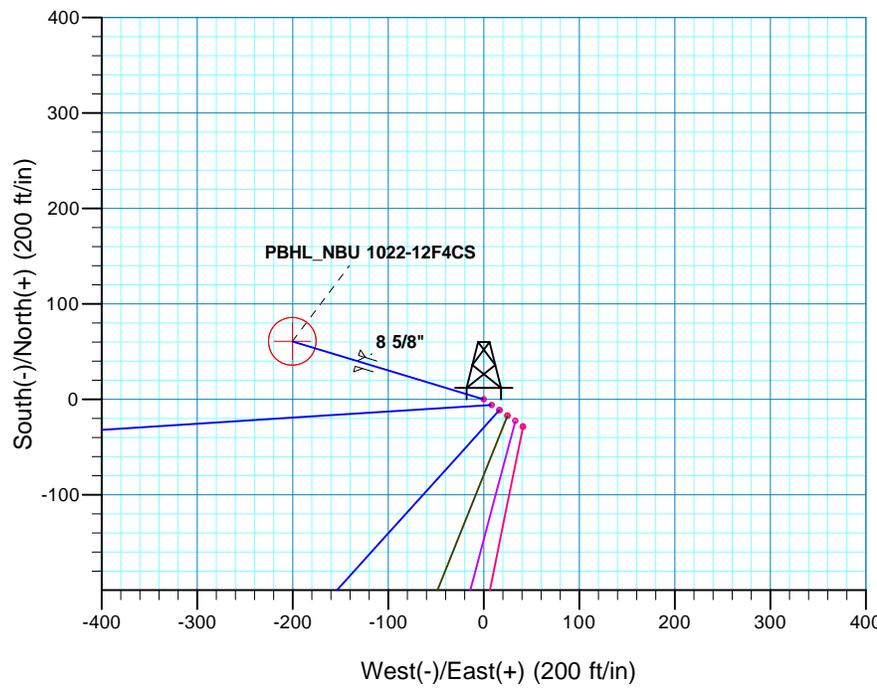
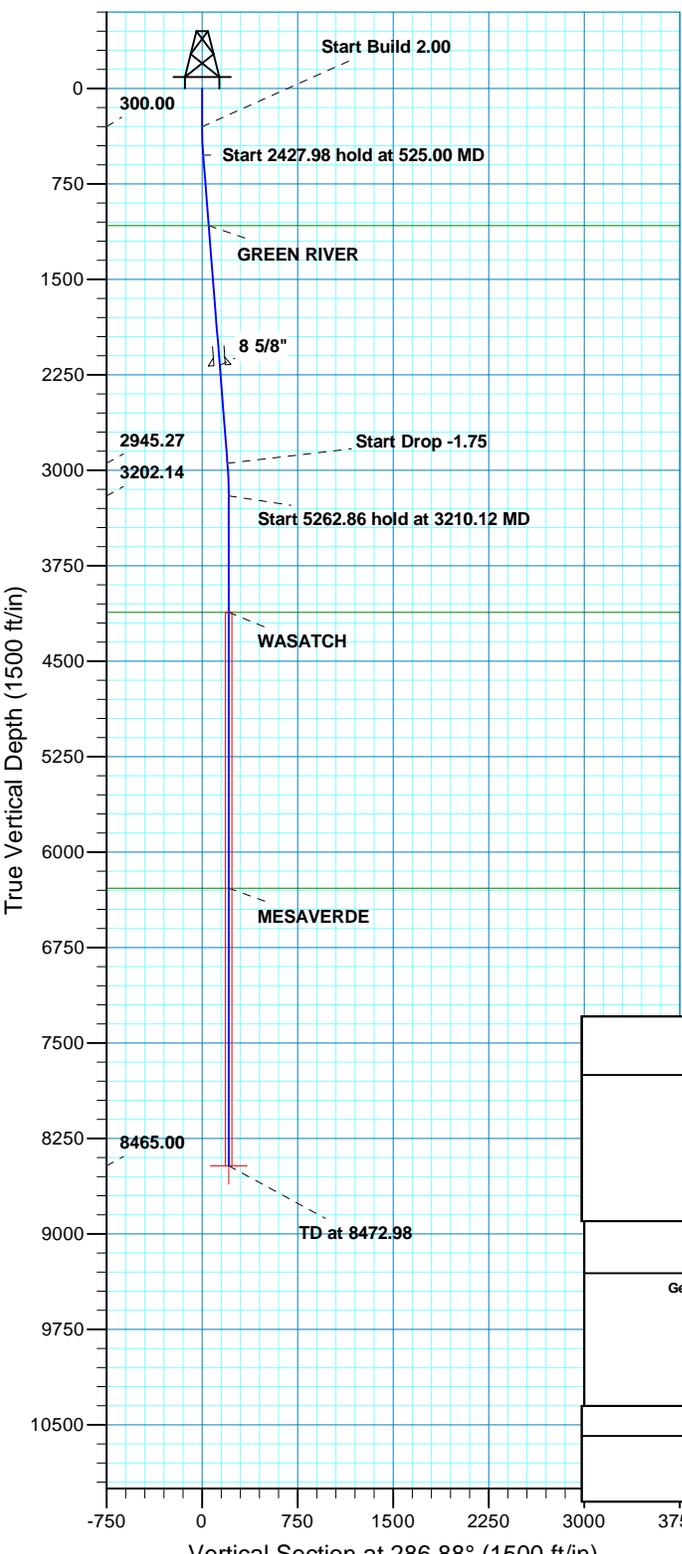
Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 1022-12F4
WELLS – NBU 1022-12K4CS, NBU 1022-12K4BS, NBU 1022-12K1CS,
NBU 1022-12K1BS, NBU 1022-12E4CS & NBU 1022-12F4CS
Section 12, T10S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 14.4 miles to the intersection of the Fidlar Road (County B Road 3410) which road intersection is approximately 400 feet northeast of the Mountain Fuel Bridge at the White River. Exit left and proceed in a southeasterly direction along the Fidlar Road approximately 4.4 miles to the intersection of the Seven Sisters Road (County B Road 3420). Exit right and proceed in a southeasterly then southerly direction along the Seven Sisters Road approximately 4.6 miles to a service road to the southwest. Exit right and proceed in a southwesterly direction along the service road approximately 0.3 miles to the proposed access road. Follow the road flags in a southwesterly direction approximately 610 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 47.3 miles in a southerly direction.



WELL DETAILS: NBU 1022-12F4CS						
GL 5198 & KB 4 @ 5202.00ft (ASSUMED)						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	14517004.84	2091918.55	39° 57' 50.310 N	109° 23' 19.367 W	
DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude
PBHL	8465.00	60.83	-200.39	14517062.03	2091717.09	39° 57' 50.911 N
						109° 23' 21.941 W
						Circle (Radius: 25.00)
						- plan hits target center



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
525.00	4.50	286.88	524.77	2.56	-8.45	2.00	286.88	8.83	
2952.98	4.50	286.88	2945.27	57.89	-190.74	0.00	0.00	199.33	
3210.12	0.00	0.00	3202.14	60.83	-200.39	1.75	180.00	209.42	
8472.98	0.00	0.00	8465.00	60.83	-200.39	0.00	0.00	209.42	PBHL_NBU 1022-12F4CS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N			
Geodetic System: Universal Transverse Mercator (US Survey Feet)			
Datum: NAD 1927 (NADCON CONUS)			
Ellipsoid: Clarke 1866			
Zone: Zone 12N (114 W to 108 W)			
Location: SECTION 12 T10S R22E			
System Datum: Mean Sea Level			

FORMATION TOP DETAILS			
TVDPath	MDPath	Formation	
1077.00	1078.94	GREEN RIVER	
4117.00	4124.98	WASATCH	
6264.00	6291.98	MESAVERDE	

CASING DETAILS			
TVD	MD	Name	Size
2175.00	2180.33	8 5/8"	8.625

RECEIVED



US ROCKIES REGION PLANNING

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

NBU 1022-12F4 PAD

NBU 1022-12F4CS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

26 August, 2011





Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-12F4CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5198 & KB 4 @ 5202.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5198 & KB 4 @ 5202.00ft (ASSUMED)
Site:	NBU 1022-12F4 PAD	North Reference:	True
Well:	NBU 1022-12F4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Project	UTAH - UTM (feet), NAD27, Zone 12N		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 1022-12F4 PAD, SECTION 12 T10S R22E				
Site Position:		Northing:	14,516,999.17 usft	Latitude:	39° 57' 50.252 N
From:	Lat/Long	Easting:	2,091,927.06 usft	Longitude:	109° 23' 19.259 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	1.04 °

Well	NBU 1022-12F4CS, 2462 FNL 2342 FWL					
Well Position	+N/-S	5.83 ft	Northing:	14,517,004.84 usft	Latitude:	39° 57' 50.310 N
	+E/-W	-8.41 ft	Easting:	2,091,918.55 usft	Longitude:	109° 23' 19.367 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,198.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/26/11	11.00	65.85	52,303

Design	PLAN #1 PRELIMINARY			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	286.88

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
525.00	4.50	286.88	524.77	2.56	-8.45	2.00	2.00	0.00	286.88	
2,952.98	4.50	286.88	2,945.27	57.89	-190.74	0.00	0.00	0.00	0.00	
3,210.12	0.00	0.00	3,202.14	60.83	-200.39	1.75	-1.75	0.00	180.00	
8,472.98	0.00	0.00	8,465.00	60.83	-200.39	0.00	0.00	0.00	0.00	PBHL_NBU 1022-12F



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-12F4CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5198 & KB 4 @ 5202.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5198 & KB 4 @ 5202.00ft (ASSUMED)
Site:	NBU 1022-12F4 PAD	North Reference:	True
Well:	NBU 1022-12F4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 2.00										
400.00	2.00	286.88	399.98	0.51	-1.67	1.75	2.00	2.00	0.00	
500.00	4.00	286.88	499.84	2.03	-6.68	6.98	2.00	2.00	0.00	
525.00	4.50	286.88	524.77	2.56	-8.45	8.83	2.00	2.00	0.00	
Start 2427.98 hold at 525.00 MD										
600.00	4.50	286.88	599.54	4.27	-14.08	14.72	0.00	0.00	0.00	
700.00	4.50	286.88	699.23	6.55	-21.59	22.56	0.00	0.00	0.00	
800.00	4.50	286.88	798.92	8.83	-29.10	30.41	0.00	0.00	0.00	
900.00	4.50	286.88	898.61	11.11	-36.60	38.25	0.00	0.00	0.00	
1,000.00	4.50	286.88	998.30	13.39	-44.11	46.10	0.00	0.00	0.00	
1,078.94	4.50	286.88	1,077.00	15.19	-50.04	52.29	0.00	0.00	0.00	
GREEN RIVER										
1,100.00	4.50	286.88	1,098.00	15.67	-51.62	53.95	0.00	0.00	0.00	
1,200.00	4.50	286.88	1,197.69	17.95	-59.13	61.79	0.00	0.00	0.00	
1,300.00	4.50	286.88	1,297.38	20.23	-66.64	69.64	0.00	0.00	0.00	
1,400.00	4.50	286.88	1,397.07	22.50	-74.14	77.48	0.00	0.00	0.00	
1,500.00	4.50	286.88	1,496.76	24.78	-81.65	85.33	0.00	0.00	0.00	
1,600.00	4.50	286.88	1,596.45	27.06	-89.16	93.17	0.00	0.00	0.00	
1,700.00	4.50	286.88	1,696.15	29.34	-96.67	101.02	0.00	0.00	0.00	
1,800.00	4.50	286.88	1,795.84	31.62	-104.17	108.87	0.00	0.00	0.00	
1,900.00	4.50	286.88	1,895.53	33.90	-111.68	116.71	0.00	0.00	0.00	
2,000.00	4.50	286.88	1,995.22	36.18	-119.19	124.56	0.00	0.00	0.00	
2,100.00	4.50	286.88	2,094.91	38.46	-126.70	132.40	0.00	0.00	0.00	
2,180.33	4.50	286.88	2,175.00	40.29	-132.73	138.71	0.00	0.00	0.00	
8 5/8"										
2,200.00	4.50	286.88	2,194.61	40.73	-134.20	140.25	0.00	0.00	0.00	
2,300.00	4.50	286.88	2,294.30	43.01	-141.71	148.10	0.00	0.00	0.00	
2,400.00	4.50	286.88	2,393.99	45.29	-149.22	155.94	0.00	0.00	0.00	
2,500.00	4.50	286.88	2,493.68	47.57	-156.73	163.79	0.00	0.00	0.00	
2,600.00	4.50	286.88	2,593.37	49.85	-164.23	171.63	0.00	0.00	0.00	
2,700.00	4.50	286.88	2,693.06	52.13	-171.74	179.48	0.00	0.00	0.00	
2,800.00	4.50	286.88	2,792.76	54.41	-179.25	187.33	0.00	0.00	0.00	
2,900.00	4.50	286.88	2,892.45	56.69	-186.76	195.17	0.00	0.00	0.00	
2,952.98	4.50	286.88	2,945.27	57.89	-190.74	199.33	0.00	0.00	0.00	
Start Drop -1.75										
3,000.00	3.68	286.88	2,992.16	58.87	-193.94	202.68	1.75	-1.75	0.00	
3,100.00	1.93	286.88	3,092.04	60.29	-198.62	207.57	1.75	-1.75	0.00	
3,200.00	0.18	286.88	3,192.02	60.82	-200.38	209.41	1.75	-1.75	0.00	
3,210.12	0.00	0.00	3,202.14	60.83	-200.39	209.42	1.75	-1.75	0.00	
Start 5262.86 hold at 3210.12 MD										
3,300.00	0.00	0.00	3,292.02	60.83	-200.39	209.42	0.00	0.00	0.00	
3,400.00	0.00	0.00	3,392.02	60.83	-200.39	209.42	0.00	0.00	0.00	
3,500.00	0.00	0.00	3,492.02	60.83	-200.39	209.42	0.00	0.00	0.00	
3,600.00	0.00	0.00	3,592.02	60.83	-200.39	209.42	0.00	0.00	0.00	
3,700.00	0.00	0.00	3,692.02	60.83	-200.39	209.42	0.00	0.00	0.00	
3,800.00	0.00	0.00	3,792.02	60.83	-200.39	209.42	0.00	0.00	0.00	
3,900.00	0.00	0.00	3,892.02	60.83	-200.39	209.42	0.00	0.00	0.00	



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-12F4CS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5198 & KB 4 @ 5202.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5198 & KB 4 @ 5202.00ft (ASSUMED)
Site:	NBU 1022-12F4 PAD	North Reference:	True
Well:	NBU 1022-12F4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,000.00	0.00	0.00	3,992.02	60.83	-200.39	209.42	0.00	0.00	0.00	
4,100.00	0.00	0.00	4,092.02	60.83	-200.39	209.42	0.00	0.00	0.00	
4,124.98	0.00	0.00	4,117.00	60.83	-200.39	209.42	0.00	0.00	0.00	
WASATCH										
4,200.00	0.00	0.00	4,192.02	60.83	-200.39	209.42	0.00	0.00	0.00	
4,300.00	0.00	0.00	4,292.02	60.83	-200.39	209.42	0.00	0.00	0.00	
4,400.00	0.00	0.00	4,392.02	60.83	-200.39	209.42	0.00	0.00	0.00	
4,500.00	0.00	0.00	4,492.02	60.83	-200.39	209.42	0.00	0.00	0.00	
4,600.00	0.00	0.00	4,592.02	60.83	-200.39	209.42	0.00	0.00	0.00	
4,700.00	0.00	0.00	4,692.02	60.83	-200.39	209.42	0.00	0.00	0.00	
4,800.00	0.00	0.00	4,792.02	60.83	-200.39	209.42	0.00	0.00	0.00	
4,900.00	0.00	0.00	4,892.02	60.83	-200.39	209.42	0.00	0.00	0.00	
5,000.00	0.00	0.00	4,992.02	60.83	-200.39	209.42	0.00	0.00	0.00	
5,100.00	0.00	0.00	5,092.02	60.83	-200.39	209.42	0.00	0.00	0.00	
5,200.00	0.00	0.00	5,192.02	60.83	-200.39	209.42	0.00	0.00	0.00	
5,300.00	0.00	0.00	5,292.02	60.83	-200.39	209.42	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,392.02	60.83	-200.39	209.42	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,492.02	60.83	-200.39	209.42	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,592.02	60.83	-200.39	209.42	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,692.02	60.83	-200.39	209.42	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,792.02	60.83	-200.39	209.42	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,892.02	60.83	-200.39	209.42	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,992.02	60.83	-200.39	209.42	0.00	0.00	0.00	
6,100.00	0.00	0.00	6,092.02	60.83	-200.39	209.42	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,192.02	60.83	-200.39	209.42	0.00	0.00	0.00	
6,291.98	0.00	0.00	6,284.00	60.83	-200.39	209.42	0.00	0.00	0.00	
MESAVERDE										
6,300.00	0.00	0.00	6,292.02	60.83	-200.39	209.42	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,392.02	60.83	-200.39	209.42	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,492.02	60.83	-200.39	209.42	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,592.02	60.83	-200.39	209.42	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,692.02	60.83	-200.39	209.42	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,792.02	60.83	-200.39	209.42	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,892.02	60.83	-200.39	209.42	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,992.02	60.83	-200.39	209.42	0.00	0.00	0.00	
7,100.00	0.00	0.00	7,092.02	60.83	-200.39	209.42	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,192.02	60.83	-200.39	209.42	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,292.02	60.83	-200.39	209.42	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,392.02	60.83	-200.39	209.42	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,492.02	60.83	-200.39	209.42	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,592.02	60.83	-200.39	209.42	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,692.02	60.83	-200.39	209.42	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,792.02	60.83	-200.39	209.42	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,892.02	60.83	-200.39	209.42	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,992.02	60.83	-200.39	209.42	0.00	0.00	0.00	
8,100.00	0.00	0.00	8,092.02	60.83	-200.39	209.42	0.00	0.00	0.00	
8,200.00	0.00	0.00	8,192.02	60.83	-200.39	209.42	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,292.02	60.83	-200.39	209.42	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,392.02	60.83	-200.39	209.42	0.00	0.00	0.00	
8,472.98	0.00	0.00	8,465.00	60.83	-200.39	209.42	0.00	0.00	0.00	
TD at 8472.98 - PBHL_NBU 1022-12F4CS										



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Well:	NBU 1022-12F4CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
PBHL_NBU 1022-12F4C - plan hits target center - Circle (radius 25.00)	0.00	0.00	8,465.00	60.83	-200.39	14,517,062.04	2,091,717.09	39° 57' 50.911 N	109° 23' 21.941 W

Casing Points					
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter	
(ft)	(ft)		(in)	(in)	
2,180.33	2,175.00	8 5/8"	8.625	11.000	

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
1,078.94	1,077.00	GREEN RIVER			
4,124.98	4,117.00	WASATCH			
6,291.98	6,284.00	MESAVERDE			

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S	+E/-W		
		(ft)	(ft)		
300.00	300.00	0.00	0.00	Start Build 2.00	
525.00	524.77	2.56	-8.45	Start 2427.98 hold at 525.00 MD	
2,952.98	2,945.27	57.89	-190.74	Start Drop -1.75	
3,210.12	3,202.14	60.83	-200.39	Start 5262.86 hold at 3210.12 MD	
8,472.98	8,465.00	60.83	-200.39	TD at 8472.98	

NBU 1022-12E4CS/ 1022-12F4CS/
 1022-12K1BS/ 1022-12K1CS
 1022-12K4BS/ 1022-12K4CS

Surface Use Plan of Operations
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NBU 1022-12E4CS			
Surface:	2467 FNL / 2350 FWL	SENW	Lot
BHL:	2565 FNL / 822 FWL	SWNW	Lot
NBU 1022-12F4CS			
Surface:	2462 FNL / 2342 FWL	SENW	Lot
BHL:	2401 FNL / 2141 FWL	SENW	Lot
NBU 1022-12K1BS			
Surface:	2473 FNL / 2359 FWL	SENW	Lot
BHL:	2567 FSL / 2142 FWL	NESW	Lot
NBU 1022-12K1CS			
Surface:	2479 FNL / 2367 FWL	SENW	Lot
BHL:	2236 FSL / 2144 FWL	NESW	Lot
NBU 1022-12K4BS			
Surface:	2484 FNL / 2375 FWL	SENW	Lot
BHL:	1904 FSL / 2145 FWL	NESW	Lot
NBU 1022-12K4CS			
Surface:	2490 FNL / 2384 FWL	SENW	Lot
BHL:	1573 FSL / 2146 FWL	NESW	Lot

Pad: NBU 1022-12F4 PAD

Section 12 T10S R22E

Mineral Lease: UT ST UO 01197-A ST

Uintah County, Utah

Operator: Kerr-McGee Oil & Gas Onshore LP

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including but not limited to, APDs/SULAs/ROEs/ROWs and/or easements.)

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

NBU 1022-12E4CS/ 1022-12F4CS/
1022-12K1BS/ 1022-12K1CS
1022-12K4BS/ 1022-12K4CS

Surface Use Plan of Operations
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A. Existing Roads:

Existing roads consist of county and improved/unimproved lease roads. KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

One new access road is proposed (see Topo Map B). The $\pm 610'$ access road will follow the proposed gas and liquid pipelines from the NE side of the pad to the existing access road. Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

If there are roads that are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

During the onsite, turnouts, major cut and fills, culverts, bridges, gates, cattle guards, low water crossings, or modifications needed to existing infrastructure/facilities were determined, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

The NBU 1022-12F4 pad is a newly proposed well pad with no existing wells.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of the well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Gathering Facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

NBU 1022-12E4CS/ 1022-12F4CS/
1022-12K1BS/ 1022-12K1CS
1022-12K4BS/ 1022-12K4CS

Surface Use Plan of Operations
3 of 9

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 985'$ and the individual segments are broken up as follows:

- $\pm 470'$ (0.1 miles) –New 6” buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 515'$ (0.1 miles) –New 6” buried gas pipeline from the edge of pad to the tie-in at the proposed 1022-12F Intersection 8" gas pipeline. Please refer to Topo D & D2.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 985'$ and the individual segments are broken up as follows:

- $\pm 470'$ (0.09 miles) –New 6” buried liquid pipeline from the separator to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 515'$ (0.10 miles) –New 6” buried liquid pipeline from the edge of pad to the tie-in at the proposed 1022-12F Intersection 6" liquid pipeline. Please refer to Topo D & D2.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. Location and Type of Water Supply:

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

NBU 1022-12E4CS/ 1022-12F4CS/
 1022-12K1BS/ 1022-12K1CS
 1022-12K4BS/ 1022-12K4CS

Surface Use Plan of Operations
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- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

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.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods for Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E
 Ace Oilfield in Sec. 2 T6S R20E
 MC&MC in Sec. 12 T6S R19E
 Pipeline Facility in Sec. 36 T9S R20E
 Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
 Bonanza Evaporation Pond in Sec. 2 T10S R23E
 Ouray #1 SWD in Sec. 1 T9S R21E
 NBU 159 SWD in Sec. 35 T9S R21E
 CIGE 112D SWD in Sec. 19 T9S R21E
 CIGE 114 SWD in Sec. 34 T9S R21E
 NBU 921-34K SWD in Sec. 34 T9S R21E
 NBU 921-33F SWD in Sec. 33 T9S R21E
 NBU 921-34L SWD in Sec. 34 T9S R21E

Drill cuttings and/or fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless otherwise approved, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly

be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods (e.g. solidification.)

The reserve and/or fracture stimulation pit will be lined with a synthetic material 20 mil or thicker. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, including accidental release of fluids, or release in excess of reportable quantities, will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule. Where State wells are participatory to a Federal agreement, according to NTL-3A, the appropriate Federal agencies will be notified.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in

40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

NBU 1022-12E4CS/ 1022-12F4CS/
1022-12K1BS/ 1022-12K1CS
1022-12K4BS/ 1022-12K4CS

J. Surface/Mineral Ownership:

SITLA

675 East 500 South, Suite 500

Salt Lake City, UT 84102

L. Other Information:

None

NBU 1022-12E4CS/ 1022-12F4CS/
1022-12K1BS/ 1022-12K1CS
1022-12K4BS/ 1022-12K4CS

Surface Use Plan of Operations
9 of 9

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

Gina T. Becker
Regulatory Analyst II
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6086

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

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

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

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

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.



Gina T. Becker

September 7, 2011

Date



Joseph D. Johnson
1099 18TH STREET STE. 1800 • DENVER, CO
80202
720-929-6708 • FAX 720-929-7708
E-MAIL: JOE.JOHNSON@ANADARKO.COM

September 7, 2011

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

Re: Directional Drilling R649-3-11
NBU 1022-12F4CS
10S-22E-Sec. 12
SEnw/SEnw
Surface: 2462' FNL, 2342' FWL
Bottom Hole: 2401' FNL, 2141' FWL
Uintah County, Utah

Dear Ms. Mason:

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

- Kerr-McGee's NBU 1022-12F4CS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

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

Sincerely,

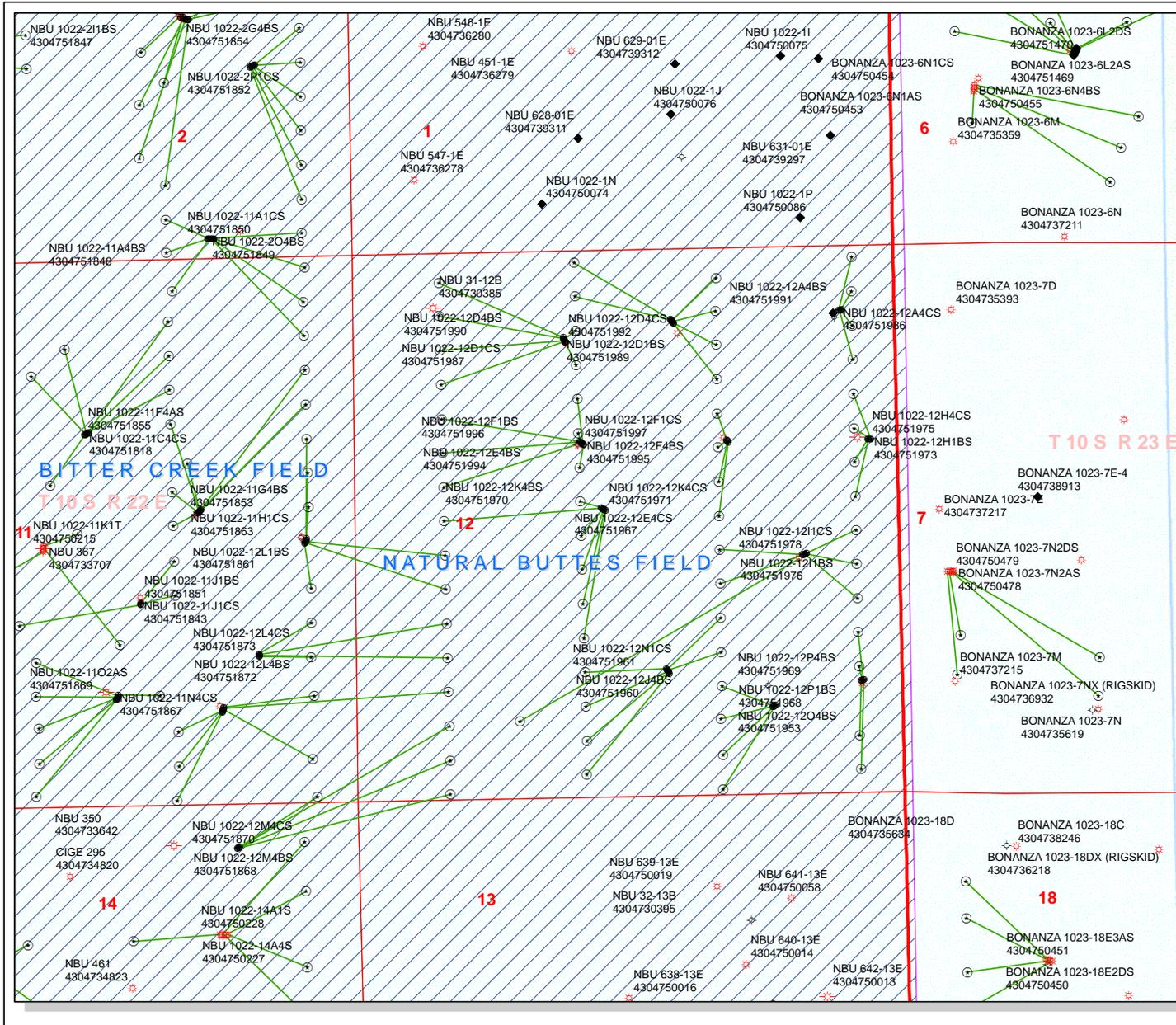
KERR-MCGEE OIL & GAS ONSHORE LP

A handwritten signature in blue ink, appearing to read 'Joe D. Johnson', with a horizontal line underneath.

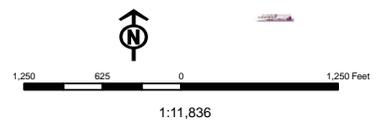
Joseph D. Johnson
Landman

API Number: 4304751964
Well Name: NBU 1022-12F4CS
 Township T10.0 Range R2.2 Section 12
 Meridian: SLBM
 Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
 Map Produced by Diana Mason



Units STATUS	Wells Query Status
ACTIVE	APD - Approved Permit
EXPLORATORY	DRL - Spudded (Drilling Commenced)
GAS STORAGE	GIW - Gas Injection
NF PP OIL	GS - Gas Storage
NF SECONDARY	LA - Location Abandoned
PI OIL	LOC - New Location
PP GAS	OPS - Operation Suspended
PP GEOTHERMAL	PA - Plugged Abandoned
PP OIL	PGW - Producing Gas Well
SECONDARY	POW - Producing Oil Well
TERMINATED	RET - Returned APD
	SGW - Shut-in Gas Well
	SOW - Shut-in Oil Well
	TA - Temp. Abandoned
	TW - Test Well
	WDW - Water Disposal
	WIW - Water Injection Well
	WSW - Water Supply Well



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)

September 19, 2011

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2011 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 2011 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
NBU 1022-12H PAD		
43-047-51941	NBU 1022-12H4BS	Sec 12 T10S R22E 1846 FNL 0361 FEL BHL Sec 12 T10S R22E 2071 FNL 0491 FEL
43-047-51942	NBU 1022-12H1CS	Sec 12 T10S R22E 1843 FNL 0341 FEL BHL Sec 12 T10S R22E 1740 FNL 0491 FEL
43-047-51973	NBU 1022-12H1BS	Sec 12 T10S R22E 1842 FNL 0331 FEL BHL Sec 12 T10S R22E 1408 FNL 0491 FEL
43-047-51975	NBU 1022-12H4CS	Sec 12 T10S R22E 1845 FNL 0351 FEL BHL Sec 12 T10S R22E 2402 FNL 0492 FEL
NBU 1022-12O PAD		
43-047-51943	NBU 1022-12N4BS	Sec 12 T10S R22E 1224 FSL 2329 FEL BHL Sec 12 T10S R22E 0580 FSL 2150 FWL
43-047-51945	NBU 1022-12N4CS	Sec 12 T10S R22E 1216 FSL 2323 FEL BHL Sec 12 T10S R22E 0251 FSL 2141 FWL
43-047-51956	NBU 1022-12J4CS	Sec 12 T10S R22E 1240 FSL 2341 FEL BHL Sec 12 T10S R22E 1409 FSL 1817 FEL
43-047-51959	NBU 1022-12N1BS	Sec 12 T10S R22E 1257 FSL 2352 FEL BHL Sec 12 T10S R22E 1242 FSL 2147 FWL
43-047-51960	NBU 1022-12J4BS	Sec 12 T10S R22E 1249 FSL 2346 FEL BHL Sec 12 T10S R22E 1740 FSL 1816 FEL

RECEIVED: September 20, 2011

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-51961	NBU 1022-12N1CS	Sec 12 T10S R22E 1232 FSL 2335 FEL BHL Sec 12 T10S R22E 0911 FSL 2149 FWL
NBU 1022-12B PAD		
43-047-51944	NBU 1022-12B1BS	Sec 12 T10S R22E 0668 FNL 2232 FEL BHL Sec 12 T10S R22E 0259 FNL 1797 FEL
43-047-51979	NBU 1022-12C1BS	Sec 12 T10S R22E 0651 FNL 2244 FEL BHL Sec 12 T10S R22E 0089 FNL 2138 FWL
43-047-51980	NBU 1022-12B1CS	Sec 12 T10S R22E 0676 FNL 2227 FEL BHL Sec 12 T10S R22E 0579 FNL 1806 FEL
43-047-51981	NBU 1022-12C1CS	Sec 12 T10S R22E 0660 FNL 2238 FEL BHL Sec 12 T10S R22E 0414 FNL 2133 FWL
43-047-51982	NBU 1022-12B4BS	Sec 12 T10S R22E 0684 FNL 2221 FEL BHL Sec 12 T10S R22E 0910 FNL 1807 FEL
43-047-51983	NBU 1022-12B4CS	Sec 12 T10S R22E 0692 FNL 2215 FEL BHL Sec 12 T10S R22E 1241 FNL 1808 FEL
NBU 1022-12P PAD		
43-047-51947	NBU 1022-12P4CS	Sec 12 T10S R22E 1115 FSL 0442 FEL BHL Sec 12 T10S R22E 0246 FSL 0491 FEL
43-047-51962	NBU 1022-12I4CS	Sec 12 T10S R22E 1112 FSL 0451 FEL BHL Sec 12 T10S R22E 1574 FSL 0493 FEL
43-047-51968	NBU 1022-12P1BS	Sec 12 T10S R22E 1109 FSL 0461 FEL BHL Sec 12 T10S R22E 1240 FSL 0489 FEL
43-047-51969	NBU 1022-12P4BS	Sec 12 T10S R22E 1105 FSL 0470 FEL BHL Sec 12 T10S R22E 0580 FSL 0494 FEL
NBU 1022-12P2 PAD		
43-047-51949	NBU 1022-12O1BS	Sec 12 T10S R22E 0877 FSL 1322 FEL BHL Sec 12 T10S R22E 1077 FSL 1818 FEL
43-047-51950	NBU 1022-12O1CS	Sec 12 T10S R22E 0873 FSL 1331 FEL BHL Sec 12 T10S R22E 0761 FSL 1834 FEL
43-047-51953	NBU 1022-12O4BS	Sec 12 T10S R22E 0881 FSL 1313 FEL BHL Sec 12 T10S R22E 0415 FSL 1820 FEL
43-047-51954	NBU 1022-12O4CS	Sec 12 T10S R22E 0885 FSL 1304 FEL BHL Sec 12 T10S R22E 0082 FSL 1828 FEL
NBU 1022-12A PAD		
43-047-51951	NBU 1022-12A1BS	Sec 12 T10S R22E 0598 FNL 0621 FEL BHL Sec 12 T10S R22E 0081 FNL 0481 FEL
43-047-51952	NBU 1022-12A1CS	Sec 12 T10S R22E 0591 FNL 0592 FEL BHL Sec 12 T10S R22E 0414 FNL 0490 FEL

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-51986	NBU 1022-12A4CS	Sec 12 T10S R22E 0596 FNL 0611 FEL BHL Sec 12 T10S R22E 1077 FNL 0491 FEL
43-047-51991	NBU 1022-12A4BS	Sec 12 T10S R22E 0593 FNL 0601 FEL BHL Sec 12 T10S R22E 0746 FNL 0490 FEL
NBU 1022-12I PAD		
43-047-51955	NBU 1022-12J1CS	Sec 12 T10S R22E 2333 FSL 1011 FEL BHL Sec 12 T10S R22E 2071 FSL 1815 FEL
43-047-51957	NBU 1022-12J1BS	Sec 12 T10S R22E 2337 FSL 1002 FEL BHL Sec 12 T10S R22E 2402 FSL 1814 FEL
43-047-51958	NBU 1022-12I4BS	Sec 12 T10S R22E 2341 FSL 0993 FEL BHL Sec 12 T10S R22E 1905 FSL 0493 FEL
43-047-51976	NBU 1022-12I1BS	Sec 12 T10S R22E 2350 FSL 0974 FEL BHL Sec 12 T10S R22E 2568 FSL 0492 FEL
43-047-51978	NBU 1022-12I1CS	Sec 12 T10S R22E 2345 FSL 0984 FEL BHL Sec 12 T10S R22E 2237 FSL 0492 FEL
NBU 1022-12G PAD		
43-047-51963	NBU 1022-12G1CS	Sec 12 T10S R22E 1833 FNL 1721 FEL BHL Sec 12 T10S R22E 1904 FNL 1810 FEL
43-047-51972	NBU 1022-12G4BS	Sec 12 T10S R22E 1841 FNL 1715 FEL BHL Sec 12 T10S R22E 2235 FNL 1812 FEL
43-047-51974	NBU 1022-12G1BS	Sec 12 T10S R22E 1826 FNL 1727 FEL BHL Sec 12 T10S R22E 1572 FNL 1809 FEL
43-047-51977	NBU 1022-12G4CS	Sec 12 T10S R22E 1849 FNL 1709 FEL BHL Sec 12 T10S R22E 2566 FNL 1813 FEL
NBU 1022-12F4 PAD		
43-047-51964	NBU 1022-12F4CS	Sec 12 T10S R22E 2462 FNL 2342 FWL BHL Sec 12 T10S R22E 2401 FNL 2141 FWL
43-047-51965	NBU 1022-12K1BS	Sec 12 T10S R22E 2473 FNL 2359 FWL BHL Sec 12 T10S R22E 2567 FSL 2142 FWL
43-047-51966	NBU 1022-12K1CS	Sec 12 T10S R22E 2479 FNL 2367 FWL BHL Sec 12 T10S R22E 2236 FSL 2144 FWL
43-047-51967	NBU 1022-12E4CS	Sec 12 T10S R22E 2467 FNL 2350 FWL BHL Sec 12 T10S R22E 2565 FNL 0822 FWL
43-047-51970	NBU 1022-12K4BS	Sec 12 T10S R22E 2484 FNL 2375 FWL BHL Sec 12 T10S R22E 1904 FSL 2145 FWL
43-047-51971	NBU 1022-12K4CS	Sec 12 T10S R22E 2490 FNL 2384 FWL BHL Sec 12 T10S R22E 1573 FSL 2146 FWL

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

NBU 1022-12CPAD

43-047-51984	NBU 1022-12C4BS	Sec 12 T10S R22E 0827 FNL 2020 FWL
	BHL	Sec 12 T10S R22E 0745 FNL 2134 FWL

43-047-51985	NBU 1022-12C4CS	Sec 12 T10S R22E 0855 FNL 2031 FWL
	BHL	Sec 12 T10S R22E 1076 FNL 2135 FWL

43-047-51987	NBU 1022-12D1CS	Sec 12 T10S R22E 0818 FNL 2016 FWL
	BHL	Sec 12 T10S R22E 0579 FNL 0819 FWL

43-047-51989	NBU 1022-12D1BS	Sec 12 T10S R22E 0809 FNL 2013 FWL
	BHL	Sec 12 T10S R22E 0260 FNL 0823 FWL

43-047-51990	NBU 1022-12D4BS	Sec 12 T10S R22E 0837 FNL 2024 FWL
	BHL	Sec 12 T10S R22E 0910 FNL 0819 FWL

43-047-51992	NBU 1022-12D4CS	Sec 12 T10S R22E 0846 FNL 2027 FWL
	BHL	Sec 12 T10S R22E 1241 FNL 0820 FWL

NBU 1022-12FPAD

43-047-51988	NBU 1022-12E1BS	Sec 12 T10S R22E 1818 FNL 2146 FWL
	BHL	Sec 12 T10S R22E 1572 FNL 0820 FWL

43-047-51993	NBU 1022-12E1CS	Sec 12 T10S R22E 1824 FNL 2154 FWL
	BHL	Sec 12 T10S R22E 1903 FNL 0821 FWL

43-047-51994	NBU 1022-12E4BS	Sec 12 T10S R22E 1835 FNL 2170 FWL
	BHL	Sec 12 T10S R22E 2234 FNL 0821 FWL

43-047-51995	NBU 1022-12F4BS	Sec 12 T10S R22E 1847 FNL 2187 FWL
	BHL	Sec 12 T10S R22E 2070 FNL 2140 FWL

43-047-51996	NBU 1022-12F1BS	Sec 12 T10S R22E 1841 FNL 2179 FWL
	BHL	Sec 12 T10S R22E 1407 FNL 2137 FWL

43-047-51997	NBU 1022-12F1CS	Sec 12 T10S R22E 1830 FNL 2162 FWL
	BHL	Sec 12 T10S R22E 1739 FNL 2138 FWL

Michael L. Coulthard

Digitally signed by Michael L. Coulthard
 DN: cn=Michael L. Coulthard, o=Bureau of Land Management, ou=Branch of Minerals,
 email=Michael_Coulthard@blm.gov, c=US
 Date: 2011.09.19 14:47:24 -0600

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

MCoulthard:mc:9-19-11

RECEIVED: September 20, 2011

From: Diana Mason
To:
Subject: Fwd: Kerr McGee APD approvals

The following APDs have been approved by SITLA including arch and paleo clearance.

NBU 1022-12A1BS (4304751951)
NBU 1022-12A1CS (4304751952)
NBU 1022-12A4CS (4304751986)
)NBU 1022-12A4BS (4304751991)
NBU 1022-12J1CS (4304751955)
NBU 1022-12J1BS (4304751957)
NBU 1022-12I4BS (4304751958)
NBU 1022-12I1BS (4304751976)
NBU 1022-12I1CS (4304751978)
NBU 1022-12B1BS (4304751944)
)NBU 1022-12C1BS (4304751979)
NBU 1022-12B1CS (4304751980)
)NBU 1022-12C1CS (4304751981)
NBU 1022-12B4BS (4304751982)
NBU 1022-12B4CS (4304751983)
)NBU 1022-12H4BS (4304751941)
NBU 1022-12H1CS (4304751942)
NBU 1022-12H1BS (4304751973)
NBU 1022-12H4CS (4304751975)
NBU 1022-12F4CS (4304751964)
NBU 1022-12K1BS (4304751965)
NBU 1022-12K1CS (4304751966)
NBU 1022-12E4CS (4304751967)
NBU 1022-12K4BS (4304751970)
NBU 1022-12K4CS (4304751971)
NBU 1022-12O1BS (4304751949)
NBU 1022-12O1CS (4304751950)
NBU 1022-12O4BS (4304751953)
NBU 1022-12O4CS (4304751954)
NBU 1022-12P4CS (4304751947)
NBU 1022-12I4CS (4304751962)
NBU 1022-12P1BS (4304751968)
NBU 1022-12P4BS (4304751969)
NBU 1022-12G1CS (4304751963)
NBU 1022-12G4BS (4304751972)
NBU 1022-12G1BS (4304751974)
NBU 1022-12G4CS (4304751977)
NBU 1022-12N4BS (4304751943)
NBU 1022-12N4CS (4304751945)
NBU 1022-12J4CS (4304751956)
NBU 1022-12N1BS (4304751959)
NBU 1022-12J4BS (4304751960)
NBU 1022-12N1CS (4304751961)

-Jim Davis

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

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 1022-12F4C			
String	Surf	Prod		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2175	8465		
Previous Shoe Setting Depth (TVD)	40	2175		
Max Mud Weight (ppg)	8.3	12.5		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	7780		
Operators Max Anticipated Pressure (psi)	5418	12.3		

Calculations	Surf String	8.625	"
Max BHP (psi)	.052*Setting Depth*MW=	939	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	678	NO <input type="text" value="air drill"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	461	YES <input type="text" value="OK"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	469	NO <input type="text" value="Reasonable for area"/>
Required Casing/BOPE Test Pressure=		2175	psi
*Max Pressure Allowed @ Previous Casing Shoe=		40	psi *Assumes 1psi/ft frac gradient

Calculations	Prod String	4.500	"
Max BHP (psi)	.052*Setting Depth*MW=	5502	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4486	YES <input type="text"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3640	YES <input type="text" value="OK"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	4118	NO <input type="text" value="Reasonable"/>
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2175	psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO <input type="text"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO <input type="text"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO <input type="text"/>
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

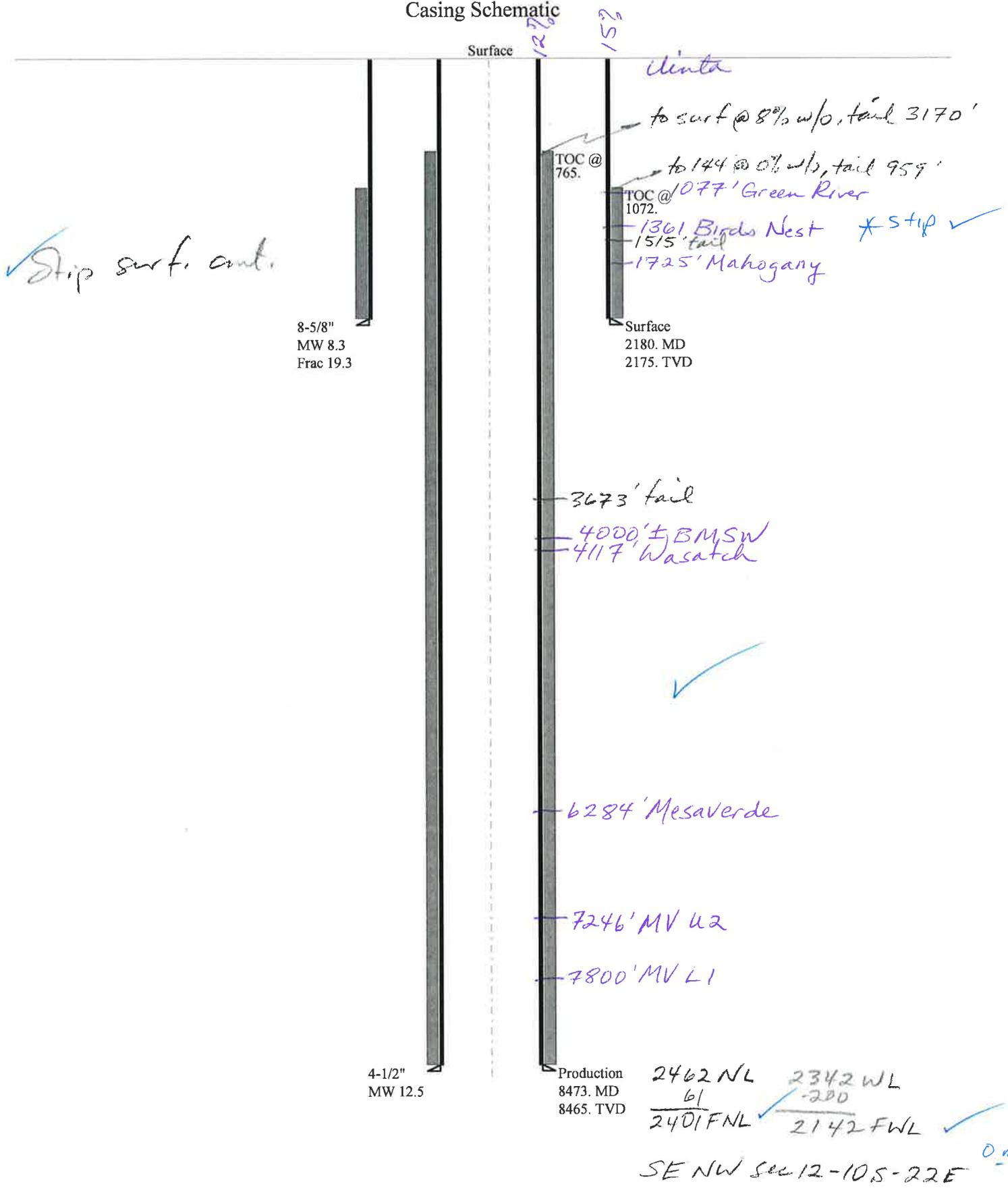
Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO <input type="text"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO <input type="text"/>
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO <input type="text"/>
Required Casing/BOPE Test Pressure=			psi

API Well Number: 43047519640000

*Max Pressure Allowed @ Previous Casing Shoe=	<input type="text"/>	psi *Assumes 1psi/ft frac gradient
---	----------------------	------------------------------------

43047519640000 NBU 1022-12F4CS

Casing Schematic



✓ Stip surf. cont.

8-5/8"
MW 8.3
Frac 19.3

4-1/2"
MW 12.5

Production
8473. MD
8465. TVD

2462 NL	2342 WL
61	-200
2401 FNL ✓	2142 FWL ✓

SE NW Sec 12-10S-22E ^{0.2}

Well name:	43047519640000 NBU 1022-12F4CS	
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.	
String type:	Surface	Project ID: 43-047-51964
Location:	UINTAH COUNTY	

Design parameters:

Collapse

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

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 104 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft
Cement top: 1,072 ft

Burst

Max anticipated surface pressure: 1,918 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,179 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 1,912 ft

Directional Info - Build & Drop

Kick-off point 300 ft
Departure at shoe: 139 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 4.5 °

Re subsequent strings:

Next setting depth: 8,473 ft
Next mud weight: 12.500 ppg
Next setting BHP: 5,502 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,180 ft
Injection pressure: 2,180 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)	Est. Cost (\$)
1	2180	8.625	28.00	I-55	LT&C	2175	2180	7.892	86328
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	941	1880	1.998	2179	3390	1.56	60.9	348	5.72 J

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

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

Date: November 21, 2011
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2175 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name:	43047519640000 NBU 1022-12F4CS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Production	Project ID:	43-047-51964
Location:	UINTAH COUNTY		

Design parameters:

Collapse

Mud weight: 12.500 ppg
 Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 193 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft
 Cement top: 765 ft

Burst

Max anticipated surface pressure: 3,634 psi
 Internal gradient: 0.220 psi/ft
 Calculated BHP 5,497 psi

No backup mud specified.

Tension:

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

Tension is based on air weight.
 Neutral point: 6,891 ft

Directional Info - Build & Drop

Kick-off point 300 ft
 Departure at shoe: 209 ft
 Maximum dogleg: 2 °/100ft
 Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	8473	4.5	11.60	I-80	LT&C	8465	8473	3.875	111844
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	5497	6360	1.157	5497	7780	1.42	98.2	212	2.16 J

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

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

Date: November 21, 2011
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8465 ft, a mud weight of 12.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.
Well Name NBU 1022-12F4CS
API Number 43047519640000 **APD No** 4591 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 SENW **Sec** 12 **Tw** 10.0S **Rng** 22.0E 2462 FNL 2342 FWL
GPS Coord (UTM) 637625 4424789 **Surface Owner**

Participants

Andy Lytle, Sheila Wopsock, Charles Chase, Grizz Oleen, Jaime Scharnowski, Doyle Holmes, (Kerr McGee). John Slauch, Mitch Batty, (Timberline). Jim Davis (SITLA). Ben Williams (DWR). David Hackford, (DOGM).

Regional/Local Setting & Topography

The general area is in the southeast portion of the Natural Buttes Unit. Within this area is the White River and rugged drainages that drain into it. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is approx. 0.3 miles to the west. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 47.3 miles to the northwest. Access from Vernal is by following Utah State, Uintah County and oilfield development roads. Five wells, in addition to this one (for a total of six) will be directionally drilled from this pad. This proposed location will be a new pad. A 610' new access road will be constructed. The proposed location will run in a northwest-southeast direction on the top of a flat topped ridge. This ridge breaks off sharply into rugged secondary canyons especially to the south. The reserve pit will be on the south corner of the location and the excess cut stockpiles will be on the west, north and south sides of the location. The north corner of the location will be compacted fill. The pad should be stable and should be a suitable location for six wells, and is on the best site available in the immediate area.

Surface Use Plan

Current Surface Use

Grazing
Wildlife Habitat

New Road Miles	Well Pad	Src Const Material	Surface Formation
0.11	Width 352 Length 425	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Prickly pear, wild onion, shadscale, mat saltbrush, Indian ricegrass, halogeton, pepper grass, annuals and curly Vegetation is a salt desert shrub type. Principal species present are cheatgrass, black sagebrush, stipa, mesquite grass.

Sheep, antelope, coyote, raptors, small mammals and birds.

Soil Type and Characteristics

Rocky sandy clay loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues Y

North corner of location will be 7.4 feet of fill. This must be compacted during location construction.

Drainage Diversion Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y **Paleo Potential Observed?** N **Cultural Survey Run?** Y **Cultural Resources?** N

Reserve Pit

Site-Specific Factors		Site Ranking	
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	High permeability	20	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	50	1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut on the south corner of the location. Dimensions are 120' x 260' x 12' deep with two feet of freeboard. Kerr McGee has agreed to line this pit with a 16 mil synthetic liner and a layer of felt sub-liner.

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

Other Observations / Comments

There is an unused water well 300' north of this site.

David Hackford
Evaluator

10/12/2011
Date / Time

Application for Permit to Drill Statement of Basis

12/12/2011

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
4591	43047519640000	SITLA	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		Surface Owner-APD		
Well Name	NBU 1022-12F4CS	Unit		NATURAL BUTTES	
Field	NATURAL BUTTES	Type of Work		DRILL	
Location	SENW 12 10S 22E S 2462 FNL 2342 FWL		GPS Coord (UTM)		637551E 4424998N

Geologic Statement of Basis

Kerr McGee proposes to set 2,180' 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 4,000'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 12. 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. Production casing cement should be brought up above the base of the moderately saline ground water to isolate it from fresher waters uphole.

Brad Hill
APD Evaluator

11/2/2011
Date / Time

Surface Statement of Basis

The general area is in the southeast portion of the Natural Buttes Unit. Within this area is the White River and rugged drainages that drain into it. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is 0.3 miles to the east. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 47.3 miles to the northwest. Access from Vernal is by following Utah State, Uintah County and oilfield development roads. A 610' new access road will be constructed.

Six wells will be directionally drilled from this location. They are the NBU 1022-12E4CS, NBU 1022-12F4CS, NBU 1022-12K1BS, NBU 1022-12K1CS, NBU 1022-12K4BS and the NBU 1022-12K4CS. The proposed location is on the point of a flat topped ridge that runs in a north-south direction. This ridge breaks off sharply into rugged secondary canyons especially to the south. The pad as constructed should be stable and sufficient for six wells, and is the best site in the immediate area.

Excess material will be stockpiled on the west and east sides of the location. The north corner of the location will be fill and will be compacted during location construction.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA and Ben Williams with DWR were invited by email to the pre-site evaluation. Both were present. Kerr McGee was told to consult with SITLA for reclamation standards including seeding mixes to be used.

David Hackford
Onsite Evaluator

10/12/2011
Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the south side of the location.

RECEIVED: December 12, 2011

**Application for Permit to Drill
Statement of Basis**

12/12/2011

Utah Division of Oil, Gas and Mining

Page 2

Surface

The well site shall be bermed to prevent fluids from leaving the pad.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 9/13/2011**API NO. ASSIGNED:** 43047519640000**WELL NAME:** NBU 1022-12F4CS**OPERATOR:** KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)**PHONE NUMBER:** 720 929-6086**CONTACT:** Gina Becker**PROPOSED LOCATION:** SENW 12 100S 220E**Permit Tech Review:** **SURFACE:** 2462 FNL 2342 FWL**Engineering Review:** **BOTTOM:** 2401 FNL 2141 FWL**Geology Review:** **COUNTY:** UINTAH**LATITUDE:** 39.96395**LONGITUDE:** -109.38946**UTM SURF EASTINGS:** 637551.00**NORTHINGS:** 4424998.00**FIELD NAME:** NATURAL BUTTES**LEASE TYPE:** 3 - State**LEASE NUMBER:** UT ST UO 01997-A ST**PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE**SURFACE OWNER:** 3 - State**COALBED METHANE:** NO**RECEIVED AND/OR REVIEWED:**

- PLAT**
- Bond:** STATE/FEE - 22013542
- Potash**
- Oil Shale 190-5**
- Oil Shale 190-3**
- Oil Shale 190-13**
- Water Permit:** 43-8496
- RDCC Review:**
- Fee Surface Agreement**
- Intent to Commingle**

Commingle Approved**LOCATION AND SITING:**

- R649-2-3.**
- Unit:** NATURAL BUTTES
- R649-3-2. General**
- R649-3-3. Exception**
- Drilling Unit**
- Board Cause No:** Cause 173-14
- Effective Date:** 12/2/1999
- Siting:** Suspends General Siting
- R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:

- 3 - Commingle - ddoucet
- 5 - Statement of Basis - bhill
- 15 - Directional - dmason
- 17 - Oil Shale 190-5(b) - dmason
- 25 - Surface Casing - hmacdonald



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 1022-12F4CS
API Well Number: 43047519640000
Lease Number: UT ST UO 01997-A ST
Surface Owner: STATE
Approval Date: 12/12/2011

Issued to:

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

Authority:

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

Duration:

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

Commingle:

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

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

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

Additional Approvals:

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

- Any changes to the approved drilling plan – contact Dustin Doucet
- Significant plug back of the well – contact Dustin Doucet
- Plug and abandonment of the well – contact Dustin Doucet

Notification Requirements:

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

- Within 24 hours following the spudding of the well – contact Carol Daniels
OR
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <http://oilgas.ogm.utah.gov>
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program – contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well – contact Dan Jarvis

Contact Information:

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

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:



For John Rogers
Associate Director, Oil & Gas

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01997-	
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	
8. WELL NAME and NUMBER: NBU 1022-12F4CS	
9. API NUMBER: 43047519640000	
9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 PHONE NUMBER: 720 929-6511	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2462 FNL 2342 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S	
COUNTY: UINTAH	
STATE: UTAH	

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 4/7/2012	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

MIRU TRIPLE A BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'.
 RAN 14" 36.7# SCHEDULE 10 CONDUCTOR PIPE. CEMENT WITH 28
 SACKS READY MIX. SPUD WELL LOCATION ON APRIL 7, 2012 AT 12:30
 HRS.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 April 17, 2012

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 4/11/2012	

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
 Submitted By JAIME SCHARNOWSKE Phone Number 720.929.6304
 Well Name/Number NBU 1022-12F4CS
 Qtr/Qtr SENW Section 12 Township 10S Range 22E
 Lease Serial Number UT ST UO 01997-A ST
 API Number 4304751964

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 04/06/2012 14:00 HRS AM PM

Casing – Please report time casing run starts, not cementing times.

- Surface Casing
 Intermediate Casing
 Production Casing
 Liner
 Other

RECEIVED

APR 03 2012

DIV. OF OIL, GAS & MINING

Date/Time 04/18/2012 08:00 HRS AM PM

BOPE

- Initial BOPE test at surface casing point
 BOPE test at intermediate casing point
 30 day BOPE test
 Other

Date/Time _____ AM PM

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT

435.828.0986 OR LOVEL YOUNG AT 435.781.7051

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
 Submitted By JAIME SCHARNOWSKE Phone Number 720.929.6304
 Well Name/Number NBU 1022-12F4CS
 Qtr/Qtr SENW Section 12 Township 10S Range 22E
 Lease Serial Number UT ST UO 01997-A ST
 API Number 4304751964

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 04/06/2012 14:00 HRS AM PM

Casing – Please report time casing run starts, not cementing times.

- Surface Casing
 Intermediate Casing
 Production Casing
 Liner
 Other

RECEIVED

APR 03 2012

DIV. OF OIL, GAS & MINING

Date/Time 04/18/2012 08:00 HRS AM PM

BOPE

- Initial BOPE test at surface casing point
 BOPE test at intermediate casing point
 30 day BOPE test
 Other

Date/Time _____ AM PM

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT

435.828.0986 OR LOVEL YOUNG AT 435.781.7051

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

FORM 6

ENTITY ACTION FORM

Operator: KERR MCGEE OIL & GAS ONSHORE LP Operator Account Number: N 2995
 Address: P.O. Box 173779
City Denver
State CO Zip 80217 Phone Number: (720) 929-6304

Well 1

API Number	Well Name		QQ	Sec	TwP	Rng	County
4304751965	NBU 1022-12K1BS		SEnw	12	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	999999	2900	4/6/2012		4/24/2012		
Comments: MIRU BUCKET RIG SPUD WELL LOCATION ON 4/6/2012 AT 16:00 HOURS. <i>wsmvd</i> <i>BHL New</i>							

Well 2

API Number	Well Name		QQ	Sec	TwP	Rng	County
4304751967	NBU 1022-12E4CS		SEnw	12	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	999999	2900	4/7/2012		4/24/2012		
Comments: MIRU BUCKET RIG SPUD WELL LOCATION ON 4/7/2012 AT 09:00 HOURS. <i>wsmvd</i> <i>BHL: SWNW</i>							

Well 3

API Number	Well Name		QQ	Sec	TwP	Rng	County
4304751964	NBU 1022-12F4CS		SEnw	12	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	999999	2900	4/7/2012		4/24/2012		
Comments: MIRU BUCKET RIG SPUD WELL LOCATION ON 4/7/2012 AT 12:30 HOURS. <i>wsmvd</i> <i>BHL: SENW</i>							

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)

RECEIVED
APR 11 2012

JAIME SCHARNOWSKE

Name (Please Print) Jaime Scharnowske

Signature REGULATORY ANALYST 4/11/2012

Title REGULATORY ANALYST Date 4/11/2012

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

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER:
UT ST UO 01197-A 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:
UTU63047A

1. TYPE OF WELL OIL WELL GAS WELL OTHER _____

8. WELL NAME and NUMBER:
Multiple Well Locations

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

9. API NUMBER:

3. ADDRESS OF OPERATOR:
P.O. Box 173779 Denver CO 80217

PHONE NUMBER:
(720) 929-6086

10. FIELD AND POOL, OR W/LDCAT
Natural Buttes

4. LOCATION OF WELL

FOOTAGES AT SURFACE: **Various Locations in T10S-R22E, Section 12** COUNTY: **Uintah**

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: **12 10S 22E 6** STATE: **UTAH**

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

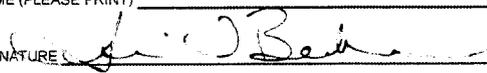
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>4/23/2012</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Lease Number Correction</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

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

Kerr-McGee is requesting approval to correct the lease number from UT ST UO 01997-A ST to UT ST UO 01197-A ST for various well locations. Please see attached well list.

Thank you!

NAME (PLEASE PRINT) Gina T Becker TITLE Senior Regulatory Analyst

SIGNATURE  DATE 4/23/2012

(This space for State use only)

RECEIVED

APR 24 2012

Div. of Oil, Gas & Mining

	API UWI NO	WELL NAME	SL STATE	SL SECTION	SL TOWNSHIP	SL RANGE	SL COUNTY NAME	GOV LEASE NO	FEDERAL LEASE NO
1	4304751951	NBU 1022-12A1BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
2	4304751952	NBU 1022-12A1CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
3	4304751991	NBU 1022-12A4BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
4	4304751986	NBU 1022-12A4CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
5	4304751944	NBU 1022-12B1BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
6	4304751980	NBU 1022-12B1CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
7	4304751982	NBU 1022-12B4BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
8	4304751983	NBU 1022-12B4CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
9	4304751979	NBU 1022-12C1BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
10	4304751981	NBU 1022-12C1CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
11	4304751984	NBU 1022-12C4BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
12	4304751985	NBU 1022-12C4CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
13	4304751989	NBU 1022-12D1BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
14	4304751987	NBU 1022-12D1CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
15	4304751990	NBU 1022-12D4BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
16	4304751992	NBU 1022-12D4CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
17	4304751988	NBU 1022-12E1BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
18	4304751993	NBU 1022-12E1CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
19	4304751994	NBU 1022-12E4BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
20	4304751996	NBU 1022-12F1BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
21	4304751997	NBU 1022-12F1CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
22	4304751995	NBU 1022-12F4BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
23	4304751967	NBU 1022-12E4CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
24	4304751964	NBU 1022-12F4CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
25	4304751965	NBU 1022-12K1BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
26	4304751966	NBU 1022-12K1CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
27	4304751970	NBU 1022-12K4BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
28	4304751971	NBU 1022-12K4CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
29	4304751974	NBU 1022-12G1BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
30	4304751963	NBU 1022-12G1CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
31	4304751972	NBU 1022-12G4BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
32	4304751977	NBU 1022-12G4CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
33	4304751973	NBU 1022-12H1BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
34	4304751942	NBU 1022-12H1CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
35	4304751941	NBU 1022-12H4BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
36	4304751975	NBU 1022-12H4CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
37	4304751976	NBU 1022-12I1BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
38	4304751978	NBU 1022-12I1CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
39	4304751958	NBU 1022-12I4BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
40	4304751957	NBU 1022-12J1BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
41	4304751955	NBU 1022-12J1CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
42	4304751960	NBU 1022-12J4BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
43	4304751956	NBU 1022-12J4CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
44	4304751959	NBU 1022-12N1BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
45	4304751961	NBU 1022-12N1CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
46	4304751943	NBU 1022-12N4BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
47	4304751945	NBU 1022-12N4CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
48	4304751962	NBU 1022-12I4CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
49	4304751968	NBU 1022-12P1BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A

	API UWI NO	WELL NAME	SL STATE	SL SECTION	SL TOWNSHIP	SL RANGE	SL COUNTY NAME	GOV LEASE NO	FEDERAL LEASE NO
50	4304751969	NBU 1022-12P4BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
51	4304751947	NBU 1022-12P4CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
52	4304751949	NBU 1022-12O1BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
53	4304751950	NBU 1022-12O1CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
54	4304751953	NBU 1022-12O4BS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A
55	4304751954	NBU 1022-12O4CS	UT	12	10	22	UINTAH	UT ST UO 01197-A ST	UTU63047A

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197-	
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	
8. WELL NAME and NUMBER: NBU 1022-12F4CS	
9. API NUMBER: 43047519640000	
9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 PHONE NUMBER: 720 929-6511	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2462 FNL 2342 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S	
COUNTY: UINTAH	
STATE: UTAH	

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 4/29/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

MIRU AIR RIG ON 4/27/2012. DRILLED SURFACE HOLE TO 2290'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 May 09, 2012**

NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 4/30/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197-	
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	
8. WELL NAME and NUMBER: NBU 1022-12F4CS	
9. API NUMBER: 43047519640000	
9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
1. TYPE OF WELL Gas Well	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 PHONE NUMBER: 720 929-6511	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2462 FNL 2342 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S	
COUNTY: UINTAH	
STATE: UTAH	

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 5/16/2012	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

THE OPERATOR REQUESTS APPROVAL FOR A FIT WAIVER, A CLOSED LOOP DRILLING OPTION, AND A PRODUCTION CASING CHANGE. ALL OTHER ASPECTS OF THE PREVIOUSLY APPROVED DRILLING PLAN WILL NOT CHANGE. PLEASE SEE THE ATTACHMENT. THANK YOU.

Approved by the Utah Division of Oil, Gas and Mining
Date: May 24, 2012
By: *D. K. Duff*

NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 5/16/2012	

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 1022-12F4CS**

Surface: 2462 FNL / 2342 FWL SENW
 BHL: 2401 FNL / 2141 FWL SENW

Section 12 T10S R22E

Uintah County, Utah
 Mineral Lease: UT ST UO 01197-A ST

ONSHORE ORDER NO. 1**DRILLING PROGRAM**

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

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,077'	
Birds Nest	1,361'	Water
Mahogany	1,725'	Water
Wasatch	4,117'	Gas
Mesaverde	6,284'	Gas
Sego	8,465'	Gas
TVD	8,465'	
TD	8,473'	

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 bottom hole pressure calculated at 8465' TVD, approximately equals
5,418 psi 0.64 psi/ft = actual bottomhole gradient

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

Maximum anticipated surface pressure equals approximately 3,543 psi (bottom hole pressure
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-

(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

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

9. Variances:

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

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

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

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

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

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

Background

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

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

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

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

Variance for BOPE Requirements

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

Variance for Mud Material Requirements

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

Variance for Special Drilling Operation (surface equipment placement) Requirements

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

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

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

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

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

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

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

10. Other Information:

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	LTC		DQX
							COLLAPSE	TENSION	
CONDUCTOR	14"	0-40'				3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0 to 2,180	28.00	IJ-55	LTC	2.48	1.84	6.51	N/A
						7,780	6,350	223,000	267,035
PRODUCTION	4-1/2"	0 to 5,000	11.60	I-80	DQX	1.11	1.15		3.36
						7,780	6,350	223,000	267,035
	4-1/2"	5,000 to 8,473'	11.60	I-80	LTC	1.11	1.15	6.84	

Surface casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe
 Fracture at surface shoe with 0.1 psi/ft gas gradient above
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
	Option 1 TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
NOTE: If well will circulate water to surface, option 2 will be utilized							
SURFACE	LEAD	1,680'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	160	35%	11.00	3.82
	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	3,613'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	290	35%	12.00	3.38
	TAIL	4,860'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,150	35%	14.30	1.31

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

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

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well. 1 centralizer on the first 3 joints and one every third joint thereafter.

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER:

Nick Spence / Danny Showers / Chad Loesel

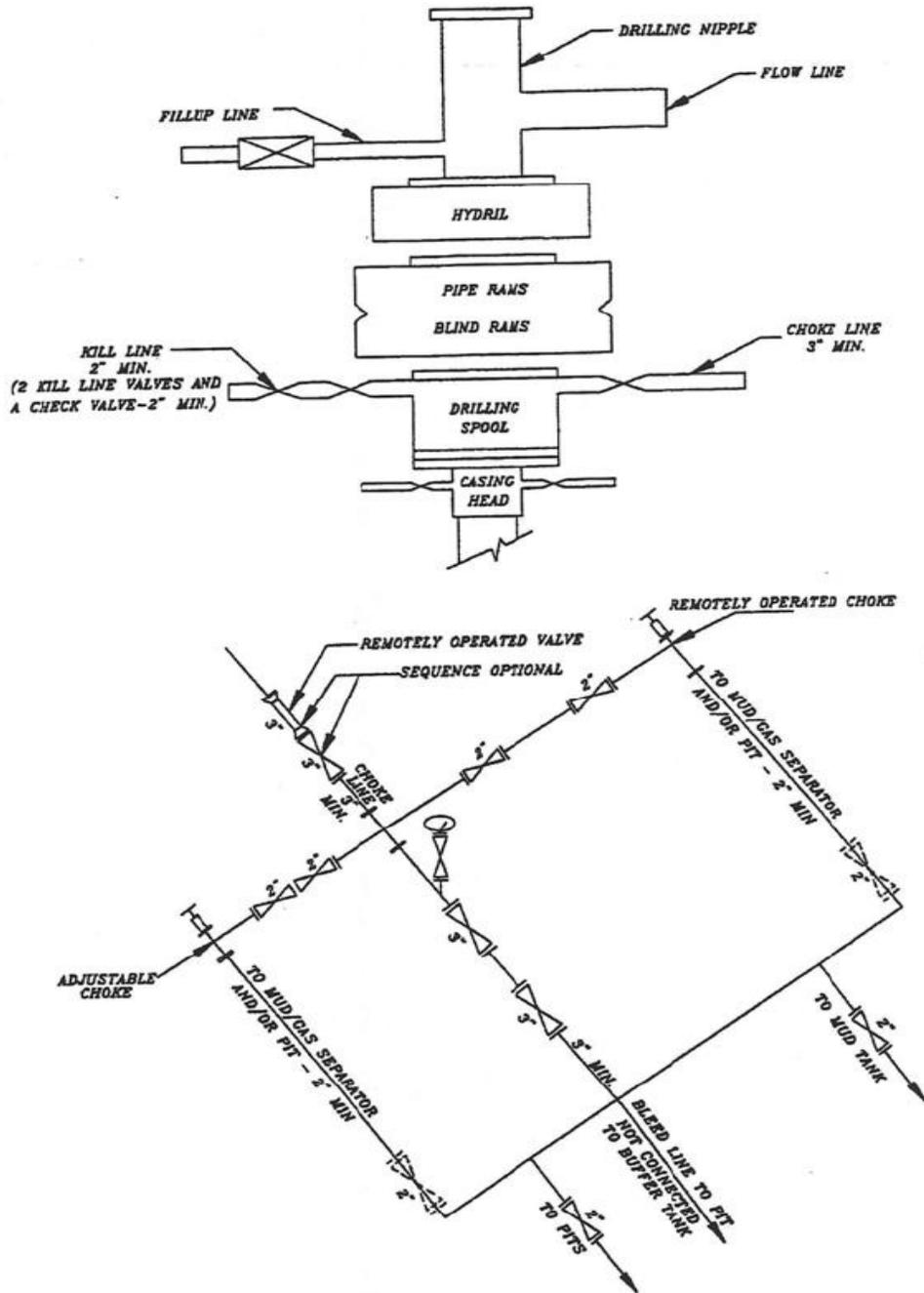
DATE: _____

DRILLING SUPERINTENDENT:

Kenny Gathings / Lovel Young

DATE: _____

EXHIBIT A NBU 1022-12F4CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

Requested Drilling Options:

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

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.	
1. TYPE OF WELL Gas Well	5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197-
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2462 FNL 2342 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S	8. WELL NAME and NUMBER: NBU 1022-12F4CS
PHONE NUMBER: 720 929-6511	9. API NUMBER: 43047519640000
9. FIELD and POOL or WILDCAT: NATURAL BUTTES	COUNTY: Uintah
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 6/12/2012	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="ACTS PIT"/>

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

MIRU ROTARY RIG. FINISHED DRILLING FROM 2290' TO 8525' ON 6/10/2012. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED PIONEER 54 RIG ON 6/12/2012 @ 18:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES. THE PIT ON THIS LOCATION WILL BE REFURBISHED AND UTILIZED AS PART OF THE ACTS SYSTEM.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 June 13, 2012

NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 6/13/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197-
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 1022-12F4CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047519640000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2462 FNL 2342 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S	COUNTY: UINTAH STATE: UTAH

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<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 8/3/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

No activity for the month of July 2012. Well TD at 8,525'.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 August 07, 2012**

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regularatory Analyst
SIGNATURE N/A	DATE 8/3/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197-
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 1022-12F4CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047519640000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2462 FNL 2342 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S	COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 7/26/2012	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="MULTI-PHASE METER"/>

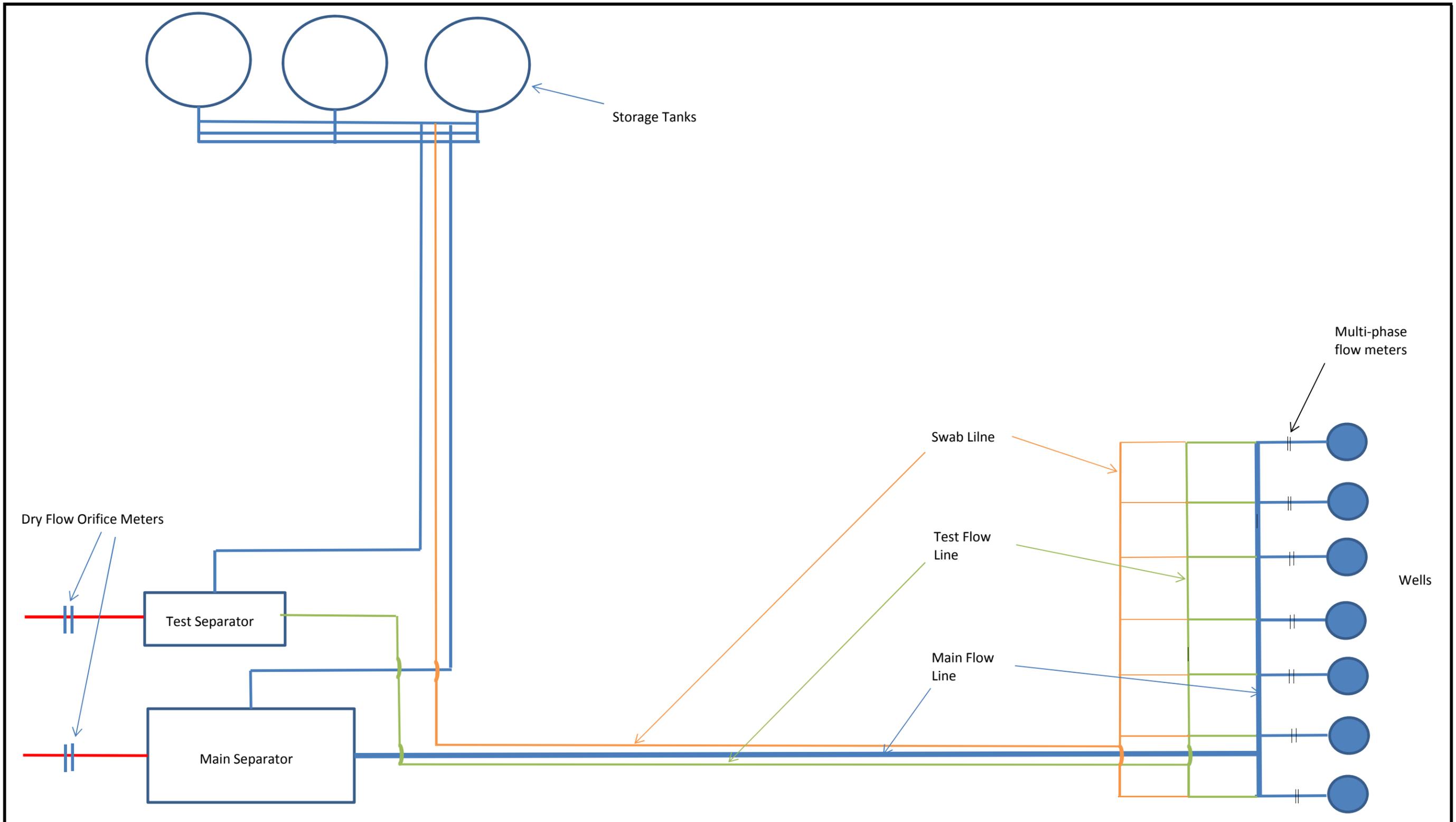
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The operator is requesting approval to measure total gas produced from a pad, and to allocate gas production to the individual wells on the pad based upon multi-phase flow measurement at each well and periodic well tests. Please see the attached documents.

Approved by the Utah Division of Oil, Gas and Mining
Date: August 20, 2012
By: *D. K. Quist*

NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 7/26/2012	

The fluids from each well will be measured utilizing a multi-phase flow meter and then directed to a common separator for all wells on the pad. Liquids would be directed to tanks and the gas from all the wells measured through a calibrated orifice meter. The volume of gas measured through this meter, plus fuel gas consumed on location, will be the volume of gas that is produced from the pad. Gas volume for each individual well on the pad will be based on an allocation formula utilizing the total pad volume measured plus fuel gas consumed and the calculated volume from each well utilizing the multi-phase flow meters. The multi-phase flow meter volume calculation will be calibrated by periodic individual well tests.



Location Diagram with Multi-phase flow meters, main separator, test separator and associated storage tanks and flowlines.
28-Jun-12

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197-
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
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2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047519640000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2462 FNL 2342 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S	COUNTY: UINTAH STATE: UTAH

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<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 9/5/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
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	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

No Activity for the month of August 2012. Well TD at 8,525.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 September 05, 2012**

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regularatory Analyst
SIGNATURE N/A	DATE 9/5/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197-	
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.	
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8. WELL NAME and NUMBER: NBU 1022-12F4CS	
9. API NUMBER: 43047519640000	
9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 PHONE NUMBER: 720 929-6511	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2462 FNL 2342 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S	
COUNTY: UINTAH	
STATE: UTAH	

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TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 10/3/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
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	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

No Activity for the month of September 2012. Well TD at 8,525.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 October 03, 2012

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 10/3/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197-	
SUNDRY NOTICES AND REPORTS ON WELLS	
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COUNTY: UINTAH	
STATE: UTAH	

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<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 11/5/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
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	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

No Activity for the month of October 2012. Well TD at 8,525.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 November 05, 2012

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 11/5/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197-	
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8. WELL NAME and NUMBER: NBU 1022-12F4CS	
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COUNTY: UINTAH	
STATE: UTAH	

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<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
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<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 12/4/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
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12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Started completing the well. Well TD at 8,525.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 December 05, 2012

NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMBER 720 929-6857	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 12/4/2012	

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.	
1. TYPE OF WELL Gas Well	5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197-
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
PHONE NUMBER: 720 929-6511	8. WELL NAME and NUMBER: NBU 1022-12F4CS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2462 FNL 2342 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 12 Township: 10.0S Range: 22.0E Meridian: S	9. API NUMBER: 43047519640000
	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
	COUNTY: UINTAH
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 12/5/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input checked="" type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

The subject well was placed on production on 12/05/2012. The Chronological Well History will be submitted with the well completion report.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 December 06, 2012**

NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMBER 720 929-6857	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 12/6/2012	

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

AMENDED REPORT FORM 8
(highlight changes)

5. LEASE DESIGNATION AND SERIAL NUMBER:
UT ST UO 01197-A ST

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME
UTU63047A

8. WELL NAME and NUMBER:
NBU 1022-12F4CS

9. API NUMBER:
4304751964

10. FIELD AND POOL, OR WILDCAT
NATURAL BUTTES

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
SENW 12 10S 22E S

12. COUNTY
UINTAH

13. STATE
UTAH

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL GAS WELL DRY OTHER _____

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

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

3. ADDRESS OF OPERATOR: P.O. BOX 173779 CITY DENVER STATE CO ZIP 80217 PHONE NUMBER: (720) 929-6000

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: **SENW 2462 FNL 2342 FWLS12,T10S,R22E**
AT TOP PRODUCING INTERVAL REPORTED BELOW: **SENW 2402 FNL 2130 FWL S12, T10S, R22E**
AT TOTAL DEPTH: **SENW 2405 FNL 2131 FWL S12, T10S, R22E** *BHL by HSM*

14. DATE SPUDDED: 4/7/2012 15. DATE T.D. REACHED: 6/10/2012 16. DATE COMPLETED: 12/5/2012 ABANDONED READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL):
5215 RKB

18. TOTAL DEPTH: MD 8,525 TVD 8,516 19. PLUG BACK T.D.: MD 8,428 TVD 8,419 20. IF MULTIPLE COMPLETIONS, HOW MANY? * 21. DEPTH BRIDGE MD PLUG SET: TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)

BHP-HDIL/ZDL/CNGR-CBL/GR/CCL/TEMP

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#	0	40		28			
11"	8 5/8" J-55	28#	0	2,273		1,191		0	
7 7/8"	4 1/2" P-110	11.6#	0	8,476		1,745		130	

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"	7,794							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) MESAVERDE	6,374	8,280			6,374 8,280	0.36	159	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
(B)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

27. PERFORATION RECORD

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
6374-8280	PUMP 7698 BBLs SLICK H2O & 147,800 LBS 30/50 OTTAWA SAND
	7 STAGES

RECEIVED
JAN 08 2013

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

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED: 12/5/2012		TEST DATE: 12/8/2012		HOURS TESTED: 24		TEST PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 4,406	WATER – BBL: 0	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS. 2,088	CSG. PRESS. 2,469	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 4,406	WATER – BBL: 0	INTERVAL STATUS: PROD

INTERVAL B (As shown in item #26)

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

INTERVAL C (As shown in item #26)

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

INTERVAL D (As shown in item #26)

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

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

SOLD

33. SUMMARY OF POROUS ZONES (Include Aquifers):

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

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				GREEN RIVER	1,082
				BIRD'S NEST	1,339
				MAHOGANY	1,824
				WASATCH	4,133
				MESAVERDE	6,314

35. ADDITIONAL REMARKS (Include plugging procedure)

The first 210' of the surface hole was drilled with a 12 1/4" bit. The remainder of surface hole was drilled with an 11" bit. DQX csg was run from surface to 5080'; LTC csg was run from 5080' to 8476'. Attached is the chronological well history, perforation report & final survey.

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

NAME (PLEASE PRINT) LINDSEY FRAZIER TITLE REGULATORY ANALYST
 SIGNATURE *Lindsay Frazier* DATE 12/28/2012

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 Phone: 801-538-5340
 1594 West North Temple, Suite 1210
 Box 145801 Fax: 801-359-3940
 Salt Lake City, Utah 84114-5801

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-12F4CS BLACK Spud Date: 4/28/2012
 Project: UTAH-UINTAH Site: NBU 1022-12F4 PAD Rig Name No: PIONEER 54/54, CAPSTAR 310/310
 Event: DRILLING Start Date: 4/10/2012 End Date: 6/18/2012
 Active Datum: RKB @5,215.00usft (above Mean Sea Level) UWI: SE/NW/0/10/S/22/E/12/0/0/26/PMN/2462/W/0/2342/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
4/29/2012	21:00 - 21:30	0.50	DRLSUR	05	F	P		CIRC & COND HOLE FOR 8.625" CSG
	21:30 - 0:00	2.50	DRLSUR	06	A	P		LAY DOWN DRILL STRING & DIR. TOOLS
	0:00 - 0:30	0.50	DRLSUR	06	A	P		FINISH LAYING DOWN DIR TOOLS
	0:30 - 2:30	2.00	CSGSUR	12	C	P		PJSM /// RUN 51 JT'S, 8.625", 28#, J-55, LT&C CSG /// SHOE SET & 2262' & BAFFLE @ 2216'
	2:30 - 3:00	0.50	CSGSUR	05	F	P		CIRC 8.625" SURFACE CSG @ 2262'
	3:00 - 4:00	1.00	CSGSUR	12	E	P		PJSM W/ PRO PETRO CMT CREW /// TEST LINES TO 1500 PSI /// PUMP 20 BBL'S WATER AHEAD FOLLOWED BY 20 BBL GEL WATER SPACER /// TAIL= 300 SX CLASS G CMT @ 15.8 WT & 1.15 YIELD /// DROP PLUG & DISPLACE W/ 138 BBL'S WATER /// PLUG DN @ 03:40 04/29/2012 /// BUMP PLUG W/ 500 PSI /// FINAL LIFT = 250 PSI /// CHECK FLOAT - HELD W/ .5 BBL'S BACK /// NO CIRC. & NO CMT TO SURFACE
	4:00 - 5:30	1.50	CSGSUR	14	A	P		RUN 200' OF 1" & TOP OUT W/ 150 SX CLASS G CMT @ 15.8 WT & 1.15 YIELD W/ 4% CaCL /// NO CMT TO SURFACE
	5:30 - 8:00	2.50	CSGSUR	12	E	P		CUT OFF CONDUCTOR & HANG SURFACE CSG
								PUMP 3 TOP OUTS W/ 1 HOUR WAIT IN BETWEEN FOR A TOTAL OF 741 SX CLASS G CMT @ 15.8 WT & 1.15 YIELD /// NO CMT TO SURFACE /// RELEASE RIG @ 08:00 4/29/2012
6/8/2012	18:00 - 18:30	0.50	DRLPRO	01	C	P		SKID RIG 10' TO NEW HOLE
	18:30 - 19:00	0.50	DRLPRO	14	A	P		NIPPLE UP BOPE, CHOKE LINE, FLOW LINE
	19:00 - 22:00	3.00	DRLPRO	15	A	P		TEST BOPE, RAMS & ALL VALVES 250 LOW-5000 HIGH, ANN 2500, SURFACE CASING 1500 FOR 30 MIN
	22:00 - 22:30	0.50	DRLPRO	14	B	P		INSTALL WEAR BUSHING, PRESPUD INSPECTION
6/9/2012	22:30 - 0:00	1.50	DRLPRO	06	A	P		PICK UP MOTOR, BIT, AND DIRECTIONAL TOOLS. TRIPPED IN THE HOLE. TAGGED CEMENT @2167'
	0:00 - 0:30	0.50	DRLPRO	02	F	P		DRILLING SHOE TRACK, FLOAT@2212', BAFFLE@2257', NEW HOLE@2300'
	0:30 - 12:00	11.50	DRLPRO	02	B	P		CLOSED LOOP SYSTEM DRILL F/2300' - 4938', 2638'@229' PH WOB / 23-25 RPM TOP DRIVE 50- 60, MOTOR-135 SPM 200 GPM 586 MW 8.5 VIS 26 TRQ ON/OFF = 12/11 K PSI ON /OFF 2100/1900 , DIFF 100-500 PU/SO/RT = 140/128/134 K LOST 200 BBL'S TO FORMATION PUMPING SWEEPS WITH 5% LCM SLIDE = 79' IN 0.91 HRS@ 87' PH ROT = 2559' IN 10.59 HRS@ 241' PH NOV- ON LINE 2- DEWATERING 9.3 N AND 12.75 W OF TARGET CENTER 0 DRILL FLARE, 0 CONN FLARE CHANGE OUT SWABS ON PUMP
	12:00 - 12:30	0.50	DRLPRO	08	A	S		

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-12F4CS BLACK

Spud Date: 4/28/2012

Project: UTAH-UINTAH

Site: NBU 1022-12F4 PAD

Rig Name No: PIONEER 54/54, CAPSTAR 310/310

Event: DRILLING

Start Date: 4/10/2012

End Date: 6/18/2012

Active Datum: RKB @5,215.00usft (above Mean Sea Level)

UVM: SE/NW/0/10/S/22/E/12/0/0/26/PM/N/2462/W/0/2342/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	12:30 - 14:00	1.50	DRLPRO	02	B	P		CLOSED LOOP SYSTEM DRILL F/4938' - 5507', 569'@379' PH WOB / 23-25 RPM TOP DRIVE 50- 60, MOTOR-135 SPM 200 GPM 586 MW 8.5 VIS 26 TRQ ON/OFF = 12/11 K PSI ON /OFF 2100/1900 , DIFF 100-500 PU/SO/RT = 140/128/134 K LOST 200 BBLS TO FORMATION PUMPING SWEEPS WITH 5% LCM SLIDE = ROT = 100% NOV- ON LINE 2- DEWATERING 9.3 N AND 12.75 W OF TARGET CENTER 0 DRILL FLARE, 0 CONN FLARE
	14:00 - 14:30	0.50	DRLPRO	07	A	P		BOP DRILL, FUNCTION RAMS & HCR, LUBRICATE RIG
	14:30 - 0:00	9.50	DRLPRO	02	B	P		CLOSED LOOP SYSTEM DRILL F/5507' - 7024', 1517'@159' PH WOB / 23-25 RPM TOP DRIVE 50- 60, MOTOR-135 SPM 200 GPM 586 MW 8.5 VIS 26 TRQ ON/OFF = 12/11 K PSI ON /OFF 2100/1900 , DIFF 100-500 PU/SO/RT = 175/155/165 K LOST 200 BBLS TO FORMATION PUMPING SWEEPS WITH 5% LCM SLIDE = 83' IN 1.41 HRS@ 59' PH ROT = 1434' IN 8.09 HRS@ 177' PH NOV- ON LINE 2- DEWATERING 12.56 N AND 12.26 W OF TARGET CENTER 0 DRILL FLARE, 0 CONN FLARE
6/10/2012	0:00 - 10:30	10.50	DRLPRO	02	B	P		CLOSED LOOP SYSTEM DRILL F/7024' - 8351',1327'@126' PH WOB / 23-25 RPM TOP DRIVE 50- 60, MOTOR-135 SPM 200 GPM 586 MW 8.5 VIS 26 TRQ ON/OFF = 12/11 K PSI ON /OFF 2100/1900 , DIFF 100-500 PU/SO/RT = 180/170/176 K LOST 200 BBLS TO FORMATION PUMPING SWEEPS WITH 5% LCM SLIDE = 14' IN 0.42 HRS@ 33' PH ROT = 1313' IN 10.08 HRS@ 130' PH NOV- ON LINE 2- DEWATERING 12.56 N AND 12.26 W OF TARGET CENTER 0 DRILL FLARE, 0 CONN FLARE
	10:30 - 11:00	0.50	DRLPRO	07	A	P		LUBRICATE RIG

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-12F4CS BLACK

Spud Date: 4/28/2012

Project: UTAH-UINTAH

Site: NBU 1022-12F4 PAD

Rig Name No: PIONEER 54/54, CAPSTAR 310/310

Event: DRILLING

Start Date: 4/10/2012

End Date: 6/18/2012

Active Datum: RKB @5,215.00usft (above Mean Sea Level)

UWI: SE/NW/0/10/S/22/E/12/0/0/26/PM/N/2462W/0/2342/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
6/11/2012	11:00 - 12:00	1.00	DRLPRO	02	B	P		CLOSED LOOP SYSTEM DRILL F/8351' - 8525', 174'@174' PH WOB / 25 RPM TOP DRIVE 50- 60, MOTOR-135 SPM 200 GPM 586 MW 8.5 VIS 26 TRQ ON/OFF = 12/11 K PSI ON /OFF 2100/1900 , DIFF 100-500 PU/SO/RT = 180/170/176 K LOST 200 BBLS TO FORMATION PUMPING SWEEPS WITH 5% LCM SLIDE = ROT = 100% NOV- ON LINE 2- DEWATERING 3.5 S AND 10.25 W OF TARGET CENTER 0 DRILL FLARE, 0 CONN FLARE
	12:00 - 13:30	1.50	DRLPRO	05	G	P		DISPLACE HOLE WITH 11.3 PPG MUD AND CIRCULATE
	13:30 - 19:00	5.50	DRLPRO	06	E	P		WIPER TRIP TO SHOE AND BACK
	19:00 - 20:00	1.00	DRLPRO	05	C	P		CIRCULATE BOTTOMS UP
	20:00 - 23:30	3.50	DRLPRO	06	E	P		2ND WIPER TRIP TO SHOE AND BACK
	23:30 - 0:00	0.50	DRLPRO	05	C	P		CIRCULATE BOTTOMS UP
	0:00 - 0:30	0.50	DRLPRO	05	C	P		CIRCULATING BOTOMS UP
	0:30 - 4:00	3.50	DRLPRO	06	B	P		TRIPPING OUT OF HOLE FOR LOGS
	4:00 - 11:00	7.00	DRLPRO	11	D	P		RIG RUP BAKER ATALS, SAFETY MEETING, RAN TRIPLE COMBO DOWN AND UP FROM 8512', RIG DOWN
	11:00 - 12:00	1.00	DRLPRO	06	A	P		TRIP IN THE HOLE
	12:00 - 12:30	0.50	DRLPRO	09	A	P		SLIP AND CUT DRILL LINE
	12:30 - 15:00	2.50	DRLPRO	06	A	P		TRIP IN THE HOLE, WASH AND REAM LAST STAND TO BOTTOM
	15:00 - 18:30	3.50	DRLPRO	05	C	P		CIRCULATE AND CONDITION, BUILD VOLUME FOR TRIP
	6/12/2012	18:30 - 0:00	5.50	DRLPRO	06	A	P	
0:00 - 0:30		0.50	DRLPRO	14	B	P		REMOVE WEAR BUSHING
0:30 - 8:30		8.00	DRLPRO	12	C	P		HELD SAFETY MEETING WITH KIMZEY, R/U & RUN 77 JTS P 110 LTC, 200 JTS P 110 DQX, LAND CASING, R/D CASING CREW, SHOE @ 8475', FLOAT @ 8429', MESA MARKER @6298', X/O @5082', RIG DOWN
8:30 - 10:00		1.50	DRLPRO	05	D	P		CIRCULATE DOWN CASING
10:00 - 13:00		3.00	DRLPRO	12	E	P		HELD SAFETY MEETING, PSI TEST LINES TO 5000, PUMP 25 BBL WATER SPACER, LEAD 420 SACKS 12 PPG 2.26 YLD, TAIL 1325 SACKS 14.3 PPG 1.32 YLD, CLEAN LINES & DISPLACE WITH 131 BBLS, CLAYCARE WATER, BUMP PLUG WITH 3000 PSI, 500 OVER FINAL OF 2580, HELD FOR 5 MIN'S, FLOATS HELD, 20 BBLS CEMENT BACK TO SURFACE, EST TOP OF TAIL 3700'
13:00 - 14:00	1.00	DRLPRO	14	B	P		SET CAMERON CASING PACKER	
14:00 - 18:00	4.00	DRLPRO	14	A	P		NIPPLE DOWN BOPE, CLEAN PITS, RIG DOWN. RIG RELEASED @1800	

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 1022-12F4CS BLACK	Wellbore No.	OH
Well Name	NBU 1022-12F4CS	Wellbore Name	NBU 1022-12F4CS
Report No.	1	Report Date	11/5/2012
Project	UTAH-UINTAH	Site	NBU 1022-12F4 PAD
Rig Name/No.		Event	COMPLETION
Start Date	11/5/2012	End Date	12/5/2012
Spud Date	4/28/2012	Active Datum	RKB @5,215.00usft (above Mean Sea Level)
UWI	SE/NW/0/10/S/22/E/12/0/0/26/PM/N/2462/W/0/2342/0/0		

1.3 General

Contractor		Job Method		Supervisor	
Perforated Assembly		Conveyed Method			

1.4 Initial Conditions

Fluid Type		Fluid Density	
Surface Press		Estimate Res Press	
TVD Fluid Top		Fluid Head	
Hydrostatic Press		Press Difference	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	6,374.0 (usft)-8,280.0 (usft)	Start Date/Time	11/5/2012 12:00AM
No. of Intervals	41	End Date/Time	11/5/2012 12:00AM
Total Shots	159	Net Perforation Interval	51.00 (usft)
Avg Shot Density	3.12 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/5/2012 12:00AM	MESAVERDE/			6,374.0	6,380.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/5/2012 12:00AM	MESAVERDE/			6,605.0	6,606.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			6,629.0	6,630.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			6,662.0	6,663.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			6,693.0	6,694.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			6,714.0	6,715.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			6,730.0	6,731.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			6,764.0	6,765.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			6,884.0	6,885.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			6,911.0	6,912.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			6,956.0	6,957.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,062.0	7,064.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,089.0	7,090.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,113.0	7,114.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,178.0	7,179.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,211.0	7,212.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,228.0	7,229.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,268.0	7,269.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,319.0	7,320.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,342.0	7,343.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,371.0	7,372.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,401.0	7,402.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
11/5/2012 12:00AM	MESAVERDE/			7,505.0	7,506.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,532.0	7,533.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,579.0	7,580.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,595.0	7,596.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,631.0	7,632.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,678.0	7,679.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,694.0	7,695.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,817.0	7,818.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,899.0	7,900.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,931.0	7,932.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,943.0	7,944.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,979.0	7,980.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			7,997.0	7,998.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			8,007.0	8,008.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			8,015.0	8,016.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			8,196.0	8,198.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			8,230.0	8,232.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			8,254.0	8,256.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
11/5/2012 12:00AM	MESAVERDE/			8,278.0	8,280.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

3 Plots

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-12F4CS BLACK		Spud Date: 4/28/2012	
Project: UTAH-UINTAH		Site: NBU 1022-12F4 PAD	Rig Name No: GWS 1/1
Event: COMPLETION		Start Date: 11/5/2012	End Date: 12/5/2012
Active Datum: RKB @5,215.00usft (above Mean Sea Level)		UWI: SE/NW/0/10/S/22/E/12/0/0/26/PM/N/2462/W/0/2342/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
4/28/2012	-							
4/29/2012	-							
11/5/2012	10:00 - 12:00	2.00	FRAC	33	C	P		FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 15 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 37 PSI. 1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 117 PSI. 2ND PSI TEST T/ 7000 PSI. HELD FOR 30 MIN. LOST 56 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. SWFN HELD SAFETY MEETING: FLOW LINES
11/8/2012	7:00 - 7:15	0.25	FRAC	48		P		PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER PERF DESIGN. POOH. SWFW
	7:15 - 15:00	7.75	FRAC	37		P		MISS RUN ON THIS RUN

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-12F4CS BLACK

Spud Date: 4/28/2012

Project: UTAH-UINTAH

Site: NBU 1022-12F4 PAD

Rig Name No: GWS 1/1

Event: COMPLETION

Start Date: 11/5/2012

End Date: 12/5/2012

Active Datum: RKB @5,215.00usft (above Mean Sea Level)

UWI: SE/NW/0/10/S/22/E/12/0/0/26/PM/N/2462/W/0/2342/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
11/12/2012	7:00 - 18:00	11.00	FRAC	36	B	P		<p>FRAC STG 1)WHP 1494 PSI, BRK 4838 PSI@4.7 BPM. ISIP 2580 PSI, FG. 0.75 CALC PERFS OPEN @ 43.1 BPM @ 6508PSI = 54% ISIP 2407 PSI, FG. 0.72, NPI -173 PSI. MP 6392 PSI, MR 45.1 BPM, AP 6402 PSI, AR 43.3 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8046' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 2)WHP 1270 PSI, BRK 6815 PSI@4.7 BPM. ISIP 2504 PSI, FG. 0.75 CALC PERFS OPEN @ 50.1 BPM @ 3920PSI = 100% ISIP 2446 PSI, FG. 0.74, NPI -58 PSI. MP 4667 PSI, MR 50.2 BPM, AP 3920 PSI, AR 48.8 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 3)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7726' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 3)WHP 1157 PSI, BRK 3332 PSI@4.7 BPM. ISIP 2333 PSI, FG. 0.74 CALC PERFS OPEN @ 47 BPM @ 5572PSI = 81% ISIP 2436 PSI, FG. 0.75, NPI 103 PSI. MP 6796 PSI, MR 50.9 BPM, AP 5419 PSI, AR 47.7 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 4)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7432' P/U PERF AS PER DESIGN. POOH, SWM FN.</p>

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 1022-12F4CS BLACK

Spud Date: 4/28/2012

Project: UTAH-UINTAH

Site: NBU 1022-12F4 PAD

Rig Name No: GWS 1/1

Event: COMPLETION

Start Date: 11/5/2012

End Date: 12/5/2012

Active Datum: RKB @5,215.00usft (above Mean Sea Level)

UWI: SE/NW/01/01/S1/22/E/12/01/026/PM/N/2462/W/0/2342/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
11/13/2012	7:00 - 18:00	11.00	FRAC	36	B	P		<p>FRAC STG 4)WHP 820 PSI, BRK 3864 PSI@4.7 BPM. ISIP 2025 PSI, FG. 0.71 CALC PERFS OPEN @ 56 BPM @ 3980PSI = 100% ISIP 2169 PSI, FG. 0.73, NPI 144 PSI. MP 4216 PSI, MR 56 BPM, AP 3603 PSI, AR 50.9 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 5)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7144' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 5)WHP 1397 PSI, BRK 2516 PSI@4.7 BPM. ISIP 1939 PSI, FG. 0.71 CALC PERFS OPEN @ 55.4 BPM @ 4215PSI = 100% ISIP 2274 PSI, FG. 0.76, NPI 335 PSI. MP 4579 PSI, MR 55.6 BPM, AP 3994 PSI, AR 55.5 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 6)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 6795' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.</p> <p>FRAC STG 6)WHP 790 PSI, BRK 2186 PSI@4.7 BPM. ISIP 1245 PSI, FG. 0.62 CALC PERFS OPEN @ 55.5 BPM @ 3473 PSI = 100% ISIP 1899 PSI, FG. 0.72, NPI 654 PSI. MP 4142 PSI, MR 55.5 BPM, AP 3501 PSI, AR 55.1 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PERF STG 7)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 6410' P/U PERF AS PER DESIGN. POOH, SWFN.</p>
11/14/2012	6:45 - 7:00	0.25	FRAC	48		P		HSM, HIGH PSI LINES & WL AWARENESS.
	7:00 - 15:00	8.00	FRAC	36	B	P		<p>FRAC STG 7)WHP 132 PSI, BRK 2948 PSI @ 4.7 BPM. ISIP 1087 PSI, FG .0.6, CALC PERFS OPEN @ 55.4 BPM @ 3493 PSI = 100% HOLES OPEN. ISIP 2162 PSI, FG .0.8, NPI 1075 PSI. MP 3694 PSI, MR 55.5 BPM, AP 3590 PSI, AR 55.1 BPM, PUMPED 30/50 OWATTA SAND. SWI, XO T/ WL.</p> <p>PU 4 1/2 8K HAL CBP. RIH SET KILL PLUG @ 6324'. POOH, SWI. DONE FRACING THIS WELL.</p> <p>TOTAL SAND = 147,800 LBS TOTA CLFL = 7698 BBLS</p>
12/3/2012	12:00 - 17:00	5.00	DRLOUT	30	A	P		ROAD RIG FROM M.S. 921-36A PAD, MIRU, SPOT EQUIP, ND WH, NU BOP, RU FLOOR & TBG EQUIP, SPOT TBG TRAILER & INSTAL HAND RAILS, SWI, SDFN.
12/4/2012	7:00 - 7:15	0.25	DRLOUT	48		P		HSM, SLIPS, TRIPS & FALLS, PU TBG, P/S, D/O PLUGS

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-12F4CS BLACK Spud Date: 4/28/2012
 Project: UTAH-UINTAH Site: NBU 1022-12F4 PAD Rig Name No: GWS 1/1
 Event: COMPLETION Start Date: 11/5/2012 End Date: 12/5/2012
 Active Datum: RKB @5,215.00usft (above Mean Sea Level) UW: SE/NW/0/10/S/22/E/12/O/0/26/PM/N/2462/W/0/2342/O/O

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 17:00	9.75	DRLOUT	31	I	P		<p>1 OF 6, PU 3 7/8" BIT, POBS, TALLY & PU TBG, RU P/S, FILL TBG BREAK CIRC, P/T BOP TO 3,000 PSI, TEST GOOD, SURFACE CSG VALVE OPEN & LOCKED, START D/O PLUGS.</p> <p>C/O 15' SAND, TAG 1ST PLUG @ 6,324' DRL PLUG IN 12 MIN. 0 PSI INCREASE RIH, CSG PRESS 0 PSI. ((NO FLOW W/O PUMP))</p> <p>C/O 25' SAND, TAG 2ND PLUG @ 6,410' DRL PLUG IN 15 MIN. 0 PSI INCREASE RIH, CSG PRESS 0 PSI. ((NO FLOW W/O PUMP))</p> <p>C/O 30' SAND, TAG 3RD PLUG @ 6,795' DRL PLUG IN 11 MIN. 200 PSI INCREASE RIH, CSG PRESS 0 PSI. ((WELL FLOWING ON IT'S OWN))</p> <p>C/O 30' SAND, TAG 4TH PLUG @ 7,144' DRL PLUG IN 10 MIN. 300 PSI INCREASE RIH, CSG PRESS 650 PSI.</p> <p>EOT @ 7,250', LET WELL CLEAN UP FOR 30 MIN, DRAIN & WINTERIZE EQUIP, SWI, D/O REMAINING PLUGS IN AM, SDFN.</p>
12/5/2012	7:00 - 7:15	0.25	DRLOUT	48		P		HSM, SLIPS, TRIPS & FALLS, D/O PLUGS, LANDING TBG

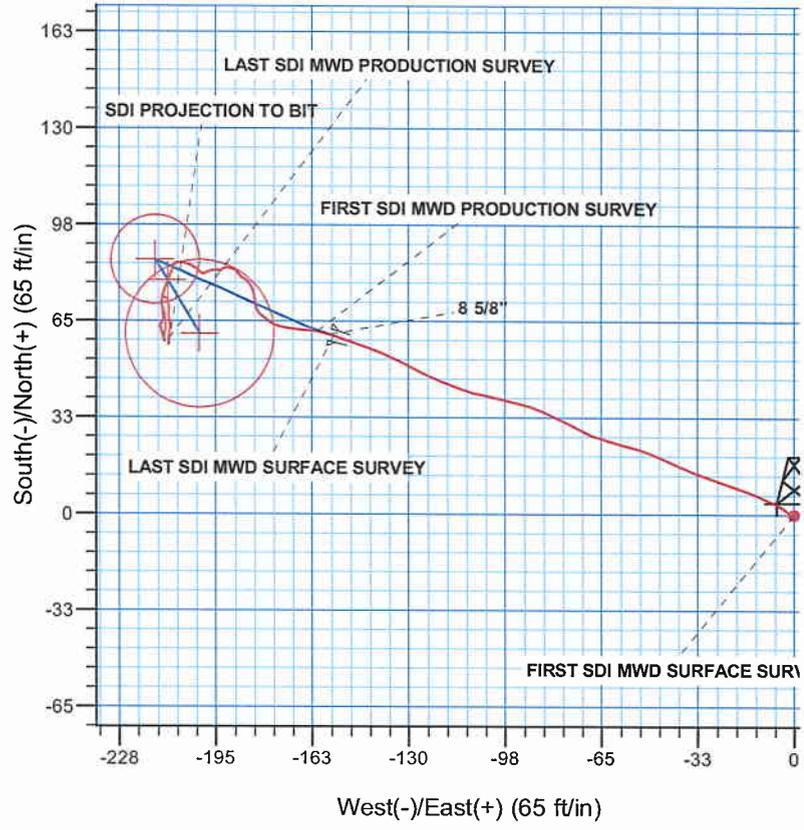
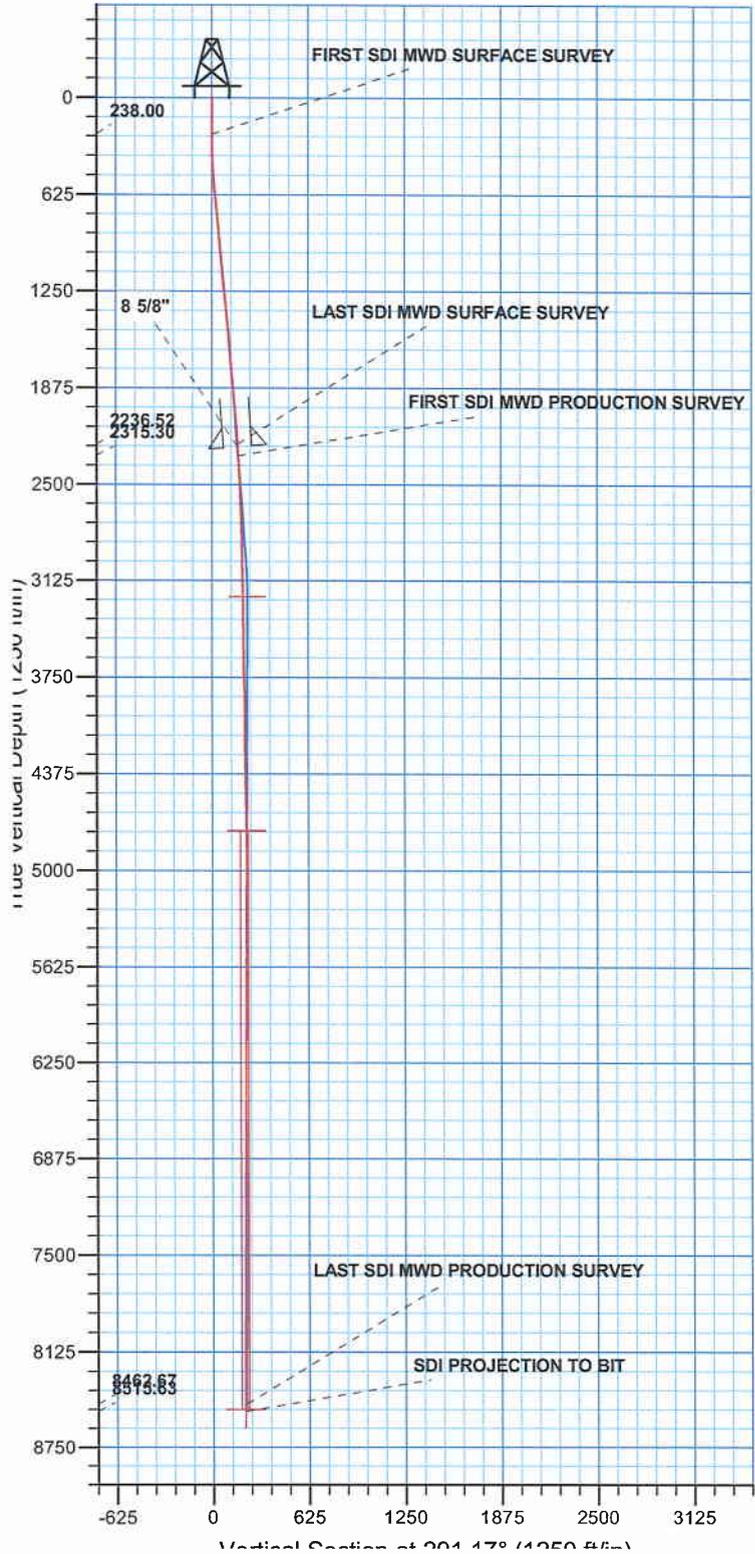
US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-12F4CS BLACK		Spud Date: 4/28/2012	
Project: UTAH-UINTAH		Site: NBU 1022-12F4 PAD	Rig Name No: GWS 1/1
Event: COMPLETION		Start Date: 11/5/2012	End Date: 12/5/2012
Active Datum: RKB @5,215.00usft (above Mean Sea Level)		UWM: SE/NW/0/10/S/22/E/12/0/0/26/PM/N/2462/W/0/2342/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 12:00	4.75	DRLOUT	44	C	P		<p>SICP 2,800 PSI, OPEN WELL TO BLEED DOWN PRESS OPEN RAMS, SURFACE CSG VALVE OPEN & LOCKED, D/O REMAINING 3 PLUGS.</p> <p>C/O 30' SAND, TAG 5TH PLUG @ 7,432' DRL PLUG IN 9 MIN. 400 PSI INCREASE RIH, CSG PRESS 500 PSI.</p> <p>C/O 30' SAND, TAG 6TH PLUG @ 7,725' DRL PLUG IN 8 MIN. 500 PSI INCREASE RIH, CSG PRESS 500 PSI. FLOWLINE PLUGGED</p> <p>C/O 35' SAND, TAG 7TH PLUG @ 8,046' DRL PLUG IN 9 MIN. 400 PSI INCREASE RIH, CSG PRESS 600 PSI.</p> <p>PBTD @ 8,428', BTM PERF @ 8,280', RIH TAGGED @ 8,380', C/O FROM 8,380' TO PBTD @ 8,428, 148' PAST BTM PERF W/ 265 JTS 2 3/8" L-80 TBG, LD 20 JTS, PU & STRIP IN TBG HANGER & LAND TBG W/ 245 JTS 2 3/8" L-80, EOT 7,794.02'.</p> <p>RD POWER SWIVEL, FLOOR & TBG EQUIP, ND BOPS, NU WH, DROP BALL TO SHEAR OFF BIT 2,500 PSI, LET BIT FALL FOR 20 MIN. P/T FLOWLINE FROM WH TO HAL 9000 TO 3,000 PSI W/ RIG PUMP, NO VISIBLE LEAKS.</p> <p>NOTE: PUMPED 65 BBLS TMAC & SCALE INHIB DOWN CSG TO TOP PERF. MIXTURE 120 BBLS TMAC & 5 GALLON SCALE INHIB.</p> <p>TURN OVER TO FLOW BACK CREW & SALES, RD & MOVE TO NEXT WELL ON PAD.</p> <p>KB= 19' 4 1/16" CAMERON HANGER= .83' TBG DELIVERED 283 JTS 245 JTS 2 3/8" L-80 = 7,771.99' TBG USED 245 JTS POBS= 2.20' TBG RETURNED 38 JTS EOT @ 7,794.02'</p> <p>TWTR= 7,698 BBLS TWR= 3,000 BBLS TWLTR= 4,698 BBLS</p>
	12:00 - 12:00	0.00	DRLOUT	50				<p>WELL TURNED TO SALES @ 1330 HR ON 12/5/2012. 2800 MCFD, 1920 BWP, FCP 2500#, FTP 2012#, 20/64" CK.</p>
12/6/2012	-							
12/8/2012	7:00 -			50				<p>WELL IP'D ON 12/8/12 - 4406 MCFD, 0 BWP, 0 BOPD, CP 2469#, FTP 2088#, LP 112#, 24 HRS, CK 20/64</p>

WELL DETAILS: NBU 1022-12F4CS					
GL 5198 & KB 19 @ 5217.00ft (PIONEER 54)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14517004.84	2091918.55	39.963975	-109.388713

Azimuths to True North
 Magnetic North: 11.00°
 Magnetic Field
 Strength: 52303.3snT
 Dip Angle: 65.85°
 Date: 08/26/2011
 Model: IGRF2010



PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N Geodetic System: Universal Transverse Mercator (US Survey Feet) Datum: NAD 1927 (NADCON CONUS) Ellipsoid: Clarke 1866 Zone: Zone 12N (114 W to 108 W) Location: SECTION 12 T10S R22E System Datum: Mean Sea Level
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Scientific Drilling

US ROCKIES REGION PLANNING

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

NBU 1022-12F4 PAD

NBU 1022-12F4CS

OH

Design: OH

Standard Survey Report

13 June, 2012

Anadarko 
Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 1022-12F4CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 5198 & KB 19 @ 5217.00ft (PIONEER 54)
Site:	NBU 1022-12F4 PAD	MD Reference:	GL 5198 & KB 19 @ 5217.00ft (PIONEER 54)
Well:	NBU 1022-12F4CS	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project	UTAH - UTM (feet), NAD27, Zone 12N		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 1022-12F4 PAD, SECTION 12 T10S R22E				
Site Position:	Northing:	14,516,999.17 usft	Latitude:	39.963959	
From:	Lat/Long	Easting:	2,091,927.06 usft	Longitude:	-109.388683
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	1.04 °

Well	NBU 1022-12F4CS, 2462 FNL 2342 FWL					
Well Position	+N-S	0.00 ft	Northing:	14,517,004.84 usft	Latitude:	39.963975
	+E-W	0.00 ft	Easting:	2,091,918.55 usft	Longitude:	-109.388713
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,198.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	08/26/11	(°)	(°)	(nT)
			11.00	65.85	52,303

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	291.17	

Survey Program	Date	06/13/12			
From	To	Survey (Wellbore)	Tool Name	Description	
(ft)	(ft)				
10.00	2,244.00	Survey #1 SDI MWD SURFACE (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	
2,323.00	8,525.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	
238.00	0.07	320.17	238.00	0.11	-0.09	0.12	0.03	0.03	0.00	
FIRST SDI MWD SURFACE SURVEY										
329.00	1.14	289.00	328.99	0.44	-0.98	1.08	1.19	1.18	-34.25	
420.00	2.81	306.58	419.94	2.07	-3.63	4.13	1.93	1.84	19.32	
515.00	4.48	293.92	514.74	4.96	-8.89	10.08	1.94	1.76	-13.33	
610.00	5.49	290.40	609.38	8.05	-16.54	18.33	1.11	1.06	-3.71	
705.00	5.63	288.12	703.94	11.08	-25.23	27.53	0.28	0.15	-2.40	
801.00	5.86	291.95	799.45	14.38	-34.25	37.13	0.47	0.24	3.99	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 1022-12F4CS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 5198 & KB 19 @ 5217.00ft (PIONEER 54)
Site:	NBU 1022-12F4 PAD	MD Reference:	GL 5198 & KB 19 @ 5217.00ft (PIONEER 54)
Well:	NBU 1022-12F4CS	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
895.00	6.24	295.15	892.93	18.34	-43.33	47.03	0.54	0.40	3.40
989.00	5.01	286.54	986.48	21.68	-51.89	56.21	1.58	-1.31	-9.16
1,082.00	5.19	284.17	1,079.11	23.87	-59.86	64.44	0.30	0.19	-2.55
1,177.00	5.45	292.08	1,173.70	26.62	-68.20	73.21	0.82	0.27	8.33
1,272.00	5.54	300.08	1,268.27	30.61	-76.35	82.25	0.81	0.09	8.42
1,365.00	5.72	291.80	1,360.82	34.58	-84.54	91.32	0.89	0.19	-8.90
1,459.00	6.54	284.15	1,454.28	37.63	-94.08	101.32	1.23	0.87	-8.14
1,556.00	5.63	281.00	1,550.74	39.89	-104.11	111.49	1.00	-0.94	-3.25
1,649.00	4.92	290.23	1,643.34	42.14	-112.33	119.96	1.19	-0.76	9.92
1,745.00	4.31	291.11	1,739.03	44.86	-119.56	127.69	0.64	-0.64	0.92
1,838.00	4.22	296.74	1,831.77	47.66	-125.87	134.59	0.46	-0.10	6.05
1,932.00	4.48	299.28	1,925.50	51.01	-132.16	141.67	0.34	0.28	2.70
2,026.00	4.75	291.02	2,019.20	54.20	-139.00	149.19	0.76	0.29	-8.79
2,118.00	4.57	289.79	2,110.90	56.81	-146.00	156.67	0.22	-0.20	-1.34
2,211.00	4.40	289.62	2,203.61	59.26	-152.85	163.94	0.18	-0.18	-0.18
2,244.00	4.22	289.44	2,236.52	60.09	-155.19	166.41	0.55	-0.55	-0.55
LAST SDI MWD SURFACE SURVEY									
2,323.00	4.31	280.19	2,315.30	61.58	-160.85	172.23	0.88	0.11	-11.71
FIRST SDI MWD PRODUCTION SURVEY									
2,418.00	3.96	272.54	2,410.05	62.36	-167.64	178.85	0.69	-0.37	-8.05
2,513.00	3.52	286.79	2,504.85	63.35	-173.71	184.86	1.08	-0.46	15.00
2,608.00	2.20	313.59	2,599.74	65.45	-177.82	189.46	1.94	-1.39	28.21
2,702.00	1.67	309.98	2,693.68	67.57	-180.18	192.42	0.58	-0.56	-3.84
2,797.00	2.30	354.62	2,788.63	70.36	-181.42	194.58	1.70	0.66	46.99
2,892.00	2.29	344.70	2,883.55	74.09	-182.10	196.56	0.42	-0.01	-10.44
2,987.00	1.34	333.25	2,978.51	76.91	-183.10	198.52	1.07	-1.00	-12.05
3,081.00	1.32	315.87	3,072.48	78.67	-184.35	200.32	0.43	-0.02	-18.49
3,176.00	0.88	290.21	3,167.46	79.71	-185.79	202.04	0.68	-0.46	-27.01
3,271.00	1.76	325.19	3,262.44	81.16	-187.31	203.98	1.22	0.93	36.82
3,366.00	1.14	285.99	3,357.41	82.62	-189.05	206.13	1.19	-0.65	-41.26
3,461.00	0.97	285.11	3,452.39	83.09	-190.74	207.87	0.18	-0.18	-0.93
3,556.00	0.70	239.93	3,547.38	83.00	-192.02	209.03	0.72	-0.28	-47.56
3,650.00	1.14	243.54	3,641.37	82.30	-193.35	210.02	0.47	0.47	3.84
3,745.00	0.70	292.76	3,736.36	82.10	-194.73	211.24	0.91	-0.46	51.81
3,840.00	1.06	269.82	3,831.35	82.33	-196.14	212.64	0.52	0.38	-24.15
3,935.00	0.97	236.33	3,926.34	81.88	-197.69	213.92	0.62	-0.09	-35.25
4,029.00	0.62	222.53	4,020.33	81.06	-198.70	214.56	0.42	-0.37	-14.68
4,124.00	0.80	315.81	4,115.32	81.16	-199.51	215.35	1.09	0.19	98.19
4,219.00	0.99	307.35	4,210.31	82.13	-200.62	216.74	0.24	0.20	-8.91
4,314.00	0.88	303.86	4,305.30	83.04	-201.88	218.24	0.13	-0.12	-3.67
4,409.00	0.99	298.17	4,400.28	83.83	-203.21	219.77	0.15	0.12	-5.99
4,504.00	1.07	282.98	4,495.27	84.42	-204.80	221.46	0.30	0.08	-15.99
4,599.00	0.97	279.13	4,590.25	84.74	-206.46	223.13	0.13	-0.11	-4.05

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-12F4 PAD
Well: NBU 1022-12F4CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1022-12F4CS
TVD Reference: GL 5198 & KB 19 @ 5217.00ft (PIONEER 54)
MD Reference: GL 5198 & KB 19 @ 5217.00ft (PIONEER 54)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,694.00	0.35	262.00	4,685.25	84.83	-207.54	224.17	0.68	-0.65	-18.03	
4,788.00	0.68	273.06	4,779.24	84.82	-208.38	224.95	0.37	0.35	11.77	
4,883.00	1.23	193.97	4,874.23	83.86	-209.19	225.36	1.36	0.58	-83.25	
4,978.00	1.28	208.15	4,969.21	81.94	-209.93	225.36	0.33	0.05	14.93	
5,073.00	1.14	193.79	5,064.19	80.08	-210.66	225.36	0.35	-0.15	-15.12	
5,168.00	1.49	205.92	5,159.17	78.05	-211.43	225.35	0.47	0.37	12.77	
5,262.00	1.14	201.70	5,253.14	76.09	-212.31	225.46	0.39	-0.37	-4.49	
5,357.00	1.30	192.76	5,348.12	74.16	-212.89	225.31	0.26	0.17	-9.41	
5,452.00	1.41	186.50	5,443.09	71.94	-213.26	224.85	0.19	0.12	-6.59	
5,547.00	0.05	58.05	5,538.08	70.80	-213.36	224.53	1.52	-1.43	-135.21	
5,641.00	0.17	177.24	5,632.08	70.69	-213.32	224.45	0.21	0.13	126.80	
5,735.00	0.44	156.70	5,726.08	70.22	-213.17	224.14	0.31	0.29	-21.85	
5,830.00	1.06	161.98	5,821.07	69.05	-212.75	223.33	0.66	0.65	5.56	
5,925.00	1.18	165.17	5,916.05	67.26	-212.23	222.20	0.14	0.13	3.36	
6,020.00	1.23	176.64	6,011.03	65.30	-211.92	221.20	0.26	0.05	12.07	
6,116.00	1.23	182.02	6,107.01	63.24	-211.90	220.44	0.12	0.00	5.60	
6,210.00	1.23	185.00	6,200.99	61.23	-212.02	219.82	0.07	0.00	3.17	
6,305.00	0.26	180.43	6,295.98	60.00	-212.11	219.46	1.02	-1.02	-4.81	
6,400.00	0.53	208.73	6,390.98	59.40	-212.32	219.45	0.34	0.28	29.79	
6,495.00	0.79	150.73	6,485.97	58.44	-212.21	219.00	0.71	0.27	-61.05	
6,590.00	0.53	328.18	6,580.97	58.24	-212.13	218.85	1.39	-0.27	186.79	
6,684.00	1.49	342.33	6,674.96	59.78	-212.73	219.96	1.05	1.02	15.05	
6,779.00	1.32	345.76	6,769.93	62.01	-213.37	221.37	0.20	-0.18	3.61	
6,874.00	0.70	357.71	6,864.91	63.65	-213.66	222.23	0.69	-0.65	12.58	
6,969.00	0.70	64.42	6,959.91	64.48	-213.16	222.07	0.81	0.00	70.22	
7,063.00	1.49	355.42	7,053.89	65.95	-212.74	222.20	1.49	0.84	-73.40	
7,158.00	1.51	357.60	7,148.86	68.43	-212.89	223.24	0.06	0.02	2.29	
7,253.00	0.97	341.54	7,243.84	70.45	-213.20	224.25	0.67	-0.57	-16.91	
7,348.00	0.53	19.42	7,338.83	71.62	-213.31	224.78	0.67	-0.46	39.87	
7,443.00	0.44	5.15	7,433.82	72.40	-213.13	224.89	0.16	-0.09	-15.02	
7,537.00	0.26	37.87	7,527.82	72.93	-212.97	224.93	0.28	-0.19	34.81	
7,632.00	0.62	98.58	7,622.82	73.02	-212.33	224.37	0.57	0.38	63.91	
7,727.00	0.44	135.52	7,717.82	72.69	-211.56	223.53	0.40	-0.19	38.88	
7,822.00	0.87	165.94	7,812.81	71.73	-211.13	222.79	0.57	0.45	32.02	
7,917.00	0.88	163.65	7,907.80	70.33	-210.75	221.93	0.04	0.01	-2.41	
8,011.00	1.06	193.05	8,001.79	68.79	-210.74	221.36	0.56	0.19	31.28	
8,106.00	0.97	173.58	8,096.77	67.13	-210.85	220.87	0.37	-0.09	-20.49	
8,201.00	0.75	173.34	8,191.76	65.71	-210.69	220.20	0.23	-0.23	-0.25	
8,296.00	1.06	174.63	8,286.75	64.22	-210.54	219.52	0.33	0.33	1.36	
8,391.00	1.82	184.52	8,381.72	61.84	-210.57	218.70	0.84	0.80	10.41	
8,472.00	2.17	183.69	8,462.67	59.03	-210.77	217.87	0.43	0.43	-1.02	
LAST SDI MWD PRODUCTION SURVEY										
8,525.00	2.17	183.69	8,515.63	57.03	-210.90	217.26	0.00	0.00	0.00	
SDI PROJECTION TO BIT										

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-12F4 PAD
Well: NBU 1022-12F4CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1022-12F4CS
TVD Reference: GL 5198 & KB 19 @ 5217.00ft (PIONEER 54)
MD Reference: GL 5198 & KB 19 @ 5217.00ft (PIONEER 54)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
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Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
238.00	238.00	0.11	-0.09	FIRST SDI MWD SURFACE SURVEY
2,244.00	2,236.52	60.09	-155.19	LAST SDI MWD SURFACE SURVEY
2,323.00	2,315.30	61.58	-160.85	FIRST SDI MWD PRODUCTION SURVEY
8,472.00	8,462.67	59.03	-210.77	LAST SDI MWD PRODUCTION SURVEY
8,525.00	8,515.63	57.03	-210.90	SDI PROJECTION TO BIT

Checked By: _____ Approved By: _____ Date: _____