

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 1022-12H4BS
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	1846 FNL 361 FEL	SENE	12	10.0 S	22.0 E	S
Top of Uppermost Producing Zone	2071 FNL 491 FEL	SENE	12	10.0 S	22.0 E	S
At Total Depth	2071 FNL 491 FEL	SENE	12	10.0 S	22.0 E	S

21. COUNTY UINTAH	22. DISTANCE TO NEAREST LEASE LINE (Feet) 491	23. NUMBER OF ACRES IN DRILLING UNIT 1674
24. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 249	25. PROPOSED DEPTH MD: 8422 TVD: 8407	
26. ELEVATION - GROUND LEVEL 5189	27. BOND NUMBER 22013542	28. 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 - 2160	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 - 8422	11.6	I-80 LT&C	12.5	Premium Lite High Strength	270	3.38	11.0
							50/50 Poz	1140	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 43047519410000	APPROVAL  Permit Manager	

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 1022-12H4BS**

Surface: 1846 FNL / 361 FEL SENE
 BHL: 2071 FNL / 491 FEL SENE

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	1103	
Birds Nest	1339	Water
Mahogany	1712	Water
Wasatch	4082	Gas
Mesaverde	6240	Gas
MVU2	7200	Gas
MVL1	7773	Gas
TVD	8407	
TD	8422	

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 8407' TVD, approximately equals
5,380 psi 0.64 psi/ft = actual bottomhole gradient

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

Maximum anticipated surface pressure equals approximately 3,519 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 2,160	28.00	IJ-55	LTC	3,390	1,880	348,000	N/A
						2.50	1.86	6.57	N/A
PRODUCTION	4-1/2"	0 to 8,422	11.60	I-80	LTC/BTC	7,780	6,350	279,000	367,000
						1.11	1.16	3.53	4.64

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 1,660'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	150	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 3,582'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	270	20%	11.00	3.38
	TAIL 4,840'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,140	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.

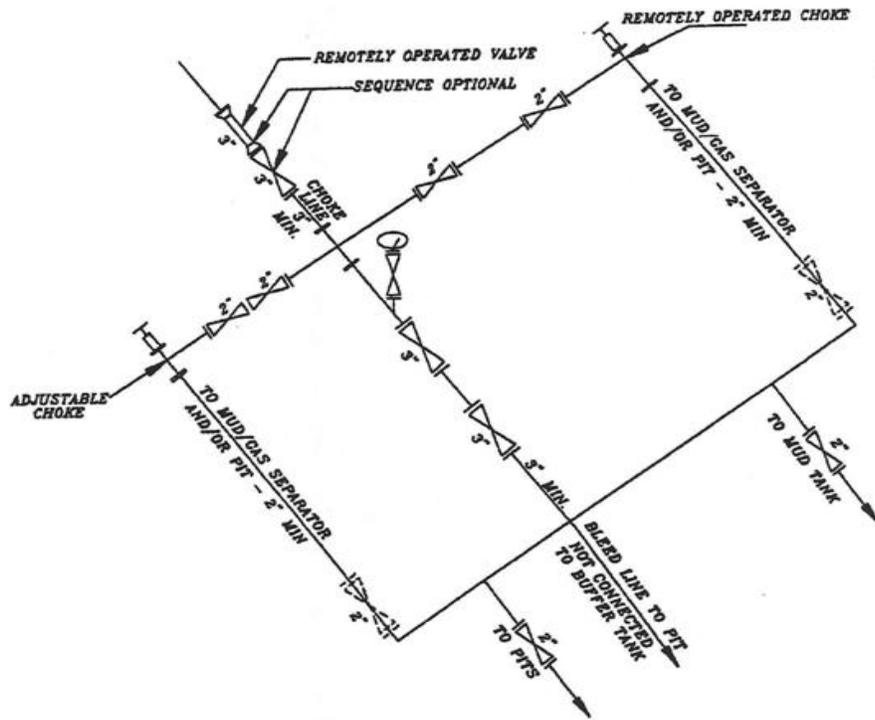
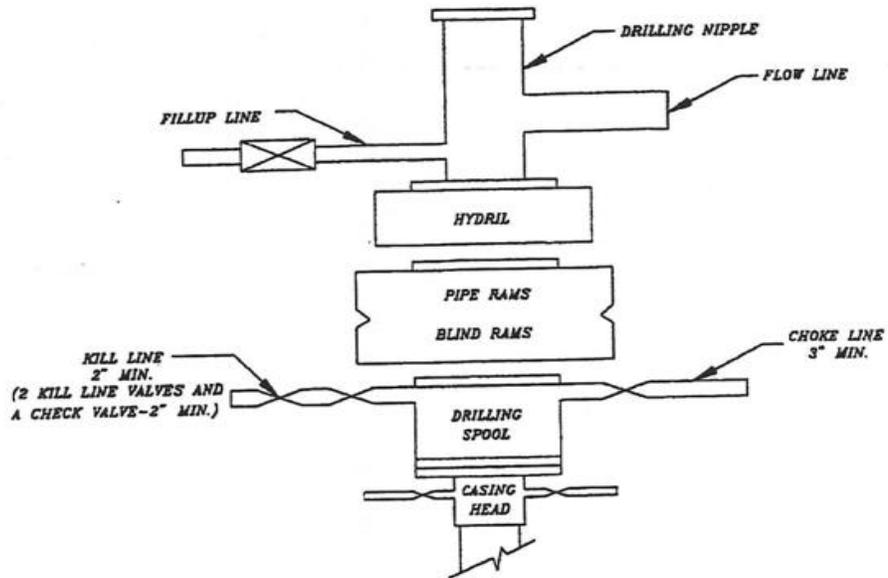
DRILLING ENGINEER: _____
 Nick Spence / Danny Showers

DATE: _____

DRILLING SUPERINTENDENT: _____
 Kenny Gathings / Lovel Young

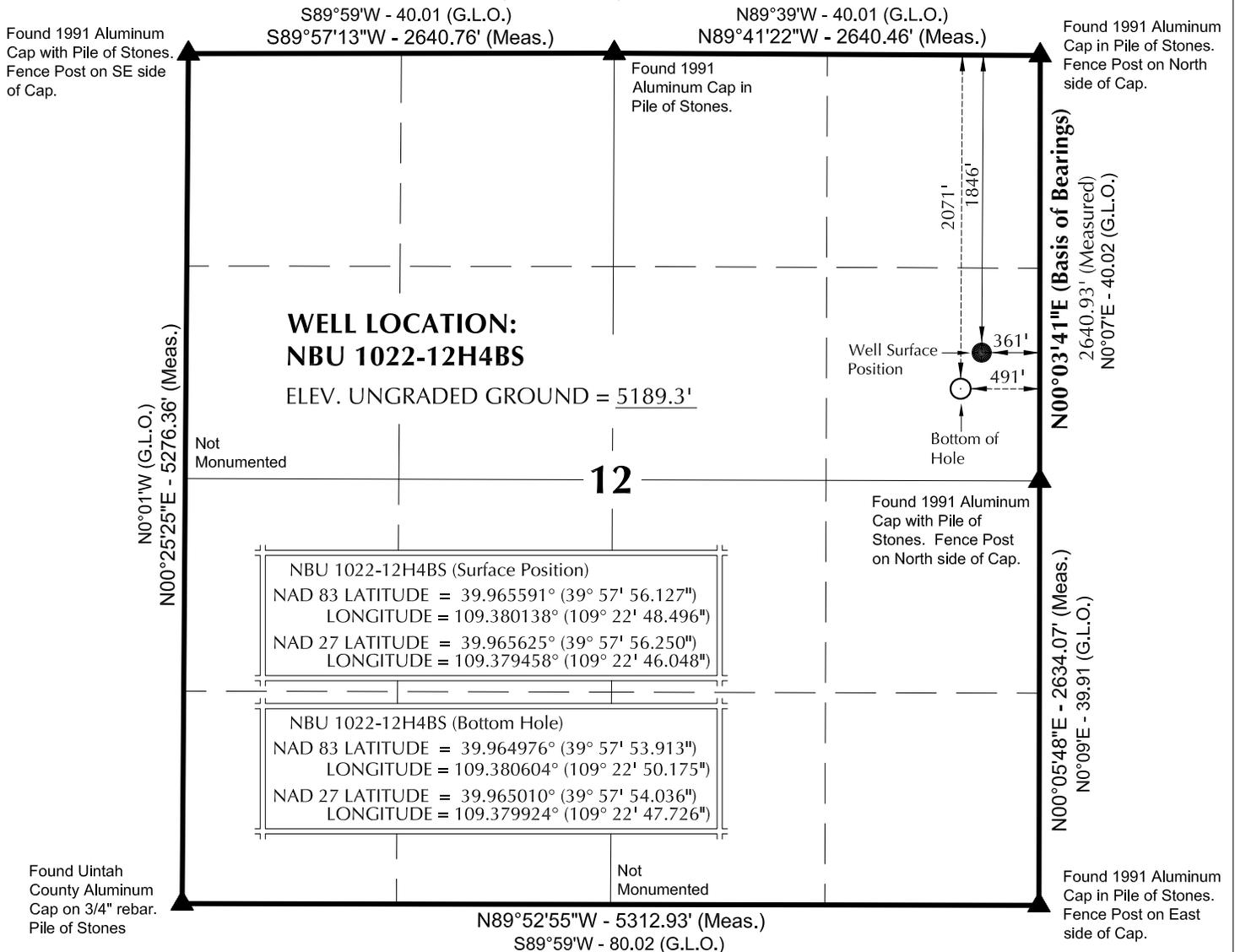
DATE: _____

EXHIBIT A NBU 1022-12H4BS



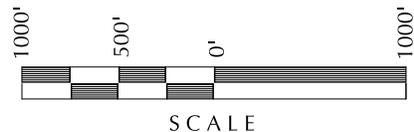
SCHMATIC DIAGRAM OF 5,000 PSI BOP STACK

T10S, R22E, S.L.B.&M.



NOTES:

- ▲ = Section Corners Located
- 1. Well footages are measured at right angles to the Section Lines.
- 2. G.L.O. distances are shown in feet or chains.
1 chain = 66 feet.
- 3. The Bottom of hole bears S30°12'24"W 259.42' from the Surface Position.
- 4. Bearings are based on Global Positioning Satellite observations.
- 5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SURVEYOR'S CERTIFICATE

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

John R. Haugh
 PROFESSIONAL LAND SURVEYOR
 REGISTRATION NO. 6028691
 STATE OF UTAH
 2-15-11

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

WELL PAD: NBU 1022-12H

NBU 1022-12H4BS
WELL PLAT
 2071' FNL, 491' FEL (Bottom Hole)
 SE ¼ NE ¼ OF 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

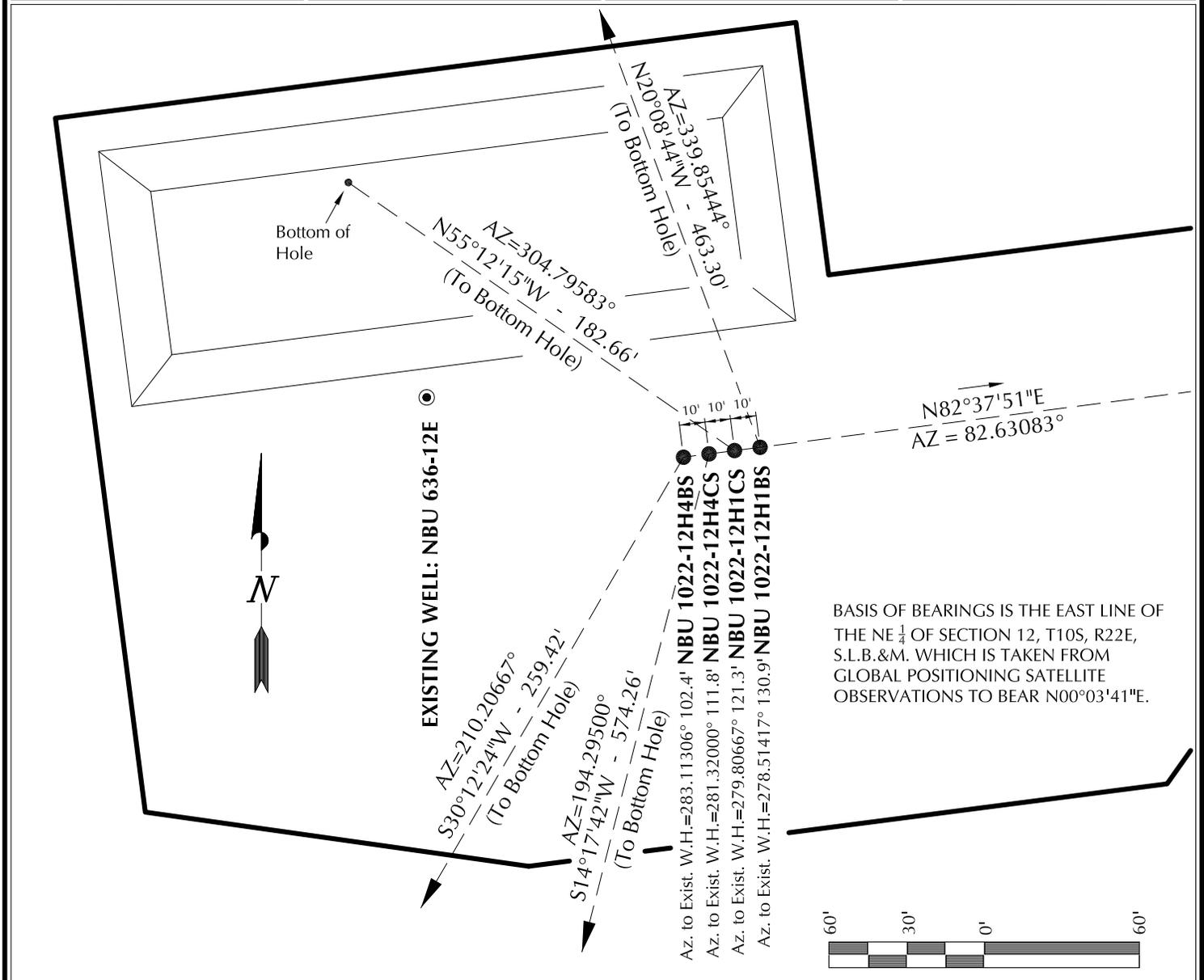
TIMBERLINE (435) 789-1365
 ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 01-25-11	SURVEYED BY: R.Y.	SHEET NO: 1
DATE DRAWN: 02-14-11	DRAWN BY: E.M.S.	
SCALE: 1" = 1000'		1 OF 16

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
NBU 1022-12H4BS	39°57'56.127"	109°22'48.496"	39°57'56.250"	109°22'46.048"	1846' FNL 361' FEL	39°57'53.913"	109°22'50.175"	39°57'54.036"	109°22'47.726"	2071' FNL 491' FEL
NBU 1022-12H4CS	39°57'56.139"	109°22'48.369"	39°57'56.262"	109°22'45.920"	1845' FNL 351' FEL	39°57'50.643"	109°22'50.196"	39°57'50.766"	109°22'47.748"	2402' FNL 492' FEL
NBU 1022-12H1CS	39°57'56.152"	109°22'48.241"	39°57'56.275"	109°22'45.793"	1843' FNL 341' FEL	39°57'57.183"	109°22'50.166"	39°57'57.306"	109°22'47.718"	1740' FNL 491' FEL
NBU 1022-12H1BS	39°57'56.165"	109°22'48.114"	39°57'56.287"	109°22'45.666"	1842' FNL 331' FEL	39°58'00.463"	109°22'50.158"	39°58'00.586"	109°22'47.709"	1408' FNL 491' FEL
NBU 636-12E	39°57'56.357"	109°22'49.776"	39°57'56.480"	109°22'47.328"	1823' FNL 460' FEL					

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 1022-12H4BS	-224.2'	-130.5'	NBU 1022-12H4CS	-556.5'	-141.8'	NBU 1022-12H1CS	104.2'	-150.0'	NBU 1022-12H1BS	435.0'	-159.6'



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

WELL PAD - NBU 1022-12H

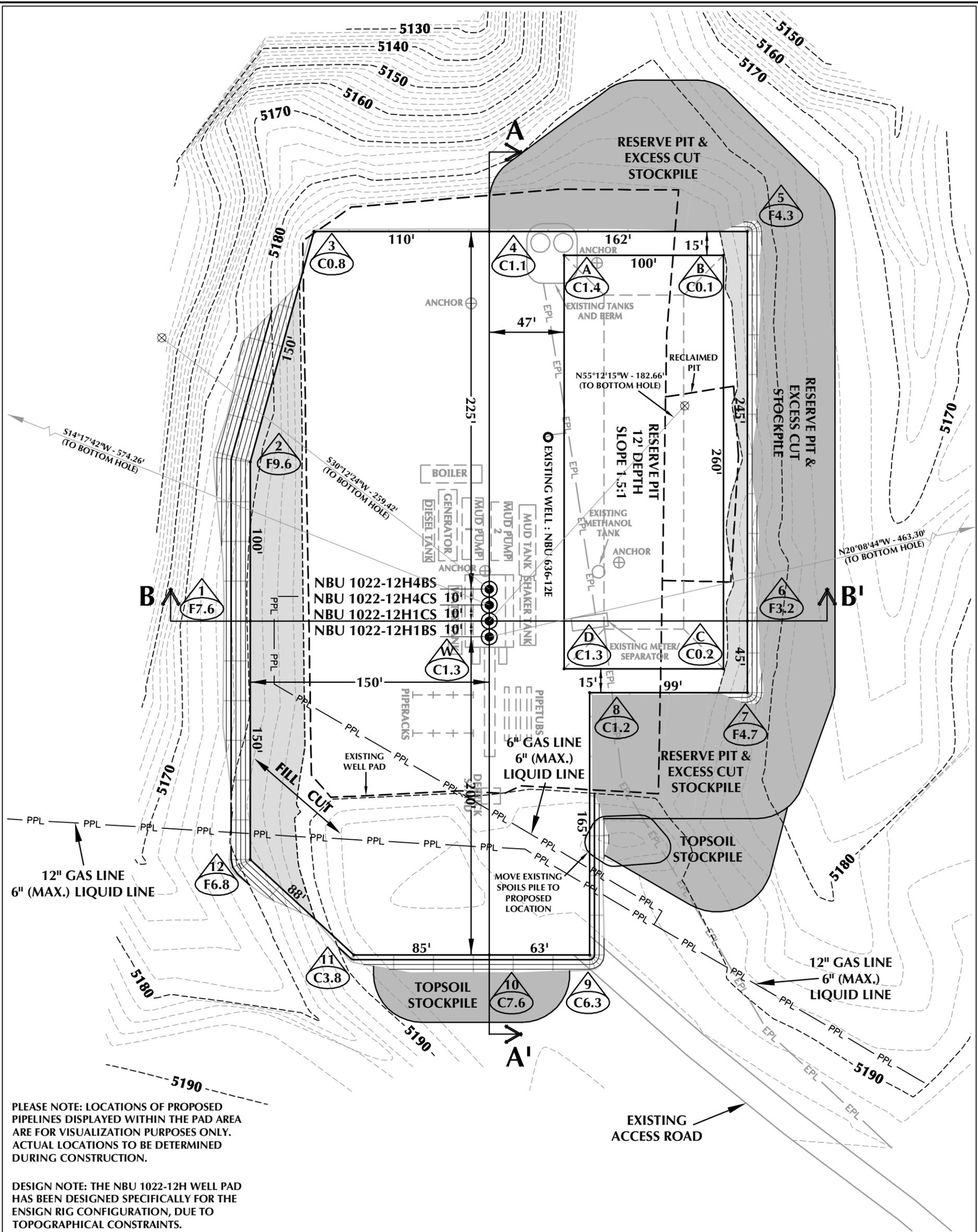
WELL PAD INTERFERENCE PLAT
WELLS - NBU 1022-12H4BS, NBU 1022-12H4CS,
NBU 1022-12H1CS & NBU 1022-12H1BS
LOCATED IN SECTION 12, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH.



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 SURVEYED: 01-25-11	SURVEYED BY: R.Y.	SHEET NO: 5
DATE DRAWN: 02-14-11	DRAWN BY: E.M.S.	
SCALE: 1" = 60'	Date Last Revised:	5 OF 16



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

DESIGN NOTE: THE NBU 1022-12H WELL PAD HAS BEEN DESIGNED SPECIFICALLY FOR THE ENSIGN RIG CONFIGURATION, DUE TO TOPOGRAPHICAL CONSTRAINTS.

WELL PAD - NBU 1022-12H DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5189.3'
 FINISHED GRADE ELEVATION = 5188.0'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.06 ACRES
 TOTAL DAMAGE AREA = 5.72 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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

WELL PAD - NBU 1022-12H

WELL PAD - LOCATION LAYOUT
 NBU 1022-12H4BS, NBU 1022-12H4CS,
 NBU 1022-12H1CS & NBU 1022-12H1BS
 LOCATED IN SECTION 12, T10S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH



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 Sheridan, WY 82801
 Phone 307-674-0609
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WELL PAD QUANTITIES
 TOTAL CUT FOR WELL PAD = 7,622 C.Y.
 TOTAL FILL FOR WELL PAD = 3,468 C.Y.
 TOPSOIL @ 6" DEPTH = 1,045 C.Y.
 EXCESS MATERIAL = 4,154 C.Y.

RESERVE PIT QUANTITIES
 TOTAL CUT FOR RESERVE PIT
 +/- 8,870 C.Y.
 RESERVE PIT CAPACITY (2' OF FREEBOARD)
 +/- 33,770 BARRELS

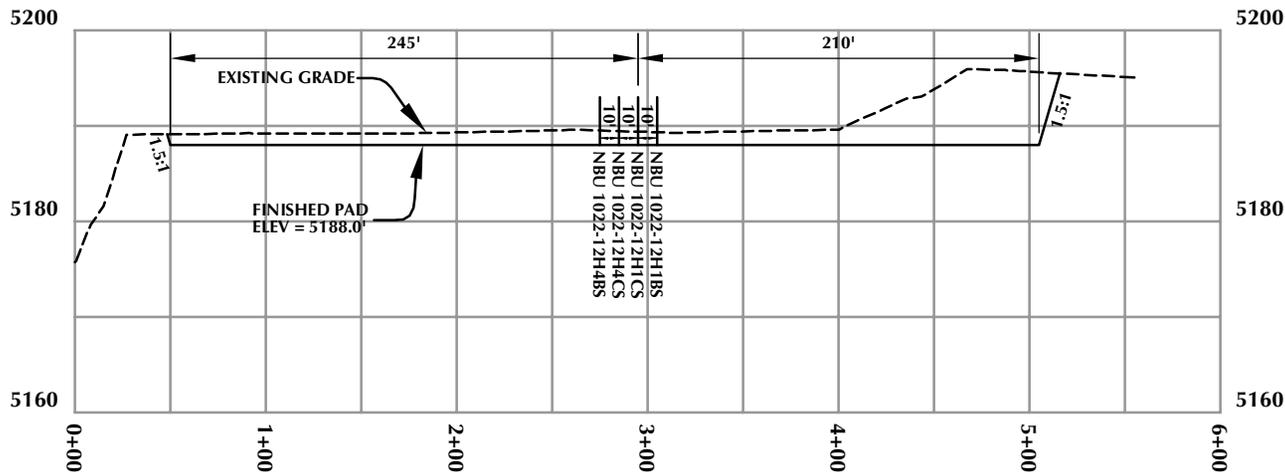
- WELL PAD LEGEND**
- EXISTING WELL LOCATION
 - PROPOSED WELL LOCATION
 - PROPOSED BOTTOM HOLE LOCATION
 - EXISTING CONTOURS (2' INTERVAL)
 - PROPOSED CONTOURS (2' INTERVAL)
 - PROPOSED PIPELINE
 - EXISTING PIPELINE



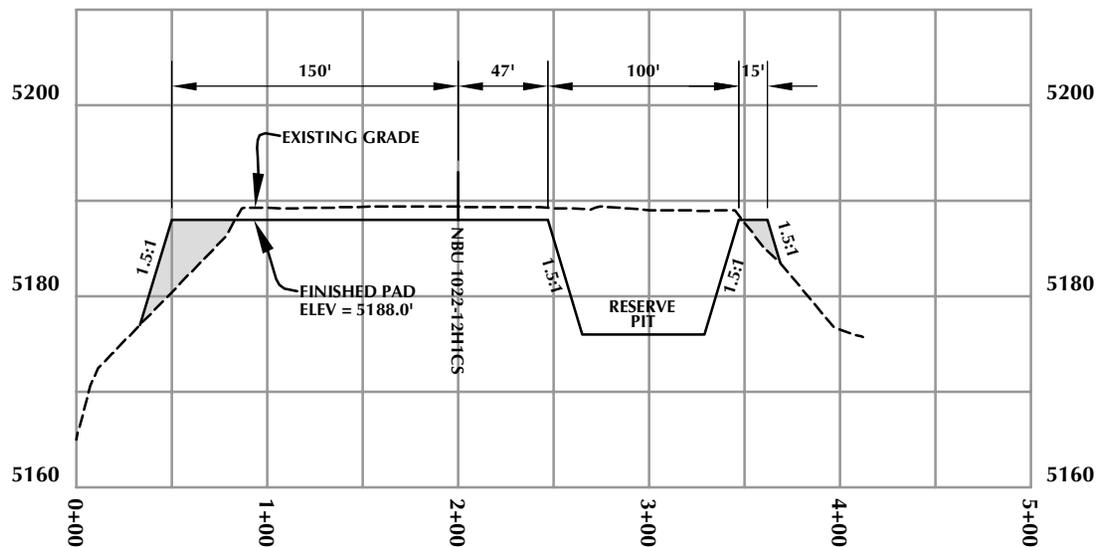
HORIZONTAL 0 30' 60' 1" = 60'
 2' CONTOURS

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: TAR 4/15/11 **6** 6 OF 16



CROSS SECTION A-A'



CROSS SECTION B-B'

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

WELL PAD - NBU 1022-12H

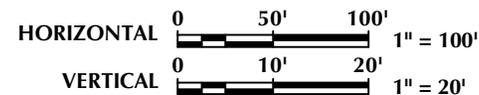
WELL PAD - CROSS SECTIONS
NBU 1022-12H4BS, NBU 1022-12H4CS,
NBU 1022-12H1CS & NBU 1022-12H1BS
LOCATED IN SECTION 12, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH



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209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365



Scale: 1"=100'

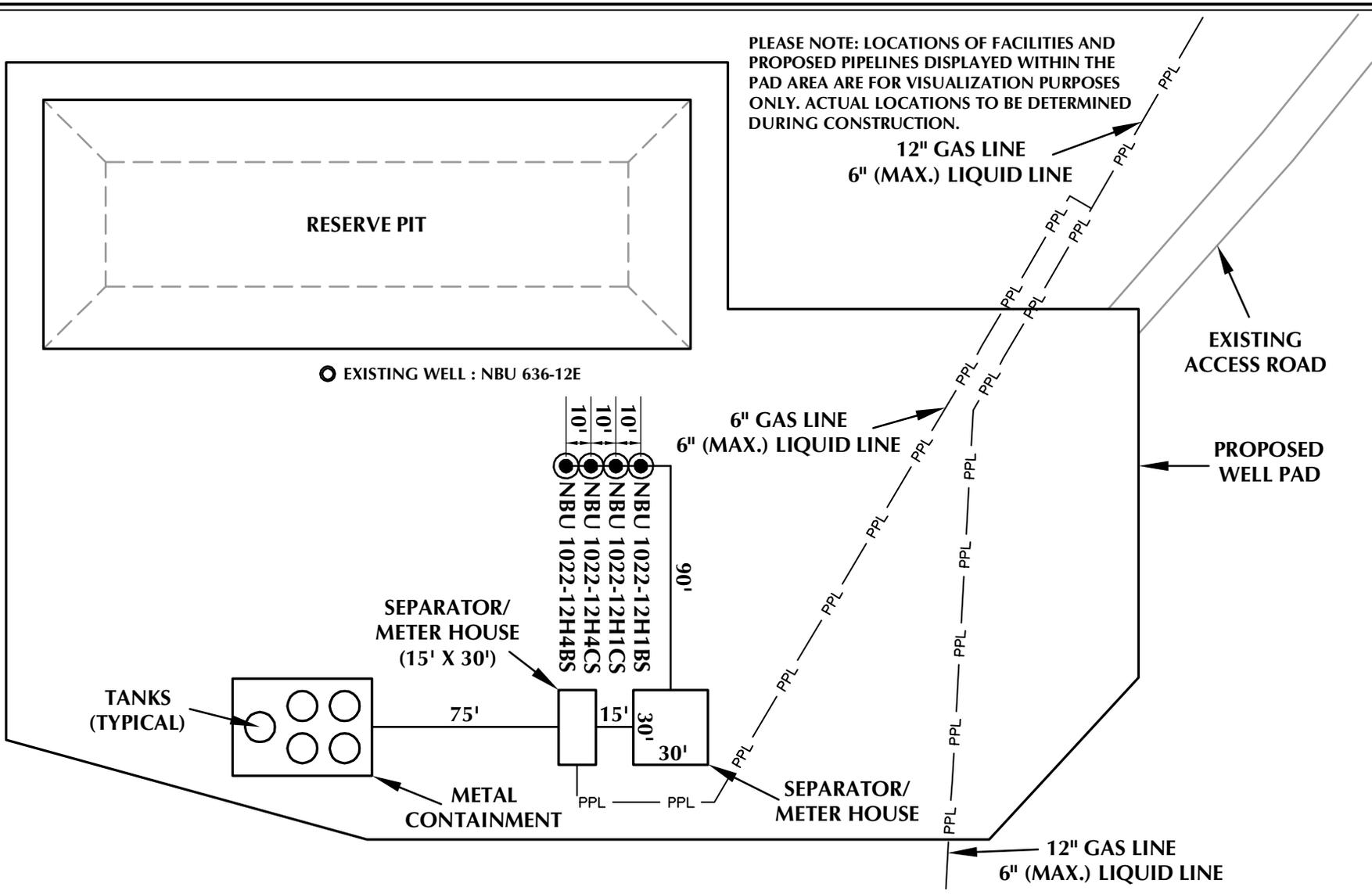
Date: 3/8/11

SHEET NO:

REVISED:

7

7 OF 16



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

WELL PAD - NBU 1022-12H

WELL PAD - FACILITIES DIAGRAM
NBU 1022-12H4BS, NBU 1022-12H4CS,
NBU 1022-12H1CS & NBU 1022-12H1BS
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

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:

8

8 OF 16

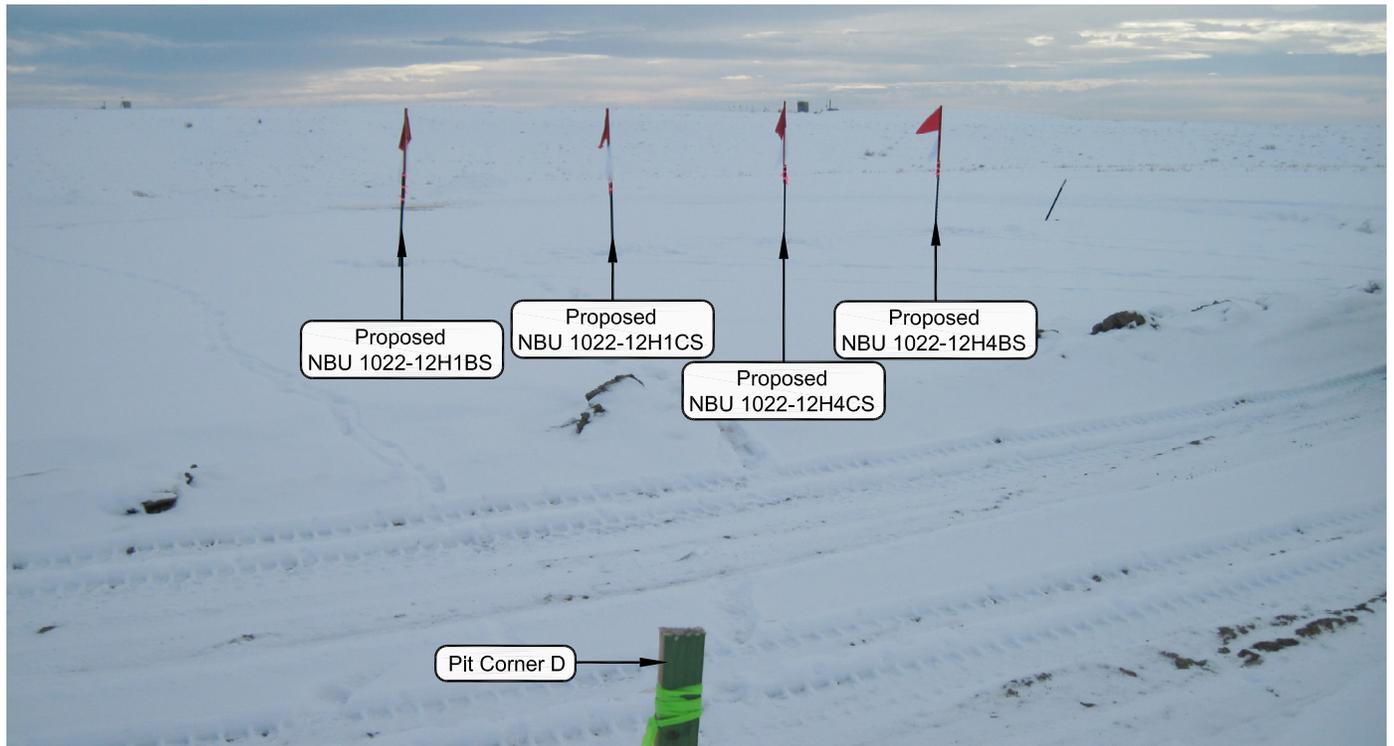


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: SOUTHWESTERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: SOUTHWESTERLY

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

WELL PAD - NBU 1022-12H

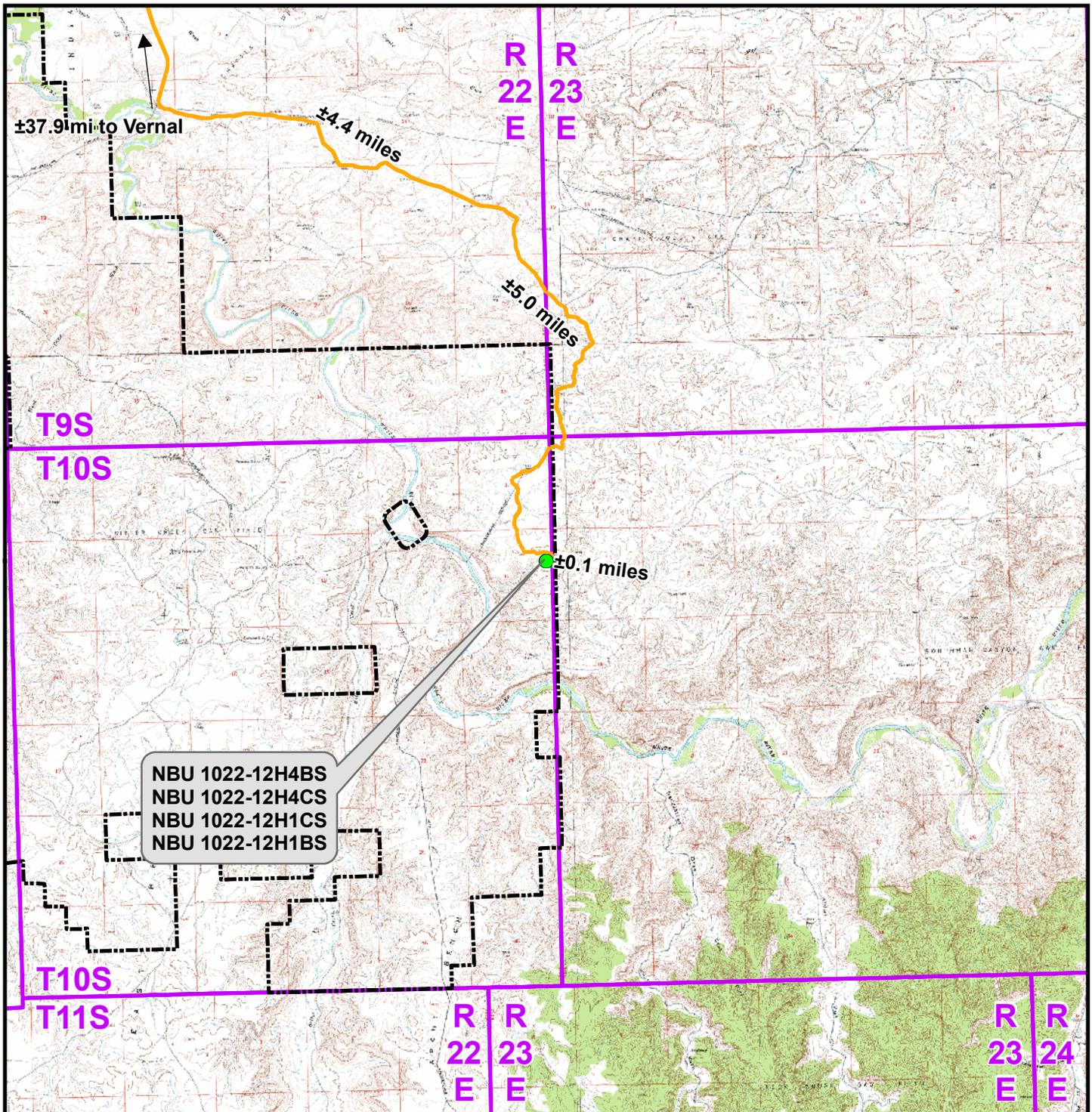
LOCATION PHOTOS
 NBU 1022-12H4BS, NBU 1022-12H4CS,
 NBU 1022-12H1CS & NBU 1022-12H1BS
 LOCATED IN SECTION 12, T10S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH.



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: 02-14-11	PHOTOS TAKEN BY: R.Y.	SHEET NO: 9 9 OF 16
DATE DRAWN: 02-14-11	DRAWN BY: E.M.S.	
Date Last Revised:		



Legend

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

Distance From Well Pad - NBU 1022-12H To Unit Boundary: ±331ft

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

WELL PAD - NBU 1022-12H

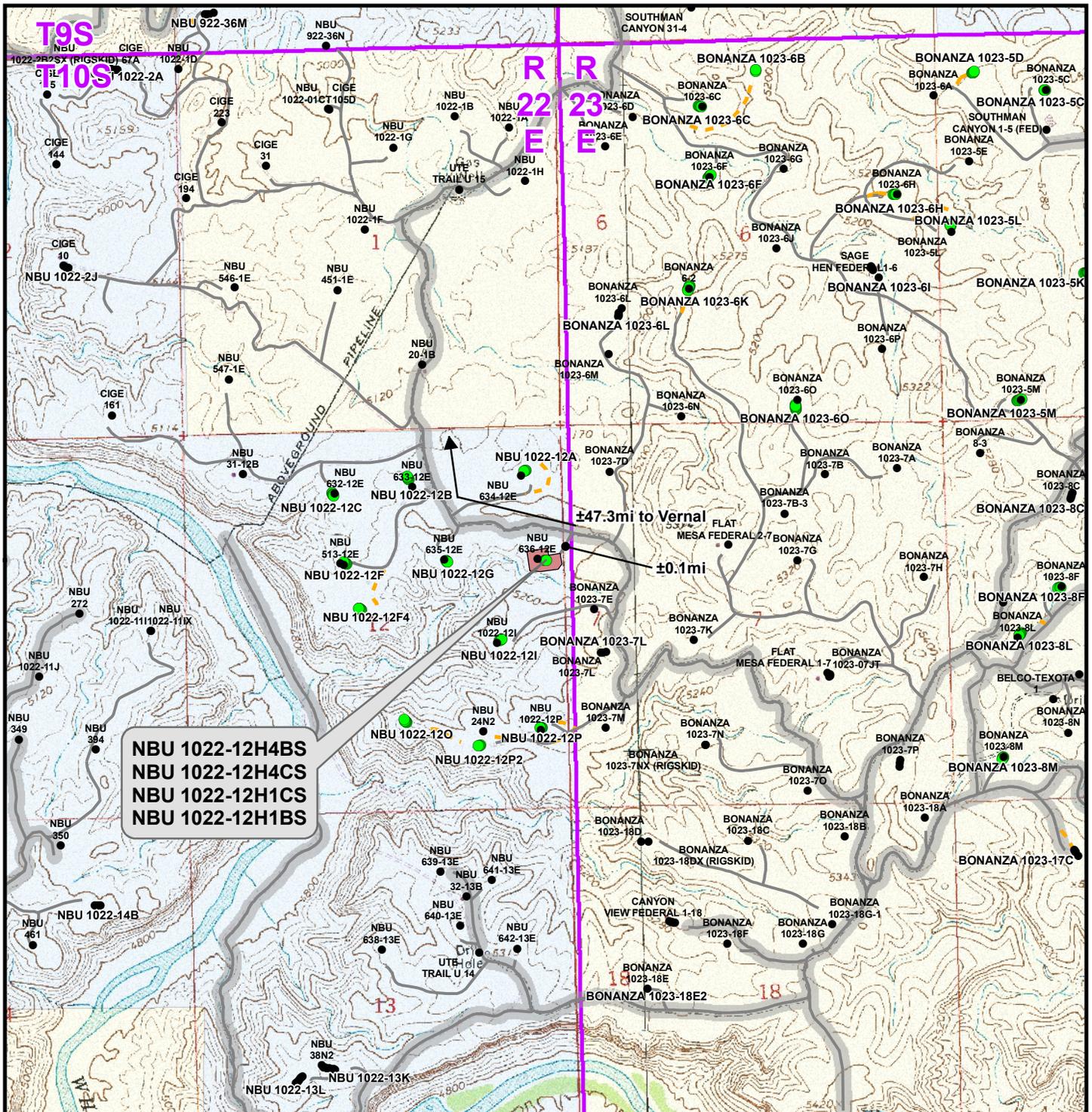
TOPO A
 NBU 1022-12H4BS, NBU 1022-12H4CS,
 NBU 1022-12H1CS & NBU 1022-12H1BS
 LOCATED IN SECTION 12, T10S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH



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



Scale: 1:100,000	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 8 Mar 2011	10
Revised:	Date:	



**NBU 1022-12H4BS
NBU 1022-12H4CS
NBU 1022-12H1CS
NBU 1022-12H1BS**

Legend

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

Total Proposed Road Length: ±0ft

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

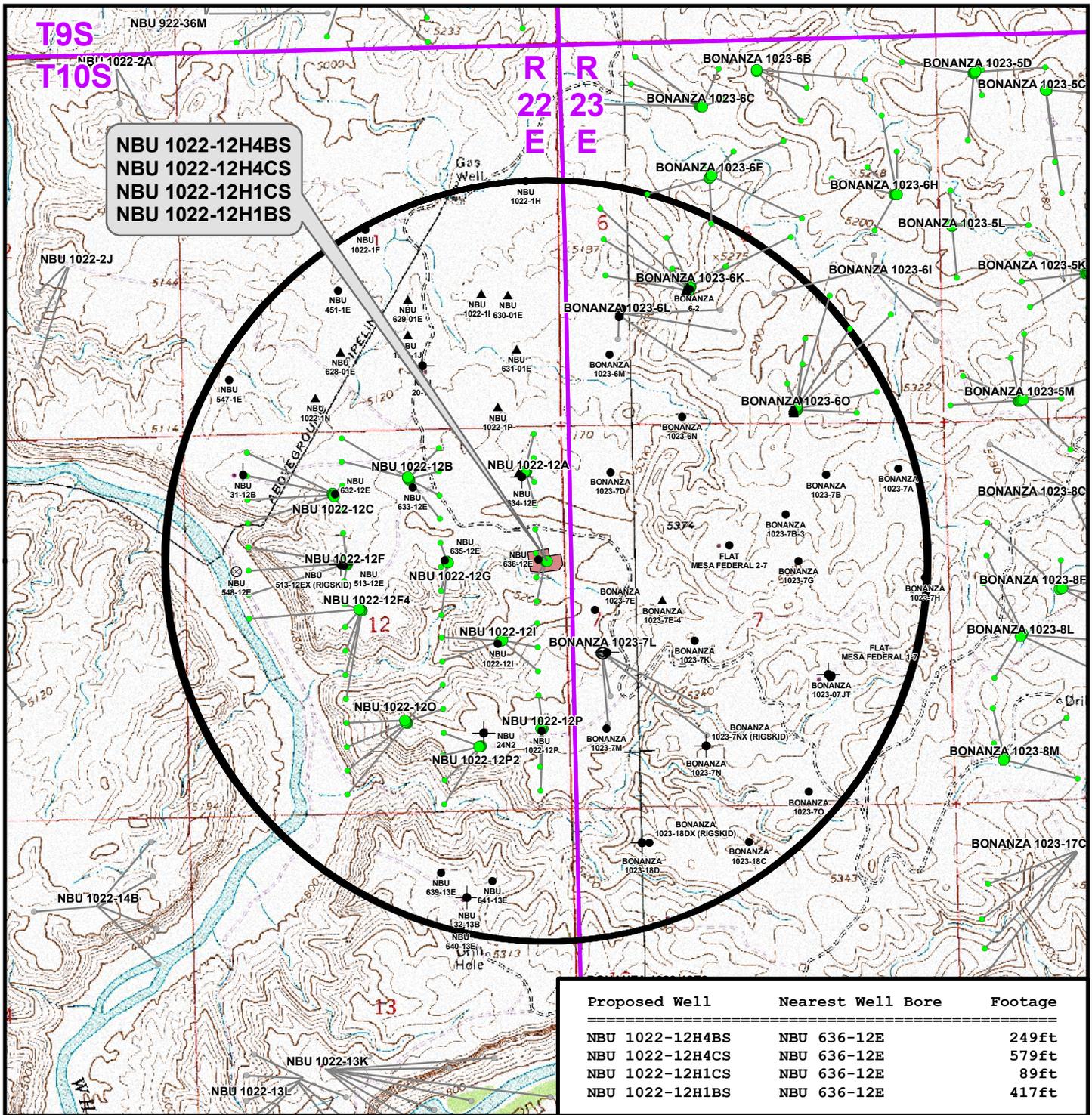
WELL PAD - NBU 1022-12H

TOPO B
NBU 1022-12H4BS, NBU 1022-12H4CS,
NBU 1022-12H1CS & NBU 1022-12H1BS
LOCATED IN SECTION 12, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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2155 North Main Street
Sheridan, WY 82801
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Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 11 11 of 16
Drawn: TL	Date: 8 Mar 2011	
Revised:	Date:	



Proposed Well	Nearest Well Bore	Footage
NBU 1022-12H4BS	NBU 636-12E	249ft
NBU 1022-12H4CS	NBU 636-12E	579ft
NBU 1022-12H1CS	NBU 636-12E	89ft
NBU 1022-12H1BS	NBU 636-12E	417ft

Legend

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

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

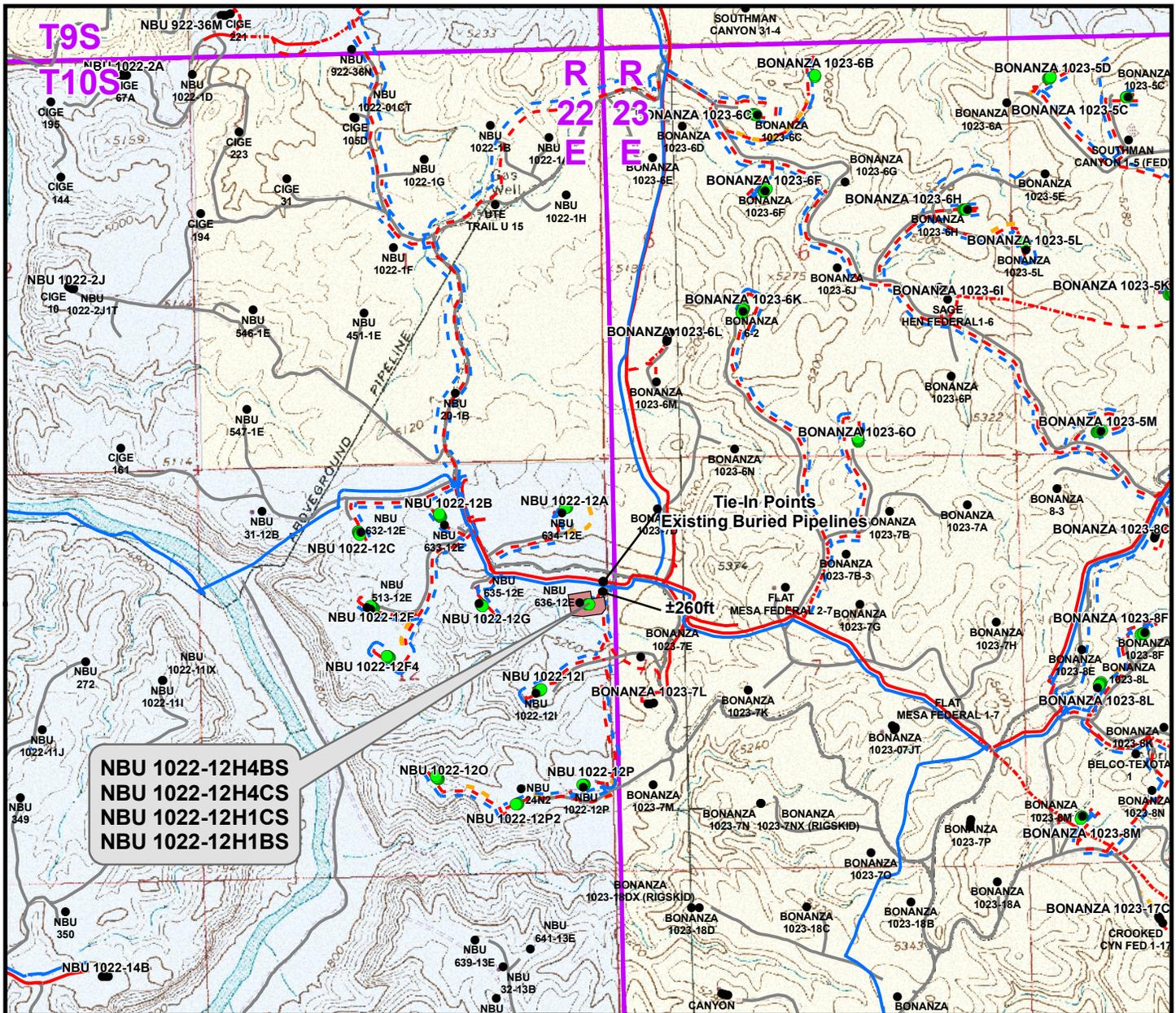
WELL PAD - NBU 1022-12H

TOPO C
NBU 1022-12H4BS, NBU 1022-12H4CS,
NBU 1022-12H1CS & NBU 1022-12H1BS
LOCATED IN SECTION 12, T10S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH

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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: 12 12 of 16
Drawn: TL	Date: 8 Mar 2011	
Revised:	Date:	



**NBU 1022-12H4BS
NBU 1022-12H4CS
NBU 1022-12H1CS
NBU 1022-12H1BS**

**Tie-In Points
Existing Buried Pipelines**

±260ft

Proposed Liquid Pipeline	Length	Proposed Gas Pipeline	Length
Proposed 6" (Max.) (Meter House to Edge of Pad)	±315ft	Proposed 6" (Meter House to Edge of Pad)	±315ft
Proposed 6" (Max.) (Edge of Pad to 12I Intersection)	±65ft	Proposed 6" (Edge of Pad to 12I Intersection)	±65ft
Proposed 6" (Max.) (12I Intersection to Existing Buried Liquid Pipeline)	±195ft	Proposed 12" (12I Intersection to Existing Buried 16" Gas Pipeline)	±195ft
TOTAL PROPOSED LIQUID PIPELINE =	±575ft	TOTAL PROPOSED GAS PIPELINE =	±575ft

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 1022-12H

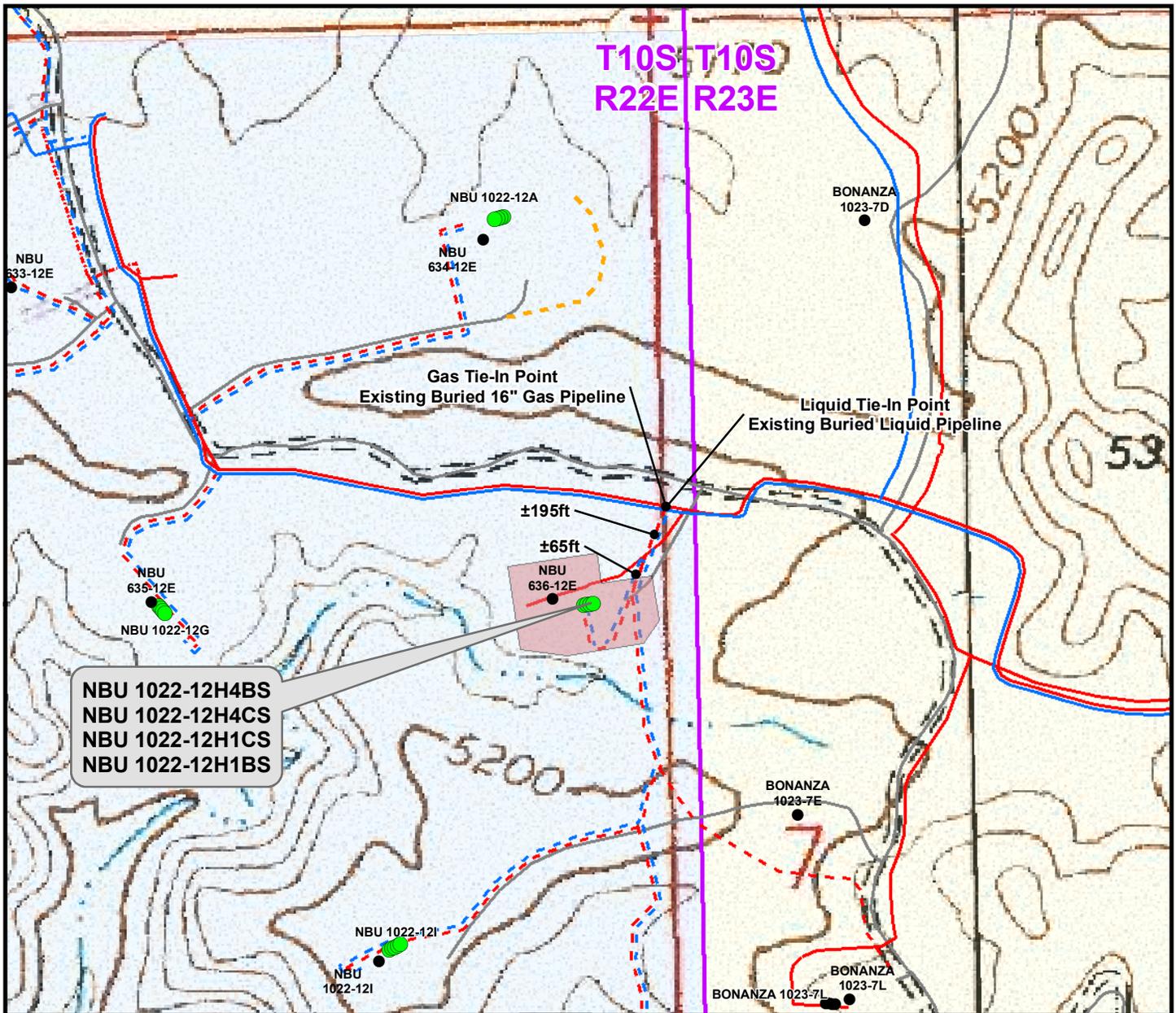
TOPO D
NBU 1022-12H4BS, NBU 1022-12H4CS,
NBU 1022-12H1CS & NBU 1022-12H1BS
LOCATED IN SECTION 12, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
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Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No: 13
Drawn: TL	Date: 8 Mar 2011	13 of 16
Revised:	Date:	



**NBU 1022-12H4BS
NBU 1022-12H4CS
NBU 1022-12H1CS
NBU 1022-12H1BS**

Proposed Liquid Pipeline		Length	Proposed Gas Pipeline		Length
Proposed 6" (Max.)	(Meter House to Edge of Pad)	±315ft	Proposed 6" (Max.)	(Meter House to Edge of Pad)	±315ft
Proposed 6" (Max.)	(Edge of Pad to 12I Intersection)	±65ft	Proposed 6" (Max.)	(Edge of Pad to 12I Intersection)	±65ft
Proposed 6" (Max.)	(12I Intersection to Existing Buried Liquid Pipeline)	±195ft	Proposed 12" (Max.)	(12I Intersection to Existing Buried 16" Gas Pipeline)	±195ft
TOTAL PROPOSED LIQUID PIPELINE =		±575ft	TOTAL PROPOSED GAS PIPELINE =		±575ft

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

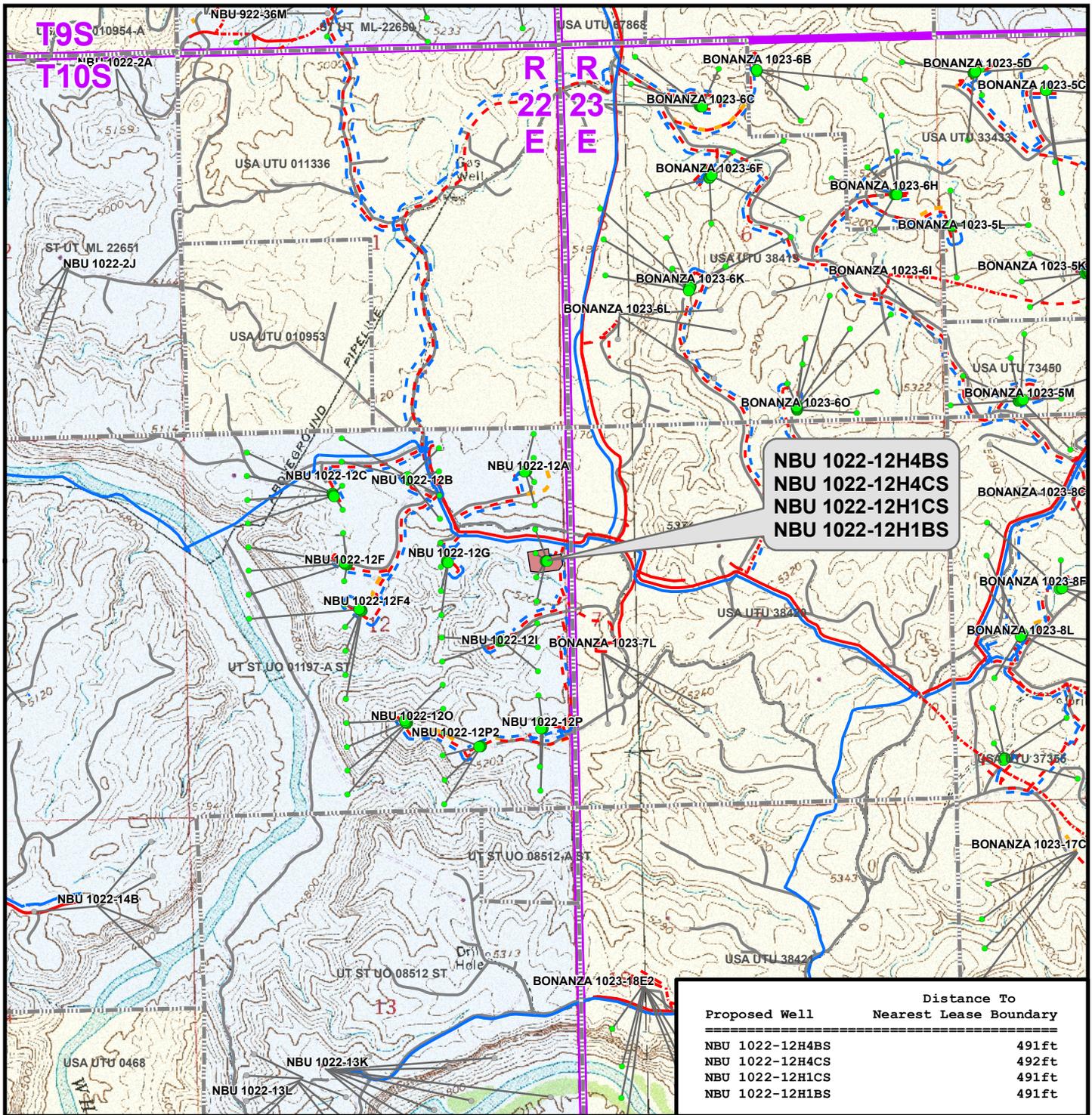
Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 1022-12H

TOPO D2 (PAD & PIPELINE DETAIL)
NBU 1022-12H4BS, NBU 1022-12H4CS,
NBU 1022-12H1CS & NBU 1022-12H1BS
LOCATED IN SECTION 12, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

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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: TL	Date: 8 Mar 2011	14 14 of 16
Revised:	Date:	



**NBU 1022-12H4BS
NBU 1022-12H4CS
NBU 1022-12H1CS
NBU 1022-12H1BS**

Proposed Well	Distance To Nearest Lease Boundary
NBU 1022-12H4BS	491ft
NBU 1022-12H4CS	492ft
NBU 1022-12H1CS	491ft
NBU 1022-12H1BS	491ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Bottom Hole - Existing
- Well Path
- Well Pad
- ▭ Lease Boundary
- - - 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 1022-12H

TOPO E
NBU 1022-12H4BS, NBU 1022-12H4CS,
NBU 1022-12H1CS & NBU 1022-12H1BS
LOCATED IN SECTION 12, T10S, R22E,
S.L.B.&M., UTAH COUNTY, UTAH

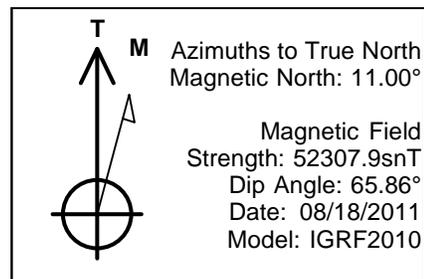
609
CONSULTING, LLC
2155 North Main Street
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

Scale: 1" = 2,000ft	NAD83 USP Central	Sheet No:
Drawn: TL	Date: 8 Mar 2011	15 15 of 16
Revised:	Date:	

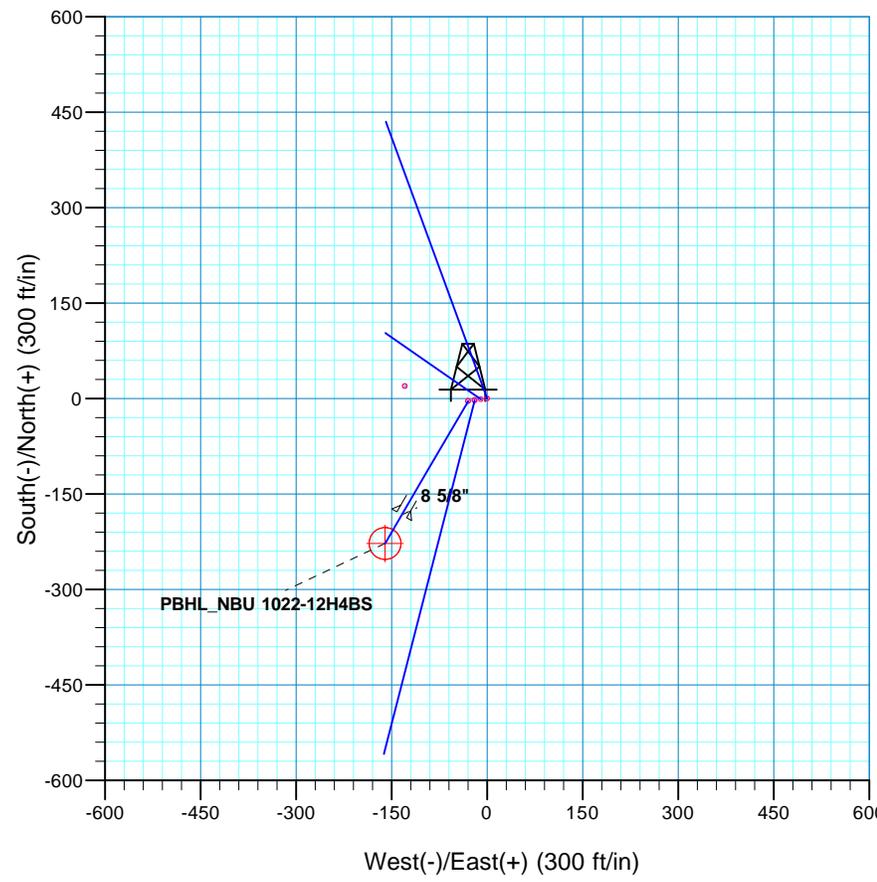
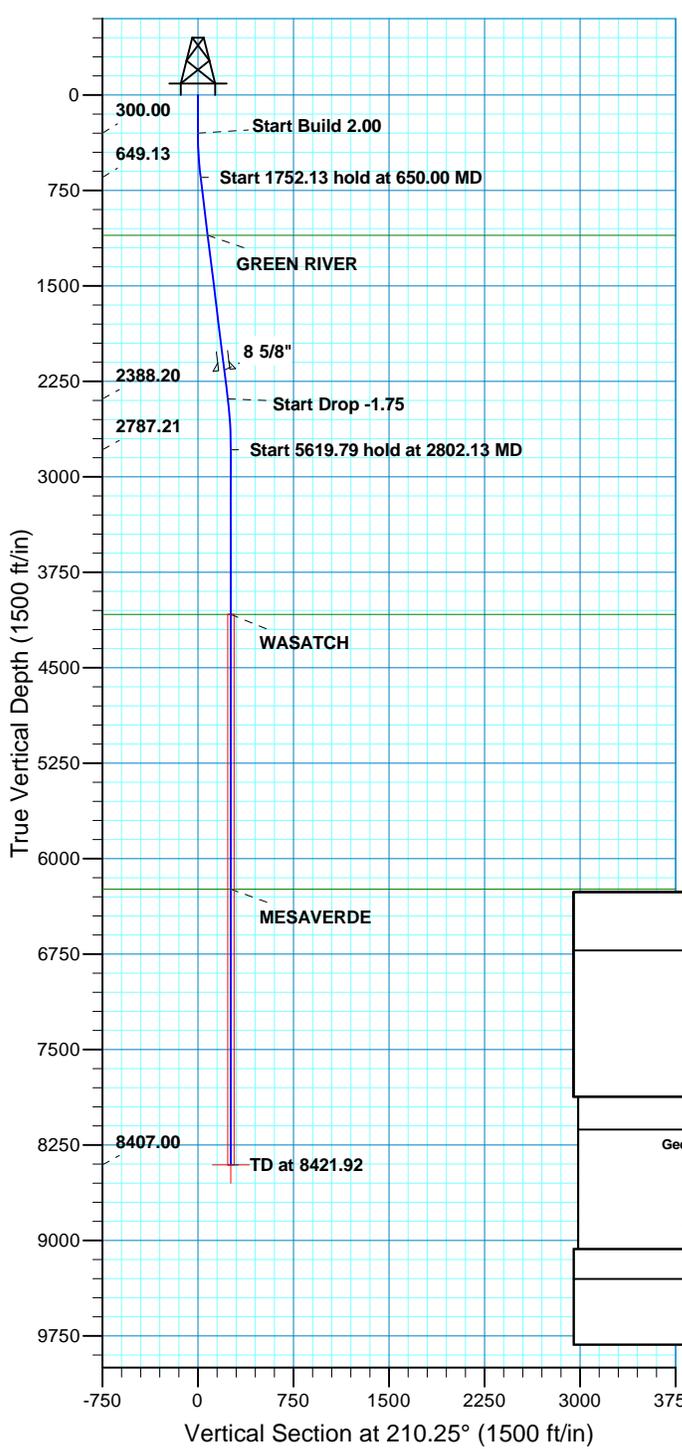
Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 1022-12H
WELLS – NBU 1022-12H4BS, NBU 1022-12H4CS,
NBU 1022-12H1CS & NBU 1022-12H1BS
Section 12, T10S, R22E, S.L.B.&M.

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 5.0 miles to a service road to the southwest. Exit right and proceed in a southwesterly direction along the service road approximately 0.1 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 47.4 miles in a southerly direction.



WELL DETAILS: NBU 1022-12H4BS							
GL 5188 & KB 4 @ 5192.00ft (ASSUMED)							
	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
	-3.64	-29.71	14517652.69	2094501.12	39° 57' 56.250 N	109° 22' 46.049 W	
DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL	8407.00	-227.64	-160.31	14517426.36	2094374.60	39° 57' 54.036 N	109° 22' 47.726 W
- plan hits target center							
							Shape Circle (Radius: 25.00)



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	-3.64	-29.71	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	-3.64	-29.71	0.00	0.00	0.00	
650.00	7.00	210.25	649.13	-22.09	-40.46	2.00	210.25	21.35	
2402.13	7.00	210.25	2388.20	-206.55	-148.02	0.00	0.00	234.88	
2802.13	0.00	0.00	2787.21	-227.64	-160.31	1.75	180.00	259.29	
8421.92	0.00	0.00	8407.00	-227.64	-160.31	0.00	0.00	259.29	PBHL_NBU 1022-12H4BS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N		
Geodetic System: Universal Transverse Mercator (US Survey Feet)	TVDPath	MDPath
Datum: NAD 1927 (NADCON CONUS)	1103.00	1107.28
Ellipsoid: Clarke 1866	4082.00	4096.92
Zone: Zone 12N (114 W to 108 W)	6240.00	6254.92
Location: SECTION 1 T10S R22E		
System Datum: Mean Sea Level		
Formation		
GREEN RIVER		
WASATCH		
MESAVERDE		

CASING DETAILS			
TVD	MD	Name	Size
2162.00	2174.23	8 5/8"	8.625

RECEIVED



US ROCKIES REGION PLANNING

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

NBU 1022-12H PAD

NBU 1022-12H4BS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

19 August, 2011





SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-12H4BS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5188 & KB 4 @ 5192.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5188 & KB 4 @ 5192.00ft (ASSUMED)
Site:	NBU 1022-12H PAD	North Reference:	True
Well:	NBU 1022-12H4BS	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 1022-12H PAD, SECTION 1 T10S R22E				
Site Position:		Northing:	14,517,656.88 usft	Latitude:	39° 57' 56.286 N
From:	Lat/Long	Easting:	2,094,530.75 usft	Longitude:	109° 22' 45.667 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	1.04 °

Well	NBU 1022-12H4BS, 1846 FNL 361 FEL					
Well Position	+N/-S	-3.64 ft	Northing:	14,517,652.70 usft	Latitude:	39° 57' 56.250 N
	+E/-W	-29.71 ft	Easting:	2,094,501.11 usft	Longitude:	109° 22' 46.049 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,188.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/18/11	11.00	65.86	52,308

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	210.25

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	
650.00	7.00	210.25	649.13	-18.45	-10.76	2.00	2.00	0.00	210.25	
2,402.13	7.00	210.25	2,388.20	-202.91	-118.31	0.00	0.00	0.00	0.00	
2,802.13	0.00	0.00	2,787.21	-223.99	-130.61	1.75	-1.75	0.00	180.00	
8,421.92	0.00	0.00	8,407.00	-223.99	-130.61	0.00	0.00	0.00	0.00	PBHL_NBU 1022-12H



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-12H4BS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5188 & KB 4 @ 5192.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5188 & KB 4 @ 5192.00ft (ASSUMED)
Site:	NBU 1022-12H PAD	North Reference:	True
Well:	NBU 1022-12H4BS	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	210.25	399.98	-1.51	-0.88	1.75	2.00	2.00	0.00	
500.00	4.00	210.25	499.84	-6.03	-3.52	6.98	2.00	2.00	0.00	
600.00	6.00	210.25	599.45	-13.56	-7.90	15.69	2.00	2.00	0.00	
650.00	7.00	210.25	649.13	-18.45	-10.76	21.35	2.00	2.00	0.00	
Start 1752.13 hold at 650.00 MD										
700.00	7.00	210.25	698.76	-23.71	-13.83	27.45	0.00	0.00	0.00	
800.00	7.00	210.25	798.01	-34.24	-19.96	39.63	0.00	0.00	0.00	
900.00	7.00	210.25	897.27	-44.77	-26.10	51.82	0.00	0.00	0.00	
1,000.00	7.00	210.25	996.52	-55.29	-32.24	64.01	0.00	0.00	0.00	
1,100.00	7.00	210.25	1,095.78	-65.82	-38.38	76.19	0.00	0.00	0.00	
1,107.28	7.00	210.25	1,103.00	-66.59	-38.83	77.08	0.00	0.00	0.00	
GREEN RIVER										
1,200.00	7.00	210.25	1,195.03	-76.35	-44.52	88.38	0.00	0.00	0.00	
1,300.00	7.00	210.25	1,294.28	-86.88	-50.66	100.57	0.00	0.00	0.00	
1,400.00	7.00	210.25	1,393.54	-97.41	-56.80	112.76	0.00	0.00	0.00	
1,500.00	7.00	210.25	1,492.79	-107.93	-62.93	124.94	0.00	0.00	0.00	
1,600.00	7.00	210.25	1,592.05	-118.46	-69.07	137.13	0.00	0.00	0.00	
1,700.00	7.00	210.25	1,691.30	-128.99	-75.21	149.32	0.00	0.00	0.00	
1,800.00	7.00	210.25	1,790.56	-139.52	-81.35	161.50	0.00	0.00	0.00	
1,900.00	7.00	210.25	1,889.81	-150.05	-87.49	173.69	0.00	0.00	0.00	
2,000.00	7.00	210.25	1,989.07	-160.57	-93.63	185.88	0.00	0.00	0.00	
2,100.00	7.00	210.25	2,088.32	-171.10	-99.77	198.06	0.00	0.00	0.00	
2,174.23	7.00	210.25	2,162.00	-178.92	-104.32	207.11	0.00	0.00	0.00	
8 5/8"										
2,200.00	7.00	210.25	2,187.58	-181.63	-105.90	210.25	0.00	0.00	0.00	
2,300.00	7.00	210.25	2,286.83	-192.16	-112.04	222.44	0.00	0.00	0.00	
2,400.00	7.00	210.25	2,386.09	-202.69	-118.18	234.63	0.00	0.00	0.00	
2,402.13	7.00	210.25	2,388.20	-202.91	-118.31	234.89	0.00	0.00	0.00	
Start Drop -1.75										
2,500.00	5.29	210.25	2,485.50	-211.96	-123.59	245.36	1.75	-1.75	0.00	
2,600.00	3.54	210.25	2,585.20	-218.61	-127.46	253.05	1.75	-1.75	0.00	
2,700.00	1.79	210.25	2,685.09	-222.62	-129.80	257.70	1.75	-1.75	0.00	
2,800.00	0.04	210.25	2,785.08	-223.99	-130.60	259.29	1.75	-1.75	0.00	
2,802.13	0.00	0.00	2,787.21	-223.99	-130.61	259.29	1.75	-1.75	0.00	
Start 5619.79 hold at 2802.13 MD										
2,900.00	0.00	0.00	2,885.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
3,000.00	0.00	0.00	2,985.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
3,100.00	0.00	0.00	3,085.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
3,200.00	0.00	0.00	3,185.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
3,300.00	0.00	0.00	3,285.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
3,400.00	0.00	0.00	3,385.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
3,500.00	0.00	0.00	3,485.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
3,600.00	0.00	0.00	3,585.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
3,700.00	0.00	0.00	3,685.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
3,800.00	0.00	0.00	3,785.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
3,900.00	0.00	0.00	3,885.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
4,000.00	0.00	0.00	3,985.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
4,096.92	0.00	0.00	4,082.00	-223.99	-130.61	259.29	0.00	0.00	0.00	



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-12H4BS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5188 & KB 4 @ 5192.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5188 & KB 4 @ 5192.00ft (ASSUMED)
Site:	NBU 1022-12H PAD	North Reference:	True
Well:	NBU 1022-12H4BS	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)	
WASATCH										
4,100.00	0.00	0.00	4,085.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
4,200.00	0.00	0.00	4,185.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
4,300.00	0.00	0.00	4,285.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
4,400.00	0.00	0.00	4,385.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
4,500.00	0.00	0.00	4,485.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
4,600.00	0.00	0.00	4,585.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
4,700.00	0.00	0.00	4,685.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
4,800.00	0.00	0.00	4,785.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
4,900.00	0.00	0.00	4,885.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
5,000.00	0.00	0.00	4,985.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
5,100.00	0.00	0.00	5,085.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
5,200.00	0.00	0.00	5,185.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
5,300.00	0.00	0.00	5,285.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,385.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,485.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,585.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,685.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,785.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,885.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,985.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
6,100.00	0.00	0.00	6,085.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,185.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
6,254.92	0.00	0.00	6,240.00	-223.99	-130.61	259.29	0.00	0.00	0.00	
MESAVERDE										
6,300.00	0.00	0.00	6,285.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,385.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,485.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,585.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,685.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,785.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,885.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,985.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
7,100.00	0.00	0.00	7,085.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,185.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,285.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,385.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,485.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,585.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,685.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,785.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,885.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,985.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
8,100.00	0.00	0.00	8,085.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
8,200.00	0.00	0.00	8,185.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,285.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,385.08	-223.99	-130.61	259.29	0.00	0.00	0.00	
8,421.92	0.00	0.00	8,407.00	-223.99	-130.61	259.29	0.00	0.00	0.00	
TD at 8421.92 - PBHL_NBU 1022-12H4BS										



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well NBU 1022-12H4BS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5188 & KB 4 @ 5192.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5188 & KB 4 @ 5192.00ft (ASSUMED)
Site:	NBU 1022-12H PAD	North Reference:	True
Well:	NBU 1022-12H4BS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 1022-12H4f - hit/miss target - Shape - Circle (radius 25.00)	0.00	0.00	8,407.00	-223.99	-130.61	14,517,426.37	2,094,374.60	39° 57' 54.036 N	109° 22' 47.726 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,174.23	2,162.00	8 5/8"	8.625	11.000	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,107.28	1,103.00	GREEN RIVER			
4,096.92	4,082.00	WASATCH			
6,254.92	6,240.00	MESAVERDE			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
300.00	300.00	0.00	0.00	Start Build 2.00	
650.00	649.13	-18.45	-10.76	Start 1752.13 hold at 650.00 MD	
2,402.13	2,388.20	-202.91	-118.31	Start Drop -1.75	
2,802.13	2,787.21	-223.99	-130.61	Start 5619.79 hold at 2802.13 MD	
8,421.92	8,407.00	-223.99	-130.61	TD at 8421.92	

NBU 1022-12H1BS			
Surface:	1842 FNL / 331 FEL	SENE	Lot
BHL:	1408 FNL / 491 FEL	SENE	Lot
NBU 1022-12H1CS			
Surface:	1843 FNL / 341 FEL	SENE	Lot
BHL:	1740 FNL / 491 FEL	SENE	Lot
NBU 1022-12H4BS			
Surface:	1846 FNL / 361 FEL	SENE	Lot
BHL:	2071 FNL / 491 FEL	SENE	Lot
NBU 1022-12H4CS			
Surface:	1845 FNL / 351 FEL	SENE	Lot
BHL:	2402 FNL / 492 FEL	SENE	Lot

Pad: NBU 1022-12H 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.

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:

No new access road is proposed. (see Topo Map B). 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:

This pad will expand the existing pad for the NBU 636-12E. The NBU 636-12E well location is a vertical shut-in well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of September 8, 2011.

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):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 575'$ and the individual segments are broken up as follows:

$\pm 315'$ (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.

$\pm 65'$ (0.01 miles) –New 6" buried gas pipeline from edge of the pad to the tie-in at the proposed 1022-12I Intersection 12" gas pipeline. Please refer to Topo D & D2.

±195' (0.04 miles) –New 12" buried gas pipeline from the tie-in at the proposed 1022-12I Intersection to the tie-in at the existing 16" buried gas pipeline. Please refer to Topo D & D2.

The total liquid gathering pipeline distance from the separator to the tie in point is ±575' and the individual segments are broken up as follows:

±315' (0.06 miles) –New 6" buried liquid pipeline from the separator to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.

±65' (0.01 miles) –New 6" buried liquid pipeline from the edge of the pad to the tie-in at the proposed 1022-12I Intersection 6" liquid pipeline. Please refer to Topo D & D2.

±195' (0.04 miles) –New 6" buried liquid pipeline from the tie-in at the proposed 1022-12I Intersection 6" liquid pipeline to the tie-in at the existing 6" buried 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:

- 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 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.

J. Surface/Mineral Ownership:

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

L. Other Information:

None

NBU 1022-12H1BS/ 1022-12H1CS/
1022-12H4BS/ 1022-12H4CS

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 8, 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 1022-12H4BS
10S-22E-Sec. 12
SENE/SENE
Surface: 1846' FNL, 361' FEL
Bottom Hole: 2071' FNL, 491' FEL
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 1022-12H4BS 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

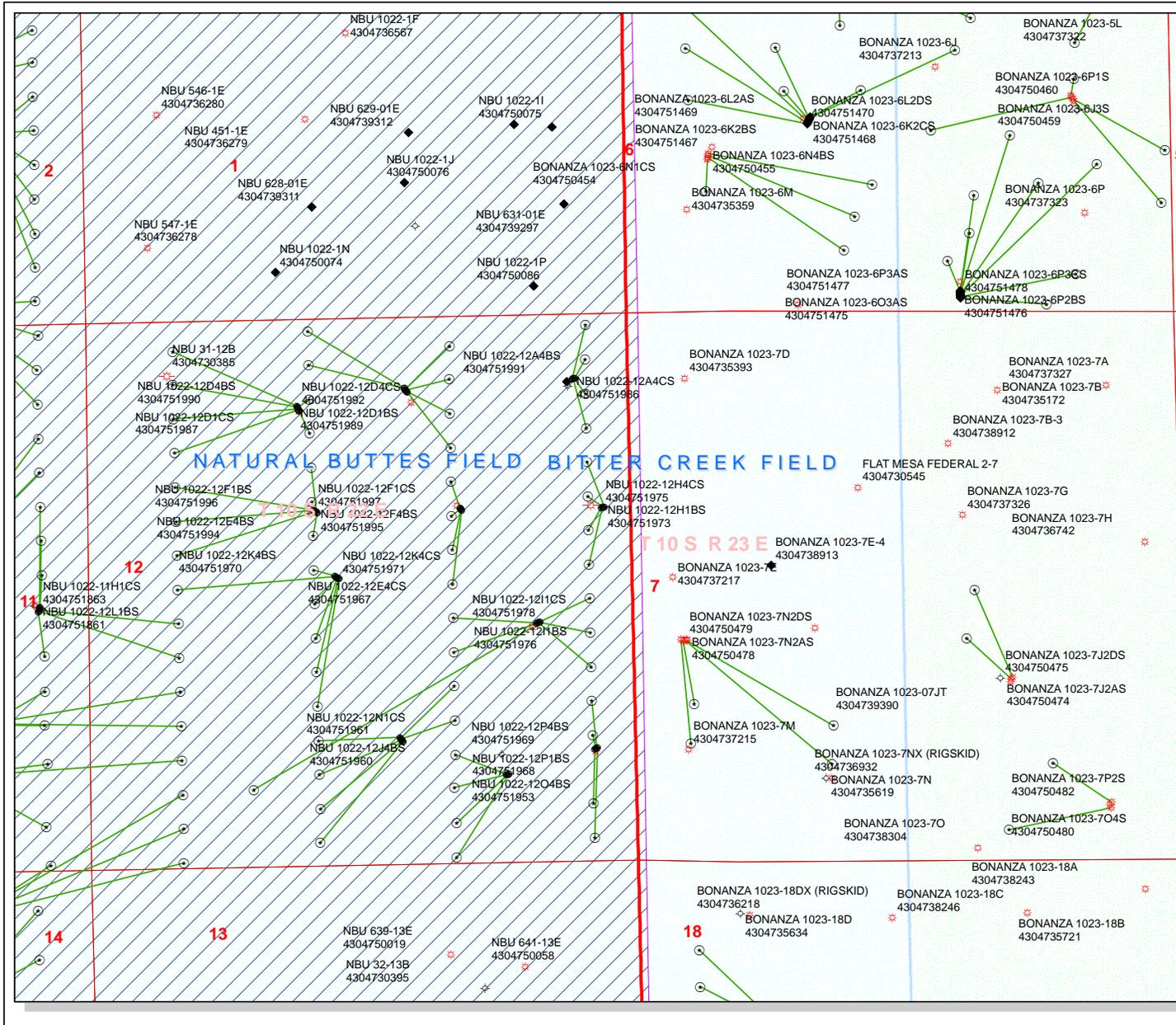
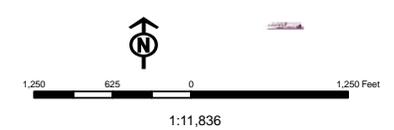
A handwritten signature in blue ink, appearing to read 'Joe D. Johnson', with a horizontal line underneath.

Joseph D. Johnson
Landman

API Number: 4304751941
Well Name: NBU 1022-12H4BS
 Township T1.0 . Range R2.2 . Section 12
Meridian: SLBM
 Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
 Map Produced by Diana Mason

Units	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	DPS - Operation Suspended
PP GEOTHERMAL	PA - Plugged Abandoned
PP OIL	PGW - Producing Gas Well
SECONDARY	POW - Producing Oil Well
TERMINATED	RET - Returned APD
Unknown	SGW - Shut-in Gas Well
ABANDONED	SOW - Shut-in Oil Well
ACTIVE	TA - Temp. Abandoned
COMBINED	TW - Test Well
INACTIVE	WDW - Water Disposal
STORAGE	WIW - Water Injection Well
TERMINATED	WSW - Water Supply Well
Sections	
Township	



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 1022-12H4B			
String	Surf	Prod		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2148	8407		
Previous Shoe Setting Depth (TVD)	40	2148		
Max Mud Weight (ppg)	8.4	12.5		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	7780		
Operators Max Anticipated Pressure (psi)	5380	12.3		

Calculations	Surf String	8.625	"
Max BHP (psi)	.052*Setting Depth*MW=	938	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	680	NO <input type="text" value="air drill"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	465	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)=	474	NO <input type="text" value="Reasonable depth in area"/>
Required Casing/BOPE Test Pressure=		2148	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=	5465	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4456	YES <input type="text"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3615	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)=	4088	NO <input type="text" value="Reasonable"/>
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2148	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

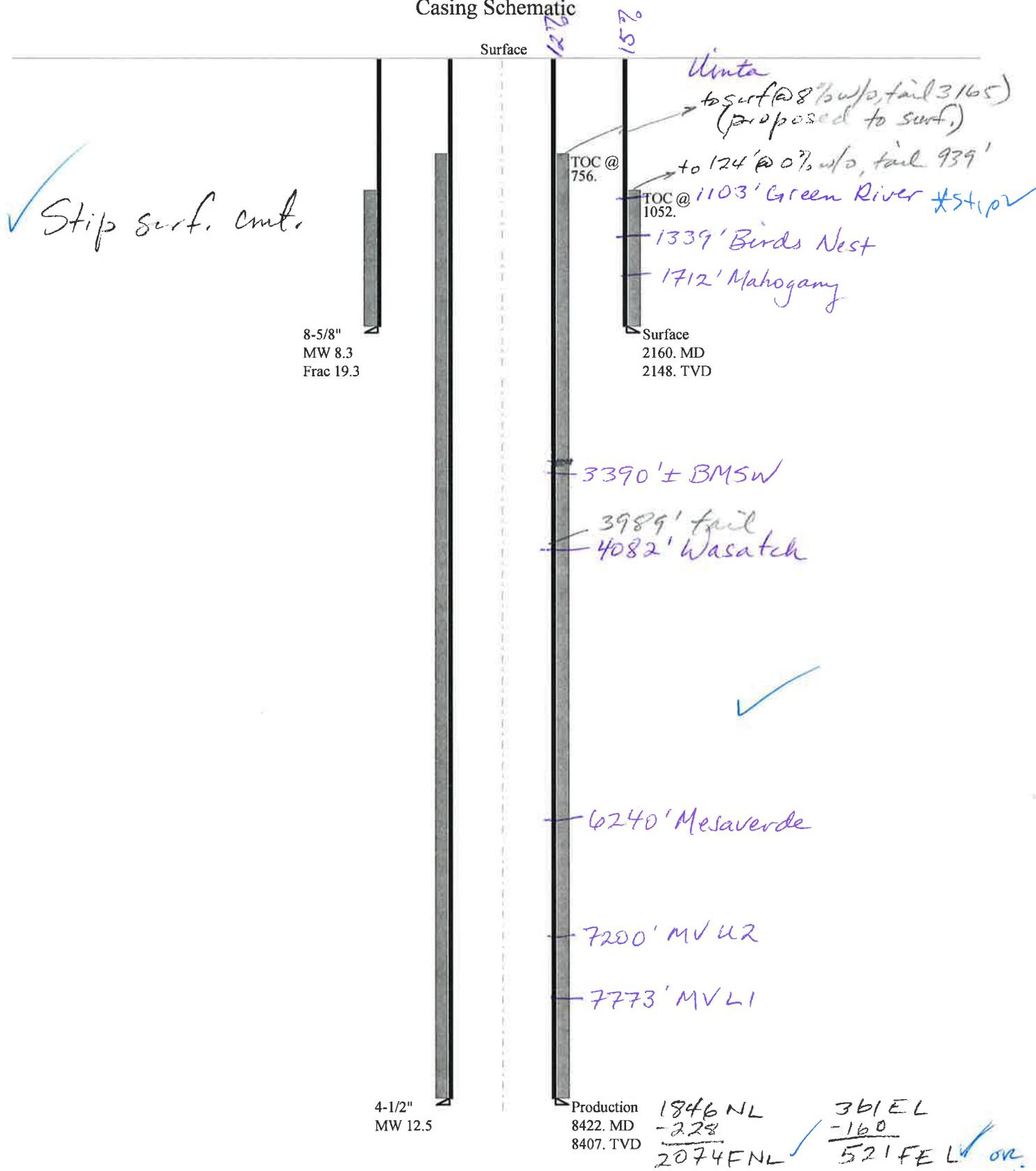
Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO <input type="text"/>
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO <input type="text"/>
			*Can Full Expected Pressure Be 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: 43047519410000

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

43047519410000 NBU 1022-12H4BS

Casing Schematic



SENE SEC 12-10S-22E

Well name:	43047519410000 NBU 1022-12H4BS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Surface	Project ID:	43-047-51941
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: 1,052 ft

Burst

Max anticipated surface pressure: 1,901 psi
 Internal gradient: 0.120 psi/ft
 Calculated BHP 2,159 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: 1,894 ft

Directional Info - Build & Drop

Kick-off point 300 ft
 Departure at shoe: 205 ft
 Maximum dogleg: 2 °/100ft
 Inclination at shoe: 7 °

Re subsequent strings:

Next setting depth: 8,422 ft
 Next mud weight: 12.500 ppg
 Next setting BHP: 5,469 psi
 Fracture mud wt: 19.250 ppg
 Fracture depth: 2,160 ft
 Injection pressure: 2,160 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	2160	8.625	28.00	I-55	LT&C	2148	2160	7.892	85536

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	929	1880	2.023	2159	3390	1.57	60.1	348	5.79 J

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

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

Date: November 2, 2011
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2148 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:	43047519410000 NBU 1022-12H4BS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Production	Project ID:	43-047-51941
Location:	UINTAH COUNTY		

Design parameters:

Collapse

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

Burst

Max anticipated surface pressure: 3,610 psi
 Internal gradient: 0.220 psi/ft
 Calculated BHP: 5,459 psi

 No backup mud specified.

Minimum design factors:

Collapse:

Design factor: 1.125

Burst:

Design factor: 1.00

Tension:

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

Tension is based on air weight.
 Neutral point: 6,851 ft

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 192 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft

 Cement top: 756 ft

Directional Info - Build & Drop

Kick-off point: 300 ft
 Departure at shoe: 259 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	8422	4.5	11.60	I-80	DQX	8407	8422	3.875	222341
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	5459	6350	1.163	5459	7780	1.43	97.5	267	2.74 J

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

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

Date: November 2, 2011
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8407 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 1022-12H4BS
API Number 43047519410000 **APD No** 4604 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 SENE **Sec** 12 **Tw** 10.0S **Rng** 22.0E 1846 FNL 361 FEL
GPS Coord (UTM) 638409 4424992 **Surface Owner**

Participants

Andy Lytle, Sheila Wopsock, Charles Chase, Grizz Oleen, Jaime Scharnowski, Doyle Holmes, (Kerr McGee). John Slaugh, 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 3900'. 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 47.4 miles to the northwest. Access from Vernal is by following Utah State, Uintah County and oilfield development roads. Three wells, in addition to this one will be directionally drilled from this pad. (For a total of four new wells). There is one existing well on this pad. (The NBU 636-12E). At this time, the decision rather to PA or TA this well has not been made. This proposed location takes in an existing location, and very little new construction will be necessary except for digging the reserve pit. The existing access road will be adequate. The location runs in a east-west direction along the top of a flat topped ridge. This ridge breaks off sharply into rugged secondary canyons on the south and west sides. New construction will consist of approx. 50 feet on all sides of the existing pad, and an additional 50 feet on the west side for reserve pit and excess cut stockpile. No drainage concerns exist, and no diversions will be needed. The pad as modified should be stable and should be a suitable location for five wells, and is on the best site available in the immediate area.

Surface Use Plan

Current Surface Use

Grazing
Wildlife Habitat
Existing Well Pad

New Road Miles	Well Pad	Src Const Material	Surface Formation
0	Width 272 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 N

Drainage Diverson 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	Mod permeability	10	
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	40	1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut on the north side of the location. Dimensions are 100' x 260' x 12' deep with 2' of freeboard. Kerr McGee 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

David Hackford
Evaluator

10/12/2011
Date / Time

Application for Permit to Drill Statement of Basis

11/22/2011

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
4604	43047519410000	SITLA	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		Surface Owner-APD		
Well Name	NBU 1022-12H4BS	Unit		NATURAL BUTTES	
Field	NATURAL BUTTES	Type of Work		DRILL	
Location	SENE 12 10S 22E S 1846 FNL 361 FEL GPS Coord (UTM)			638336E	4425200N

Geologic Statement of Basis

Kerr McGee proposes to set 2,160' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 3,390'. 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 3900'. 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 miles to the northwest. Access from Vernal is by following Utah State, Uintah County and oilfield development roads. The existing access road will be adequate.

Four wells will be directionally drilled from this location. They are the NBU 1022-12H1BS, NBU 1022-12H1CS, NBU 1022-12H4BS and the NBU 1022-12H4CS. The existing location has one well. This well is the NBU 636-12E, and at this time the decision rather to PA or TA this well has not been made. The location is on a flat topped ridge that runs in a north-south direction. This ridge breaks off sharply into rugged secondary canyons on the south and west sides. No drainage concerns exist, and no diversions will be needed. The pad as modified should be stable and sufficient for five wells, and is the best site for a location in the immediate area.

New construction will consist of approx. 50 feet on all sides of the existing pad, and an additional 50 feet on the west side for reserve pit and excess cut stockpile.

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 personnel were 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.

RECEIVED: November 22, 2011

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

11/22/2011

Utah Division of Oil, Gas and Mining

Page 2

Pits	The reserve pit should be located on the north side of the location.
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: 43047519410000

WELL NAME: NBU 1022-12H4BS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)

PHONE NUMBER: 720 929-6086

CONTACT: Gina Becker

PROPOSED LOCATION: SENE 12 100S 220E

Permit Tech Review:

SURFACE: 1846 FNL 0361 FEL

Engineering Review:

BOTTOM: 2071 FNL 0491 FEL

Geology Review:

COUNTY: UINTAH

LATITUDE: 39.96564

LONGITUDE: -109.38023

UTM SURF EASTINGS: 638336.00

NORTHINGS: 4425200.00

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 - hmadonald



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 1022-12H4BS
API Well Number: 43047519410000
Lease Number: UT ST UO 01997-A ST
Surface Owner: STATE
Approval Date: 11/22/2011

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
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 01997-
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: 1846 FNL 0361 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENE Section: 12 Township: 10.0S Range: 22.0E Meridian: S	8. WELL NAME and NUMBER: NBU 1022-12H4BS
PHONE NUMBER: 720 929-6511	9. API NUMBER: 43047519410000
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 checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 4/23/2012	<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="Exception Letter"/>

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

The operator request to add this Exception Letter to the well file.
 Thanks!

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 April 24, 2012

NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 4/23/2012	



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

April 19, 2012

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

Re: NBU 1022-12H4BS
T10S- R22E
Section 12: SENE (surface); SENE (bottom hole)
1846' FNL, 361' FEL (surface)
2071' FNL, 491' FEL (bottom hole)
Uintah County, Utah

Dear Mrs. Mason:

Kerr-McGee Oil & Gas Onshore LP has submitted a permit to drill the captioned well to test the Wasatch and Mesaverde formations. The well is located at an exception location to State Rule 173-14 (NBU). The well location is less than 460' from the unit boundary. Kerr-McGee owns 100% of the leasehold in the offset lands and has no objection to the exception location.

Kerr-McGee requests your approval of this exception location. If you have any questions or require any additional information, please do not hesitate to call me at 720-929-6708.

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 II

cc: Chris Latimer

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

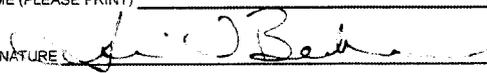
4. LOCATION OF WELL:
FOOTAGES AT SURFACE: **Various Locations in T10S-R22E, Section 12** COUNTY: **Uintah**
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: **12 10S 22E 6** STATE: **UTAH**

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

	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	

1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 1022-12H4BS
------------------------------------	--

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047519410000
---	---

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: 1846 FNL 0361 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENE 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"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:			
<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 5/14/2012			
<input type="checkbox"/> DRILLING REPORT Report Date:			

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. CMT W/28 SX READY MIX. SPUD WELL LOCATION ON DATE 5/14/2012 AT TIME 7:30 HRS.

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

FOR RECORD ONLY

May 16, 2012

NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 5/15/2012	

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 1022-12H4BS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1846 FNL 0361 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENE Section: 12 Township: 10.0S Range: 22.0E Meridian: S	9. API NUMBER: 43047519410000
	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: 5/26/2012	<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 5/23/2012. DRILLED SURFACE HOLE TO 2297'. 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 29, 2012

NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I
SIGNATURE N/A	DATE 5/29/2012	

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
 Submitted By J. Scharnowske Phone Number 720.929.6304
 Well Name/Number NBU 1022-12H4BS
 Qtr/Qtr SENE Section 12 Township 10S Range 22E
 Lease Serial Number UT ST UO 01997-A ST
 API Number 4304751941

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

Date/Time 05/14/2012 11:00 HRS AM PM

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

- Surface Casing
 Intermediate Casing
 Production Casing
 Liner
 Other

RECEIVED

MAY 11 2012

DIV. OF OIL, GAS & MINING

Date/Time 05/25/2012 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 LEVEL 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) 929-6029

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751941	NBU 1022-12H4BS		SENE	12	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	99999	2900	5/14/2012		5/16/2012		
Comments: MIRU BUCKET RIG. SPUD WELL LOCATION ON 5/14/2012 AT 7:30 HRS. WSMVD							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751975	NBU 1022-12H4CS		SENE	12	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	99999	2900	5/14/2012		5/16/2012		
Comments: MIRU BUCKET RIG. SPUD WELL LOCATION ON 5/14/2012 AT 11:30 HRS. WSMVD BHL: SENE							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751942	NBU 1022-12H1CS		SENE	12	10S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	99999	2900	5/14/2012		5/16/2012		
Comments: MIRU BUCKET RIG. SPUD WELL LOCATION ON 5/14/2012 AT 14:00 HRS. WSMVD							

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)

CARA MAHLER

Name (Please Print)

Signature

REGULATORY ANALYST

Title

5/15/2012

Date

RECEIVED

MAY 15 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 1022-12H4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047519410000
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: 1846 FNL 0361 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENE 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

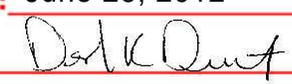
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 6/2/2012 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input 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 changes in the drilling plan. Specifically, the Operator requests approval for a FIT waiver, a closed loop drilling option and 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: June 26, 2012

By: 

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 6/2/2012	

Kerr-McGee Oil & Gas Onshore. L.P.**NBU 1022-12H4BS**

Surface: 1846 FNL / 361 FEL SENE
 BHL: 2071 FNL / 491 FEL SENE

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	1,103'	
Birds Nest	1,339'	Water
Mahogany	1,712'	Water
Wasatch	4,082'	Gas
Mesaverde	6,240'	Gas
Sego	8,407'	Gas
TVD	8,407'	
TD	8,422'	

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 8407' TVD, approximately equals
5,380 psi 0.64 psi/ft = actual bottomhole gradient

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

Maximum anticipated surface pressure equals approximately 3,519 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 not put the booster and standby compressor opposite from the bleed line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the bleed 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.

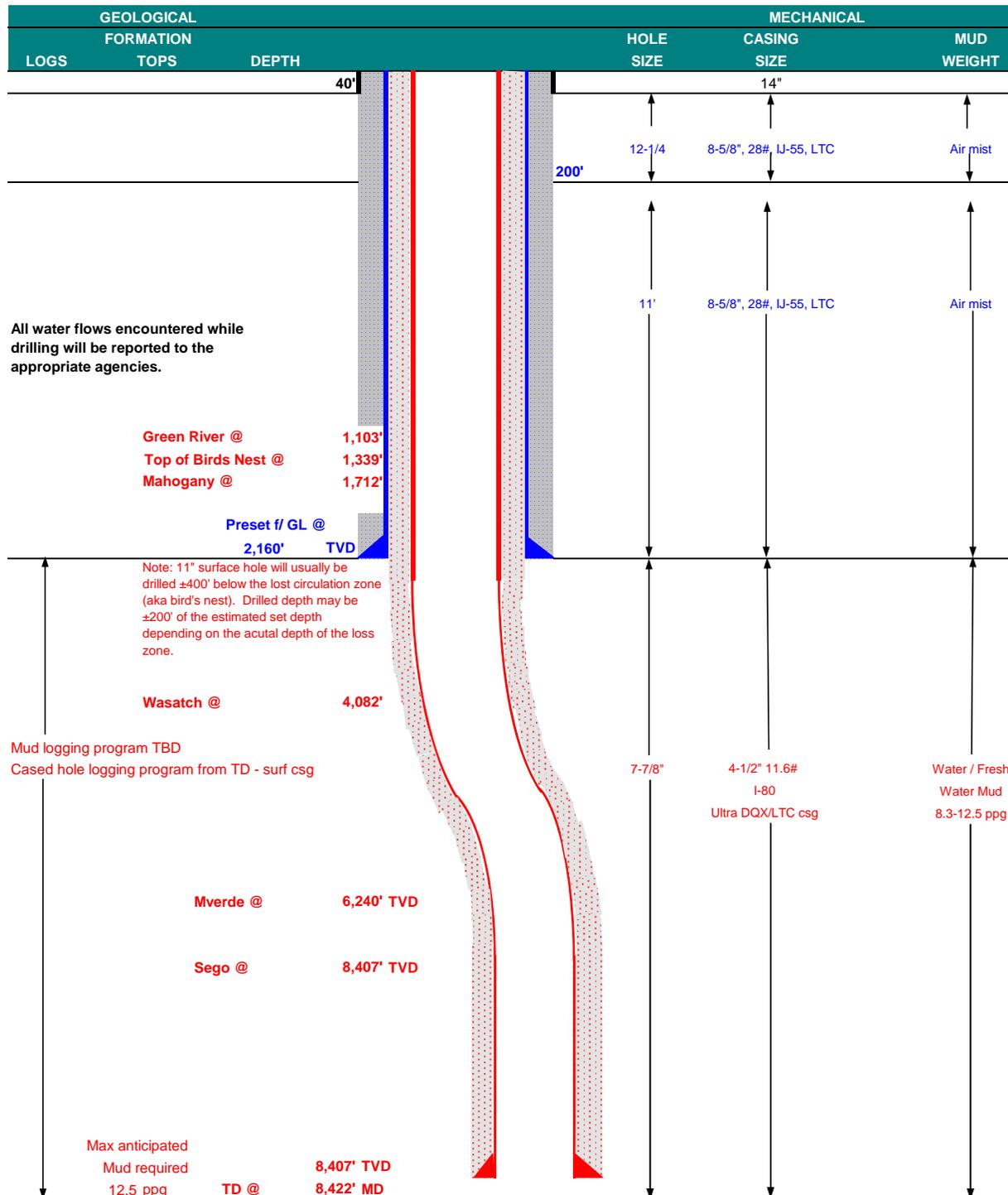
10. **Other Information:**

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP			DATE	June 2, 2012		
WELL NAME	NBU 1022-12H4BS			TD	8,407'	TVD	8,422' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	FINISHED ELEVATION	5,188'
SURFACE LOCATION	SENE	1846 FNL	361 FEL	Sec 12	T 10S	R 22E	
	Latitude: 39.965625		Longitude: -109.379458		NAD 27		
BTM HOLE LOCATION	SENE	2071 FNL	491 FEL	Sec 12	T 10S	R 22E	
	Latitude: 39.965010		Longitude: -109.379924		NAD 27		
OBJECTIVE ZONE(S)	Wasatch/Mesaverde						
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.						





KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	COLLAPSE	LTC	DQX
								TENSION	
CONDUCTOR	14"	0-40'							
						3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0 to 2,160	28.00	IJ-55	LTC	2.50	1.86	6.57	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	1.16		3.38
						7,780	6,350	223,000	267,035
	4-1/2"	5,000 to 8,422'	11.60	I-80	LTC	1.11	1.16	6.94	

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
SURFACE		NOTE: If well will circulate water to surface, option 2 will be utilized					
Option 2	LEAD	1,660'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	150	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	3,582'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	280	35%	12.00	3.38
	TAIL	4,840'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,140	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

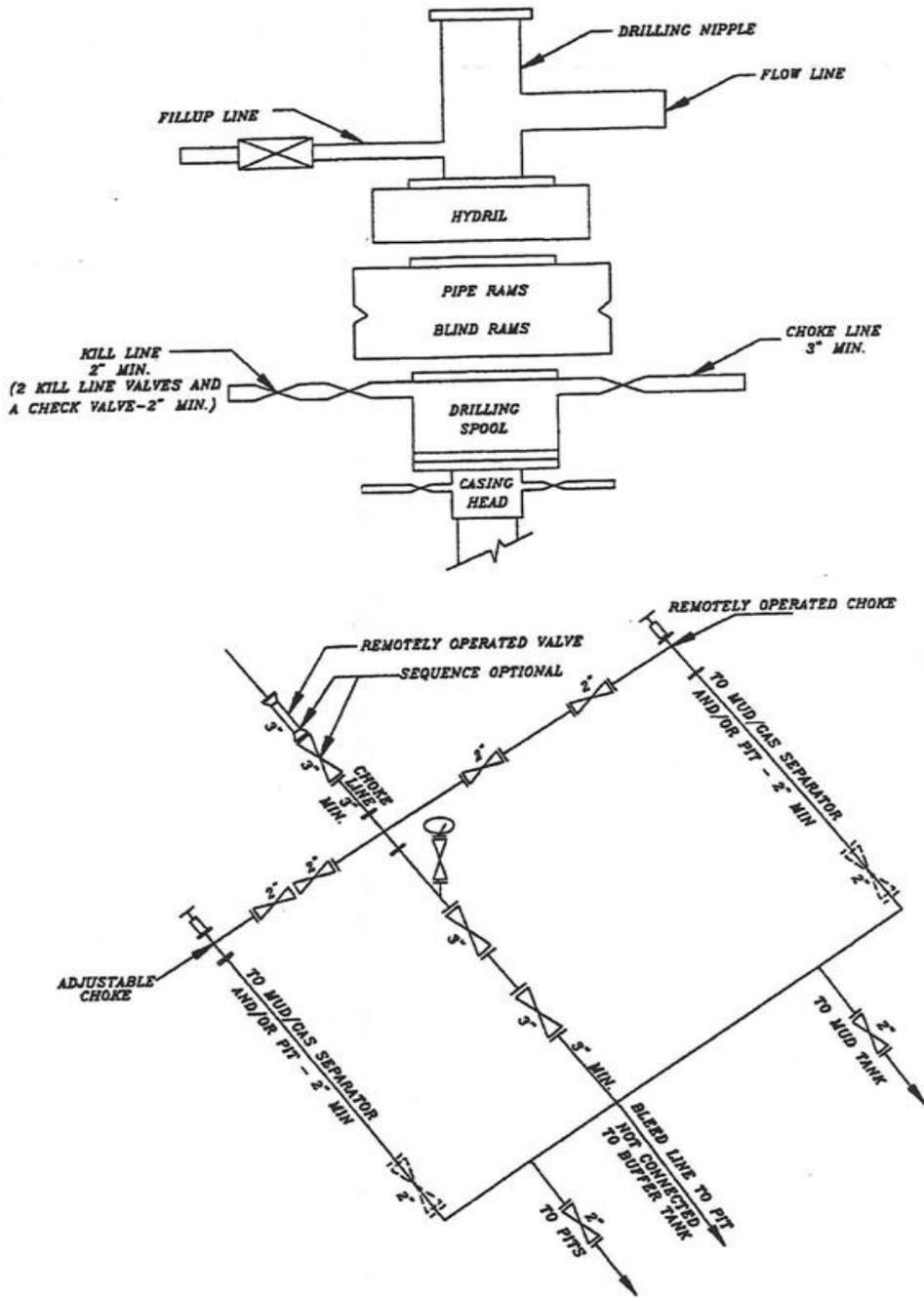
DATE:

DRILLING SUPERINTENDENT:

Kenny Gathings / Lovel Young

DATE:

EXHIBIT A NBU 1022-12H4BS



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
		5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197-
SUNDRY NOTICES AND REPORTS ON WELLS		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: NBU 1022-12H4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		9. API NUMBER: 43047519410000
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: 1846 FNL 0361 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENE 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"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 7/6/2012	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	
	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
Currently drilling well to TD. Expected rig release July 6, 2012.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY July 09, 2012		
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 7/6/2012

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.		5. LEASE DESIGNATION AND SERIAL NUMBER: UT ST UO 01197-
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 1022-12H4BS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1846 FNL 0361 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENE Section: 12 Township: 10.0S Range: 22.0E Meridian: S		9. API NUMBER: 43047519410000
PHONE NUMBER: 720 929-6511		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"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 7/4/2012	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> CHANGE WELL NAME	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> CONVERT WELL TYPE	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> NEW CONSTRUCTION	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> PLUG BACK	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TEMPORARY ABANDON	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> APD EXTENSION	
	OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU ROTARY RIG. FINISHED DRILLING FROM 2,297' TO 8,379' ON JULY 3, 2012. RAN 4-1/2" 11.6# I-80 PRODUCING CASING. CEMENTED PRODUCTION CASING. RELEASED ENSIGN 138 RIG ON JULY 4, 2012 @ 06:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.		
NAME (PLEASE PRINT) Jaime Scharnowske		PHONE NUMBER 720 929-6304
SIGNATURE N/A		TITLE Regularatory Analyst
DATE 7/8/2012		<div style="text-align: right;"> Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY July 11, 2012 </div>

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 1022-12H4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047519410000
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: 1846 FNL 0361 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENE 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: 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
	<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 August 2012. Well TD at 8,410.

**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.	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES	
8. WELL NAME and NUMBER: NBU 1022-12H4BS	
9. API NUMBER: 43047519410000	
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: 1846 FNL 0361 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENE 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: 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
	<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 September 2012. Well TD at 8,410.

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

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regularatory 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	
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 1022-12H4BS	
9. API NUMBER: 43047519410000	
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: 1846 FNL 0361 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENE 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: 10/26/2012	<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 10/26/2012. 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
 November 01, 2012

NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMBER 720 929-6857	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 11/1/2012	

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

AMENDED REPORT FORM 8
(highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

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 1022-12H4BS

9. API NUMBER:
4304751941

10. FIELD AND POOL, OR WILDCAT
NATURAL BUTTES

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

12. COUNTY
UINTAH

13. STATE
UTAH

14. DATE SPUDED:
5/14/2012

15. DATE T.D. REACHED:
7/3/2012

16. DATE COMPLETED:
10/26/2012

ABANDONED READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL):
5188 GL

18. TOTAL DEPTH: MD **8,379** TVD **8,365**

19. PLUG BACK T.D.: MD **8,305** TVD **8,294**

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)
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" IJ-55	28#	0	2,267		1,250		0	
7 7/8"	4 1/2" I-80	11.6#	0	8,353		1,373		914	

RECEIVED
NOV 26 2012

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"	7,814							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) MESAVERDE	6,540	8,278			6,540 8,278	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"/>

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
6540-8278	PUMP 8582 BBLs SLICK H2O & 184,049 LBS 30/50 OTTAWA SAND
	7 STAGES

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: 10/26/2012		TEST DATE: 10/30/2012		HOURS TESTED: 24		TEST PRODUCTION RATES: →		OIL – BBL: 0	GAS – MCF: 2,397	WATER – BBL: 468	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS. 1,947	CSG. PRESS. 2,546	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 2,397	WATER – BBL: 468	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	1,103
				BIRD'S NEST	1,349
				MAHOGANY	1,718
				WASATCH	4,102
				MESAVERDE	6,225

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 4844'; LTC csg was run from 4844' to 8353'. 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 *Lindsey Frazier* DATE 11-19-2012

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
 1594 West North Temple, Suite 1210
 Box 145801
 Salt Lake City, Utah 84114-5801

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

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-12H4BS RED		Spud Date: 5/23/2012	
Project: UTAH-UINTAH	Site: NBU 1022-12H PAD	Rig Name No: PROPETRO 11/11, ENSIGN 138/138	
Event: DRILLING	Start Date: 5/15/2012	End Date: 7/4/2012	
Active Datum: RKB @5,202.00usft (above Mean Sea Level)		UWI: SE/NE/0/10/S/22/E/12/0/0/26/PM/N/1846/E/0/361/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
5/23/2012	0:00 - 7:00	7.00	MIRU	01	A	P		14 MILE RIG MOVE. STALLION- 2 HEAVY HAUL TRUCKS, 3 ONE TON TRUCKS 6 HANDS. J.D. FIELD SERVICE-3 HEAVY HAUL TRUCKS, 3 HANDS. PRO PETRO-5 HEAVY HAUL, 1 ONE TON, 5 HANDS. (WELL 1 OF 4) INSTALL DIVERTOR HEAD AND BLUEY LINE. SPOT IN RIG. SPOT IN CATWALK AND PIPE RACKS. RIG UP CLOSED LOOP SYSTEM. RIG UP PUMP. PRIME PUMP. INSPECT RIG. SAFETY MEETING SPUD @ 18:00
	7:00 - 18:00	11.00	MIRU	01	B	P		
	18:00 - 19:30	1.50	DRLSUR	02	D	P		DRL F/ 44' T/210' (166'@ 110.66' PER HR) WOB, 5-15 k RPM, 45 UP/DWN/ROT WEIGHTS 20/20/20 PUMP RATE 512 GPM. NO AIR PSI ON BTTM, 600 OFF BTTM, 400 M.W. 8.34, VIS 27
	19:30 - 21:00	1.50	DRLSUR	06	A	P		POOH PU 11" BIT & DIR. TOOLS TIH T/100'
	21:00 - 0:00	3.00	DRLSUR	23		Z		SHUT DOWN FOR PRO PETRO DRILLING SAFETY MEETING.
5/24/2012	0:00 - 9:00	9.00	DRLSUR	23		Z		PRO PETRO SAFETY MEETING
	9:00 - 10:00	1.00	DRLSUR	06	A	P		TIH TO 210'
	10:00 - 18:00	8.00	DRLSUR	02	D	P		DRL F/210' T/1280' (1070'@133.75 ' PER HR) WOB, 20 RPM, 40 UP/DWN/ROT WEIGHTS 69/51/69 PSI ON BTTM/1050 OFF BTTM/800 PUMP RATE 512 GPM. NO AIR M.W. 8.34, VIS 27 .44' LEFT & 9.68' HIGH OF TARGET
	18:00 - 19:30	1.50	DRLSUR	02	D	P		DRL F/1280' T/1520' (240'@160 ' PER HR) WOB, 20 RPM, 40 UP/DWN/ROT WEIGHTS 69/51/69 PSI ON BTTM/1050 OFF BTTM/800 LOST CIRC @ 1480' AND APPLIED AIR PUMP RATE 512 GPM. 24.2 CFM AIR M.W. 8.34, VIS 27
19:30 - 22:00	2.50	DRLSUR	08	A	Z		BLEW COOLANT HOSE & TEGRA LINE ON BOOSTER WAIT ON TEGRA LINE FOR BOOSTER TO ARRIVE FROM TOWN REPLACE TEGRA LINE.	

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 1022-12H4BS RED

Spud Date: 5/23/2012

Project: UTAH-UINTAH

Site: NBU 1022-12H PAD

Rig Name No: PROPETRO 11/11, ENSIGN 138/138

Event: DRILLING

Start Date: 5/15/2012

End Date: 7/4/2012

Active Datum: RKB @5,202.00usft (above Mean Sea Level)

UWI: SE/NE/0/10/S/22/E/12/0/0/26/PM/N/1846/E/0/361/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	22:00 - 0:00	2.00	DRLSUR	02	D	P		DRL F/1520' T/1740' (220'@110' PER HR) WOB, 20 RPM, 45 UP/DWN/ROT WEIGHTS 75/58/65 PSI ON BTM/1200 OFF BTM/1000 LOST CIRC @ 1480' AND APPLIED AIR PUMP RATE 512 GPM. 24.2 CFM AIR M.W. 8.34, VIS 27 1' LEFT & 8' HIGH OF LINE
5/25/2012	0:00 - 7:00	7.00	DRLSUR	02	D	P		DRL F/1740' T/2297' (557'@79.57' PER HR) WOB, 20 RPM, 45 UP/DWN/ROT WEIGHTS 87/69/82 PSI ON BTM/1400 OFF BTM/1060 LOST CIRC @ 1480' AND APPLIED AIR PUMP RATE 512 GPM. 24.2 CFM AIR M.W. 8.34, VIS 27 5' LEFT & 3' HIGH OF LINE
	7:00 - 8:30	1.50	CSGSUR	05	C	P		CIRC. FOR CASING
	8:30 - 11:00	2.50	CSGSUR	06	D	P		LDDS, BHA & DIR. TOOLS
	11:00 - 12:30	1.50	CSGSUR	12	A	P		MOVE PIPE RACKS AND CATWALK. PULL DIVERTER HEAD. RIG UP TO RUN CSG.
	12:30 - 14:30	2.00	CSGSUR	12	C	P		MOVE CSG INTO POSITION TO P/U. RUN 51 JTS. 8 5/8", 28#, J55 CASING LAND CASING @ 14:30
	14:30 - 15:00	0.50	CSGSUR	05	D	P		PUMP ON CASING
	15:00 - 16:00	1.00	CSGSUR	12	B	P		HOLD SAFETY MEETING, RUN 200' OF 1". RIG DOWN RIG MOVE OFF WELL, REBUILD DITCH.
	16:00 - 17:00	1.00	CSGSUR	12	E	P		RIG UP CEMENT TRUCK, 2" HARD LINES., PRO PETRO MAKE UP CMT HEAD & LOAD PLUG PRESSURE TEST LINES TO 2000 PSI. PUMP 130 BBLs OF WATER AHEAD. PUMP 20 BBLs OF 8.3# GEL WATER AHEAD. PUMP (300 SX) 61.35 BBLs OF TAIL 15.8# 1.15 YD 5 GAL/SK PREMIUM CEMENT W/ 2% CALC. CMT TOP 1000' DROP PLUG ON FLY. DISPLACE W/ 137 BBLs OF H2O. NO CIRC THROUGH OUT. FINAL LIFT OF 200 PSI AT 4 BBL/MIN. BUMP PLUG W/500 PSI HELD FOR 5 MIN. FLOAT HELD. PUMP (150 SX) 30.64 BBLs OF SAME TAIL CEMENT W/ 4% CALC. DOWN BACK SIDE. SHUT DOWN AND CLEAN TRUCK. NO CEMENT TO SURFACE.
	17:00 - 18:30	1.50	CSGSUR	13	A	P		WOC PUMP 125 SXS. (25.53 BBLs) DOWN BACKSIDE
	18:30 - 20:00	1.50	CSGSUR	13	A	P		WOC PUMP 100 SXS. (20.42 BBLs) DOWN BACKSIDE
	20:00 - 22:00	2.00	CSGSUR	13	A	P		WOC PUMP 125 SXS (25.53 BBLs) DOWN BACKSIDE
	22:00 - 0:00	2.00	CSGSUR	13	A	P		PUMP 100 SXS (20.42 BBLs) DOWN BACKSIDE
5/26/2012	0:00 - 1:30	1.50	CSGSUR	13	A	P		WOC PUMP 125 SXS (25.53 BBLs) DOWN BACKSIDE

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-12H4BS RED

Spud Date: 5/23/2012

Project: UTAH-UINTAH

Site: NBU 1022-12H PAD

Rig Name No: PROPETRO 11/11, ENSIGN 138/138

Event: DRILLING

Start Date: 5/15/2012

End Date: 7/4/2012

Active Datum: RKB @5,202.00usft (above Mean Sea Level)

UWI: SE/NE/0/10/S/22/E/12/0/0/26/PM/N/1846/E/0/361/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	1:30 - 3:00	1.50	CSGSUR	13	A	P		PUMP 100 SXS (20.42 BBLS) DOWN BACKSIDE
	3:00 - 5:00	2.00	CSGSUR	13	A	P		WOC PUMP 125 SXS (25.53 BBLS) DOWN BACKSIDE CEMENT TO SURFACE (FELL BACK 4') RELEASE RIG 05:00
6/28/2012	0:00 - 6:00	6.00	RDMO	01	E	P		RIG DOWN PREP FOR TRUCKS
	6:00 - 18:00	12.00	MIRU	01	B	P		HELD SAFETY MEETING WITH RIG CREWS, JONES TRUCKING CREW, MT. WEST, MOVED RIG & CAMPS, WITH 2 MOUNTAIN WEST TRUCKS, 4 1 TON TRUCKS, HUALED RIG W/ 2 FORKLIFTS, 2 HUAL TRUCKS & 4 BOBTAIL TRUCKS 3.5 MILES TO LOCATION, SET RIG 100% IN PLACE, RELEASED TRUCKS @ 18:00 HRS.
	18:00 - 0:00	6.00	MIRU	01	B	P		RIG UP BACK YARD BY HAND, ENSIGN HAS SOME MAINTAINANCE TO DO ON DERRICK, & IRON DERRICKHAND, & PLAN ON CLEANING THE DERRICK, WILL BE RAISING DERRICK @ FIRST DAYLIGHT
6/29/2012	0:00 - 13:00	13.00	MIRU	01	B	P		CONTINUE RIGGING UP, STRING UP BLOCKS, WNCN LINES, RIG UP GAS BUSTER, FLOWLINE, FLARE LINES, BEGIN WASHING DERRICK, REPAIRED STAND PIPE CLAMP, PERFORMED MAINTENANCE ON IRON DERRICKHAND & TOP DRIVE, VISUAL INSPECTION ON DERRICK
	13:00 - 19:30	6.50	MIRU	01	B	P		RAISE DERRICK, RIG UP FLOOR, CONNECT TOPDRIVE, LOWER BOARD DOWN, STING UP DRUM ON DRAWWORKS
	19:30 - 22:30	3.00	MIRU	08	B	Z		TROUBLE SHOOT DRAWWORKS PROBLEM, FUSE KEEPS BLOWING, PLC COMMUNICATION PROBLEMS, ENSIGN ELECTRICIAN ON LOCATION
	22:30 - 23:30	1.00	MIRU	14	A	P		NIPPLE UP BOP
	23:30 - 0:00	0.50	MIRU	15	A	P		RIG UP BOP TESTER & BEGIN TESTING
6/30/2012	0:00 - 5:30	5.50	MIRU	15	A	P		FINISH TESTING BOP RAMS, CHOKE, HCR, KILLINE TO 250 PSI. LOW 5000 PSI. HIGH, ANN 250 PSI. LOW 2500 PSI. HIGH, CASING 1500 PSI. MIN
	5:30 - 6:00	0.50	MIRU	06	J	P		INSTALL WEAR BUSHING
	6:00 - 7:00	1.00	MIRU	08	B	P		GENERATOR NOT WANTING TO SYNC. UP - FOUND SOME CORDS PLUGGED IN WRONG PLACE
	7:00 - 8:00	1.00	DRLPRO	06	A	P		PICK UP NEW MOTOR, BIT SCRIBE DIRECTIONAL TOOLS, INSTALL MWD TOOL, TRIP IN THE HOLE
	8:00 - 8:30	0.50	DRLPRO	07	B	P		LEVEL DERRICK & INSTALL ROTATING HEAD RUBBER
	8:30 - 11:30	3.00	DRLPRO	06	A	P		PICK UP BHA , DRILL PIPE & TRIP IN THE HOLE TAG CEMENT @ 2220 FT.
	11:30 - 13:00	1.50	DRLPRO	02	F	P		DRILL CEMENT, FLOAT & SHOE

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 1022-12H4BS RED		Spud Date: 5/23/2012	
Project: UTAH-UINTAH		Site: NBU 1022-12H PAD	Rig Name No: PROPETRO 11/11, ENSIGN 138/138
Event: DRILLING		Start Date: 5/15/2012	End Date: 7/4/2012
Active Datum: RKB @5,202.00usft (above Mean Sea Level)		UWI: SE/NE/0/10/S/22/E/12/0/0/26/PM/N/1846/E/0/361/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	13:00 - 0:00	11.00	DRLPRO	02	D	P		DRILL OUT F/ 2307 TO 3456 -1149 FT. 104 FT. PER/HR MW 8.4 VIS 27 WOB 20 RPM 50 MMRPM. 124 SPM 60/60 GPM 540 PSI ON/OFF BTM. 1900/1500 TQ. ON/OFF BTM. 7000K/3000K P/U 145K S/O 128K ROT. 130K SLIDE 80 FT. 10% ROT. 1069 FT. 90% NOV DEWATERING W/ BOTH CENTERFUGES
7/1/2012	0:00 - 10:00	10.00	DRLPRO	02	D	P		DRILL & SLIDE F/ 3456 TO 4530 - 1074 FT. 107 FT. PER/HR. MW. 8.3 VIS 27 WOB 20-26 RPM 45-55 MMRPM. 124 SPM 60/60 GPM 540 PSI ON/OFF BTM. 2200/1600 TQ. ON/OFF BTM. 8000K/4000K P/U 156K S/O 137K ROT. 142K SLIDE 40 FT. 10% ROT. 1034 FT. 90% NOV - DEWATERING W/ BOTH CENTRIFUGES
	10:00 - 10:30	0.50	DRLPRO	07	A	P		RIG SERVICE
	10:30 - 0:00	13.50	DRLPRO	02	D	P		DRILL & SLIDE F/ 4530 TO 6058 - 1528 FT. 113 FT. PER/HR MW. 8.3 VIS 27 WOB 26 RPM 45 MMRPM 124 SPM 60/60 GPM 540 PSI ON/OFF BTM. 2300/1800 TQ. ON/OFF BTM. 11K/5K P/U 175K S/O 145K ROT. 157K SLIDE 50 FT. 5% ROT 1478 FT. 95% NOV DEWATERING W/ BOTH CENTRIFUGES
7/2/2012	0:00 - 10:00	10.00	DRLPRO	02	D	P		12 FT. NORTH & 5 FT. WEST OF CENTER TARGET DRILL & SLIDE F/ 6058 TO 6996 - 938 FT. 94 FT. PER/HR. MW 8.6 VIS 27 WOB 26 RPM 45 MMRPM 124 SPM 60/60 GPM 540 PSI ON/OFF BTM. 2350/1900 TQ. ON/OFF BTM. 12K/8K P/U 194K S/O 168K ROT. 178K SLIDE 77 FT. 5 % ROT 861 FT. 95% NOV DEWATERING USING BOTH CENTRIFUGES
	10:00 - 10:30	0.50	DRLPRO	07	A	P		RIG SERVICE

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 1022-12H4BS RED

Spud Date: 5/23/2012

Project: UTAH-UINTAH

Site: NBU 1022-12H PAD

Rig Name No: PROPETRO 11/11, ENSIGN 138/138

Event: DRILLING

Start Date: 5/15/2012

End Date: 7/4/2012

Active Datum: RKB @5,202.00usft (above Mean Sea Level)

UWI: SE/NE/O/10/S/22/E/12/O/O/26/PM/N/1846/E/O/361/O/O

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	10:30 - 17:30	7.00	DRLPRO	02	D	P		DRILL F/ 6996 TO 7810 - 814 FT. 116 FT. PER/HR MW 8.6 VIS 27 WOB 26 RPM 45 MMRPM 124 SPM 60/60 GPM 540 PSI ON/OFF BTM. 2350/1900 TQ. ON/OFF BTM. 12K/8K P/U 194K S/O 168K ROT. 178K ROTATE 100% NOV DEWATERING USING BOTH CENTRIFUGES
	17:30 - 0:00	6.50	DRLPRO	02	D	P		DRILL F/ 7810 TO 8146 - 336 FT. 52 FT. PER/HR TRANSFER 800 BBLS. 11# MUD TO ACTIVE SYSTEM & TRANSFER 800 BBLS. DIRTY WATER TO UPRIGHTS, BACK OFF SPM TO 90 WHILE TRANSFERRING MUD MW 11.4 VIS 36 WOB 26 RPM 45 MMRPM 114 SPM 55/55 GPM 496 PSI ON/OFF BTM. 2450/2450 TQ. ON/OFF BTM. 12K/9K P/U 196K S/O 164K ROT. 180K ROTATE 100% NOV - OFFLINE
7/3/2012	0:00 - 4:30	4.50	DRLPRO	02	D	P		1 FT. SOUTH & 16 FT. EAST OF CENTER TARGET DRILL F/ 8146 TO 8379 TD - 233 FT. 52 FT. PER/HR MW 11.5 VIS 36 WOB 26 RPM 45 MMRPM 114 SPM 55/55 GPM 496 PSI ON/OFF BTM. 2450/2150 TQ. ON/OFF BTM. 12K/9K P/U 196K S/O 164K ROT. 180K ROTATE 100% NOV - OFFLINE
	4:30 - 6:30	2.00	DRLPRO	05	C	P		1 FT. SOUTH & 16 FT. EAST OF CENTER TARGET CIRC. 2 BTMS UP - 6 FT. FLARE @ BTMS. UP
	6:30 - 13:00	6.50	DRLPRO	06	D	P		PUMPED 5 STDS. OFF BTM. PUMPED SLUG & TRIP OUT OF THE HOLE TO RUN 4 1/2 PRODUCTION CASING, HIT TIGHT SPOTS @ 6400 & 4800, THERE WAS 1 JT. NOT IN THE STRING CAUSING US TO BE 30 FT. SHY OF CALLED TD. CURRENT TD IS 8379 INSTEAD OF 8410
	13:00 - 14:00	1.00	DRLPRO	06	J	P		RETRIEVE WEAR BUSHING, CLEAN FLOOR & PREP FOR CASING RUN
	14:00 - 23:00	9.00	DRLPRO	12	C	P		HELD SAFETY MEETING W/ FRANKS WESTATES, RIGGED UP & RAN 80 JTS. OF 4 1/2 11.6# I-80, 114 JTS. OF DQX. LANDED SHOE @ 8352 FT. FLOAT @ 8306 FT. MESA MKR. @ 6186 FT.

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 1022-12H4BS RED		Spud Date: 5/23/2012	
Project: UTAH-UINTAH		Site: NBU 1022-12H PAD	Rig Name No: PROPETRO 11/11, ENSIGN 138/138
Event: DRILLING		Start Date: 5/15/2012	End Date: 7/4/2012
Active Datum: RKB @5,202.00usft (above Mean Sea Level)		UWI: SE/NE/0/10/S/22/E/12/0/0/26/PM/N/1846/E/0/361/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
7/4/2012	23:00 - 0:00	1.00	DRLPRO	05	D	P		CIRC. THROUGH CASING
	0:00 - 0:30	0.50	DRLPRO	05	D	P		FINISH CIRCULATING THROUGH CASING
	0:30 - 3:00	2.50	DRLPRO	12	E	P		HELD SAFETY MEETING W/ BAKER HUGHES, RIGGED UP & PUMPED 25 BBL. SPACER, LEAD W/ 438 SKS, 157.38 BBLS. 12.5# 2.02 YIELD, TAIL W/ 935 SKS. 219.08 BBLS. 14.3# 1.32 YIELD, DISPLACED W/ 129 BBLS. WATER, BUMPED PLUG, FLOATS HELD, 1 1/2 BBLS. BACK TO TRUCK, 20 BBLS. SPACER TO THE PIT, FINAL LIFT PSI. 2450
	3:00 - 6:00	3.00	DRLPRO	14	A	P		FLUSH BOP, NIPPLE DOWN, INSTALL PACK OFF ASSEMBLY WITH CAMERON TECH, TRANSFER 800 BBLS. MUD TO UPRIGHTS, RELEASED RIG @ 06:00 HRS. 7/4/12

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 1022-12H4BS RED	Wellbore No.	OH
Well Name	NBU 1022-12H4BS	Wellbore Name	NBU 1022-12H4BS
Report No.	1	Report Date	10/15/2012
Project	UTAH-UINTAH	Site	NBU 1022-12H PAD
Rig Name/No.		Event	COMPLETION
Start Date	10/15/2012	End Date	10/26/2012
Spud Date	5/23/2012	Active Datum	RKB @5,202.00usft (above Mean Sea Level)
UWI	SE/NE/O10/S/22/E/12/O/O/26/PM/N/1846/E/O/361/O/O		

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	6,540.0 (usft)-8,278.0 (usft)	Start Date/Time	10/15/2012 12:00AM
No. of Intervals	40	End Date/Time	10/15/2012 12:00AM
Total Shots	159	Net Perforation Interval	49.00 (usft)
Avg Shot Density	3.24 (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
10/15/2012 2 12:00AM	MESAVERDE/			6,540.0	6,541.0	4.00		0.360	EXP/	3.375	90.00		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
10/15/201 2 12:00AM	MESAVERDE/			6,580.0	6,581.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			6,604.0	6,605.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			6,616.0	6,617.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			6,674.0	6,675.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			6,694.0	6,695.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			6,816.0	6,817.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			6,869.0	6,870.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			6,905.0	6,906.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			6,950.0	6,951.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			6,991.0	6,992.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			7,006.0	7,007.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			7,023.0	7,024.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			7,211.0	7,212.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			7,280.0	7,281.0	4.00		0.360	EXP/	3.375	90.00		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
10/15/2012 12:00AM	MESAVERDE/			7,314.0	7,318.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
10/15/2012 12:00AM	MESAVERDE/			7,399.0	7,401.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/2012 12:00AM	MESAVERDE/			7,502.0	7,504.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/2012 12:00AM	MESAVERDE/			7,528.0	7,530.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/2012 12:00AM	MESAVERDE/			7,552.0	7,554.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/2012 12:00AM	MESAVERDE/			7,634.0	7,635.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/2012 12:00AM	MESAVERDE/			7,661.0	7,662.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/2012 12:00AM	MESAVERDE/			7,708.0	7,709.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/2012 12:00AM	MESAVERDE/			7,746.0	7,749.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/2012 12:00AM	MESAVERDE/			7,779.0	7,780.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/2012 12:00AM	MESAVERDE/			7,790.0	7,791.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/2012 12:00AM	MESAVERDE/			7,840.0	7,841.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/2012 12:00AM	MESAVERDE/			7,878.0	7,879.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/2012 12:00AM	MESAVERDE/			7,907.0	7,908.0	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
10/15/201 2 12:00AM	MESAVERDE/			7,917.0	7,918.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			7,956.0	7,957.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			7,999.0	8,000.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			8,011.0	8,012.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			8,132.0	8,133.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			8,148.0	8,149.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			8,165.0	8,166.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			8,211.0	8,212.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			8,232.0	8,233.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			8,246.0	8,247.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
10/15/201 2 12:00AM	MESAVERDE/			8,277.0	8,278.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

3 Plots

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-12H4BS RED		Spud Date: 5/23/2012	
Project: UTAH-UINTAH		Site: NBU 1022-12H PAD	Rig Name No: MILES 2/2
Event: COMPLETION		Start Date: 10/15/2012	End Date: 10/26/2012
Active Datum: RKB @5,202.00usft (above Mean Sea Level)		UWI: SE/NE/0/10/S/22/E/12/0/0/26/PM/N/1846/E/0/361/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
5/23/2012	-							
5/24/2012	-							
10/15/2012	8:00 - 9:30	1.50	FRAC	33	C	P		FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 09 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 25 PSI. 1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 78 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. MOVE T/ NEXT WELL. SWIFW
10/18/2012	8:00 - 12:00	4.00	FRAC	37		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. SWIFW
10/22/2012	6:45 - 7:00	0.25	FRAC	48		P		HSM, REVIEW FRAC PROCEDURE

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-12H4BS RED		Spud Date: 5/23/2012	
Project: UTAH-UINTAH		Site: NBU 1022-12H PAD	Rig Name No: MILES 2/2
Event: COMPLETION		Start Date: 10/15/2012	End Date: 10/26/2012
Active Datum: RKB @5,202.00usft (above Mean Sea Level)		UWI: SE/NE/O/10/S/22/E/12/O/0/26/PM/N/1846/E/O/361/O/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 17:30	10.50	FRAC	36	B	P		<p>PERF & FRAC FOLLOWING WELL AS PER DESIGN W/ 30/50 MESH SAND & SLK WTR. ALL CBP'S ARE HALIBURTON 8K CBP'S. REFER TO STIM PJR FOR FLUID, SAND AND CHEMICAL VOLUME PUMP'D</p> <p>FRAC STG #1] WHP=1,562#, BRK DN PERFS=4,762#, @=4.7 BPM, INJ RT=50.8, INJ PSI=4,233#, INITIAL ISIP=2,679#, INITIAL FG=.77, FINAL ISIP=2,504#, FINAL FG=.74, AVERAGE RATE=49.2, AVERAGE PRESSURE=4,206#, MAX RATE=52, MAX PRESSURE=5,747#, NET PRESSURE INCREASE=-175#, 21/21 100% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,042', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #2] WHP=2,152#, BRK DN PERFS=3,304#, @=4.3 BPM, INJ RT=51.4, INJ PSI=4,496#, INITIAL ISIP=2,438#, INITIAL FG=.75, FINAL ISIP=2,513#, FINAL FG=.76, AVERAGE RATE=51.3, AVERAGE PRESSURE=4,360#, MAX RATE=51.8, MAX PRESSURE=5,062#, NET PRESSURE INCREASE=75#, 21/21 100% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,821', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #3] WHP=2,245#, BRK DN PERFS=2,587#, @=4.4 BPM, INJ RT=51.5, INJ PSI=4,247#, INITIAL ISIP=2,197#, INITIAL FG=.72, FINAL ISIP=2,541#, FINAL FG=.77, AVERAGE RATE=50, AVERAGE PRESSURE=4,141#, MAX RATE=53.7, MAX PRESSURE=4,893#, NET PRESSURE INCREASE=344#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>SWMFN. HSM, PLACEMENT</p>
10/23/2012	6:45 - 7:00	0.25	FRAC	48		P		

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 1022-12H4BS RED

Spud Date: 5/23/2012

Project: UTAH-UINTAH

Site: NBU 1022-12H PAD

Rig Name No: MILES 2/2

Event: COMPLETION

Start Date: 10/15/2012

End Date: 10/26/2012

Active Datum: RKB @5,202.00usft (above Mean Sea Level)

UWI: SE/NE/O/10/S/22/E/12/O/0/26/PM/N/1846/E/O/361/O/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 17:00	10.00	FRAC	36	B	P		<p>PERF STG #4] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,584', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #4] WHP=781#, BRK DN PERFS=4,060#, @=4.4 BPM, INJ RT=51.4, INJ PSI=4,490#, INITIAL ISIP=2,087#, INITIAL FG=.72, FINAL ISIP=2,133#, FINAL FG=.72, AVERAGE RATE=51.4, AVERAGE PRESSURE=4,056#, MAX RATE=52, MAX PRESSURE=5,038#, NET PRESSURE INCREASE=46#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,348', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #5] WHP=1,735#, BRK DN PERFS=4,372#, @=4.8 BPM, INJ RT=45.3, INJ PSI=5,592#, INITIAL ISIP=2,388#, INITIAL FG=.77, FINAL ISIP=2,249#, FINAL FG=.75, AVERAGE RATE=50.5, AVERAGE PRESSURE=4,655#, MAX RATE=52, MAX PRESSURE=5,928#, NET PRESSURE INCREASE=-139#, 16/24 67% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #6] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,054', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #6] WHP=791#, BRK DN PERFS=4,972#, @=4.9 BPM, INJ RT=51.3, INJ PSI=4,914#, INITIAL ISIP=2,096#, INITIAL FG=.74, FINAL ISIP=2,300#, FINAL FG=.77, AVERAGE RATE=51.3, AVERAGE PRESSURE=4,923#, MAX RATE=52, MAX PRESSURE=6,488#, NET PRESSURE INCREASE=204#, 20/21 95% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #7] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=6,725', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #7] WHP=910#, BRK DN PERFS=2,488#, @=4.5 BPM, INJ RT=51.5, INJ PSI=4,719#, INITIAL ISIP=1,557#, INITIAL FG=.67, FINAL ISIP=2,017#, FINAL FG=.74, AVERAGE RATE=51.4, AVERAGE PRESSURE=5,049#, MAX RATE=51.7, MAX PRESSURE=5,483#, NET PRESSURE INCREASE=460#, 18/24 75% CALC PERFS OPEN. X OVER TO WIRE LINE</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 1022-12H4BS RED

Spud Date: 5/23/2012

Project: UTAH-UINTAH

Site: NBU 1022-12H PAD

Rig Name No: MILES 2/2

Event: COMPLETION

Start Date: 10/15/2012

End Date: 10/26/2012

Active Datum: RKB @5,202.00usft (above Mean Sea Level)

UWI: SE/NE/0/10/S/22/E/12/0/0/26/PM/N/1846/E/0/361/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
								P/U RIH W/ HALIBURTON 8K CBP, SET FOR TOP KILL @=6,490'
								TOTAL FLUID PUMP'D=8582 BBLS TOTAL SAND PUMP'D=184,049# ROAD RIG FROM NBU 194 TO LOC, MIRU,
10/25/2012	12:00 - 13:30	1.50	DRLOUT	30	A	P		N/D WH. N/U BOPS, P/U RIH W/ 2 3/8" L-80 TBG,
	13:30 - 18:00	4.50	DRLOUT	31	I	P		TALLY TBG IN, RIH TO @ 6400', SWI, SDFN
10/26/2012	7:00 - 7:15	0.25	DRLOUT	48	C	P		JSA-SAFETY MEETING

US ROCKIES REGION
Operation Summary Report

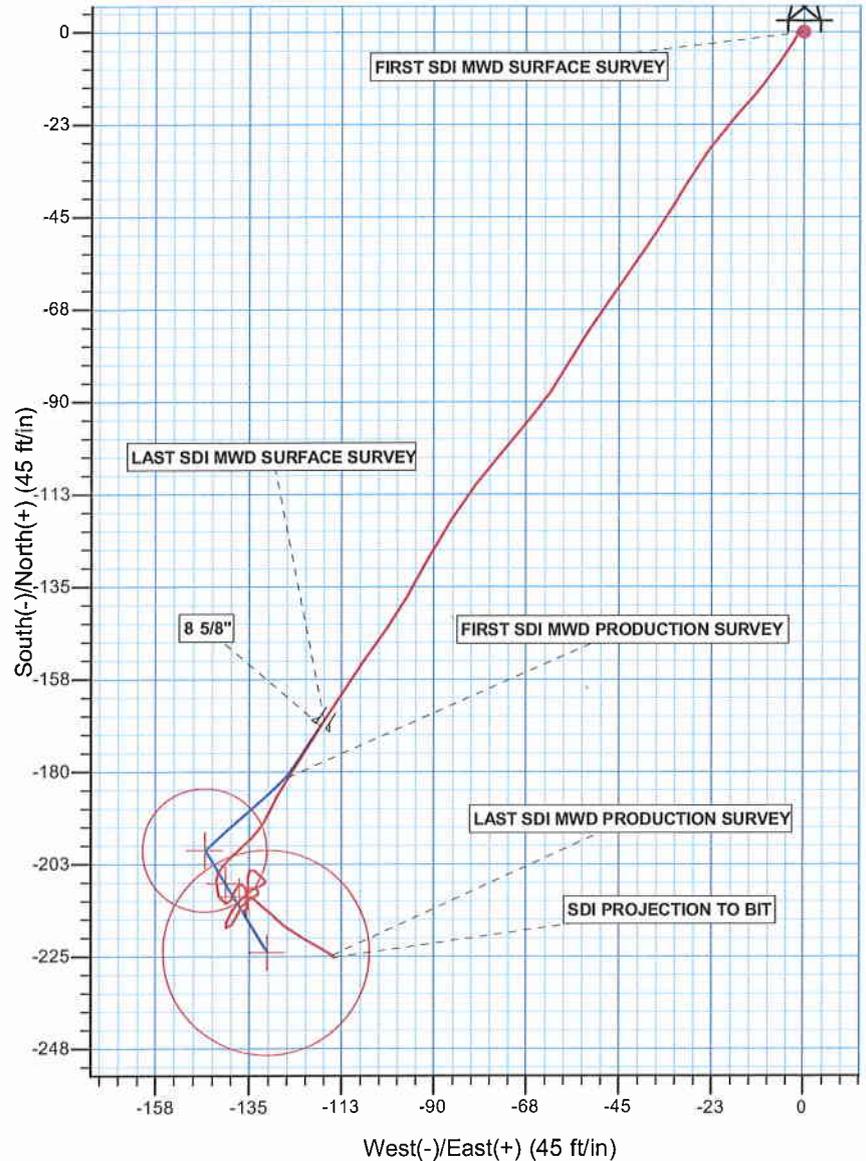
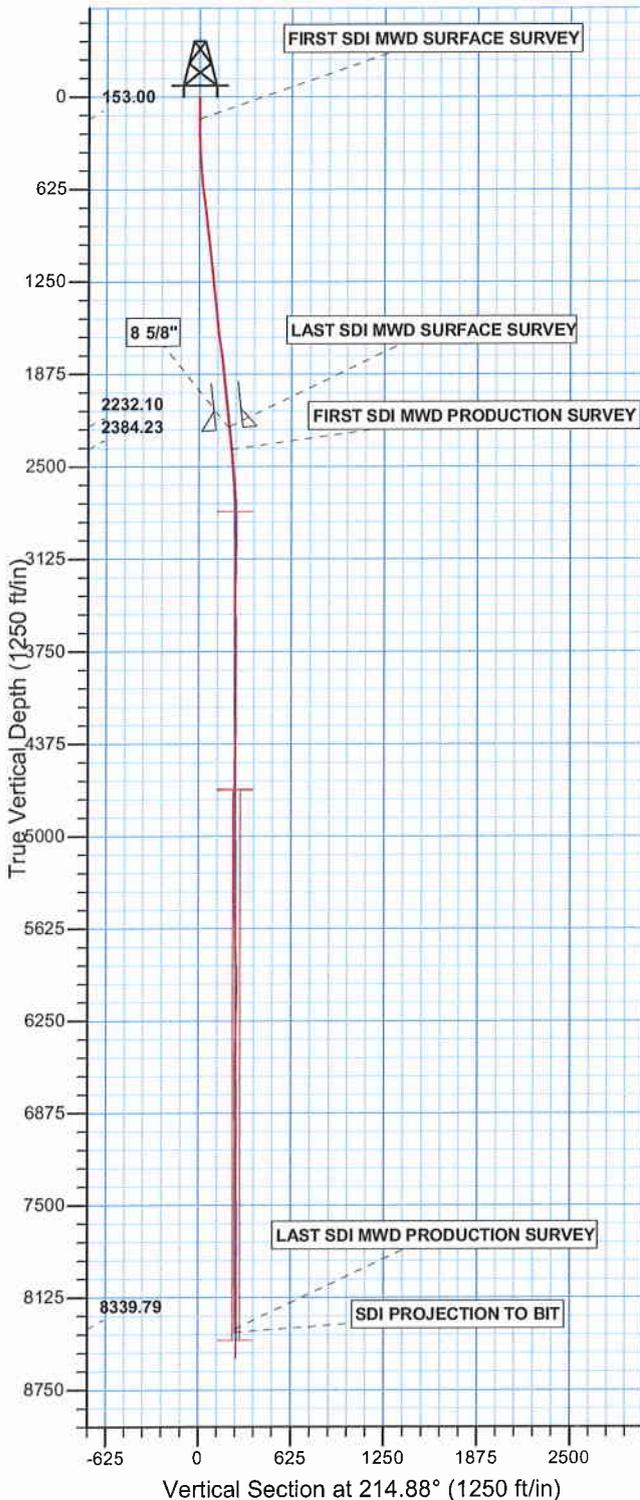
Well: NBU 1022-12H4BS RED		Spud Date: 5/23/2012	
Project: UTAH-UINTAH		Site: NBU 1022-12H PAD	Rig Name No: MILES 2/2
Event: COMPLETION		Start Date: 10/15/2012	End Date: 10/26/2012
Active Datum: RKB @5,202.00usft (above Mean Sea Level)		UWI: SE/NE/O/10/S/22/E/12/O/0/26/PM/N/1846/E/0/361/O/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 15:00	7.75	DRLOUT	44	C	P		<p>NO PRESSURE ON WELL, PRESSURE TEST BOP AND CSG TO 3000#, OK, R/U POWER SWIVEL, ESTB CIRC.</p> <p>(DRLG CBP #1) 6490', DRLG OUT HALLIBURTON 8K CBP IN 7 MIN, 100# DIFF, RIH TAG SAND @ 6695', c/o 30' sand, fcp = 100#,</p> <p>(DRLG CBP # 2) 6725', DRILL OUT HALLIBURTON 8K CBP IN 8 MIN, 300# DIFF, RIH TAG SAND @ 7024', C/O 30' SAND, FCP = 200#,</p> <p>(DRLG CBP #3) 7054', DRILL OUT HALLIBURTON 8K CBP IN 6 MIN, 300# DIFF, RIH TAG SAND @ 7308', C/O 40' SAND, FCP = 250#,</p> <p>(DRLG CBP #4) 7348' , DRILL OUT HALLIBURTON 8K CBP IN 8 MIN, 500# DIFF, RIH TAG SAND @ 7554', C/O 30' SAND, FCP = 400#,</p> <p>(DRLG CBP # 5) 7584', DRLG OUT HALLIBURTON 8K CBP IN 6 MIN, 600# DIFF, RIH TAG SAND @ 7791', C/O 30' SAND, FCP = 500#,</p> <p>(DRLG CBP #6) 7821', DRILL OUT HALLIBURTON 8K CBP IN 5 MIN, 500# DIFF, RIH TAG SAND @ 8012', C/O 30' SAND, FCP = 600#,</p> <p>(DRLG CBP # 7)8042', DRILL OUT HALLIBURTON 8K CBP IN 8 MIN, 600# DIFF, RIH TAG SAND @ 8260', C/O 40' SAND TO 8305' PBTD, FCP = 600#, CIRC WELL CLEAN, P/O LAY 16 JTS ON TRAILER, LAND TBG W/ 246 JTS 2 3/8" L-80 TBG, EOT @ 7797.22', N/D BOPS, DROP BALL, N/U WH, PRESSURE TEST FLOW LINE TO HAL 9000, PUMP BIT OFF @ 2800#, TURN WELL OVER TO FBC, R/D UNIT MOVE TO BLUE WELL,</p> <p style="margin-left: 40px;">KB = 14.00'</p> <p style="margin-left: 40px;">HANGER = .83'</p> <p style="margin-left: 40px;">246 JTS 2 3/8" L-80 = 7797.22'</p> <p style="margin-left: 40px;">XN-NIPPLE 1.875 X 1.78 = 2.20'</p> <hr style="width: 20%; margin-left: 40px;"/> <p style="margin-left: 40px;">EOT = 7814.25'</p> <p>283 JTS 2 3/8" L-80 TBG DELV.</p> <p>246 JTS 2 3/8" L-80 TBG LANDED</p> <p>37 JTS 2 3/8" L-80 TBG RETURNED</p> <p>WELL TURNED TO SALES @ 1300 HR ON 10/26/2012. 1200 MCFD, 1920 BWPD, FCP 2150#, FTP 2100#, 20/64" CK.</p> <p>WELL IP'D ON 10/30/12 - 2397 MCFD, 468 BWPD, 0 BOPD, CP 2546#, FTP 1947#, LP 111#, 24 HRS, CK 20/64</p>
	15:00 - 15:00	0.00	DRLOUT	50				
10/30/2012	7:00 -			50				

WELL DETAILS: NBU 1022-12H4BS					
GL 5188 & KB 14 @ 5202.00ft (ENSGN 138)					
+N/-S 0.00	+E/-W 0.00	Northing 14517652.89	Easting 2094501.12	Latitude 39.955625	Longitude -109.379458



Azimuths to True North
 Magnetic North: 11.00°
 Magnetic Field
 Strength: 52307.8snT
 Dip Angle: 65.86°
 Date: 08/18/2011
 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

Design: OH (NBU 1022-12H4BS/OH)
Created By: Gabe Kendall Date: 10:50, November 16 2012



Scientific Drilling

US ROCKIES REGION PLANNING

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

NBU 1022-12H PAD

NBU 1022-12H4BS

OH

Design: OH

Standard Survey Report

16 November, 2012

Anadarko 
Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 1022-12H4BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 5188 & KB 14 @ 5202.00ft (ENSIGN 138)
Site:	NBU 1022-12H PAD	MD Reference:	GL 5188 & KB 14 @ 5202.00ft (ENSIGN 138)
Well:	NBU 1022-12H4BS	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 1022-12H PAD, SECTION 12 T10S R22E				
Site Position:		Northing:	14,517,656.88 usft	Latitude:	39.965635
From:	Lat/Long	Easting:	2,094,530.75 usft	Longitude:	-109.379352
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	1.04 °

Well	NBU 1022-12H4BS, 1846 FNL 361 FEL					
Well Position	+N-S	0.00 ft	Northing:	14,517,652.70 usft	Latitude:	39.965625
	+E-W	0.00 ft	Easting:	2,094,501.11 usft	Longitude:	-109.379458
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,188.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/18/11	11.00	65.86	52,308

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	214.88	

Survey Program	Date	11/16/12			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
10.00	2,243.00	Survey #1 SDI MWD SURFACE (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	
2,396.00	8,379.00	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	
153.00	0.35	251.98	153.00	-0.14	-0.42	0.35	0.24	0.24	0.00	
FIRST SDI MWD SURFACE SURVEY										
182.00	0.44	239.06	182.00	-0.22	-0.60	0.52	0.43	0.31	-44.55	
210.00	0.70	239.94	210.00	-0.36	-0.84	0.77	0.93	0.93	3.14	
237.00	1.06	242.05	236.99	-0.56	-1.20	1.15	1.34	1.33	7.81	
264.00	1.41	222.19	263.99	-0.92	-1.64	1.70	2.03	1.30	-73.56	
291.00	1.76	214.72	290.98	-1.51	-2.10	2.44	1.50	1.30	-27.67	
319.00	2.29	211.73	318.96	-2.34	-2.64	3.43	1.93	1.89	-10.68	

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

Local Co-ordinate Reference: Well NBU 1022-12H4BS
TVD Reference: GL 5188 & KB 14 @ 5202.00ft (ENSIGN 138)
MD Reference: GL 5188 & KB 14 @ 5202.00ft (ENSIGN 138)
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)	
349.00	2.64	213.93	348.93	-3.42	-3.34	4.72	1.21	1.17	7.33	
439.00	3.61	214.89	438.80	-7.47	-6.12	9.62	1.08	1.08	1.07	
529.00	5.19	218.50	528.53	-12.98	-10.27	16.52	1.78	1.76	4.01	
619.00	6.51	222.36	618.06	-19.93	-16.25	25.64	1.53	1.47	4.29	
709.00	7.12	216.39	707.42	-28.19	-22.99	36.28	1.04	0.68	-6.63	
799.00	6.76	209.71	796.77	-37.28	-28.93	47.13	0.98	-0.40	-7.42	
889.00	6.24	213.05	886.19	-45.98	-34.22	57.29	0.71	-0.58	3.71	
979.00	6.33	214.28	975.65	-54.18	-39.68	67.14	0.18	0.10	1.37	
1,069.00	6.51	215.51	1,065.08	-62.44	-45.44	77.21	0.25	0.20	1.37	
1,159.00	7.03	212.70	1,154.45	-71.22	-51.38	87.81	0.68	0.58	-3.12	
1,249.00	6.07	210.41	1,243.87	-79.96	-56.76	98.06	1.11	-1.07	-2.54	
1,339.00	5.36	214.63	1,333.42	-87.53	-61.56	107.01	0.92	-0.79	4.69	
1,429.00	5.63	219.11	1,423.00	-94.41	-66.73	115.61	0.56	0.30	4.98	
1,519.00	6.51	220.87	1,512.50	-101.69	-72.86	125.09	1.00	0.98	1.96	
1,609.00	6.95	217.79	1,601.88	-109.86	-79.53	135.60	0.63	0.49	-3.42	
1,699.00	7.00	212.02	1,691.21	-118.81	-85.78	146.52	0.78	0.06	-6.41	
1,789.00	7.21	209.01	1,780.52	-128.40	-91.42	157.61	0.47	0.23	-3.34	
1,879.00	5.78	209.88	1,869.94	-137.27	-96.42	167.75	1.59	-1.59	0.97	
1,969.00	5.72	216.21	1,959.49	-144.81	-101.33	176.74	0.71	-0.07	7.03	
2,059.00	5.63	214.28	2,049.05	-152.08	-106.46	185.64	0.23	-0.10	-2.14	
2,149.00	5.72	213.58	2,138.61	-159.47	-111.43	194.54	0.13	0.10	-0.78	
2,243.00	6.16	213.49	2,232.10	-167.57	-116.81	204.27	0.47	0.47	-0.10	
LAST SDI MWD SURFACE SURVEY										
2,396.00	6.07	211.46	2,384.23	-181.32	-125.56	220.55	0.15	-0.06	-1.33	
FIRST SDI MWD PRODUCTION SURVEY										
2,490.00	5.35	204.43	2,477.77	-189.55	-129.96	229.82	1.07	-0.77	-7.48	
2,585.00	4.59	226.50	2,572.42	-196.20	-134.55	237.90	2.15	-0.80	23.23	
2,679.00	4.44	225.58	2,666.13	-201.34	-139.88	245.16	0.18	-0.16	-0.98	
2,774.00	3.14	190.44	2,760.93	-206.47	-142.98	251.14	2.74	-1.37	-36.99	
2,869.00	2.10	137.22	2,855.84	-210.31	-142.27	253.88	2.66	-1.09	-56.02	
2,963.00	1.06	130.07	2,949.81	-212.13	-140.43	254.33	1.12	-1.11	-7.61	
3,058.00	1.85	20.73	3,044.79	-211.26	-139.22	252.92	2.54	0.83	-115.09	
3,152.00	1.19	22.00	3,138.75	-208.94	-138.31	250.50	0.70	-0.70	1.35	
3,247.00	0.54	43.72	3,233.74	-207.70	-137.64	249.09	0.75	-0.68	22.86	
3,341.00	0.55	91.89	3,327.74	-207.39	-136.88	248.41	0.47	0.01	51.24	
3,436.00	0.70	138.86	3,422.73	-207.85	-136.04	248.30	0.54	0.16	49.44	
3,530.00	0.97	174.54	3,516.72	-209.07	-135.59	249.05	0.61	0.29	37.96	
3,625.00	1.01	181.89	3,611.71	-210.71	-135.54	250.36	0.14	0.04	7.74	
3,720.00	1.06	180.69	3,706.69	-212.42	-135.58	251.79	0.06	0.05	-1.26	
3,814.00	1.23	181.49	3,800.67	-214.30	-135.61	253.35	0.18	0.18	0.85	
3,909.00	0.62	344.43	3,895.67	-214.82	-135.78	253.88	1.93	-0.64	171.52	
4,003.00	0.48	341.40	3,989.66	-213.96	-136.04	253.32	0.15	-0.15	-3.22	
4,098.00	0.09	156.09	4,084.66	-213.65	-136.14	253.12	0.60	-0.41	183.88	

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 1022-12H PAD
Well: NBU 1022-12H4BS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 1022-12H4BS
TVD Reference: GL 5188 & KB 14 @ 5202.00ft (ENSIGN 138)
MD Reference: GL 5188 & KB 14 @ 5202.00ft (ENSIGN 138)
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)
4,192.00	0.59	136.17	4,178.66	-214.07	-135.77	253.25	0.54	0.53	-21.19
4,287.00	1.81	5.68	4,273.65	-212.93	-135.28	252.04	2.36	1.28	-137.36
4,382.00	1.66	0.71	4,368.60	-210.06	-135.12	249.59	0.22	-0.16	-5.23
4,476.00	1.22	351.79	4,462.57	-207.71	-135.24	247.74	0.52	-0.47	-9.49
4,571.00	0.71	8.01	4,557.56	-206.12	-135.31	246.47	0.60	-0.54	17.07
4,665.00	0.48	18.57	4,651.56	-205.17	-135.10	245.57	0.27	-0.24	11.23
4,760.00	0.38	2.96	4,746.55	-204.48	-134.96	244.92	0.16	-0.11	-16.43
4,854.00	0.23	66.29	4,840.55	-204.10	-134.77	244.50	0.37	-0.16	67.37
4,949.00	0.27	60.87	4,935.55	-203.91	-134.40	244.14	0.05	0.04	-5.71
5,043.00	0.21	91.72	5,029.55	-203.81	-134.03	243.84	0.15	-0.06	32.82
5,138.00	0.68	131.46	5,124.55	-204.19	-133.44	243.81	0.56	0.49	41.83
5,233.00	0.88	131.16	5,219.54	-205.04	-132.46	243.96	0.21	0.21	-0.32
5,327.00	1.23	137.67	5,313.52	-206.26	-131.24	244.26	0.39	0.37	6.93
5,422.00	1.60	251.58	5,408.51	-207.43	-131.81	245.55	2.51	0.39	119.91
5,516.00	1.58	235.71	5,502.47	-208.58	-134.13	247.81	0.47	-0.02	-16.88
5,611.00	1.58	227.45	5,597.44	-210.20	-136.18	250.31	0.24	0.00	-8.69
5,705.00	1.55	217.01	5,691.40	-212.09	-137.90	252.85	0.30	-0.03	-11.11
5,800.00	1.58	207.06	5,786.36	-214.29	-139.27	255.43	0.29	0.03	-10.47
5,895.00	1.67	205.04	5,881.33	-216.71	-140.45	258.09	0.11	0.09	-2.13
5,989.00	0.79	92.28	5,975.31	-217.97	-140.38	259.09	2.24	-0.94	-119.96
6,084.00	1.14	36.91	6,070.30	-217.24	-139.16	257.79	1.00	0.37	-58.28
6,176.00	1.76	19.50	6,162.27	-215.18	-138.14	255.52	0.82	0.67	-18.92
6,273.00	1.32	38.05	6,259.24	-212.90	-136.95	252.97	0.68	-0.45	19.12
6,367.00	1.14	54.31	6,353.22	-211.50	-135.52	251.00	0.42	-0.19	17.30
6,462.00	1.14	60.64	6,448.20	-210.48	-133.93	249.26	0.13	0.00	6.66
6,557.00	0.80	36.54	6,543.18	-209.49	-132.71	247.75	0.55	-0.36	-25.37
6,651.00	1.14	295.30	6,637.17	-208.56	-133.17	247.25	1.61	0.36	-107.70
6,746.00	0.88	265.51	6,732.16	-208.21	-134.75	247.87	0.61	-0.27	-31.36
6,840.00	0.57	199.37	6,826.15	-208.71	-135.62	248.77	0.89	-0.33	-70.36
6,935.00	0.97	170.24	6,921.15	-209.95	-135.65	249.80	0.58	0.42	-30.66
7,029.00	1.33	168.95	7,015.13	-211.80	-135.30	251.13	0.38	0.38	-1.37
7,124.00	0.64	349.58	7,110.12	-212.36	-135.19	251.52	2.07	-0.73	-188.81
7,219.00	0.50	2.95	7,205.12	-211.43	-135.26	250.80	0.20	-0.15	14.07
7,317.00	0.53	52.90	7,303.11	-210.73	-134.88	250.00	0.44	0.03	50.97
7,408.00	0.70	123.74	7,394.11	-210.78	-134.08	249.59	0.80	0.19	77.85
7,502.00	1.23	128.49	7,488.09	-211.73	-132.81	249.64	0.57	0.56	5.05
7,597.00	0.94	133.59	7,583.08	-212.90	-131.45	249.83	0.32	-0.31	5.37
7,691.00	1.23	136.49	7,677.06	-214.16	-130.20	250.15	0.31	0.31	3.09
7,786.00	1.49	131.74	7,772.03	-215.73	-128.57	250.50	0.30	0.27	-5.00
7,880.00	1.61	126.96	7,866.00	-217.33	-126.61	250.69	0.19	0.13	-5.09
7,974.00	1.69	124.18	7,959.96	-218.91	-124.40	250.72	0.12	0.09	-2.96
8,069.00	1.85	123.00	8,054.92	-220.53	-121.96	250.66	0.17	0.17	-1.24
8,163.00	1.83	118.02	8,148.87	-222.06	-119.36	250.43	0.17	-0.02	-5.30
8,258.00	1.49	117.15	8,243.83	-223.34	-116.92	250.08	0.36	-0.36	-0.92

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 1022-12H4BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 5188 & KB 14 @ 5202.00ft (ENSIGN 138)
Site:	NBU 1022-12H PAD	MD Reference:	GL 5188 & KB 14 @ 5202.00ft (ENSIGN 138)
Well:	NBU 1022-12H4BS	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)
8,354.00	1.59	125.21	8,339.79	-224.67	-114.72	249.92	0.25	0.10	8.40
LAST SDI MWD PRODUCTION SURVEY									
8,379.00	1.59	125.21	8,364.78	-225.07	-114.16	249.92	0.00	0.00	0.00
SDI PROJECTION TO BIT									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,257.00	2,246.02	8 5/8"	8.625	11.000

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N-S (ft)	+E-W (ft)	
153.00	153.00	-0.14	-0.42	FIRST SDI MWD SURFACE SURVEY
2,243.00	2,232.10	-167.57	-116.81	LAST SDI MWD SURFACE SURVEY
2,396.00	2,384.23	-181.32	-125.56	FIRST SDI MWD PRODUCTION SURVEY
8,354.00	8,339.79	-224.67	-114.72	LAST SDI MWD PRODUCTION SURVEY
8,379.00	8,364.78	-225.07	-114.16	SDI PROJECTION TO BIT

Checked By: _____ Approved By: _____ Date: _____