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 921-22D1CS
2. TYPE OF WORK: DRILL NEW WELL (●) REENTER P&A WELL ( ) DEEPEN WELL ( )	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: 720 929-6587
8. ADDRESS OF OPERATOR: P.O. Box 173779, Denver, CO, 80217	9. OPERATOR E-MAIL: mary.mondragon@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE): UTU 0147566	11. MINERAL OWNERSHIP: FEDERAL (●) INDIAN ( ) STATE ( ) FEE ( )
	12. SURFACE OWNERSHIP: FEDERAL ( ) INDIAN (●) STATE ( ) FEE ( )
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'): Ute Tribe	18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS: YES (●) (Submit Commingling Application) NO ( )
	19. SLANT: VERTICAL ( ) DIRECTIONAL (●) HORIZONTAL ( )

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	358 FSL 2113 FWL	SESW	15	9.0 S	21.0 E	S
Top of Uppermost Producing Zone	566 FNL 789 FWL	NWNW	22	9.0 S	21.0 E	S
At Total Depth	566 FNL 789 FWL	NWNW	22	9.0 S	21.0 E	S

21. COUNTY: UINTAH	22. DISTANCE TO NEAREST LEASE LINE (Feet): 566	23. NUMBER OF ACRES IN DRILLING UNIT: 160
	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed): 340	26. PROPOSED DEPTH: MD: 10572 TVD: 10100
27. ELEVATION - GROUND LEVEL: 4827	28. BOND NUMBER: WYB000291	29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE: Permit #43-8496

ATTACHMENTS

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

☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	☑ COMPLETE DRILLING PLAN
☐ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
☑ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	☑ TOPOGRAPHICAL MAP

NAME Danielle Piernot	TITLE Regulatory Analyst	PHONE 720 929-6156
SIGNATURE	DATE 06/30/2009	EMAIL danielle.piernot@anadarko.com

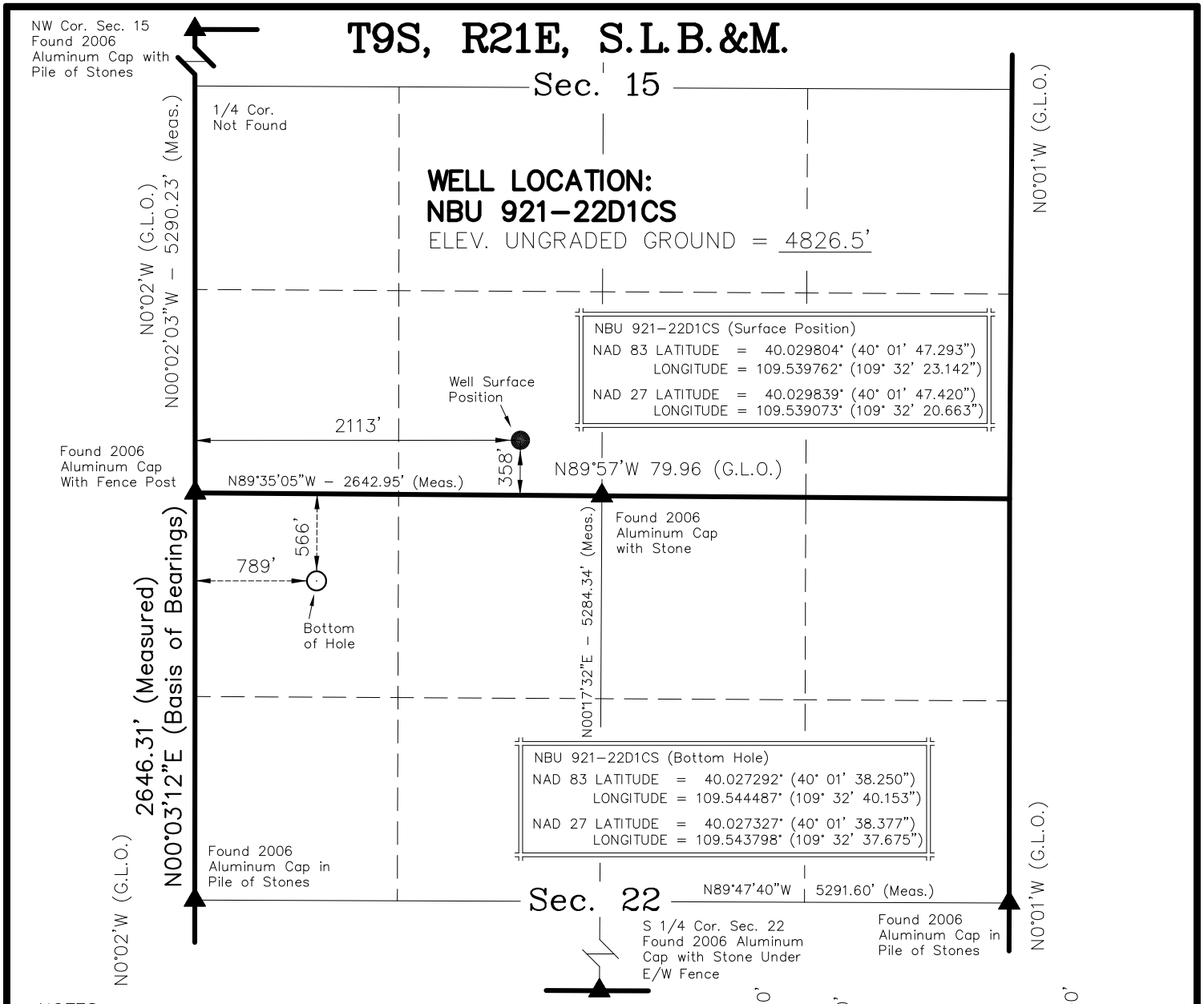
API NUMBER ASSIGNED	APPROVAL
43047505310000	Permit Manager

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Prod	7.875	4.5	0	10572		
Pipe	**Grade**	**Length**	**Weight**			
	Grade P-110 LT&C	10572	11.6			

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Surf	12.25	9.625	0	2665		
Pipe	**Grade**	**Length**	**Weight**			
	Grade J-55 LT&C	2665	36.0			

'APIWellNo:43047505310000'

T9S, R21E, 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 S55°23'11"W 1609.33' 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 $\frac{1}{4}$ 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'.

1000' 500' 0' 1000'

SCALE

N

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.

REGISTERED LAND SURVEYOR
REGISTRATION No. 362251
STATE OF UTAH

REGISTERED LAND SURVEYOR No.362251 KOLBY R. KAY STATE OF UTAH

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

NBU 921-22D1CS
WELL PLAT
566' FNL, 789' FWL (Bottom Hole)
NW $\frac{1}{4}$ NW $\frac{1}{4}$ OF SECTION 22, T9S, R21E,
S.L.B.&M. UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
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: 11–13–08	SURVEYED BY: M.S.B.	SHEET
DATE DRAWN: 11–17–08	DRAWN BY: E.M.S.	2
SCALE: 1" = 1000'	Date Last Revised: 01–22–09	OF 13

'APIWellNo:43047505310000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 921-15N Pad
Well: NBU 921-22D1CS
Wellbore: OH
Design: Plan #1

Kerr McGee Oil and Gas Onshore LP

T M

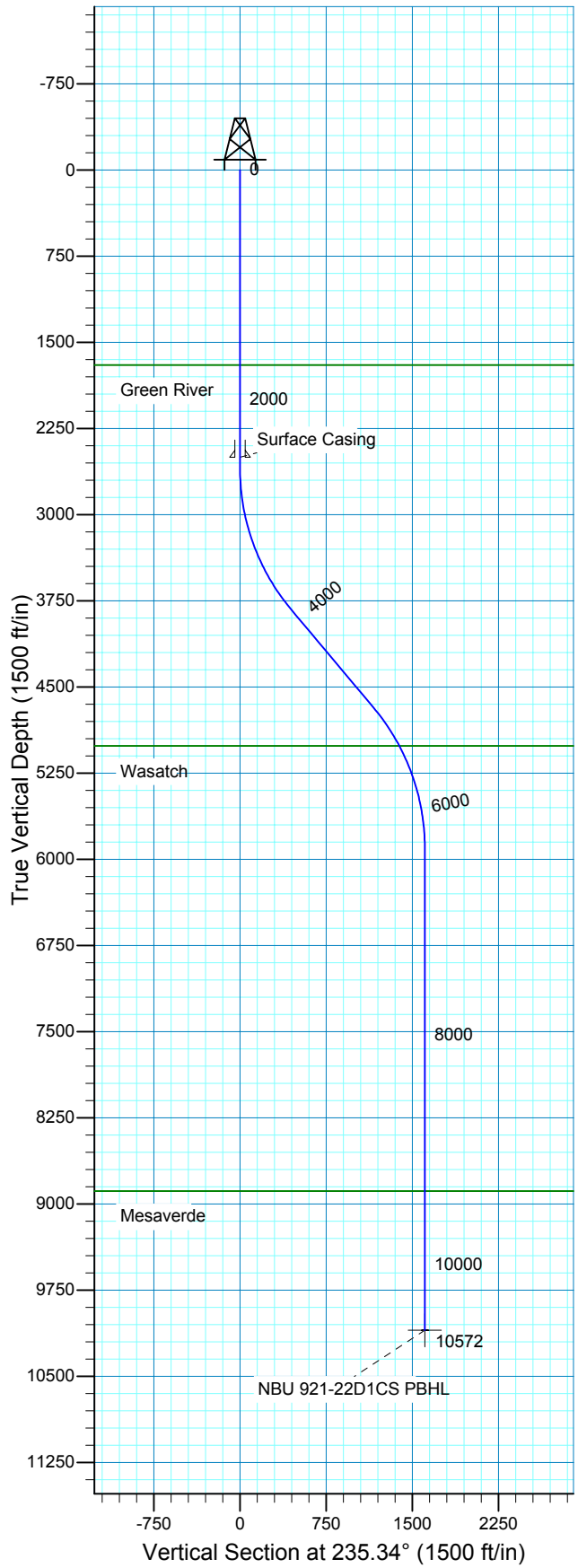
Azimuths to True North
Magnetic North: 11.37°

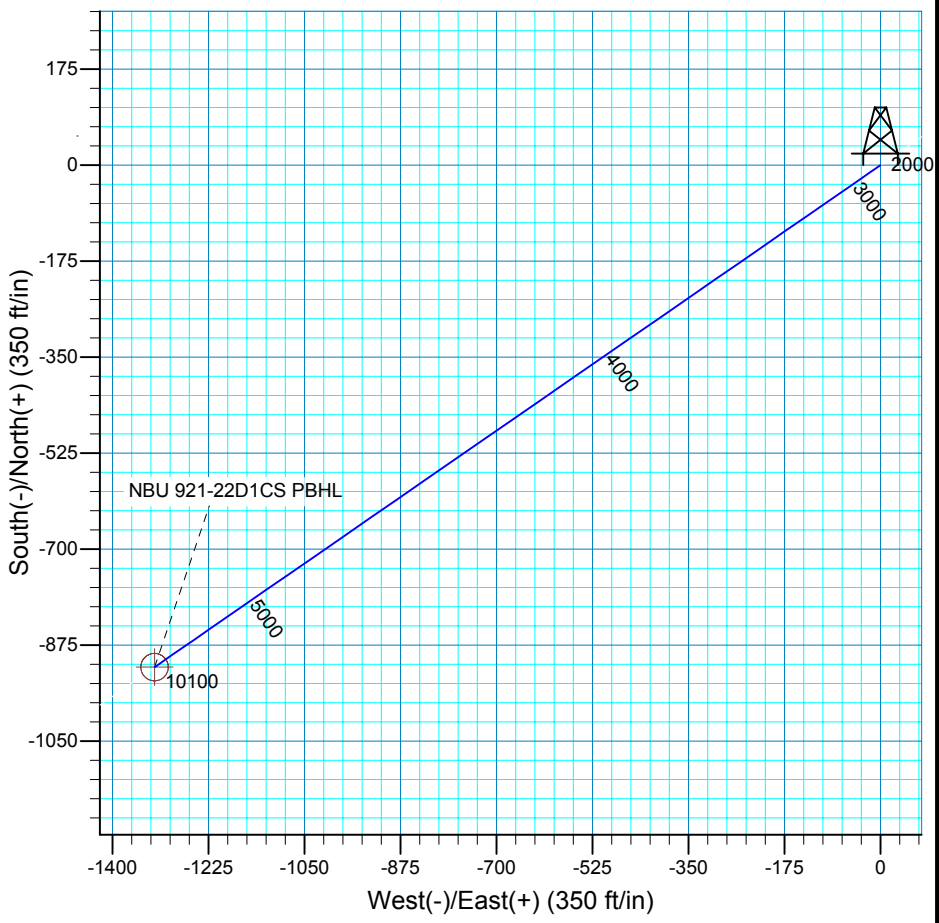
Magnetic Field
Strength: 52595.5snT
Dip Angle: 65.95°
Date: 2009/02/27
Model: IGRF2005-10

WELL DETAILS: NBU 921-22D1CS

GL 4826' & RKB 18' @ 4844.00ft 4826.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	623934.08	2549063.15	40° 1' 47.420 N	109° 32' 20.663 W





Plan: Plan #1 (NBU 921-22D1CS/OH)

Created By: Julie Cruse Date: 2009-03-06

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: Sec 1 T10S RE21E
System Datum: Mean Sea Level
Local North: True

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	0.00	
3933.33	40.00	235.34	3827.63	-254.11	-367.53	3.00	235.34	446.82	
5045.92	40.00	235.34	4679.93	-660.82	-955.78	0.00	0.00	1161.98	
6379.25	0.00	0.00	5907.56	-914.93	-1323.31	3.00	180.00	1608.80	
10571.69	0.00	0.00	10100.00	-914.93	-1323.31	0.00	0.00	1608.80	NBU 921-22D1CS PBHL

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Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT NAD27
NBU 921-15N Pad
NBU 921-22D1CS
OH

Plan: Plan #1

Standard Planning Report

06 March, 2009

Scientific Drilling
Rocky Mountain Operations

Scientific Drilling
Planning Report

Database:	EDM 2003.16 Multi User DB	**Local Co-ordinate Reference:**	Well NBU 921-22D1CS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4826' & RKB 18' @ 4844.00ft
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 4826' & RKB 18' @ 4844.00ft
Site:	NBU 921-15N Pad	**North Reference:**	True
Well:	NBU 921-22D1CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project Uintah County, UT NAD27

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site NBU 921-15N Pad, Sec 1 T10S RE21E

Site Position:		**Northing:**	623,937.73 ft	**Latitude:**	40° 1' 47.443 N
From:	Lat/Long	**Easting:**	2,549,122.98 ft	**Longitude:**	109° 32' 19.893 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	in	**Grid Convergence:**	1.26 °

Well NBU 921-22D1CS, 358' FSL 2113' FWL

Well Position	**+N/-S**	0.00 ft	**Northing:**	623,934.08 ft	**Latitude:**	40° 1' 47.420 N
	+E/-W	0.00 ft	**Easting:**	2,549,063.15 ft	**Longitude:**	109° 32' 20.663 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,826.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	2009/02/27	11.37	65.95	52,596

Design Plan #1

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	235.34

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	
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,933.33	40.00	235.34	3,827.63	-254.11	-367.53	3.00	3.00	0.00	235.34	
5,045.92	40.00	235.34	4,679.93	-660.82	-955.78	0.00	0.00	0.00	0.00	
6,379.25	0.00	0.00	5,907.56	-914.93	-1,323.31	3.00	-3.00	0.00	180.00	
10,571.69	0.00	0.00	10,100.00	-914.93	-1,323.31	0.00	0.00	0.00	0.00	NBU 921-22D1CS PE

Scientific Drilling
Rocky Mountain Operations

Scientific Drilling
Planning Report

Database:	EDM 2003.16 Multi User DB	**Local Co-ordinate Reference:**	Well NBU 921-22D1CS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4826' & RKB 18' @ 4844.00ft
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 4826' & RKB 18' @ 4844.00ft
Site:	NBU 921-15N Pad	**North Reference:**	True
Well:	NBU 921-22D1CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,698.00	0.00	0.00	1,698.00	0.00	0.00	0.00	0.00	0.00	0.00
Green River									
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Casing									
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	3.00	235.34	2,699.95	-1.49	-2.15	2.62	3.00	3.00	0.00
2,800.00	6.00	235.34	2,799.63	-5.95	-8.61	10.46	3.00	3.00	0.00
2,900.00	9.00	235.34	2,898.77	-13.37	-19.34	23.51	3.00	3.00	0.00
3,000.00	12.00	235.34	2,997.08	-23.73	-34.33	41.74	3.00	3.00	0.00
3,100.00	15.00	235.34	3,094.31	-37.01	-53.53	65.08	3.00	3.00	0.00
3,200.00	18.00	235.34	3,190.18	-53.16	-76.89	93.48	3.00	3.00	0.00
3,300.00	21.00	235.34	3,284.43	-72.14	-104.34	126.85	3.00	3.00	0.00
3,400.00	24.00	235.34	3,376.81	-93.90	-135.82	165.12	3.00	3.00	0.00
3,500.00	27.00	235.34	3,467.06	-118.38	-171.22	208.16	3.00	3.00	0.00
3,600.00	30.00	235.34	3,554.93	-145.52	-210.47	255.87	3.00	3.00	0.00
3,700.00	33.00	235.34	3,640.18	-175.23	-253.44	308.12	3.00	3.00	0.00
3,800.00	36.00	235.34	3,722.59	-207.43	-300.02	364.75	3.00	3.00	0.00
3,900.00	39.00	235.34	3,801.91	-242.05	-350.09	425.62	3.00	3.00	0.00
3,933.33	40.00	235.34	3,827.63	-254.11	-367.53	446.82	3.00	3.00	0.00
4,000.00	40.00	235.34	3,878.70	-278.48	-402.78	489.67	0.00	0.00	0.00
4,100.00	40.00	235.34	3,955.31	-315.03	-455.65	553.95	0.00	0.00	0.00
4,200.00	40.00	235.34	4,031.91	-351.59	-508.52	618.23	0.00	0.00	0.00
4,300.00	40.00	235.34	4,108.52	-388.15	-561.39	682.51	0.00	0.00	0.00
4,400.00	40.00	235.34	4,185.12	-424.70	-614.27	746.79	0.00	0.00	0.00
4,500.00	40.00	235.34	4,261.73	-461.26	-667.14	811.07	0.00	0.00	0.00
4,600.00	40.00	235.34	4,338.33	-497.81	-720.01	875.35	0.00	0.00	0.00
4,700.00	40.00	235.34	4,414.93	-534.37	-772.88	939.63	0.00	0.00	0.00
4,800.00	40.00	235.34	4,491.54	-570.92	-825.76	1,003.90	0.00	0.00	0.00

Scientific Drilling
Rocky Mountain Operations

Scientific Drilling
Planning Report

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Project:	Uintah County, UT NAD27	**MD Reference:**	GL 4826' & RKB 18' @ 4844.00ft
Site:	NBU 921-15N Pad	**North Reference:**	True
Well:	NBU 921-22D1CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,900.00	40.00	235.34	4,568.14	-607.48	-878.63	1,068.18	0.00	0.00	0.00
5,000.00	40.00	235.34	4,644.75	-644.03	-931.50	1,132.46	0.00	0.00	0.00
5,045.92	40.00	235.34	4,679.93	-660.82	-955.78	1,161.98	0.00	0.00	0.00
5,100.00	38.38	235.34	4,721.84	-680.25	-983.88	1,196.15	3.00	-3.00	0.00
5,200.00	35.38	235.34	4,801.82	-714.38	-1,033.24	1,256.15	3.00	-3.00	0.00
5,300.00	32.38	235.34	4,884.84	-746.08	-1,079.09	1,311.89	3.00	-3.00	0.00
5,400.00	29.38	235.34	4,970.65	-775.26	-1,121.29	1,363.20	3.00	-3.00	0.00
5,448.26	27.93	235.34	5,013.00	-788.42	-1,140.33	1,386.34	3.00	-3.00	0.00
Wasatch									
5,500.00	26.38	235.34	5,059.04	-801.85	-1,159.75	1,409.96	3.00	-3.00	0.00
5,600.00	23.38	235.34	5,149.75	-825.77	-1,194.35	1,452.02	3.00	-3.00	0.00
5,700.00	20.38	235.34	5,242.53	-846.96	-1,225.00	1,489.28	3.00	-3.00	0.00
5,800.00	17.38	235.34	5,337.15	-865.36	-1,251.61	1,521.63	3.00	-3.00	0.00
5,900.00	14.38	235.34	5,433.32	-880.91	-1,274.11	1,548.99	3.00	-3.00	0.00
6,000.00	11.38	235.34	5,530.79	-893.59	-1,292.44	1,571.27	3.00	-3.00	0.00
6,100.00	8.38	235.34	5,629.30	-903.34	-1,306.55	1,588.42	3.00	-3.00	0.00
6,200.00	5.38	235.34	5,728.57	-910.15	-1,316.39	1,600.40	3.00	-3.00	0.00
6,300.00	2.38	235.34	5,828.33	-913.99	-1,321.96	1,607.16	3.00	-3.00	0.00
6,379.25	0.00	0.00	5,907.56	-914.93	-1,323.31	1,608.80	3.00	-3.00	0.00
6,400.00	0.00	0.00	5,928.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
6,500.00	0.00	0.00	6,028.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
6,600.00	0.00	0.00	6,128.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
6,700.00	0.00	0.00	6,228.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
6,800.00	0.00	0.00	6,328.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
6,900.00	0.00	0.00	6,428.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
7,000.00	0.00	0.00	6,528.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
7,100.00	0.00	0.00	6,628.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
7,200.00	0.00	0.00	6,728.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
7,300.00	0.00	0.00	6,828.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
7,400.00	0.00	0.00	6,928.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
7,500.00	0.00	0.00	7,028.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
7,600.00	0.00	0.00	7,128.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
7,700.00	0.00	0.00	7,228.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
7,800.00	0.00	0.00	7,328.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
7,900.00	0.00	0.00	7,428.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
8,000.00	0.00	0.00	7,528.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
8,100.00	0.00	0.00	7,628.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
8,200.00	0.00	0.00	7,728.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
8,300.00	0.00	0.00	7,828.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
8,400.00	0.00	0.00	7,928.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
8,500.00	0.00	0.00	8,028.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
8,600.00	0.00	0.00	8,128.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
8,700.00	0.00	0.00	8,228.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
8,800.00	0.00	0.00	8,328.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
8,900.00	0.00	0.00	8,428.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
9,000.00	0.00	0.00	8,528.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
9,100.00	0.00	0.00	8,628.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
9,200.00	0.00	0.00	8,728.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
9,300.00	0.00	0.00	8,828.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
9,358.69	0.00	0.00	8,887.00	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
Mesaverde									
9,400.00	0.00	0.00	8,928.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
9,500.00	0.00	0.00	9,028.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00

Scientific Drilling
Rocky Mountain Operations

Scientific Drilling
Planning Report

Database:	EDM 2003.16 Multi User DB	**Local Co-ordinate Reference:**	Well NBU 921-22D1CS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4826' & RKB 18' @ 4844.00ft
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 4826' & RKB 18' @ 4844.00ft
Site:	NBU 921-15N Pad	**North Reference:**	True
Well:	NBU 921-22D1CS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
9,600.00	0.00	0.00	9,128.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
9,700.00	0.00	0.00	9,228.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
9,800.00	0.00	0.00	9,328.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
9,900.00	0.00	0.00	9,428.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
10,000.00	0.00	0.00	9,528.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
10,100.00	0.00	0.00	9,628.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
10,200.00	0.00	0.00	9,728.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
10,300.00	0.00	0.00	9,828.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
10,400.00	0.00	0.00	9,928.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
10,500.00	0.00	0.00	10,028.31	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00
10,571.69	0.00	0.00	10,100.00	-914.93	-1,323.31	1,608.80	0.00	0.00	0.00

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
NBU 921-22D1CS PBHl - plan hits target center - Circle (radius 25.00)	0.00	0.00	10,100.00	-914.93	-1,323.31	622,990.36	2,547,760.22	40° 1' 38.377 N	109° 32' 37.675 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,500.00	2,500.00	Surface Casing	9.625	13.500

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,698.00	1,698.00	Green River		0.00	
5,448.26	5,013.00	Wasatch		0.00	
9,358.69	8,887.00	Mesaverde		0.00	

NBU 921-22D1CS

Pad: NBU 921-15N
Surface: 358' FSL, 2,113' FWL (SE/4SW/4) Sec. 15
BHL: 566' FNL 789' FWL (NW/4NW/4) Sec.22

Uintah, Utah
Mineral Lease: UTU 0147566

ONSHORE ORDER NO. 1

DRILLING PROGRAM

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

Formation	Depth	Resource
Uinta	0 – Surface	
Green River	1,698'	
Birds Nest	1,956'	Water
Mahogany	2,463'	Water
Wasatch	5,013'	Gas
Mesaverde	7,954'	Gas
MVU2	8,887'	Gas
MVL1	9,471'	Gas
TVD	10,100'	
TD	10,572'	

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program.

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

6. Evaluation Program:

Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 10,572' TD, approximately equals 6,477 psi (calculated at 0.61 psi/foot).

Maximum anticipated surface pressure equals approximately 3,966 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

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

9. Variances:

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

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

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

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

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

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

Background

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

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

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

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

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

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

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

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

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

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

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

10. Other Information:

Please refer to the attached Drilling Program.

’APIWellNo:43047505310000’

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	June 29, 2009	
WELL NAME	**NBU 921-22D1CS**		TD	10,100' TVD	10,572' MD
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah	FINISHED ELEVATION	4,826'
SURFACE LOCATION	SE/4 SW/4 358' FSL	2,113' FWL	Sec 15 T 9S	R 21E	
	Latitude: 40.029804	Longitude: -109.539762		NAD 83	
BTM HOLE LOCATION	NW/4 NW/4 566' FNL	789' FWL	Sec 22 T 9S	R 21E	
	Latitude: 40.027292	Longitude: -109.544487		NAD 83	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), Ute Tribe (Surface), UDOGM Tri-County Health Dept.				

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		20'		14"	
			12-1/4"	9-5/8", 36#, J-55, LTC	Air mist

All water flows encountered while drilling will be reported to the appropriate agencies.

Green River @	**1,698'**
Top of Birds Nest @	**1,956**
Mahogany @	**2,463**
Preset f/ GL @	**2,665' MD**

Note: 12.25" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.

Wasatch @	**5,013'**

Mud logging program TBD
Cased hole logging program from TD - surf csg

	7-7/8"	4-1/2" 11.6# I-180 & P-110 or equivalent LTC csg	Water / Fresh Water Mud 8.3-12.0 ppg

Mverde @	**7,954' TVD**
MVU2 @	**8,887' TVD**
MVU1 @	**9,471' TVD**

Max anticipated Mud required 12.0 ppg

TD @	**10,100' TVD**
	10,572' MD

'APIWellNo:43047505310000'

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								3,520	2,020	453,000
SURFACE	9-5/8"	0	to	2,665	36.00	J-55	LTC	0.82	1.62	6.01
								7,780	6,350	201,000
PRODUCTION	4-1/2"	0	to	10,122	11.60	I-80	LTC	1.91	1.09	2.01
								10,690	8,650	279,000
	4-1/2"	10,122	to	10,572	11.60	HCP-110	LTC	107.98	1.37	65.45

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

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
(Burst Assumptions: TD = 12.0 ppg) 0.22 psi/ft = gradient for partially evac wellbore
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 3,966 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
(Burst Assumptions: TD = 12.0 ppg) 0.61 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 6,477 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	380	0%	15.60	1.18
			+ 2% CaCl + 0.25 pps flocele				
			Premium cmt + 2% CaCl				
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**				
Option 2	LEAD	2,165'	65/35 Poz + 6% Gel + 10 pps gilsonite	510	35%	12.60	1.81
			+ 0.25 pps Flocele + 3% salt BWOW				
	TAIL	500'	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	4,512'	Premium Lite II + 3% KCl + 0.25 pps	430	40%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	6,060'	50/50 Poz/G + 10% salt + 2% gel	1,480	40%	14.30	1.31
			+ 0.1% R-3				

*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.

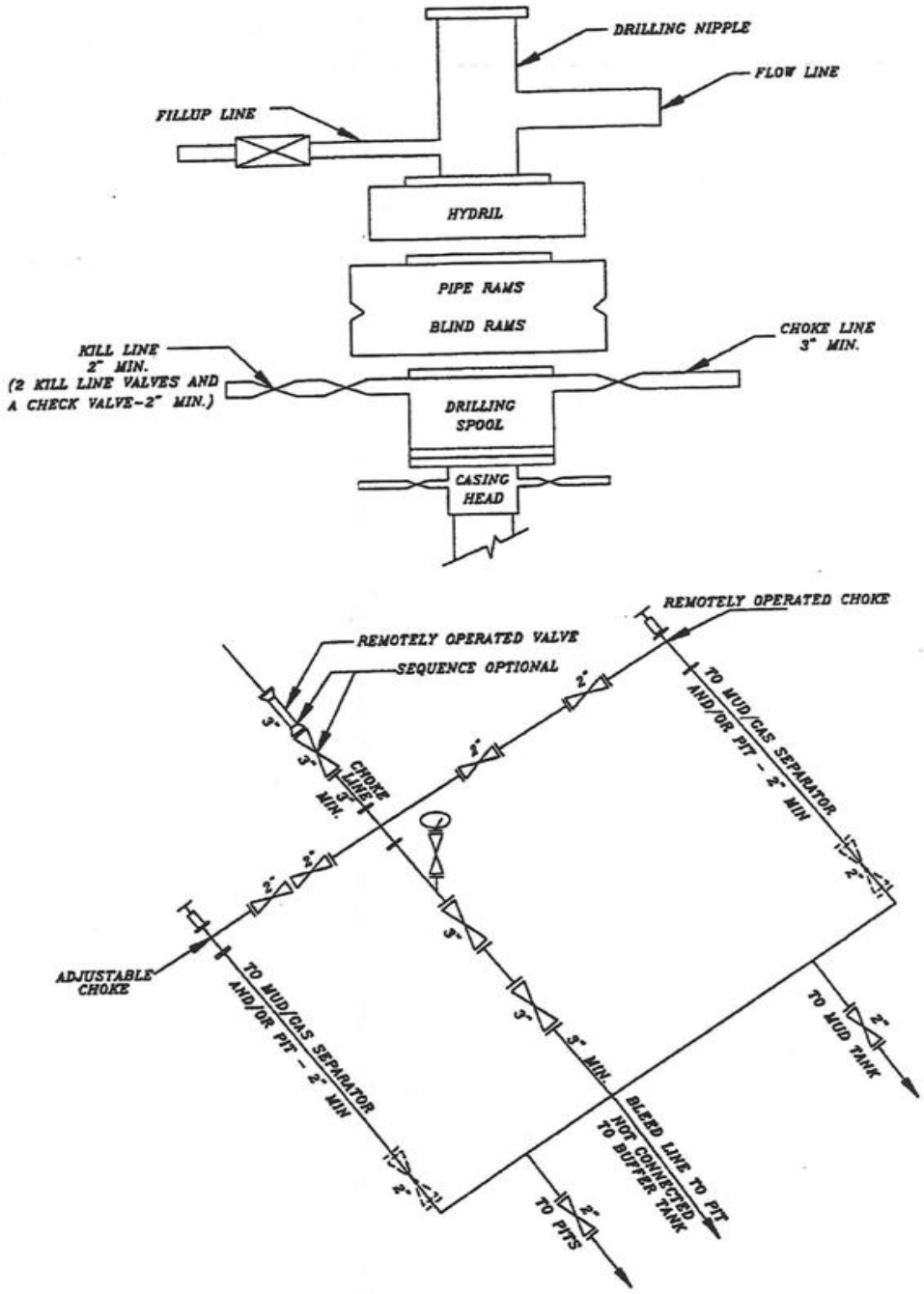
Surveys will be taken at 1,000' minimum intervals.

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

DRILLING ENGINEER: _____ **DATE:** _____
John Huycke / Emile Goodwin

DRILLING SUPERINTENDENT: _____ **DATE:** _____
John Merkel / Lovel Young

EXHIBIT A
NBU 921-22D1CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

'APIWellNo:43047505310000'

WELL PAD INTERFERENCE PLAT

DIRECTIONAL PAD – NBU 921-15N

RELATIVE COORDINATES
From Surface Position to Bottom Hole

WELL	NORTH	EAST
921-22D1BS	-574'	-1274'
921-22D1CS	-914'	-1324'
921-22C1CS	-804'	-62'
921-22C4BS	-1171'	-89'

SURFACE POSITION FOOTAGES:

NBU 921-22D1BS
357' FSL, 2093' FWL

NBU 921-22D1CS
358' FSL, 2113' FWL

NBU 921-22C1CS
359' FSL, 2133' FWL

NBU 921-22C4BS
360' FSL, 2153' FWL

NBU 921-15N (Existing Well Head)
360' FSL, 2173' FWL

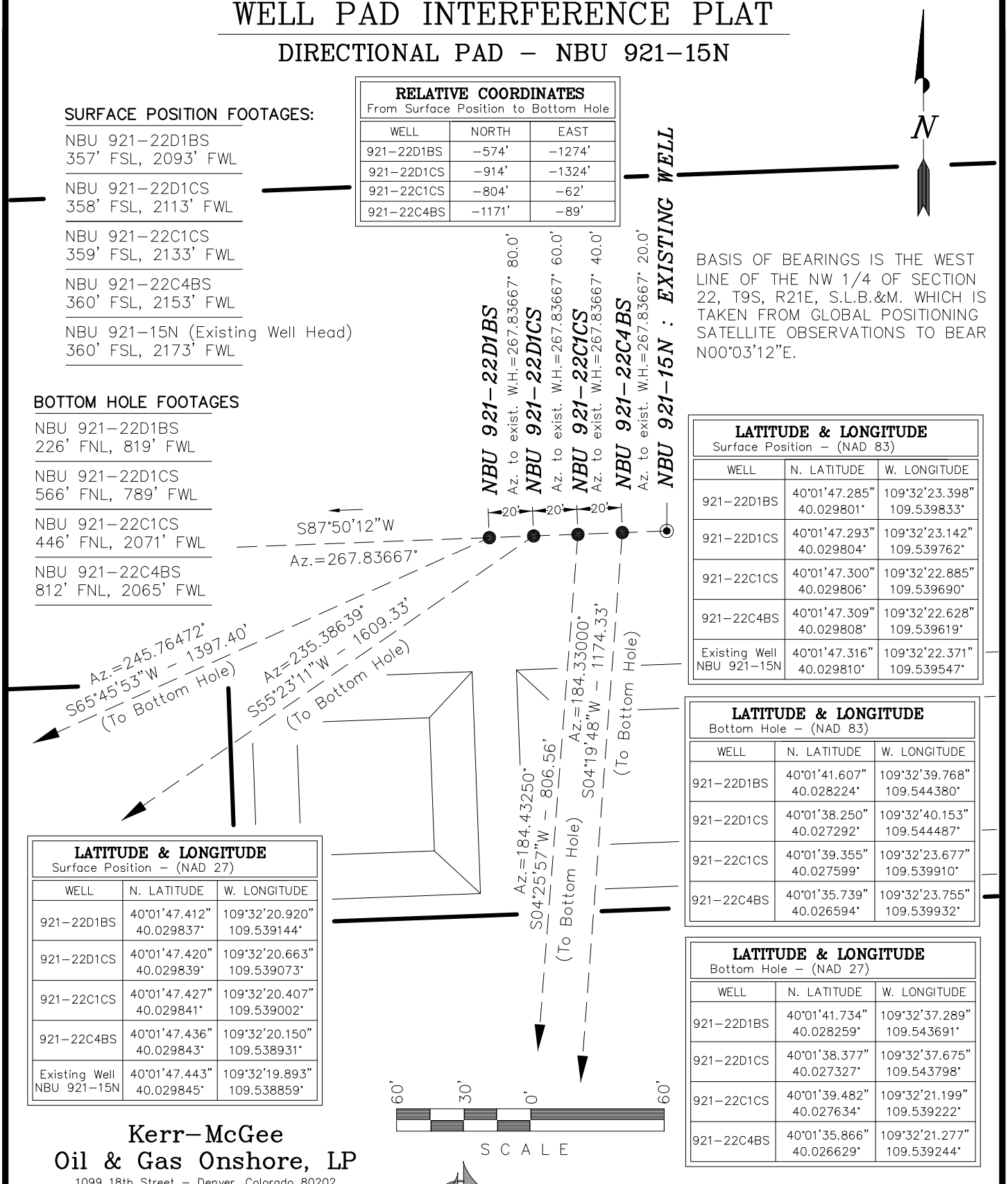
BOTTOM HOLE FOOTAGES

NBU 921-22D1BS
226' FNL, 819' FWL

NBU 921-22D1CS
566' FNL, 789' FWL

NBU 921-22C1CS
446' FNL, 2071' FWL

NBU 921-22C4BS
812' FNL, 2065' FWL



BASIS OF BEARINGS IS THE WEST LINE OF THE NW 1/4 OF SECTION 22, T9S, R21E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°03'12"E.

LATITUDE & LONGITUDE
Surface Position – (NAD 83)

WELL	N. LATITUDE	W. LONGITUDE
921-22D1BS	40°01'47.285" 40.029801°	109°32'23.398" 109.539833°
921-22D1CS	40°01'47.293" 40.029804°	109°32'23.142" 109.539762°
921-22C1CS	40°01'47.300" 40.029806°	109°32'22.885" 109.539690°
921-22C4BS	40°01'47.309" 40.029808°	109°32'22.628" 109.539619°
Existing Well NBU 921-15N	40°01'47.316" 40.029810°	109°32'22.371" 109.539547°

LATITUDE & LONGITUDE
Bottom Hole – (NAD 83)

WELL	N. LATITUDE	W. LONGITUDE
921-22D1BS	40°01'41.607" 40.028224°	109°32'39.768" 109.544380°
921-22D1CS	40°01'38.250" 40.027292°	109°32'40.153" 109.544487°
921-22C1CS	40°01'39.355" 40.027599°	109°32'23.677" 109.539910°
921-22C4BS	40°01'35.739" 40.026594°	109°32'23.755" 109.539932°

LATITUDE & LONGITUDE
Surface Position – (NAD 27)

WELL	N. LATITUDE	W. LONGITUDE
921-22D1BS	40°01'47.412" 40.029837°	109°32'20.920" 109.539144°
921-22D1CS	40°01'47.420" 40.029839°	109°32'20.663" 109.539073°
921-22C1CS	40°01'47.427" 40.029841°	109°32'20.407" 109.539002°
921-22C4BS	40°01'47.436" 40.029843°	109°32'20.150" 109.538931°
Existing Well NBU 921-15N	40°01'47.443" 40.029845°	109°32'19.893" 109.538859°

LATITUDE & LONGITUDE
Bottom Hole – (NAD 27)

WELL	N. LATITUDE	W. LONGITUDE
921-22D1BS	40°01'41.734" 40.028259°	109°32'37.289" 109.543691°
921-22D1CS	40°01'38.377" 40.027327°	109°32'37.675" 109.543798°
921-22C1CS	40°01'39.482" 40.027634°	109°32'21.199" 109.539222°
921-22C4BS	40°01'35.866" 40.026629°	109°32'21.277" 109.539244°

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

NBU 921-22D1BS, NBU 921-22D1CS,
NBU 921-22C1CS & NBU 921-22C4BS
LOCATED IN SECTION 15, T9S, R21E,
S.L.B.&M. UINTAH COUNTY, UTAH.

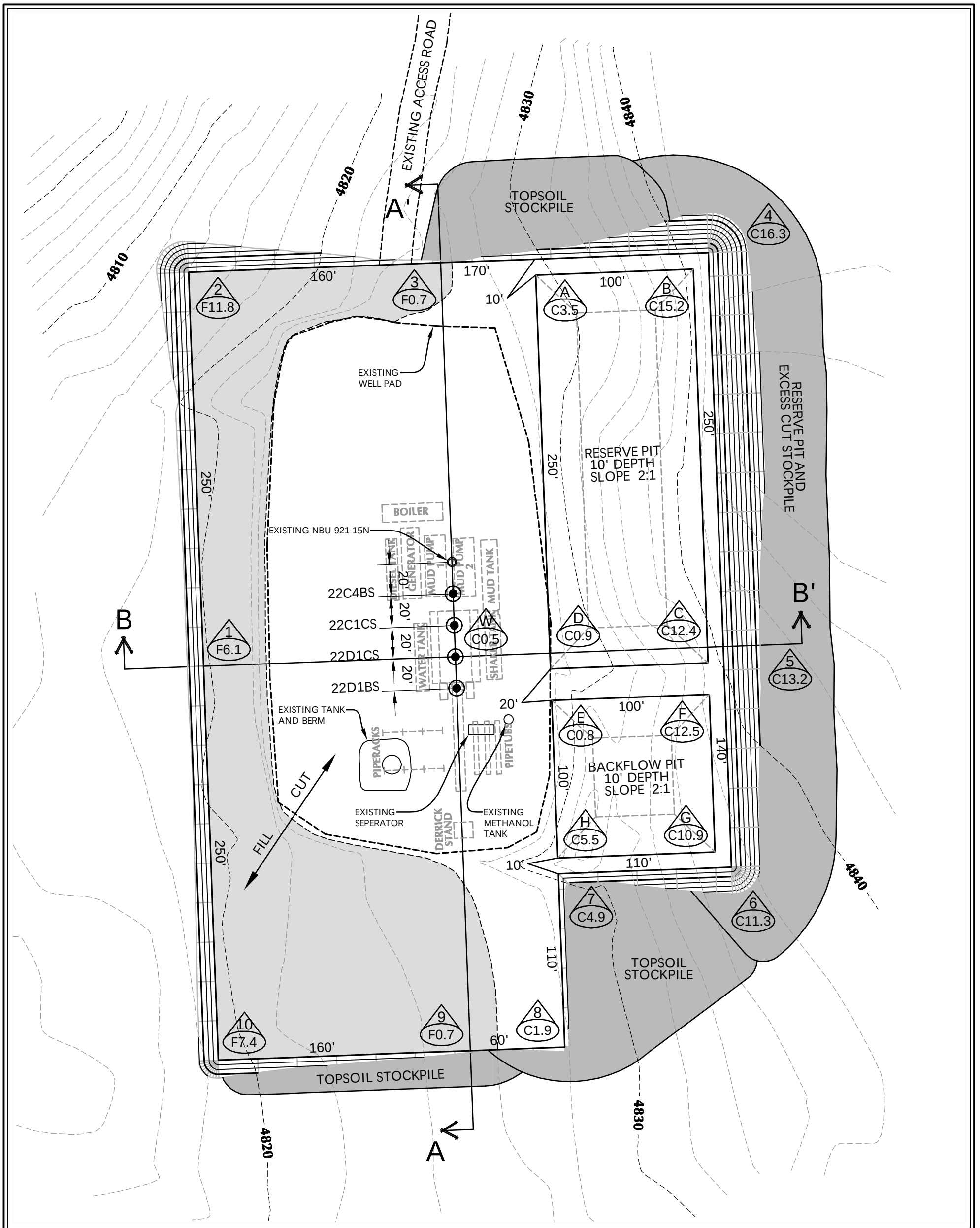
609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

DATE SURVEYED: 11-13-08	SURVEYED BY: M.S.B.
DATE DRAWN: 11-17-08	DRAWN BY: E.M.S.
	REVISED: 01-22-09

Timberline (435) 789-1365
Engineering & Land Surveying, Inc.
209 NORTH 300 WEST VERNAL, UTAH 84078

SHEET 5 OF 13

’APIWellNo:43047505310000’



K:\ANADARKO\2008_27_NBU_Directional_Wells\DWGS\NBU_DIRECTIONAL_JAN_FEB_2009_CESI.dwg, 2/9/2009 3:28:00 PM, PDF-XChange for AcroPlot Pro

WELL PAD NBU 921-15N QUANTITIES

EXISTING GRADE @ CENTER OF WELL PAD = 4,826.5'
FINISHED GRADE ELEVATION = 4,826.0'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 18,035 C.Y.
TOTAL FILL FOR WELL PAD = 8,842 C.Y.
TOPSOIL @ 6" DEPTH = 2,234 C.Y.
EXCESS MATERIAL = 9,193 C.Y.
TOTAL DISTURBANCE = 4.03 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 28,730 BARRELS
RESERVE PIT VOLUME
+/- 7,720 CY
BACKFLOW PIT CAPACITY (2' OF FREEBOARD)
+/- 9,490 BARRELS
BACKFLOW PIT VOLUME
+/- 2,660 CY

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)

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

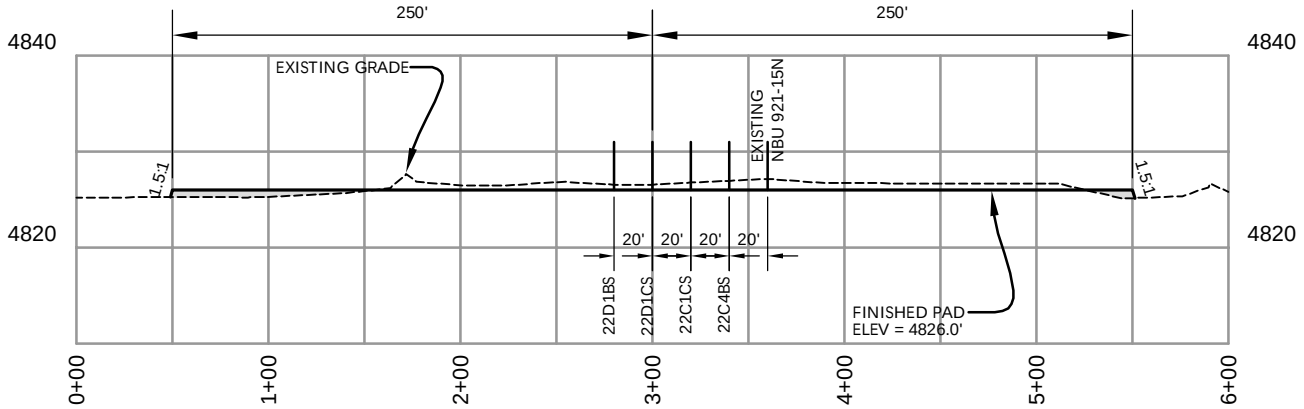
KERR-MCGEE OIL & GAS ONSHORE L.P.
1099 18th Street - Denver, Colorado 80202

WELL PAD - LOCATION LAYOUT
NBU 921-22D1BS, NBU 921-22D1CS,
NBU 921-22C1CS, NBU 921-22C4BS
LOCATED IN SECTION 15, T.9S., R.21E.
S.L.B.&M., UINTAH COUNTY, UTAH

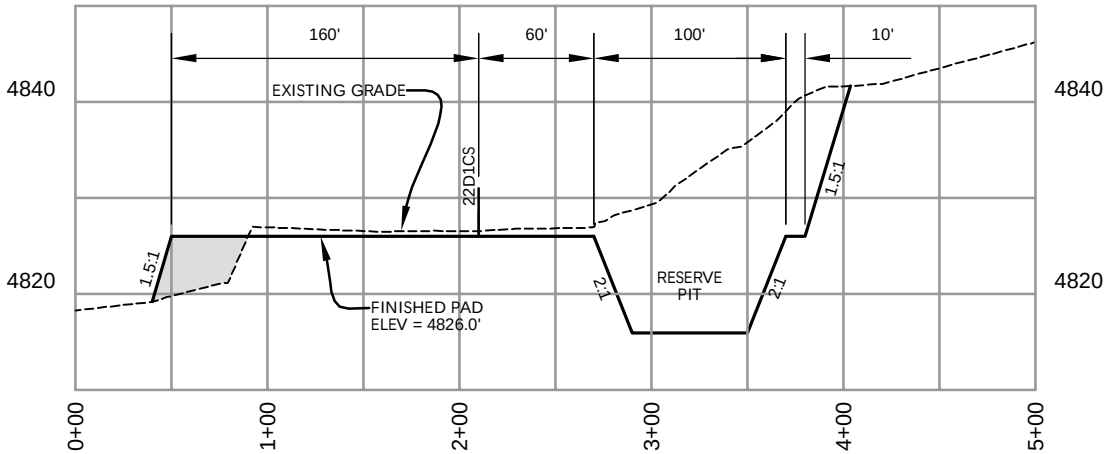
609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

Scale: 1"=60'	Date: 2/9/09	SHEET NO:
REVISED:	BY DATE	6 6 OF 13

Timberline Engineering & Land Surveying, Inc. (435) 789-1365
38 WEST 100 NORTH VERNAL, UTAH 84078



CROSS SECTION A-A'



CROSS SECTION B-B'

NOTE: CROSS SECTION B-B' DEPICTS MAXIMUM RESERVE PIT DEPTH.

KERR-MCGEE OIL & GAS
ONSHORE L.P.
1099 18th Street - Denver, Colorado 80202

WELL PAD - CROSS SECTIONS
NBU 921-22D1BS, NBU 921-22D1CS,
NBU 921-22C1CS, NBU 921-22C4BS
LOCATED IN SECTION 15, T.9S., R.21E.
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

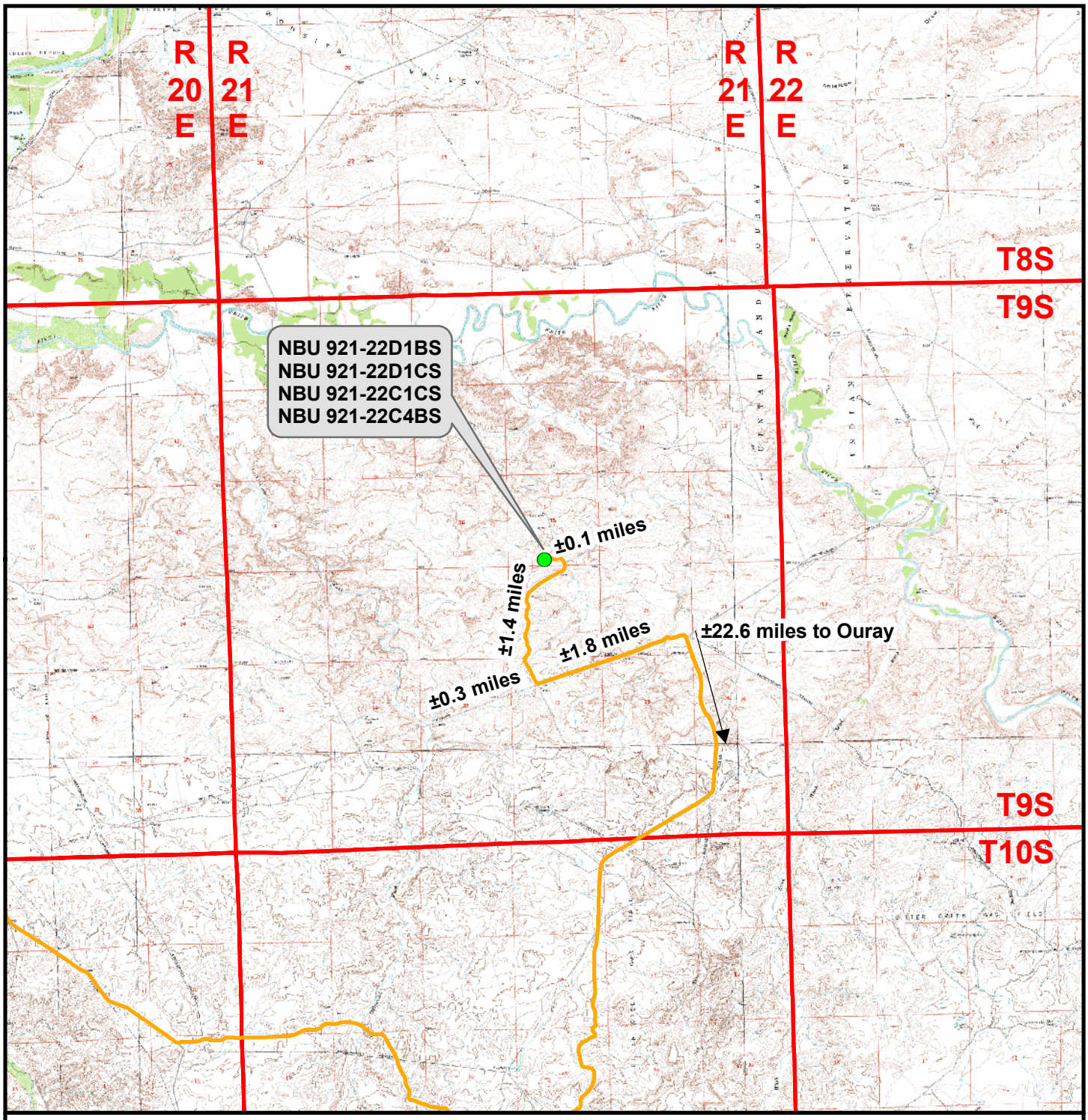
Scale: 1"=100'	Date: 2/9/09	SHEET NO:
REVISED:	BY DATE	7 OF 13

HORIZONTAL 0 50 100 1" = 100'
VERTICAL 0 10 20 1" = 20'

Timberline Engineering & Land Surveying, Inc.
38 WEST 100 NORTH VERNAL, UTAH 84078 (435) 789-1365

'APIWellNo:43047505310000'
K:\ANADARKO\2008_27_NBU_Directional_Wells\DWGS\NBU_DIRECTIONAL_JAN_FEB_2009_CESI.dwg, 2/9/2009 3:33:36 PM, PDF-XChange for AcroPlot Pro

’APIWellNo:43047505310000’



Legend

- Proposed Well Location
- Access Route - Proposed

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

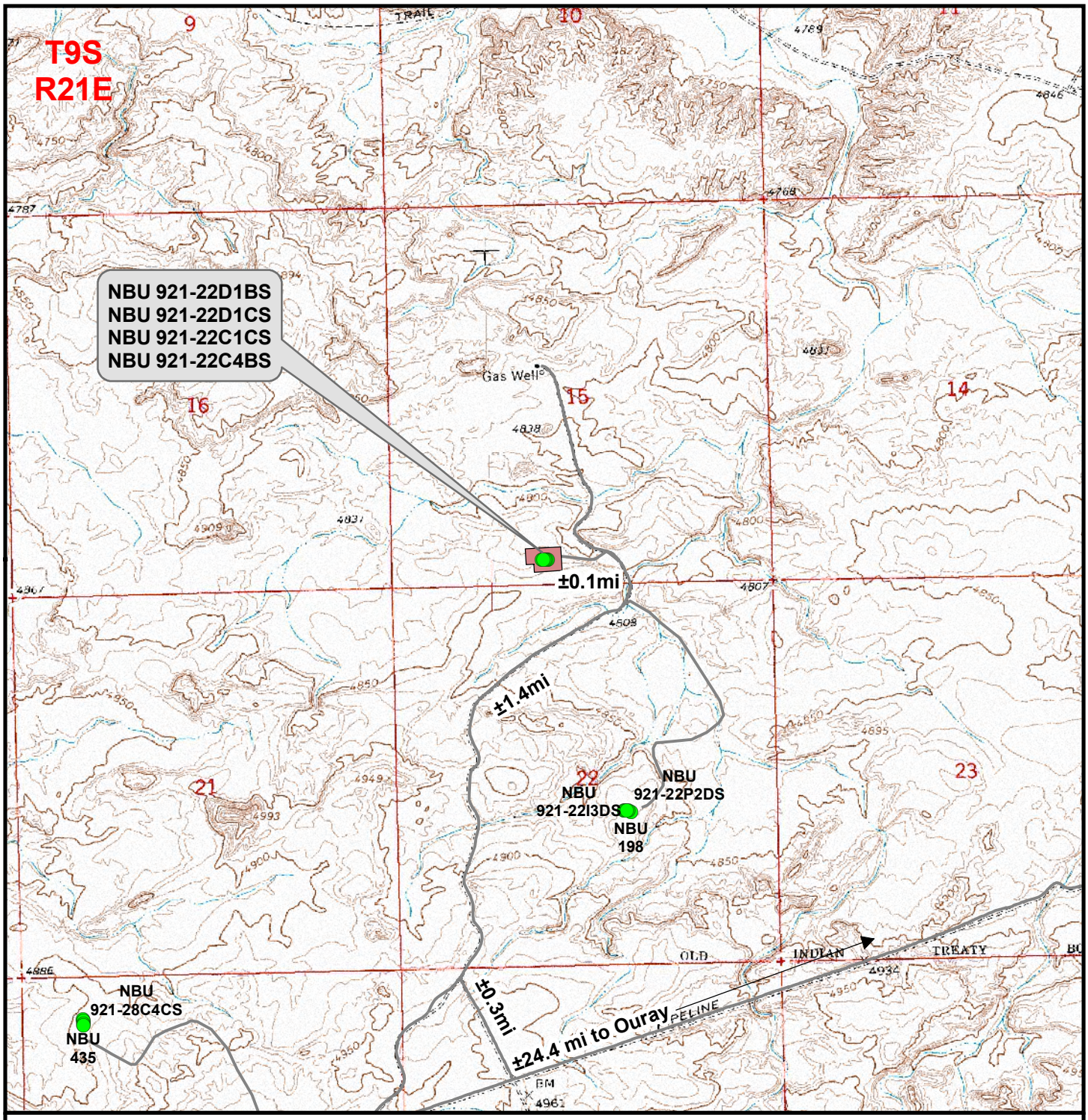
NBU 921-22D1BS, NBU 921-22D1CS, NBU 921-22C1CS & NBU 921-22C4BS
Topo A
Located In Section 15, T9S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1:100,000	NAD83 USP Central	Sheet No: 9	9 of 13
Drawn: JELo	Date: 10 Feb 2009		
Revised:	Date:		

’APIWellNo:43047505310000’



Legend

Total Proposed Road Length: ±0ft

Well - Proposed | Well Pad | Road - Proposed | Road - Existing

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

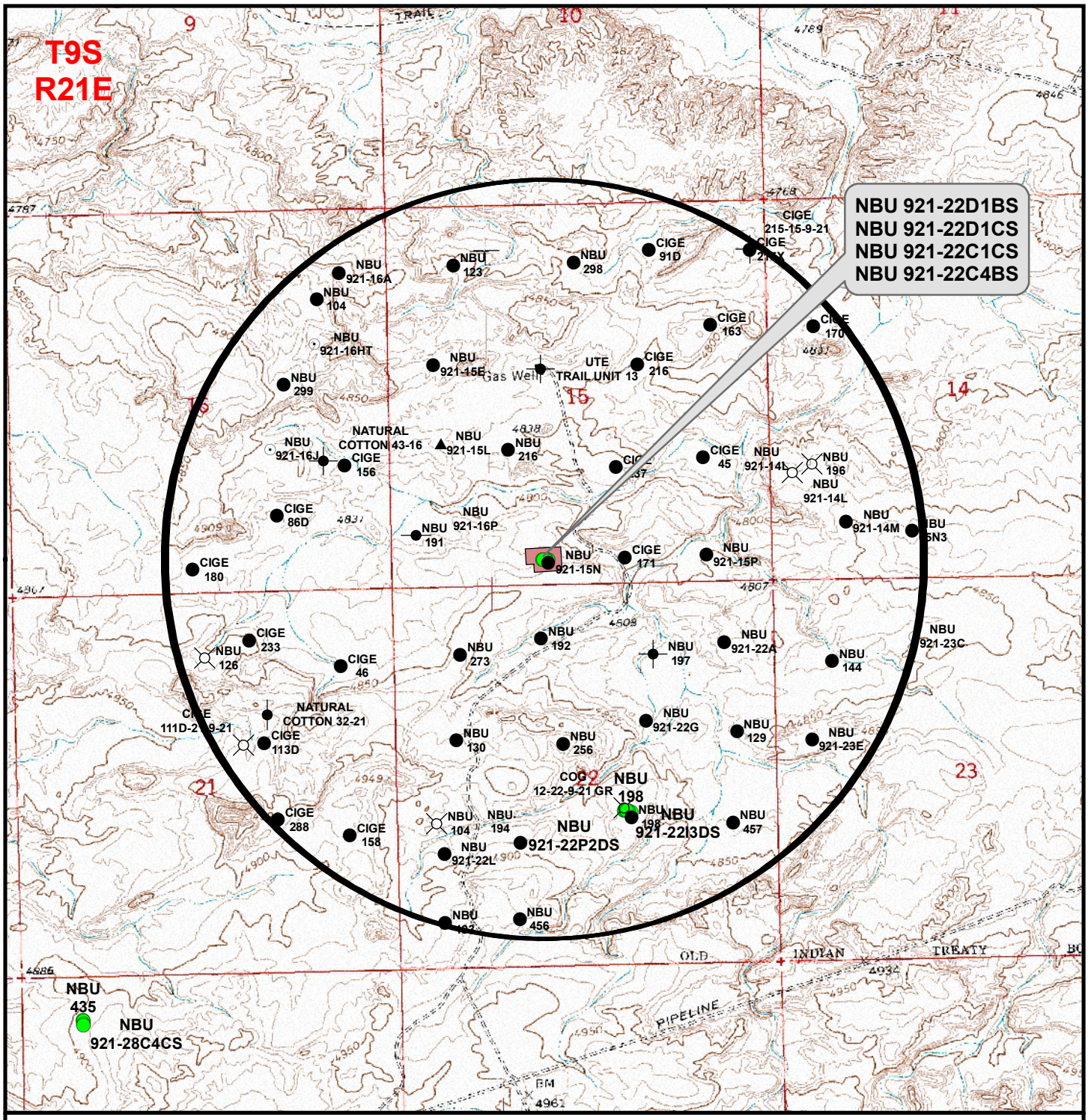
NBU 921-22D1BS, NBU 921-22D1CS, NBU 921-22C1CS & NBU 921-22C4BS
Topo B
Located In Section 15, T9S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2000ft	NAD83 USP Central	Sheet No: 10 of 13	
Drawn: JELo	Date: 10 Feb 2009		
Revised:	Date:		

’APIWellNo:43047505310000’



Legend

Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

- Well - Proposed
- Well - 1 Mile Radius
- Well Pad
- Producing
- Approved permit (APD); not yet spudded
- Spudded (Drilling commenced: Not yet comple
- Location Abandoned
- Temporarily-Abandoned
- Plugged and Abandoned
- Shut-In

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

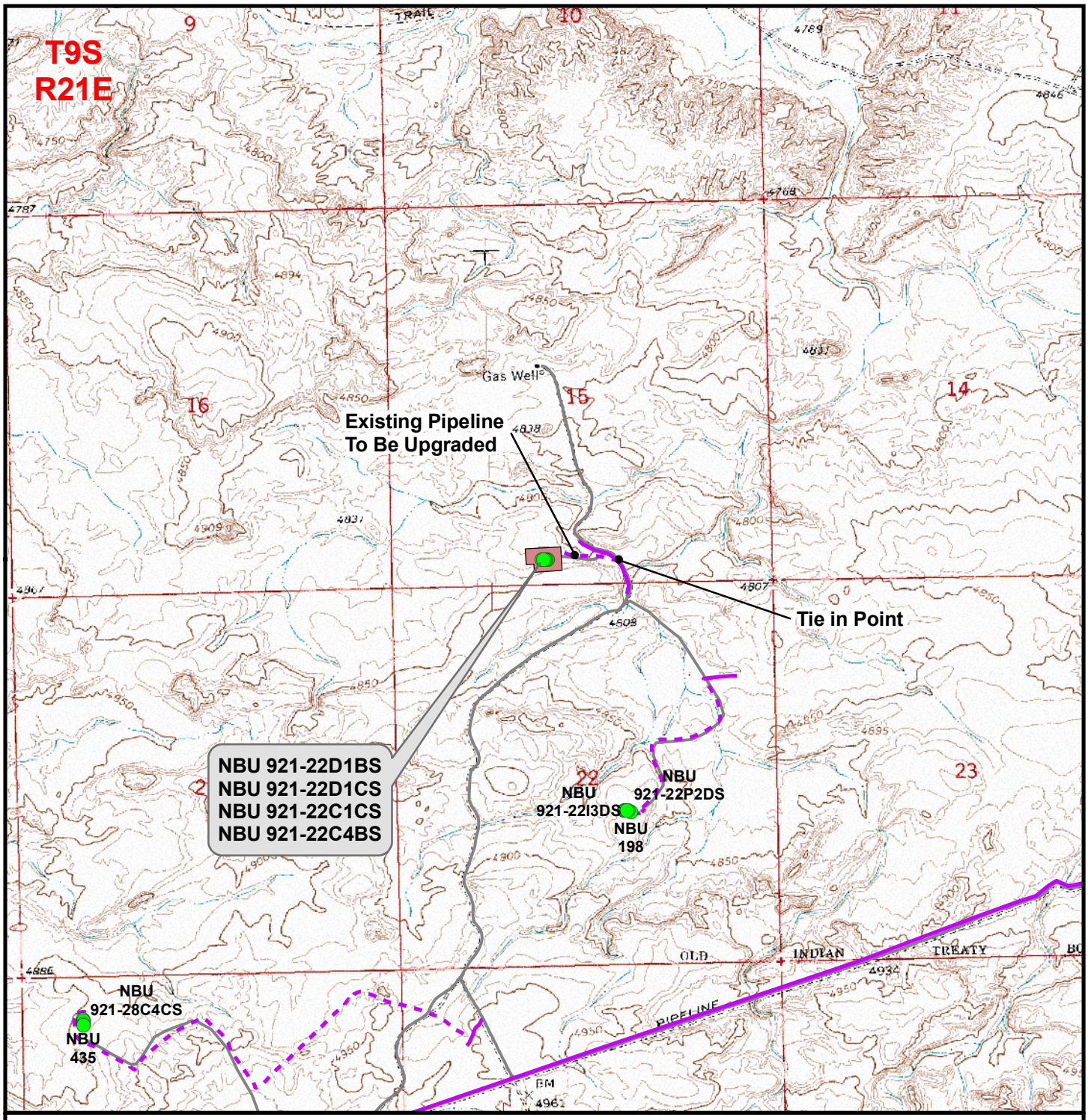
NBU 921-22D1BS, NBU 921-22D1CS, NBU 921-22C1CS & NBU 921-22C4BS
Topo C
Located In Section 15, T9S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2000ft	NAD83 USP Central	Sheet No: 11	11 of 13
Drawn: JELo	Date: 10 Feb 2009		
Revised:	Date:		

’APIWellNo:43047505310000’



Legend

Proposed Pipeline Length From Tie-In Point To Edge Of Pad: ±820ft
Proposed Pipeline Length Around Pad: ±660ft

Well - Proposed | Well Pad | Road - Proposed | Pipeline - Proposed | Road - Existing | Pipeline - Existing

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

NBU 921-22D1BS, NBU 921-22D1CS, NBU 921-22C1CS & NBU 921-22C4BS
Topo D
Located In Section 15, T9S, R21E
S.L.B.&M., Uintah County, Utah

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2000ft	NAD83 USP Central	Sheet No: 12 of 13	
Drawn: JELo	Date: 10 Feb 2009		
Revised:	Date:		

'APIWellNo:43047505310000'

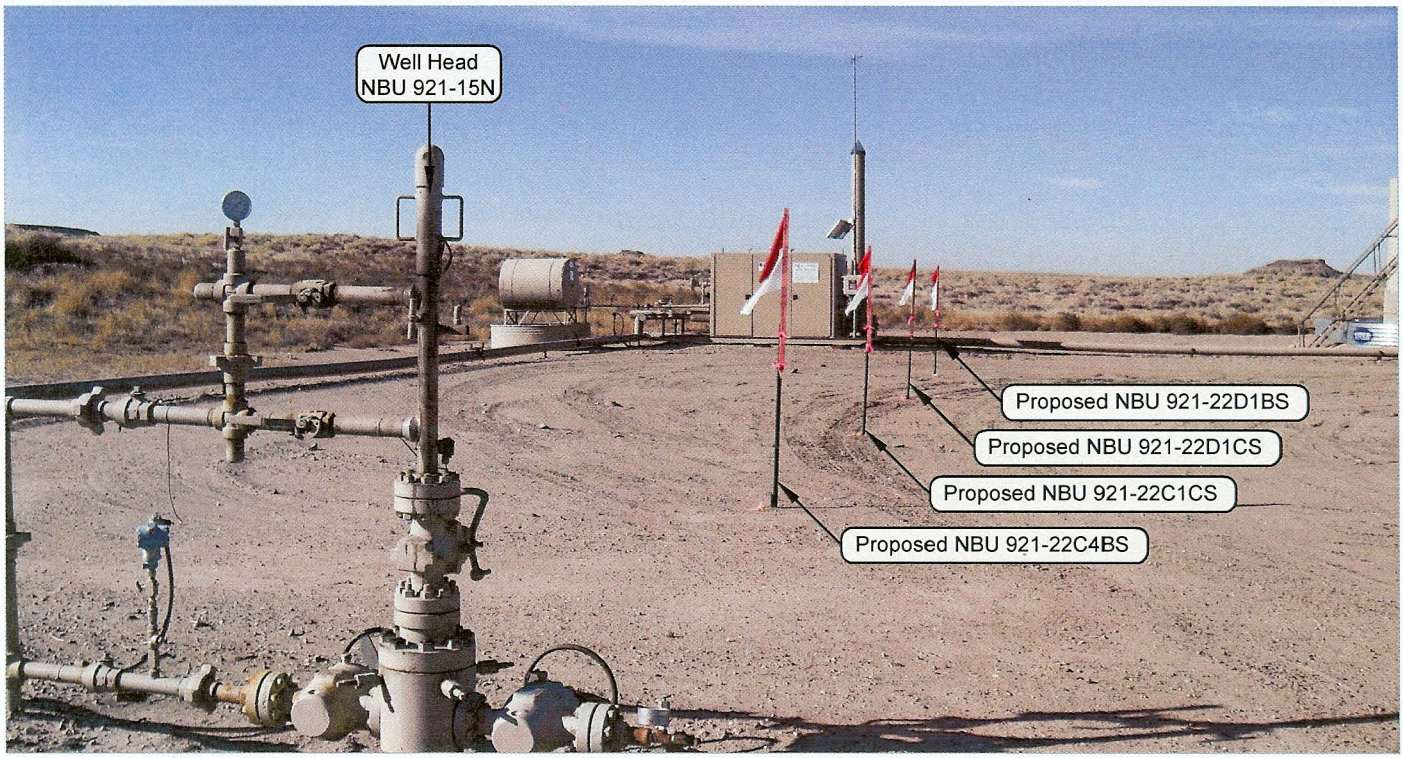


PHOTO VIEW: FROM EXISTING WELL HEAD TO LOCATION STAKES CAMERA ANGLE: SOUTHWESTERLY

PHOTO VIEW: FROM EXISTING ROAD CAMERA ANGLE: WESTERLY

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

NBU 921-22D1BS, NBU 921-22D1CS,
NBU 921-22C1CS & 921-22C4BS
LOCATED IN SECTION 15, T9S, R21E,
S.L.B.&M. UINTAH COUNTY, UTAH.

CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307–674–0609
Fax 307–674–0182

LOCATION PHOTOS		DATE TAKEN: 11-13-08
		DATE DRAWN: 11-14-08
TAKEN BY: M.S.B.	DRAWN BY: E.M.S.	REVISED:

Timberline (435) 789–1365
Engineering & Land Surveying, Inc.
38 WEST 100 NORTH VERNAL, UTAH 84078

Kerr-McGee Oil & Gas Onshore, LP
NBU 921-22D1BS, NBU 921-22D1CS, NBU 921-22C1CS & NBU 921-22C4BS
Section 15, T9S, R21E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 11.2 MILES TO THE INTERSECTION OF THE GLEN BENCH ROAD (COUNTY B ROAD 3260). EXIT LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION ALONG THE GLEN BENCH ROAD APPROXIMATELY 11.4 MILES TO A CLASS D COUNTY ROAD TO THE SOUTHWEST. EXIT LEFT AND PROCEED IN A SOUTHWESTERLY DIRECTION ALONG THE CLASS D COUNTY ROAD APPROXIMATELY 1.8 MILES TO A SECOND CLASS D COUNTY ROAD TO THE NORTH. EXIT RIGHT AND PROCEED IN A NORTH BY NORTHWEST DIRECTION ALONG THE SECOND CLASS D COUNTY ROAD APPROXIMATELY 0.3 MILES TO A THIRD CLASS D COUNTY ROAD TO THE NORTH. EXIT RIGHT AND PROCEED IN A NORTHERLY, THEN NORTHEASTERLY, THEN NORTHERLY DIRECTION ALONG THE THIRD CLASS D COUNTY ROAD APPROXIMATELY 1.4 MILES TO THE EXISTING ACCESS ROAD WHICH RUNS TO THE NBU 921-15N WELL PAD. EXIT LEFT AND PROCEED IN A WESTERLY DIRECTION ALONG THE ACCESS ROAD APPROXIMATELY 0.1 MILES TO THE EXISTING NBU 921-15N WELL PAD.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 56.9 MILES IN A SOUTHERLY DIRECTION.

NBU 921-22C1CS
Surface: 359' FSL, 2,133' FWL (SE/4SW/4) Sec. 15
BHL: 446' FNL 2,071' FWL (NE/4NW/4) Sec.22

NBU 921-22C4BS
Surface: 360' FSL, 2,153' FWL (SE/4SW/4) Sec. 15
BHL: 812' FNL 2,065' FWL (NE/4NW/4) Sec.22

NBU 921-22D1BS
Surface: 357' FSL, 2,093' FWL (SE/4SW/4) Sec. 15
BHL: 226' FNL 819' FWL (NW/4NW/4) Sec.22

NBU 921-22D1CS
Surface: 358' FSL, 2,113' FWL (SE/4SW/4) Sec. 15
BHL: 566' FNL 789' FWL (NW/4NW/4) Sec.22

Pad: NBU 921-15N
T9S R21E

Uintah, Utah
Mineral Lease: UTU 0147566

Surface Owner: Ute Indian Tribe

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN SUBMITTED WITH SITE-SPECIFIC INFORMATION

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) and Bureau of Indian Affairs (BIA) documents. NOSs were submitted showing the surface locations in SE/4 SW/4 of Section 15 T9S R21E.

This Surface Use Plan of Operations (SUPO) or 13-point plan provides the site-specific information for the above-referenced wells. This information is to be incorporated by reference into the Master Development Plan (MDP) for Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee). The MDP is available upon request from the BIA-Ft Duchesne Office.

An on-site meeting was held on June 24, 2009. Present were:

- Verlyn Pindell and Dave Gordon – BLM;
- Kolby Kay and Mitch Batty – Timberline Surveying, Inc.
- Tony Kazeck, Jeff Samuels, Raleen White, David Liddell, and Hal Blanchard – Kerr-McGee
- Bucky Secakuku – BIA
- Nick Hall – Grasslands Consulting, Inc.
- Scott Carson – Smiling Lake Consulting
- Keith Montgomery – Montgomery Archaeological Consultants, Inc.

Directional Drilling:
In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

1. Existing Roads:
A) Refer to Topo Map A for directions to the location.
B) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

2. Planned Access Roads:
See MDP for additional details on road construction.
No new access road is proposed. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site and are typically shown on the attached Exhibits and Topo maps.

3. Location of Existing Wells Within a 1-Mile Radius:
Please refer to Topo Map C.

4. Location of Existing and Proposed Facilities:
See MDP for additional details on Existing and Proposed Facilities.

The following guidelines will apply if the well is productive.
Approximately ±1,480' of new pipeline is proposed. Refer to Topo D for the existing pipeline.
Appropriate surface use agreements have been or will be obtained from the Ute Indian Tribe. Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place

5. Location and Type of Water Supply:
See MDP for additional details on Location and Type of Water Supply.

Water for drilling purposes will be obtained from Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, Application number 53617. Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

6. Source of Construction Materials:
See MDP for additional details on Source of Construction Materials.

7. Methods of Handling Waste Materials:
See MDP for additional details on Methods of Handling Waste Materials.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
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

8. Ancillary Facilities:
See MDP for additional details on Ancillary Facilities.

None are anticipated.

9. Well Site Layout: (See Location Layout Diagram)
See MDP for additional details on Well Site Layout.

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

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

10. Plans for Reclamation of the Surface:
See MDP for additional details on Plans for Reclamation of the Surface.

Kerr-McGee shall call the BIA for the seed mixture prior to starting interim and/or final reclamation actions.

11. Surface/Mineral Ownership:
The well pad and access road are located on lands owned by:

Ute Indian Tribe
PO Box 70
Fort Duchesne, Utah 84026
435-722-5141

The mineral ownership is listed below:

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

12. Other Information:

See MDP for additional details on Other Information.

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

Kathy Schneebeck Dulnoan
Staff Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6007

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 pursuant to 43 CFR 3104 for lease activities is being provided 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.

Kathy Schneebeck Dulnoan

June 29, 2009
Date

’APIWellNo:43047505310000’

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP’S 34 PROPOSED WELL LOCATIONS IN TOWNSHIP 9S, RANGE 21E, SECTIONS 11, 15, 18, 22, 25 AND 28 UINTAH COUNTY, UTAH

By:

Patricia Stavish

Prepared For:
Ute Tribal Land
Uintah and Ouray Agency

Bureau of Land Management
Vernal Field Office
and
State of Utah
School & Institutional Trust Lands Administration

Prepared Under Contract With:

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

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 08-319

February 19, 2009

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

Ute Tribal Permit No. A08-363

Paleontological Assessment for Anadarko Petroleum Corp.

NBU 921-22D1BS, D1CS, C1CS, C4BS

Ouray SE Quadrangle

Uintah County, Utah

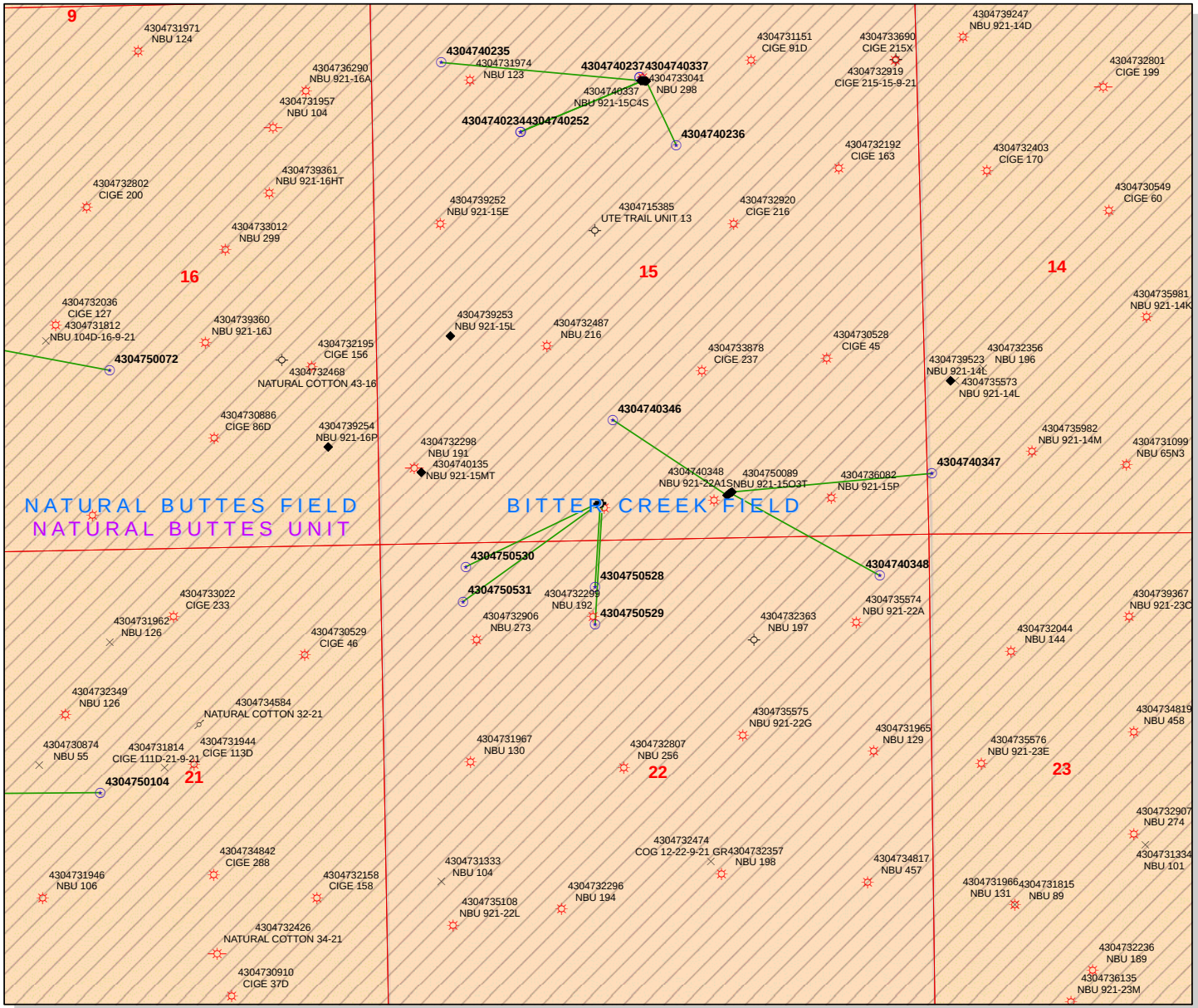
Prepared for

Anadarko Petroleum Corp.
and
Ute Tribe
Uintah and Ouray Reservation

Prepared by

SWCA Environmental Consultants

SWCA # UT09-14314-20



API Number: 4304750531

Well Name: NBU 921-22D1CS

Township 09.0 S Range 21.0 E Section 15

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units

STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields

STATUS
- ACTIVE
- COMBINED
- Sections

Wells Query Events
- <all other values>

GIS_STAT_TYPE
- <Null>
- APD
- DRL
- GI
- GS
- LA
- NEW
- OPS
- PA
- PGW
- POW
- RET
- SGW
- SOW
- TA
- TW
- WD
- WI
- WS

1,200 600 0 1,200 Feet

1:12,000

'APIWellNo:43047505310000'

Kerr-McGee Oil & Gas Onshore LP
1099 18th Street, Suite 1800
Denver, CO 80202-1918
P.O. Box 173779
Denver, CO 80217-3779
720-929-6000

April 6, 2009

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 921-22D1CS
T9S-R21E
Section 15: SESW (Surf), Section 22: NWNW (Bottom)
Surface: 358' FSL, 2113' FWL (Sec. 15)
Bottom Hole: 566' FNL, 789' FWL (Sec. 22)
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 Directional Drilling.

- Kerr-McGee's NBU 921-22D1CS 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

Lynn Padgett
Staff Landman

API Well No: 43047505310000

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)

July 2, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2009 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 2009 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50522	NBU 920-12M4CS	Sec 13 T09S R20E 0422 FNL 2135 FWL BHL Sec 12 T09S R20E 0240 FSL 0675 FWL
43-047-50523	NBU 920-13C1AS	Sec 13 T09S R20E 0389 FNL 2156 FWL BHL Sec 13 T09S R20E 0170 FNL 2600 FWL
43-047-50524	NBU 920-13C4BS	Sec 13 T09S R20E 0405 FNL 2146 FWL BHL Sec 13 T09S R20E 0920 FNL 2100 FWL
43-047-50525	NBU 920-14M1BS	Sec 14 T09S R20E 0468 FSL 0637 FWL BHL Sec 14 T09S R20E 1220 FSL 0675 FWL
43-047-50527	NBU 920-14M3AS	Sec 14 T09S R20E 0488 FSL 0633 FWL BHL Sec 14 T09S R20E 0590 FSL 0635 FWL
43-047-50528	NBU 921-22C1CS	Sec 15 T09S R21E 0359 FSL 2133 FWL BHL Sec 22 T09S R21E 0446 FNL 2071 FWL
43-047-50529	NBU 921-22C4BS	Sec 15 T09S R21E 0360 FSL 2153 FWL BHL Sec 22 T09S R21E 0812 FNL 2065 FWL
43-047-50530	NBU 921-22D1BS	Sec 15 T09S R21E 0357 FSL 2093 FWL BHL Sec 22 T09S R21E 0226 FNL 0819 FWL
43-047-50531	NBU 921-22D1CS	Sec 15 T09S R21E 0358 FSL 2113 FWL

BHL Sec 22 T09S R21E 0566 FNL 0789 FWL

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

/s/ Michael L. Coulthard

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

MCoulthard:mc:7-2-09

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 6/30/2009 **API NO. ASSIGNED:** 43047505310000

WELL NAME: NBU 921-22D1CS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: SESW 15 090S 210E **Permit Tech Review:** ☑

SURFACE: 0358 FSL 2113 FWL **Engineering Review:** ☑

BOTTOM: 0566 FNL 0789 FWL **Geology Review:** ☑

COUNTY: UINTAH

LATITUDE: 40.02982 **LONGITUDE:** -109.53905

UTM SURF EASTINGS: 624658.00 **NORTHINGS:** 4431879.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU 0147566 **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

SURFACE OWNER: 2 - Indian **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ☑ **PLAT**
- ☑ **Bond:** FEDERAL - WYB000291
- ☐ **Potash**
- ☑ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☑ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☑ **Intent to Commingle**

Commingling 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: 460' fr u bdry & uncomm. tract

- ☑ **R649-3-11. Directional Drill**

Comments: Presite Completed
BHL NWNW SEC 22:

Stipulations: 3 - Commingling - ddoucet
4 - Federal Approval - dmason
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason

JON M. HUNTSMAN, JR.
Governor
GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: NBU 921-22D1CS
API Well Number: 43047505310000
Lease Number: UTU 0147566
Surface Owner: INDIAN
Approval Date: 7/30/2009

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

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.

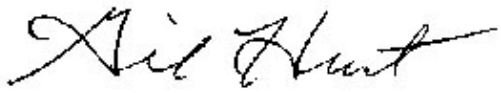
Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at http://oilgas.ogm.utah.gov

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:



Gil Hunt
Associate Director, Oil & Gas

API Well No: 43047505310000

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: UTU 0147566

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-22D1CS

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

9. API NUMBER: 43047505310000

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

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0358 FSL 2113 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 15 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 8/3/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SPUD REPORT Date of Spud:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ DRILLING REPORT Report Date:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: August 03, 2010

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE		**DATE**
N/A		8/3/2010

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources
Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047505310000

API: 43047505310000
Well Name: NBU 921-22D1CS
Location: 0358 FSL 2113 FWL QTR SESW SEC 15 TWNP 090S RNG 210E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 7/30/2009

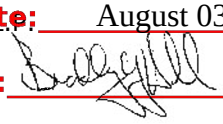
The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Approved by the Utah Division of Oil, Gas and Mining

Signature: Danielle Piernot **Date:** 8/3/2010
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: August 03, 2010

By: 

RECEIVED August 03, 2010

SUBMIT AS EMAIL | Print Form

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By ANDY LYTLE Phone Number 720.929.6100
Well Name/Number NBU 921-22D1CS
Qtr/Qtr SESW Section 15 Township 9S Range 21E
Lease Serial Number UTU-0147566
API Number 4304750531

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

Date/Time 05/14/2011 12:00 HRS AM ☐ PM ☐

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

RECEIVED
MAY 16 2011
DIV. OF OIL, GAS & MINING

- ☑ Surface Casing
- ☐ Intermediate Casing
- ☐ Production Casing
- ☐ Liner
- ☐ Other

Date/Time 05/24/2011 16:00 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 435.781.7048 OR LOVEL YOUNG AT 435.828.0986

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: UTU 0147566

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-22D1CS

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

9. API NUMBER: 43047505310000

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

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0358 FSL 2113 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 15 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud: 5/14/2011	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL LOCATION ON 05/14/2011 AT 12:45 HRS.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Sheila Wopsock	435 781-7024	Regulatory Analyst
SIGNATURE N/A		**DATE** 5/17/2011

RECEIVED May. 17, 2011

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

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0147566

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-22D1CS

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

9. API NUMBER: 43047505310000

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

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0358 FSL 2113 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 15 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 5/26/2011	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

MIRU AIR RIG ON MAY 23, 2011. DRILLED SURFACE HOLE TO 2860'. 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

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 5/26/2011

RECEIVED May. 26, 2011

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: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078
Phone Number: (435) 781-7024

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750529	NBU 921-22C4BS		SESW	15	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	5/14/2011			5/31/11	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 05/14/2011 AT 0900 HRS BHL = Sec 22 NENW

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750528	NBU 921-22C1CS		SESW	15	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	5/14/2011			5/31/11	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 05/14/2011 AT 10:25 HRS. BHL = Sec 22 NENW

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750531	NBU 921-22D1CS		SESW	15	9S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	5/14/2011			5/31/11	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 05/14/2011 AT 12:45 HRS. BHL = Sec 22 NWNW

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)

SHEILA WOPSOCK
Name (Please Print)
Signature
REGULATORY ANALYST
Title
5/16/2011
Date

RECEIVED
MAY 18 2011
DIV. OF OIL, GAS & MINING

(5/2000)

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

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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5.LEASE DESIGNATION AND SERIAL NUMBER: UTU 0147566

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-22D1CS

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

9. API NUMBER: 43047505310000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0358 FSL 2113 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 15 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
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☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 7/5/2011	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

MIRU ROTARY RIG. FINISHED DRILLING FROM 2860' TO 10,484' ON JUNE 30, 2011. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING TO 9856'. RAN 4 ½" 11.6# P110 CSG FROM 9856' TO 10,477'. CEMENTED PRODUCTION CASING. RELEASED ENSIGN RIG 145 ON JULY 5, 2011 @ 18:30 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 7/6/2011

RECEIVED Jul. 06, 2011

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: UTU 0147566

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-22D1CS

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

9. API NUMBER: 43047505310000

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

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0358 FSL 2113 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 15 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 8/29/2011	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 08/29/2011 AT 3:00 PM. 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

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Sheila Wopsock	435 781-7024	Regulatory Analyst
SIGNATURE N/A		**DATE** 8/30/2011

RECEIVED Aug. 30, 2011

Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. UTU0147566

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No. UTU63047A

2. Name of Operator KERR MCGEE OIL & GAS ONSHORE LP — Contact: JAIME L. SCHARNOWSKE — E-Mail: JAIME.SCHARNOWSKE@ANADARKO.COM

8. Lease Name and Well No. NBU 921-22D1CS

3. Address PO BOX 173779 DENVER, CO 80217

3a. Phone No. (include area code) Ph: 720-929-6304

9. API Well No. 43-047-50531

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
At surface SESW 358FSL 2113FWL 40.029804 N Lat, 109.539761 W Lon Sec 15 T9S R21E Mer SLB
At top prod interval reported below NWNW 548FNL 782FWL Sec 22 T9S R21E Mer SLB
At total depth NWNW 575FNL 793FWL

10. Field and Pool, or Exploratory NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey or Area Sec 15 T9S R21E Mer SLB

12. County or Parish UINTAH

13. State UT

14. Date Spudded 05/14/2011

15. Date T.D. Reached 06/30/2011

16. Date Completed ☐ D & A ☒ Ready to Prod. 08/29/2011

17. Elevations (DF, KB, RT, GL)* 4826 GL

18. Total Depth: MD 10484 TVD 10184

19. Plug Back T.D.: MD 10431 TVD 10131

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
CBL/GR/CT-TCOMBO-RAW

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20.000	14.000 STL	36.7		40		28			
12.250	9.625 J-55	40.0		2838		525		0	
7.875	4.500 I-80	11.6		9856		1752		1880	
7.875	4.500 P-110	11.6	9856	10477					

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	9817							

25. Producing Intervals / 26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) MESAVERDE	8264	10177	8264 TO 10177	0.360	185	OPEN
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
8264 TO 10177	PUMP 8,252 BBLS SLICK H2O & 158,358 LBS SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
08/29/2011	09/01/2011	24	→	0.0	2465.0	260.0			FLOWS FROM WELL

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
20/64	1750 SI	2725.0	→	0	2465	260		PGW

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #120119 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

RECEIVED
OCT 18 2011
DIV. OF OIL, GAS & MINING

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*
SOLD

30. 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.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
GREEN RIVER	1597				
BIRD'S NEST	1947				
MAHOGANY	2311				
WASATCH	5286	8235			
MESAVERDE	8235	10484	TD		

32. Additional remarks (include plugging procedure):
Attached is the chronological well history, perforation report & final survey.

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #120119 Verified by the BLM Well Information System.
For KERR MCGEE OIL & GAS ONSHORE,L, sent to the Vernal

Name *(please print)* JAIME L. SCHARNOWSKE Title REGULATORY ANALYST

Signature (Electronic Submission) Date 10/13/2011

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

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22D1CS YELLOW	Spud Conductor: 5/14/2011	Spud Date: 5/23/2011	
Project: UTAH-UINTAH	Site: NBU 921-15N PAD		Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011		End Date: 7/5/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/358/W/0/2113/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
5/23/2011	16:00 - 18:00	2.00	MIRU	01	C	P		SKID RIG & RIG UP
	18:00 - 20:00	2.00	PRPSPD	14	A	P		WELD ON CONDUCTOR & RIG UP FLOWLINE
	20:00 - 20:30	0.50	PRPSPD	06	A	P		PU 12.25" BIT (SN 7133231) & 8" MM (SN 8064)
	20:30 - 22:00	1.50	DRLSUR	02	B	P		SPUD 12.25" SURFACE HOLE F/ 40'- T/ 225' /// ROP=185' @123'/hr /// WOB=16-18K /// RPM= 55/100 /// SPP= 970/780 /// GPM= 595
	22:00 - 0:00	2.00	DRLSUR	06	A	P		TOOH & PU DIR TOOLS & SCRIBE /// TIH T/ 225'
5/24/2011	0:00 - 6:00	6.00	DRLSUR	02	D	P		DIR DRLG 12.25" SURFACE HOLE F/ 225'- T/ 771' /// ROP= 546' @ 91'/hr /// WOB= 18-22K /// RPM= 50/100 /// SPP= 1000/780 /// GPM= 595 /// NO LOSSES
	6:00 - 18:00	12.00	DRLSUR	02	D	P		DIR DRLG 12.25" SURFACE HOLE F/ 771'- T/ 1754' /// ROP= 983' @ 82'/hr /// WOB= 18-22K /// RPM= 50/100 /// SPP= 1330/1000 /// GPM= 595 /// NO LOSSES
	18:00 - 0:00	6.00	DRLSUR	02	D	P		DIR DRLG 12.25" SURFACE HOLE F/ 1754'- T/ 2229' /// ROP= 475' @ 79'/hr /// WOB= 18-22K /// RPM= 50/100 /// SPP= 1350/1050 /// GPM= 595 /// NO LOSSES
5/25/2011	0:00 - 11:00	11.00	DRLSUR	02	D	P		DIR DRLG 12.25" SURFACE HOLE F/ 2229'- T/ 2860 T.D. /// ROP= 475' @ 79'/hr /// WOB= 18-22K /// RPM= 50/100 /// SPP= 1350/1050 /// GPM= 595 /// NO LOSSES
	11:00 - 12:30	1.50	DRLSUR	05	C	P		CIRCULATE AND CONDITION MUD PRIOR TO LDDS
	12:30 - 14:00	1.50	DRLSUR	06	A	P		TOOH REALLY TIGHT OFF BOTTOM PULLED 15 JOINTS (PUMPED 12 OUT) AND TRIPPED BACK TO BOTTOM
	14:00 - 15:00	1.00	DRLSUR	05	C	P		CIRCULATE AND CONDITION MUD
	15:00 - 20:30	5.50	DRLSUR	06	A	P		TOOH FOR BIT AND BHA LAYING DOWN DRILL STRING
	20:30 - 0:00	3.50	DRLSUR	12	C	P		RIG UP AND BEGIN RUNNING 9 5/8 40# CASING
5/26/2011	0:00 - 5:00	5.00	DRLSUR	12	C	P		RUN 67 JOINTS 9 5/8 40# J55 SURFACE CASING SHOE AT 2833' BAFFLE AT 2790' WASH LAST 3 JOINTS TO BOTTOM
	5:00 - 7:00	2.00	DRLSUR	12	E	P		TEST LINES TO 2500 PSI // PUMP 25 BBL SPACER // LEAD= 200 SX CLASS G CMT @ 3.83 YIELD & 11.0 WT // TAIL= 225 SX CLASS G CMT @ 1.15 YIELD & 15.8 WT // DROP PLUG & DIEPLACE W/ 158 BBL'S WATER // PLUG DN // BUMP PLUG W/ 625 PSI // FINAL LIFT = 245 PSI // CHECK FLOATS-HELD W/ 2 BBL'S BACK // 20 BBLS TO SURFACE
	7:00 - 7:30	0.50	DRLSUR	14	A	P		CUT CONDUCTOR AND RIG DOWN FLOW LINE
	7:30 - 8:30	1.00	DRLSUR	12	E	P		RUN 180' OF 1" IN HOLE PUMP 100 SX OF TAIL CMNT

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22D1CS YELLOW	Spud Conductor: 5/14/2011	Spud Date: 5/23/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011	End Date: 7/5/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/358/W/0/2113/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	8:30 - 8:30	0.00	DRLSUR					CONDUCTOR CASING: Cond. Depth set: 40 Cement sx used: 28 SPUD DATE/TIME: 5/23/2011 20:30 SURFACE HOLE: Surface From depth: 40 Surface To depth: 2,860 Total SURFACE hours: 36.50 Surface Casing size: 9-5/8" # of casing joints ran: 67 Casing set MD: 2,833.0 # sx of cement: 200/225/100 Cement blend (ppg:) 11/15.8/15/8 Cement yield (ft3/sk): 3.82/1.15/1.15 # of bbls to surface: 35 Describe cement issues: NONE Describe hole issues: NONE
6/21/2011	18:00 - 19:30	1.50	MIRU	23		P		PERFORMED HAIR FOLLICLE AND URINE ANALYSIS FOR CONTROLED SUBSTANCES ON CREWS 1 1/2 HR. PREPARED RIG FOR SKID.
	19:30 - 21:30	2.00	MIRU	01	C	P		HELD SAFETY MEETING AND WALK RIG 20' OVER WELL 3 OF 4. SET DOWN BOP. CENTERED AND LEVELED RIG OVER HOLE.
	21:30 - 23:00	1.50	MIRU	14	A	P		NIPPLE UP BOP. INSTALL TURN BUCKLES AND FLOW LINE IN SUB. SET IN AND RIG UP CATWALK. P/U TEST JT.
	23:00 - 0:00	1.00	MIRU	15	A	P		HOLD SAFETY MEETING. TEST TOP DRIVE VALVE, FLOOR VALVE, DART VALVE, PIPE RAMS TO 5000 PSI FOR 10 MIN AND 250 PSI FOR 5 MIN.
6/22/2011	0:00 - 4:00	4.00	MIRU	15	A	P		TEST BOP WITH SINGLE JACK, 250 LOW 5000 HIGH, TEST HCR, MANUEL HCR, BLIND RAMS, INSIDE/OUTSIDE KILL, CHOKE MANIFOLD TO 250 LOW 5000 HIGH, TEST ANNULAR TO 2500 AND CASING TO 1500, RIG DOWN TESTER, INSTALL WEAR BUSHING, PRE DRILL INSPECTION
	4:00 - 7:00	3.00	DRLPRO	06	A	P		TRIP IN HOLE, PICK UP BIT, MOTOR & DIRECTIONAL TOOLS, SCRIBE MWD TOOL, TRIP IN HOLE TO 2579'
	7:00 - 9:00	2.00	DRLPRO	09	A	P		SLIP CUT 133' DRILL LINE 20.5 WRAPS
	9:00 - 9:30	0.50	DRLPRO	06	A	P		INSTALL ROTATE HEAD, FILL PIPE, TRIP 3 STANDS IN TO 2764'
	9:30 - 10:30	1.00	DRLPRO	02	F	P		DRILL CEMENT AND FLOAT EQUI. & CLEAN OUT OPEN HOLE BELOW SURFACE CASING, F/ 2764 TO 2864
	10:30 - 14:00	3.50	DRLPRO	02	D	P		DRILL F/ 2864' TO 3217' = 353' 100.8 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 921/1219 MOTOR RPM / ROTARY RPM, 113/55 TQ ON / OFF BOTTOM 7K/5K FT/LBS PU / SO / ROT WT 122 / 108 / 115 WT ON BIT 15K TO 25K NO LOSS, DRILLING WITH WATER
	14:00 - 14:30	0.50	DRLPRO	07	A	P		DAILY RIG SERVICE

US ROCKIES REGION

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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	14:30 - 0:00	9.50	DRLPRO	02	D	P		DRILL F/ 3217' TO 4212' = 995' 104.7 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1019/1454 MOTOR RPM / ROTARY RPM, 113/55 TQ ON / OFF BOTTOM 9K/7K FT/LBS PU / SO / ROT WT 152 / 110 / 126 WT ON BIT 15K TO 25K NO LOSS, DRILLING WITH WATER
6/23/2011	0:00 - 13:30	13.50	DRLPRO	02	D	P		DRILL F/ 4212' TO 5301' = 1089' 80.6 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1281/1675 MOTOR RPM / ROTARY RPM, 113/55 TQ ON / OFF BOTTOM 10K/9K FT/LBS PU / SO / ROT WT 166 / 139 / 146 WT ON BIT 15K TO 25K NO LOSS, DRILLING WITH WATER
	13:30 - 14:00	0.50	DRLPRO	07	A	P		DAILY RIG SERVICE
	14:00 - 22:00	8.00	DRLPRO	02	D	P		DRILL F/ 5301' TO 6379' = 1078' 134.7 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1324/1594 MOTOR RPM / ROTARY RPM, 113/47 TQ ON / OFF BOTTOM 10K/9K FT/LBS PU / SO / ROT WT 180 / 146 / 164 WT ON BIT 15K TO 25K NO LOSS, DRILLING WITH WATER
	22:00 - 23:30	1.50	DRLPRO	05	A	X		LOST CIRCULATION ON CONNECTION, PUMP HIGH VIS LCM SWEEPS, GOT SOME RETURNS WITH GAS, CIRCULATE CLOSE IN & MUD UP SYSTEM WITH MUD FROM PRE MIX TANK 45 VIS 12.5 WT 5% LCM, 15' FLARE ON BUSTER, FOR 1/2 HR, GOOD OIL SHOW @ 6379', AFTER MUD UP 31 VIS 9.6 WT 3% LCM
	23:30 - 0:00	0.50	DRLPRO	02	D	P		DRILL F/ 6379' TO 6415' = 36' 72 FPH 15' OF SLIDE
6/24/2011	0:00 - 12:00	12.00	DRLPRO	02	D	P		DRILL F/ 6415' TO 7298' = 883' 73 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1650/1927 MOTOR RPM / ROTARY RPM, 113/47 TQ ON / OFF BOTTOM 10K/9K FT/LBS PU / SO / ROT WT 206 / 155 / 170 WT ON BIT 15K TO 25K NO LOSS, 32 VIS, 9.6 WT, 10% LCM
	12:00 - 19:00	7.00	DRLPRO	02	D	P		DRILL F/ 7298' TO 7656' = 358' 51 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1650/1927 MOTOR RPM / ROTARY RPM, 113/47 TQ ON / OFF BOTTOM 10K/9K FT/LBS PU / SO / ROT WT 206 / 155 / 170 WT ON BIT 15K TO 25K NO LOSS, 32 VIS, 9.6 WT, SHOOK OUT LCM
	19:00 - 0:00	5.00	DRLPRO	02	C	P		DRILL F/ 7656' TO 7861' = 205' 41 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1700/2004 MOTOR RPM / ROTARY RPM, 113/47 TQ ON / OFF BOTTOM 12K/10K FT/LBS PU / SO / ROT WT 226 / 165 / 183 WT ON BIT 15K TO 25K NO LOSS, 32 VIS, 9.6 WT, 0% LCM

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22D1CS YELLOW	Spud Conductor: 5/14/2011	Spud Date: 5/23/2011	
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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
6/25/2011	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL F/ 7861' TO 8118' = 257' 42 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1700/2004 MOTOR RPM / ROTARY RPM, 113/47 TQ ON / OFF BOTTOM 12K/10K FT/LBS PU / SO / ROT WT 226 / 165 / 183 WT ON BIT 15K TO 25K NO LOSS, 32 VIS, 9.6 WT, 0% LCM
	6:00 - 11:30	5.50	DRLPRO	02	D	P		DRILL F/ 8118' TO 8381' = 263' 47 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1991/2237 MOTOR RPM / ROTARY RPM, 113/47 TQ ON / OFF BOTTOM 14K/13K FT/LBS PU / SO / ROT WT 255 / 170 / 185 WT ON BIT 15K TO 28K NO LOSS, 34 VIS, 10 WT, 0% LCM PUMPING HIGH VIS, HIGH WT SWEEPS, 80+ VIS 34% LCM 12.2 WT, EVERY 3 HOURS
	11:30 - 12:00	0.50	DRLPRO	07	A	P		DAILY RIG SERVICE
	12:00 - 18:00	6.00	DRLPRO	02	D	P		DRILL F/ 8381' TO 8632' = 251' 41.8 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1991/2237 MOTOR RPM / ROTARY RPM, 113/47 TQ ON / OFF BOTTOM 14K/13K FT/LBS PU / SO / ROT WT 255 / 170 / 185 WT ON BIT 15K TO 28K NO LOSS, 35 VIS, 10.3 WT, 0% LCM PUMPING HIGH VIS, HIGH WT SWEEPS, 80+ VIS 34% LCM 12.2 WT, EVERY 3 HOURS FROM UPRIGHTS
	18:00 - 0:00	6.00	DRLPRO	02	D	P		DRILL F/ 8632' TO 8769' = 137' 22.8 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1991/2237 MOTOR RPM / ROTARY RPM, 113/47 TQ ON / OFF BOTTOM 14K/13K FT/LBS PU / SO / ROT WT 255 / 170 / 185 WT ON BIT 15K TO 28K NO LOSS, 35 VIS, 10.3 WT, 0% LCM 1.5 HR SLIDING @ 6 FPH AVG ROT AVG 30 FPH
6/26/2011	0:00 - 1:30	1.50	DRLPRO	02	D	P		SLIDE F/ 8769 TO 8782 = 13' @ 8.6 FPH 35 VIS, 10.3 WT, 5% LCM
	1:30 - 8:30	7.00	DRLPRO	06	A	P		TRIP OUT FOR BIT #1, MADE 5918' IN 84 HRS, 70.5 FPH DRILLING SLOWED TO 28 FPH THE LAST 6 HRS, PUMP & ROTATE OUT OF THE HOLE TO 6129', PUMP WEIGHTED PILL TRIP OUT DRY, CHECK FLOW, PULL ROTATE HEAD, PULL 5 HEAVY WEIGHT STANDS.
	8:30 - 9:00	0.50	DRLPRO	08	A	Z		CHECK IDM POWER SHOE, HEAVY WEIGHT PIPE SLIPPING, DIES WORN
	9:00 - 10:00	1.00	DRLPRO	06	A	P		TRIP OUT BHA, PULL MWD TOOL, LAY DOWN BIT & MOTOR, BIT GRADED 1-2, MOTOR SEALS LEAKING, MOTOR DID DRAIN, FUNCTION BOP
	10:00 - 13:00	3.00	DRLPRO	06	A	P		TRIP IN HOLE, PICK UP BIT, MOTOR #2 & MWD TOOL, SCRIBE & TRIP IN HOLE WITH BHA, INSTALL ROTATE HEAD, TRIP IN TO 3723' AND FILL PIPE BREAK CIRCULATION
	13:00 - 16:00	3.00	DRLPRO	05	B	X		LOST CIRCULATION PULL TO SHOE TRY ESTABLISH CIRCULATION COULD NOT CIRCULATE, PULLED UP INTO CASING AND WAS DRAGGING SOMETHING PULLING 15 K OVER, LOST 880 BBLS

Operation Summary Report

Well: NBU 921-22D1CS YELLOW	Spud Conductor: 5/14/2011	Spud Date: 5/23/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011	End Date: 7/5/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/358/W/0/2113/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	16:00 - 17:30	1.50	DRLPRO	06	A	X		PULL OUT OF HOLE TO CHECK BHA, HOLE TIGHT IN CASING TO 2388', WHERE PIPE STARTED PULLING FREE, CONTINUE TRIP OUT TO CHECK BHA. WELL TAKING MORE MUD THEN NEEDED ON TRIP OUT. BIT WAS BALLED UP, JETS WAS CLEAR, MAKE UP BIT & MOTOR, RESCRIBE MWD TOOL, BUILD VOLUME AND CONDITION, WHILE TRIP OUT.
	17:30 - 20:00	2.50	DRLPRO	06	A	X		TRIP IN TO SHOE HOLE STAYING FULL DISPLACED MUD EVERY STAND
	20:00 - 22:30	2.50	DRLPRO	05	A	X		ESTABLISH CIRCULATION, CIRCULATE BOTTOMS UP, PUMP DOWN TO 3723' CONDITION MUD WHILE WASHING DOWN STANDS TO TRY AND KEEP CIRCULATION, CIRCULATE BOTTOMS UP, RAISE VIS TO 40, LCM 10% & WT 10.3, FROM 9.2 WT, 30 VIS, 5%
	22:30 - 0:00	1.50	DRLPRO	06	A	P		TRIP IN HOLE 10 STAND STAGES AND CIRCULATE FOR 15 MIN EACH STAGE TO 5782', VIS 40, WT 9.6, LCM 18%
6/27/2011	0:00 - 3:00	3.00	DRLPRO	06	A	P		STAGE IN HOLE, 10 STAND STAGES F/ 5782' TO 8782', REAM THROUGH BRIDGE @ 6350' TO 6425', 6853' TO 6881', 6886' TO 6962', HOLE CLEAN TO 8782', CONDITION MUD FOR LOSSES, LOST TOTAL 300 BBLS WHILE TRIPPING IN HOLE, MAKES TOTAL EST LOSSES AT 1180 BBLS, BOTTOMS UP FLARE 15' FOR 1/2 HR, WT 10, VIS 36, LCM 15%
	3:00 - 5:00	2.00	DRLPRO	02	D	P		DRILL F/ 8782' TO 8878' = 96' 48 FPH STKS #1 & #2 PUMPS 00/105, 473 GPM PSI OFF / ON BOTTOM 1576/1905 MOTOR RPM / ROTARY RPM, 75/45 TQ ON / OFF BOTTOM 13K/12K FT/LBS PU / SO / ROT WT 250 / 175 / 193 WT ON BIT 18K TO 20K NO LOSS, 35 VIS, 10 WT, 15% LCM
	5:00 - 5:30	0.50	DRLPRO	22	D	Z		TROUBLE SHOT MWD SINGLE, NOISE INTERFERENCE, RAN NEW WIRES
	5:30 - 7:00	1.50	DRLPRO	02	D	P		ATTEMPT TO SLIDE F/ 8878 TO 8898 20' 13 FPH, MOTOR STALLING @ 250 DIFF TO 750 DIFF WOULD NOT DRILL OFF OR PRESSURE UP ANY HIGHER
	7:00 - 9:00	2.00	DRLPRO	02	D	P		DRILL F/ 8898' TO 8966' = 68' 34 FPH STKS #1 & #2 PUMPS 00/105, 473 GPM PSI OFF / ON BOTTOM 1576/1905 MOTOR RPM / ROTARY RPM, 75/45 TQ ON / OFF BOTTOM 13K/12K FT/LBS PU / SO / ROT WT 250 / 175 / 193 WT ON BIT 18K TO 20K NO LOSS, 35 VIS, 10 WT, 15% LCM 25' OF SLIDE 1.75 HR
	9:00 - 18:00	9.00	DRLPRO	02	D	P		DRILL F/ 8898' TO 9539' = 641' 71 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1902/2178 MOTOR RPM / ROTARY RPM, 86/45 TQ ON / OFF BOTTOM 13K/11K FT/LBS PU / SO / ROT WT 250 / 175 / 202 WT ON BIT 15K TO 20K NO LOSS, 40 VIS, 10.7 WT, 15% LCM

Operation Summary Report

Well: NBU 921-22D1CS YELLOW	Spud Conductor: 5/14/2011	Spud Date: 5/23/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011	End Date: 7/5/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/358/W/0/2113/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	18:00 - 20:00	2.00	DRLPRO	02	D	P		DRILL F/ 9539' TO 9649' = 110' 55 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1902/2178 MOTOR RPM / ROTARY RPM, 86/45 TQ ON / OFF BOTTOM 13K/11K FT/LBS PU / SO / ROT WT 250 / 175 / 202 WT ON BIT 15K TO 20K NO LOSS, 40 VIS, 10.7 WT, 15% LCM
	20:00 - 0:00	4.00	DRLPRO	02	D	P		DRILL F/ 9649' TO 9776' = 127' 31.75 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1902/2178 MOTOR RPM / ROTARY RPM, 86/45 TQ ON / OFF BOTTOM 13K/11K FT/LBS PU / SO / ROT WT 250 / 175 / 202 WT ON BIT 15K TO 20K NO LOSS, 40 VIS, 11.1 WT, 15% LCM
6/28/2011	0:00 - 5:00	5.00	DRLPRO	02	D	P		DRILL F/ 9776' TO 9853' = 77' 15 FPH STKS #1 & #2 PUMPS 60/60, 540 GPM PSI OFF / ON BOTTOM 1902/2178 MOTOR RPM / ROTARY RPM, 75 TO 86 / 30 TO 55 TQ ON / OFF BOTTOM 13K/11K FT/LBS PU / SO / ROT WT 260 / 180 / 209 WT ON BIT 15K TO 29K 2 HR SLIDE NO LOSS, 40 VIS, 11.1 WT, 15% LCM
	5:00 - 6:00	1.00	DRLPRO	05	C	P		CIRCULATE SWEEP, BUILD WEIGHTED PILL
	6:00 - 14:30	8.50	DRLPRO	06	A	P		TRIP OUT WITH BHA #2 MADE 1071' 25.5 HRS @ 42 FPH PUMP & ROTATE OUT TO 5064', PUMP WEIGHTED PILL TRIP OUT DRY TO SHOE, NO TIGHT SPOTS
	14:30 - 15:00	0.50	DRLPRO	07	A	P		DAILY RIG SERVICE, CHECK DIES IN IDM
	15:00 - 18:00	3.00	DRLPRO	06	A	P		CHECK FLOW, TRIP OUT TO BHA, PULL ROTATE HEAD, TRIP OUT BHA, PULL MWD TOOL, LAY DOWN BIT & MOTOR, BIT GRADED 1-4, MOTOR DRAINED BUT SEEMED WEAK, FUNCTION BOP
	18:00 - 21:30	3.50	DRLPRO	06	A	P		TRIP IN HOLE, PICK UP BIT, MOTOR #3, SWAP MOTORS FIRST MOTOR FIXED BEND SET .75, INSTALL NEW BATTERIES PICK UP MWD TOOL, SCRIBE & TRIP IN HOLE WITH BHA, INSTALL ROTATE HEAD, TRIP IN TO SHOE, FILL PIPE BREAK CIRCULATION
	21:30 - 23:30	2.00	DRLPRO	09	A	P		SLIP CUT 68' OF DRILL LINE
	23:30 - 0:00	0.50	DRLPRO	06	A	P		TRIP IN HOLE, BREAKING CIRCULATION EVERY 3000'
6/29/2011	0:00 - 7:00	7.00	DRLPRO	06	A	P		TRIP IN HOLE, FILL EVERY 3000', REAM THROUGH BRIDGE @ 6413' TO 6428', 7129' TO 7181', 8295' TO 8351', 8632' TO 8698', 9302' TO 9341', HOLE CLEAN TO 9853', PRECAUTIONARY REAM LAST 115', BOTTOMS UP FLARE 15' FOR 1/2 HR, WT 11.3, VIS 46, LCM 18%
	7:00 - 20:00	13.00	DRLPRO	02	D	P		DRILL F/ 9853' TO 10405' = 552' 42.4 FPH STKS #1 & #2 PUMPS 0/105, 473 GPM PSI OFF / ON BOTTOM 2355/2504 MOTOR RPM / ROTARY RPM, 61 / 45 TQ ON / OFF BOTTOM 15K/16K FT/LBS PU / SO / ROT WT 240 / 197 / 215 WT ON BIT 15K TO 20K STARTED LOSING MUD AT 10,384, 40 VIS, 12.2 WT, 20% LCM

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22D1CS YELLOW	Spud Conductor: 5/14/2011	Spud Date: 5/23/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011	End Date: 7/5/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/358/W/0/2113/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	20:00 - 0:00	4.00	DRLPRO	22	G	X		LOST FULL RETURNS @ 10.405', WITH 40 VIS, 12.2 WT, 20% LCM, PUMP ROTATE OUT OF HOLE 8977' FULL RETURNS, CIRCULATE CONDITION MUD, LOST 1000 BBLS
6/30/2011	0:00 - 4:30	4.50	DRLPRO	22	G	X		STAGE IN HOLE 3 STAND STAGES CIRCULATE 15 MIN EACH STAGE, CONDITIONING MUD WHILE TRIPPING, 5' FLARE FOR 15 MIN, VIS 48, WT 11.7, LCM 12%, TOTAL LOSS 1200 BBL
	4:30 - 6:30	2.00	DRLPRO	02	D	P		DRILL F/ 10,405' TO 10,484' = 79' 39.5 FPH STKS #1 & #2 PUMPS 0/88, 396 GPM PSI OFF / ON BOTTOM 1950/2313 MOTOR RPM / ROTARY RPM, 63 / 45 TQ ON / OFF BOTTOM 15K/16K FT/LBS PU / SO / ROT WT 250 / 206 / 219 WT ON BIT 15K TO 20K NO LOSS, 44 VIS, 12 WT, 17% LCM
	6:30 - 8:00	1.50	DRLPRO	05	C	P		CIRCULATE CONDITION MUD FOR WIPER TRIP, VIS 45,WT 12.0, LCM 21%
	8:00 - 17:00	9.00	DRLPRO	06	E	P		WIPER TRIP OUT, PUMP & ROTATE OUT TO 5701', PUMP WEIGHTED PILL @ 15:00, FLOW CHECK, TRIP OUT DRY TO SHOE, NO TIGHT SPOTS, CIRC BOTTOMS UP AT SHOE
	17:00 - 17:30	0.50	DRLPRO	22	L	Z		LUBRICATE IDM, ROTATER DRAGGING
	17:30 - 19:30	2.00	DRLPRO	06	E	P		WIPER TRIP IN HOLE, BREAK CIRCULATION EVERY 2500' AS PRECAUTION FOR LOSSES, TIGHT SPOT AT 5580 TO 5584
	19:30 - 20:00	0.50	DRLPRO	22	K	Z		WORK ON IDM, ROTATER DRAGGING
	20:00 - 20:30	0.50	DRLPRO	06	E	P		WIPER TRIP IN HOLE, BREAK CIRCULATION EVERY 2500' AS PRECAUTION FOR LOSSES TO 6538'
	20:30 - 21:00	0.50	DRLPRO	22	K	Z		WORK ON IDM, ROTATER DRAGGING
	21:00 - 0:00	3.00	DRLPRO	06	E	P		WIPER TRIP IN HOLE, BREAK CIRCULATION EVERY 2500' AS PRECAUTION FOR LOSSES, REAM 7895 TO 7970, 8470 TO 8509, 8542 TO 8600, 8882 TO 8959, NO TIGHT SPOTS TO BOTTOM 10,484
7/1/2011	0:00 - 1:30	1.50	DRLPRO	05	C	P		CIRCULATE SWEEP FOR HOLE CLEANING PRIOR TO TRIP OUT FOR LOGS
	1:30 - 12:00	10.50	DRLPRO	06	B	P		TRIP OUT FOR LOGS, PUMP & ROTATE OUT TO 7266', PUMP WEIGHTED PILL @ 05:45, FLOW CHECK, TRIP OUT DRY, STOP @ SHOE FLOW CHECK, TRIP OUT TO BHA CHECK FLOW, PULL ROTATE HEAD, TRIP OUT BHA, PULL MWD TOOL, LAY DOWN BIT & MOTOR, BIT GRADED 1-2, FUNCTION BOP
	12:00 - 13:30	1.50	DRLPRO	11	D	P		HELD SAFTEY MEETING RIG UP BAKER ATLUS WIRELINE, RUN TRIPLE COMBO TO 7500'
	13:30 - 15:30	2.00	DRLPRO	19	A	X		WORK WIRELINE TO 9400 TENSION, LOG STUCK, WORK LINE UNTILL SLAUGH FISHING HAND ARRIVES
	15:30 - 21:30	6.00	DRLPRO	19	A	X		HELD SAFTEY MEETING RIG UP STRIPPING TOOLS AND SHIEVES IN DERRICK AND ON THE FLOOR, SPACE OUT SINKER BARS, TO STRIP OVER WIRE LINE
	21:30 - 0:00	2.50	DRLPRO	19	A	X		STRIP OVER WIRE LINE TO @ 1043'
7/2/2011	0:00 - 4:30	4.50	DRLPRO	19	A	X		STRIP OVER WIRE LINE F/ 1043 TO 4046
	4:30 - 7:00	2.50	DRLPRO	19	A	X		MOVE WIRE LINE SHIEVE FROM OFF DRILLER SIDE TO DRILLERS SIDE IN DERRICK TO RUN OFF SIDE PIPE
	7:00 - 11:30	4.50	DRLPRO	19	A	X		STRIP OVER WIRE LINE F/ 4046 TO 6908

Operation Summary Report

Well: NBU 921-22D1CS YELLOW	Spud Conductor: 5/14/2011	Spud Date: 5/23/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011	End Date: 7/5/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/358/W/0/2113/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	11:30 - 13:00	1.50	DRLPRO	19	A	X		ATTEMPT TO INSTALL PACK OF TO THE TOP OFF THE TOP DRIVE, PACK OFF SUB TO TALL TRY AND MODIFY TO FIT, WOULD NOT FIT TOP DRIVE 4" CONNECTION TO CLOSE TO THE BLOCK HOOK.
	13:00 - 14:00	1.00	DRLPRO	19	A	X		STRIP OVER WIRE LINE F/ 6908 TO 7406
	14:00 - 15:30	1.50	DRLPRO	19	A	X		CIRCULATE BOTTOMS UP TO CLEAN HOLE AND TO FLUSH OUT GRAPPERLERS @ 7406, BOTTOMS UP GAS 2' FLARE, MUD IN WT 12.0 OUT WT 11.6, FINAL MUD WT 12.0 IN & OUT NO GAS NO FLOW
	15:30 - 16:30	1.00	DRLPRO	19	A	X		STRIP OVER LAST STAND, WORK WIRE LINE 3 TIMES MADE 6' TO ENSURE RETRIEVAL OF LOGGING TOOL.
	16:30 - 18:00	1.50	DRLPRO	19	A	X		BREAK STAND SET FISHING WIRE LINE CLAMP, CUT WIRE LINE, RIG DOWN WIRE LINE SHIEVES
	18:00 - 0:00	6.00	DRLPRO	19	A	X		HELD SAFTEY MEETING, TRIP OUT STRIPPING OVER WIRE LINE, CUTTING LINE EVERY 90' TO 4972
7/3/2011	0:00 - 0:30	0.50	DRLPRO	19	A	X		HELD SAFTEY MEETING FOLLOWING NEAR MISS
	0:30 - 6:30	6.00	DRLPRO	19	A	X		TRIP OUT STRIPPING OVER WIRE LINE, CUTTING LINE EVERY 90' TO 2588' WHERE WIRE LINE BECAME KINKED AND TWISTED THE FULL 90' BEING CUT LOSE FROM FISH, LEFT WIRE IN TWO STANDS WILL RETRIEVE AFTER FISH IS ON THE FLOOR.
	6:30 - 14:00	7.50	DRLPRO	19	A	X		TRIP OUT STRIPPING OVER WIRE LINE, CUTTING LINE EVERY 90' AND WINCHING CUT LINE FROM STAND COULD NOT PULL OUT BY HAND TO FISHING TOOLS
	14:00 - 16:30	2.50	DRLPRO	19	A	X		BREAK DOWN LOGGING TOOL AND FISHING TOOLS, LOGGING TOOL MISSING PARTS RUBBER HOLE FINDER 2" BY 16" & A 6 BLADE 4" BY 16" CENTRALIZER LEFT IN HOLE ALL OTHER LOG TOOLS ON SURFACE AND LAID DOWN, 7 1/8" MILL, JUNK BASKET AND DITCH MAGNET ON THE WAY. CLEAR CUT WIRE LINE FROM CAT WALK, PICK UP 1 STAND OF HEAVY WEIGHT AND 1 STAND OF DRILL PIPE TO REMOVE STUCK WIRE LINE, INSTALL BULL PLUG BACK ON TOP DRIVE
	16:30 - 19:00	2.50	DRLPRO	06	E	X		TRIP IN HOLE, PICK UP 7 1/8 MILL, JUNK BASKET & 1665' OF BHA AND DRILL PIPE
	19:00 - 21:00	2.00	DRLPRO	08	A	Z		WORK ON IDM HYDRALIC LEAK
	21:00 - 21:30	0.50	DRLPRO	06	E	X		TRIP IN HOLE TO SHOE @ 2846'
	21:30 - 23:00	1.50	DRLPRO	05	B	X		CIRCULATE CONDITION MUD @ SHOE & IN PITS, WT 11.4, VIS 34, LCM 12% CONDITION MUD TO WT 12.0, VIS 40+, LCM 21 TO 25%, BOTTOMS UP FLARE 5' FOR 10 MIN
	23:00 - 0:00	1.00	DRLPRO	06	E	X		WIPER TRIP IN HOLE, BREAK CIRCULATION, CIRCULATE BOTTOMS UP EVERY 2500' AS PRECAUTION FOR LOSSES, AND CONDITION MUD
7/4/2011	0:00 - 4:00	4.00	DRLPRO	06	E	X		WIPER TRIP IN HOLE, BREAK CIRCULATION, CIRCULATE BOTTOMS UP EVERY 2500' AS PRECAUTION FOR LOSSES, AND CONDITION MUD TO 7430'
	4:00 - 5:00	1.00	DRLPRO	06	E	X		TAG BRIDGE OR FISH AT 7467' WASH TO 7487'
	5:00 - 6:00	1.00	DRLPRO	06	E	X		TRIP IN HOLE TO 8600' WITH MAX SLACK OFF 39K

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22D1CS YELLOW	Spud Conductor: 5/14/2011	Spud Date: 5/23/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011	End Date: 7/5/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/358/W/0/2113/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	6:00 - 12:00	6.00	DRLPRO	03	E	X		TAG BRIDGE OR FISH AT 8604', WITH 51K STACKWASH REAM WITH 10 TO 15K, FROM 8604 TO 10'484, HOLE TRYING TO PACK OFF ALSO, LOW TQ 8 HIGH TQ 15 MUD IN VIS 42, WT 12.2, LCM 20%, OUT VIS 44, WT 12.1, LCM 20%, DITCH MAGNET SHOWING METAL SHAVINGS, ALSO GOT BACK 6" THICK BY 3/4 DIAMETER OF SURFACE CEMENT RUBBER PLUG BACK AT SHAKERS.
	12:00 - 14:00	2.00	DRLPRO	05	C	P		CIRCULATE BOTTOMS UP BRING WT UP TO 12.3, SHOWING 1' TO 2' FLARE SINCE 9709', FINAL MUD WT 12.3 IN & OUT NO FLARE
	14:00 - 18:30	4.50	DRLPRO	06	A	P		TRIP OUT FOR CASING, PUMP & ROTATE OUT TO 6974'
	18:30 - 19:00	0.50	DRLPRO	07	A	P		DAILY RIG SERVICE
	19:00 - 0:00	5.00	DRLPRO	06	A	P		PUMP WEIGHTED PILL, FLOW CHECK, TRIP OUT DRY, STOP @ SHOE FLOW CHECK, TRIP OUT TO BHA, CHECK FLOW, PULL ROTATE HEAD, TRIP OUT BHA, LAY DOWN MILL ASSEMBLY, PULL WEAR BUSHING
7/5/2011	0:00 - 12:00	12.00	CSG	12	C	P		HELD SAFTEY MEETING, RIG UP CASING CREW, RUN DCT P110 SHOE,FLOAT, 15 CENTRALIZERS, 14 JOINTS 4.5, 11.6, P110, BTC & 239 JOINTS 4.5,11.6, I-80 BTC CASING BREAKING CIRCULATION EVERY 2000', WASH THRU BRIDGE @ 7746 TO 7760, 8089 TO 8179, 8526 TO 8723, 8886 TO 8891, 9039 TO 9058, LANDED CASING @ 10476' MD, FLOAT TOP AT 10431' MD, MVERDE MARKER TOP 8233, WASATCH MARKER TOP 5269
	12:00 - 13:30	1.50	CSG	05	D	P		INSTALL BJ CEMENT HEAD CIRCULATE BOTTOMS UP PRIOR TO CEMENT, HELD SAFTEY MEETING RIG DOWN CASERS
	13:30 - 16:30	3.00	CSG	12	E	P		HELD SAFTEY MEETING HOOK UP BJ LINES TO HEAD & PUMP, 40 BBL WATER SPACER LEAD 245 BBL 652 SKS PL2 - 12.3 PPG, 2.12 YEILD, 11.38 GPS WATER TAIL 256 BBL 1100 SKS POZ 50/50 - 14.3 PPG 1.31 YEILD, 5.90 GPS WATER DROP PLUG DISPLACE WITH 162 BBL FRESH WATER WITH CLAY CARE & MAGNACIDE, BUMP PLUG TO 3454, FINAL LIFT 2684, 770 PSI OVER, 1.5 BBL BACK TO TRUCK, FULL RETURNS, 13 BBL CEMENT BACK, EST TOP OF LEAD CEMENT 0, TOP OF TAIL 4710, HELD SAFTEY MEETING RIG DOWN BJ, CLEANING PITS WHILE PUMPING CEMENT
	16:30 - 18:30	2.00	CSG	12	C	P		FLUSH STACK, READY STACK TO SET SLIPS, SET SLIPS, WITH WEATHERFORD HAND 100K ON SLIPS, LIFT STACK & CUT CASING, CLEAN PITS. RELEASE RIG 7/5/2011 18:30

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22D1CS YELLOW	Spud Conductor: 5/14/2011	Spud Date: 5/23/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: ENSIGN 145/145, CAPSTAR 310/310
Event: DRILLING	Start Date: 5/8/2011	End Date: 7/5/2011
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Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	18:30 - 18:31	0.02	CSG					PRODUCTION: Rig Move/Skid start date/time: 6/21/2011 19:30 Rig Move/Skid finish date/time: 6/21/2011 21:30 Total MOVE hours: 2.0 Prod Rig Spud date/time: 6/22/2011 9:30 Rig Release date/time: 7/5/2011 18:30 Total SPUD to RR hours: 321.0 Planned depth MD 10,476 Planned depth TVD 10,183 Actual MD: 10,484 Actual TVD: 10,124 Open Wells $: AFE $: Open wells $/ft: PRODUCTION HOLE: Prod. From depth: 2,864 Prod. To depth: 10,484 Total PROD hours: 124.5 Log Depth: LOG STUCK @ 7460 Production Casing size: 4.5 P110 & 4.5 I-80 # of casing joints ran: 14 JTS OF P-110, 235 JTS OF I-80 Casing set MD: 10,476.0 # sx of cement: 1,752 Cement blend (ppg:) LEAD 12.3, TAIL 14.3 Cement yield (ft3/sk): LEAD 2.12, TAIL 1.31 Est. TOC (Lead & Tail) or 2 Stage : LEAD 0', TAIL 4710' Describe cement issues: NONE Describe hole issues: HARD FORMATIONS 3 BITS, TIGHT ON TRIPS REAM SEVERAL SPOTS ON TRIPS, STUCK LOGS @ 7460 DIRECTIONAL INFO: KOP: 128 Max angle: 26.56 Departure: 1616.00 Max dogleg MD: 5060' 4.36

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well Information

Well	NBU 921-22D1CS YELLOW		
Common Name	NBU 921-22D1CS		
Well Name	NBU 921-22D1CS	**Wellbore No.**	OH
Report No.	1	**Report Date**	8/15/2011
Project	UTAH-UINTAH	**Site**	NBU 921-15N PAD
Rig Name/No.		**Event**	COMPLETION
Start Date	8/15/2011	**End Date**	8/29/2011
Spud Date	5/23/2011	**Active Datum**	RKB @4,839.00ft (above Mean Sea Level)
UWI	NE/NW/0/9/S/21/E/22/0/0/26/PM/S/358/W/0/2113/0/0		

1.3 General

Contractor	CUTTERS WIRELINE	**Job Method**	PERFORATE	**Supervisor**	KENNY WARREN
Perforated Assembly	PRODUCTION CASING	**Conveyed Method**	WIRELINE		

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	8,264.0 (ft)-10,177.0 (ft)	**Start Date/Time**	8/15/2011 12:00AM
No. of Intervals	36	**End Date/Time**	8/15/2011 12:00AM
Total Shots	185	**Net Perforation Interval**	57.00 (ft)
Avg Shot Density	3.25 (shot/ft)	**Final Surface Pressure**	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (ft)	CCL-TS (ft)	MD Top (ft)	MD Base (ft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12:00AM	MESAVERDE/			8,264.0	8,266.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (ft)	CCL-TS (ft)	MD Top (ft)	MD Base (ft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12:00AM	MESAVERDE/			8,290.0	8,292.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,400.0	8,402.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,427.0	8,428.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,475.0	8,476.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,536.0	8,538.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,562.0	8,564.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,585.0	8,586.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,616.0	8,618.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,700.0	8,701.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,760.0	8,761.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,829.0	8,830.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,863.0	8,864.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			8,950.0	8,952.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,108.0	9,109.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,196.0	9,197.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,223.0	9,224.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,300.0	9,301.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,324.0	9,325.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,354.0	9,356.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,444.0	9,446.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,500.0	9,502.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (ft)	CCL-TS (ft)	MD Top (ft)	MD Base (ft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12:00AM	MESAVERDE/			9,577.0	9,580.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,620.0	9,621.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,634.0	9,636.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,690.0	9,691.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,719.0	9,720.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,747.0	9,748.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,772.0	9,773.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,834.0	9,836.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,891.0	9,892.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			9,972.0	9,976.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			10,034.0	10,036.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			10,088.0	10,090.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			10,154.0	10,156.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	
12:00AM	MESAVERDE/			10,175.0	10,177.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTION	

3 Plots

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22D1CS YELLOW	Spud Conductor: 5/14/2011	Spud Date: 5/23/2011	
Project: UTAH-UINTAH	Site: NBU 921-15N PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 8/15/2011		End Date: 8/29/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/358/W/0/2113/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
8/11/2011	7:00 - 13:00	6.00	COMP	33	C	P		FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 12 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 25 PSI. 1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 44 PSI. BLEED OFF PSI. MOVE T/ NEXT WELL. SWIFWE.
8/12/2011	7:00 - 13:00	6.00	COMP	37		P		RU CASED HOLE SOLUTIONS PERF 1 FST STG IN MSA VERDE POOH SWIFW

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22D1CS YELLOW	Spud Conductor: 5/14/2011	Spud Date: 5/23/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 8/15/2011	End Date: 8/29/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/358/W/0/2113/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
8/15/2011	7:00 - 18:00	11.00	COMP	36	B	P		FRAC STG 1)WHP 1929 PSI, BRK 3302 PSI @ 4.8 BPM. ISIP 2757 PSI, FG .71. PUMP 100 BBLS @ 48.1 BPM @ 6118 PSI = 83% HOLES OPEN. ISIP 3205 PSI, FG .76, NPI 448 PSI. MP 6467 PSI, MR 50.6 BPM, AP 5741 PSI, AR 49.9 BPM, PMP 1174 BBLS SW & 20,045 LBS OF 30/50 SND & NO RESIN SND. TOTAL PROP 20,045 LBS X-OVER FOR W L PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 10,006' P/U PERF AS PER PERF DESIGN. TOP GUN MISS FIRED RE WIRED GUN RIN SHOT GUN POOH X-OVER FOR FRAC CREW FRAC STG 2)WHP 2359 PSI, BRK 4058 PSI @ 4.5 BPM. ISIP 3273 PSI, FG .77 PUMP 100 BBLS @ 39.1 BPM @ 6046 PSI = 77% HOLES OPEN. ISIP 3207 PSI, FG .76, NPI -66 PSI. MP 6543 PSI, MR 50.7 BPM, AP 6145 PSI, AR 46.9 BPM, PMP 764 BBLS SW & 13,736 LBS OF 30/50 SND & NO RESIN SND. TOTAL PROP 13,736 LBS SWI X-OVER FOR W L PERF STG 3)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 9803' P/U PERF AS PER PERF DESIGN. POOH.X-OVER FOR FRAC CREW FRAC STG 3)WHP 2139 PSI, BRK 3633 PSI @ 4.7 BPM. ISIP 3017 PSI, FG .75 PUMP 100 BBLS @ 48.4 BPM @ 6222 PSI = 86% HOLES OPEN. ISIP 2900 PSI, FG .74, NPI -117 PSI. MP 6501 PSI, MR 50.8 BPM, AP 5528 PSI, AR 50.5 BPM, PMP 2010 BBLS SW & 41,347 LBS OF 30/50 SND & NO RESIN SND.TOTAL PROP 41,347 LBS X-OVER FOR W L PERF STG 4)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 9610' P/U PERF AS PER PERF DESIGN. POOH.X-OVER FOR FRAC CREW FRAC STG 4)WHP 1410 PSI, BRK 4795 PSI @ 4.7 BPM. ISIP 3643 PSI, FG .82. PUMP 100 BBLS @ 39.1 BPM @ 5832 PSI = 91% HOLES OPEN. ISIP 2818 PSI, FG .73, NPI -825 PSI. MP 6288 PSI, MR 50.5 BPM, AP 5788 PSI, AR 49.0 BPM, PMP 624 BBLS SW & 10,760 LBS OF 30/50 SND & NO RESIN SND.TOTAL PROP 10,760 LBS SWI
8/16/2011	6:45 - 7:00	0.25	COMP	48		P		HELD SAFETY MEETING RD FRAC LINES WITH CRANE

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22D1CS YELLOW	Spud Conductor: 5/14/2011	Spud Date: 5/23/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 8/15/2011	End Date: 8/29/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/358/W/0/2113/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:00 - 18:00	11.00	COMP	36	B	P		PERF STG 5)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 9386' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW FRAC STG 5)WHP 1005 PSI, BRK 3496 PSI @ 4.8 BPM. ISIP 2581 PSI, FG .72 CALC PERFS OPEN @ 49.9 BPM @ 5816 PSI = 92% HOLES OPEN. ISIP 2842 PSI, FG .75, NPI 261 PSI. MP 5965 PSI, MR 50.4 BPM, AP 5320 PSI, AR 50.1 BPM, PMP 888 BBLS SW & 17,268 LBS OF 30/50 SND. X-OVER FOR W L PERF STG 6)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 9002' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW FRAC STG 6)WHP 988 PSI, BRK 3382 PSI @ 5.6 BPM. ISIP 2852 PSI, FG .76 CALC PERFS OPEN @ 46.7 BPM @ 5988 PSI = 91% HOLES OPEN. ISIP 3026 PSI, FG .78, NPI 174 PSI. MP 6288 PSI, MR 50.5 BPM, AP 5660 PSI, AR 50.2 BPM, PMP 663 BBLS SW & 10,969 LBS OF 30/50 SND. X-OVER FOR W L PERF STG 7)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8648' P/U PERF AS PER PERF DESIGN. POOH X-OVER FOR FRAC CREW. FRAC STG 7)WHP 1131 PSI, BRK 3878 PSI @ 6.7 BPM. ISIP 2559 PSI, FG .74 CALC PERFS OPEN @ 50.5 BPM @ 4752 PSI = 100% HOLES OPEN. ISIP 2403 PSI, FG .72, NPI -156 PSI. MP 5402 PSI, MR 50.8 BPM, AP 4588 PSI, AR 50.5 BPM, PMP 1075 BBLS SW & 21,931 LBS OF 30/50 SND.X-OVER FOR FRAC CREW PERF STG 8)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8458' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW FRAC STG 8)WHP 784 PSI, BRK 2363 PSI @ 4.1 BPM. ISIP 1786 PSI, FG .65. CALC PERFS OPEN @ 50.3 BPM @ 5512 PSI = 76% HOLES OPEN. ISIP 2526 PSI, FG .74 NPI 740 PSI. MP 6095 PSI, MR 50.9 BPM, AP 4612 PSI, AR 49.4 BPM, PMP 1054 BBLS SW & 22,302 LBS OF 30/50 SND.X-OVER FOR W L PU 4 1/2 CBP RIH SET KILL PLUG @ 8214 POOH SWI RD W L @ FRAC CREW TOTAL SAND = 158,358 # TOTAL TOTAL CLFL = 8252 BBLS

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-22D1CS YELLOW	Spud Conductor: 5/14/2011	Spud Date: 5/23/2011
Project: UTAH-UINTAH	Site: NBU 921-15N PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 8/15/2011	End Date: 8/29/2011
Active Datum: RKB @4,839.00ft (above Mean Sea Level)	UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/358/W/0/2113/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
								TOTAL SCALE = 859 GAL TOTAL BIO = 152 GAL
8/25/2011	13:00 - 17:00	4.00	COMP	31	I	P		MIRU, SPOT EQUIP, ND WH, NU BOP, RU FLOOR & TBG EQUIP, PU 3 7/8" BIT, 1.875" XN SN, POBS, PU TBG, REMOVE THREAD PROTECTORS, TALLY & DRIFT TBG, SWI, SDFN.
8/26/2011	7:00 - 7:15	0.25	COMP	48		P		HSM, SLIPS, TRIPS & FALLS, PU TBG
	7:15 - 12:00	4.75	COMP	31	I	P		PU TBG, REMOVE THREAD PROTECTORS, TALLY & DRIFT TBG TO 8,159', RU POWER SWIVEL.
	12:00 - 13:30	1.50	COMP	47	C	Z		WORK ON CHAIN ON ACCUMULATOR, C/O BOTH SETS PIPE RAM BLOCKS
	13:30 - 15:00	1.50	COMP	33	D	P		FILL TBG BREAK CIRC, PRESS TEST BOP TO 3,000 PSI FOR 15 MIN, LOST 0 PSI, RIH TAGGED @ 8,180', READY FOR D/O MONDAY, SWI, SDFWE.
8/29/2011	7:00 - 17:00	10.00	COMP	31		P		HSM. OPEN WELL. BROKE CONV CIR. RIH 25' SAND, DRILL DOWN TO CBP @ 8214'. 10 MIN DRILL UP, 500 PSI INC. RIH 20' SAND DRILL UP CBP @ 8458', 600 PSI INC. RIH 22' SAND. DRILL UP CBP @ 8648'. 300 PSI INC. RIH 20' SAND. DRILL UP CBP @ 9002'. 700 PSI INC. RIH 22' SAND. DRILL UP CBP @ 9386'. RIH 20' SAND. DRILL UP CBP @ 9610'. 700 PSI INC. RIH 20' SAND. DRILL UP CBP @ 9803'. 350 PSI INC. RIH 22' SAND. DRILL UP CBP @ 10006' 650 PSI INC. RIH TO PBTD @ 10320'. CIR WELL CLEAN. POOH W/ EXCESS TBG AND LD. LAND TBG W/ 309 JTS IN WELL. EOT 9817.83. ND BOP, NU WELLHEAD. DROP BALL POBS @ 2600 PSI. TURN WELL OVER TO FLOWBACK CREW. RD RIG SLIDE OVER TOTAL LOAD 8252 BBLS RECOVERD 1500 BBLS L. T. R. 5752 BBLS KB 14. HANGER .83 309 JTS 9800 X-NIPPLE 2.20 EOT 9817.03
8/30/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 3075#, TP 2075#, 20/64" CK, 42 BWPH, LIGHT SAND, 1887 GAS TTL BBLS RECOVERED: 2336 BBLS LEFT TO RECOVER: 5916
8/31/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 3000#, TP 1975#, 20/64" CK, 32 BWPH, LIGHT SAND, 2394 GAS TTL BBLS RECOVERED: 3184 BBLS LEFT TO RECOVER: 5068
9/1/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 2725#, TP 1750#, 20/64" CK, 23 BWPH, LIGHT SAND, 2485 GAS TTL BBLS RECOVERED: 3798 BBLS LEFT TO RECOVER: 4454
9/2/2011	7:00 -			33	A			7 AM FLBK REPORT: CP 2450#, TP 1575#, 20/64" CK, 18 BWPH, LIGHT SAND, 2305 GAS TTL BBLS RECOVERED: 4259 BBLS LEFT TO RECOVER: 3993

Scientific Drilling
Rocky Mountain Operations

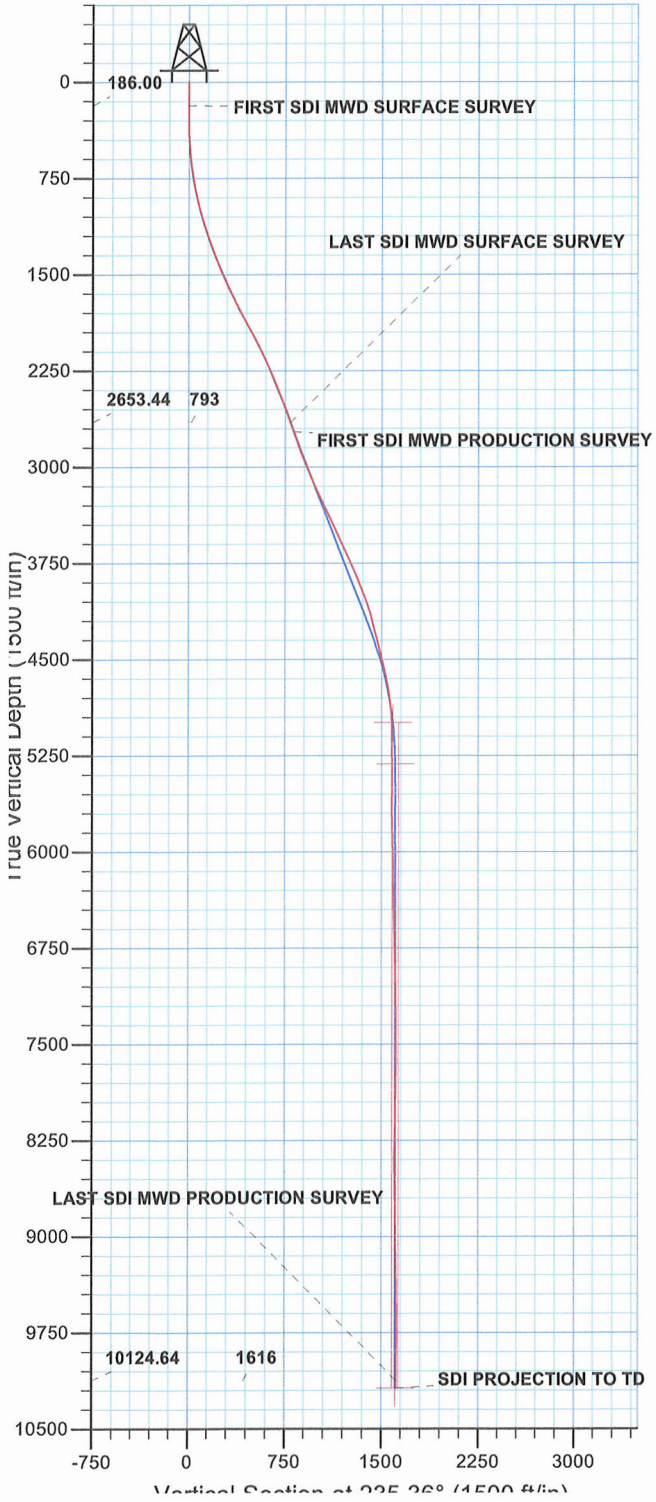
Project: Uintah County, UT UTM12
Site: NBU 921-15N Pad
Well: NBU 921-22D1CS
Wellbore: OH
Design: OH

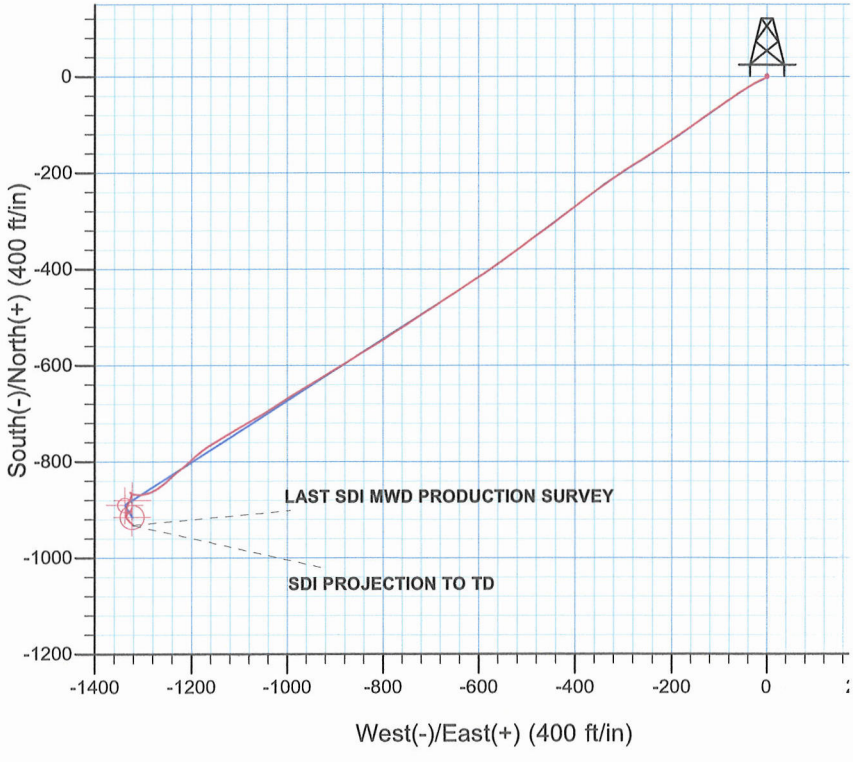
Anadarko Petroleum Corporation

WELL DETAILS: NBU 921-22D1CS					
GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)					
+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.00	0.00	14540263.77	2049391.02	40° 1' 47.420 N	109° 32' 20.663 W

Azimuths to True North
Magnetic North: 11.11°

Magnetic Field
Strength: 52350.2snT
Dip Angle: 65.89°
Date: 05/12/2011
Model: IGRF2010





PROJECT DETAILS: Uintah County, UT UTM12	
Geodetic System:	Universal Transverse Mercator (US Survey Feet)
Datum:	NAD 1927 - Western US
Ellipsoid:	Clarke 1866
Zone:	Zone 12N (114 W to 108 W)
Location:	SECTION 22 T9S R21E
System Datum:	Mean Sea Level

Design: OH (NBU 921-22D1CS/OH)

Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12
NBU 921-15N Pad
NBU 921-22D1CS

OH

Design: OH

Standard Survey Report

13 July, 2011

Anadarko
Petroleum Corporation

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-22D1CS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Site:	NBU 921-15N Pad	**MD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Well:	NBU 921-22D1CS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Project Uintah County, UT UTM12

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site NBU 921-15N Pad, SECTION 22 T9S R21E

Site Position:		**Northing:**	14,540,265.88 usft	**Latitude:**	40° 1' 47.435 N
From:	Lat/Long	**Easting:**	2,049,430.74 usft	**Longitude:**	109° 32' 20.152 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.94 °

Well NBU 921-22D1CS, 358 FSL 2113 FWL

Well Position	**+N/-S**	0.00 ft	**Northing:**	14,540,263.77 usft	**Latitude:**	40° 1' 47.420 N
	+E/-W	0.00 ft	**Easting:**	2,049,391.01 usft	**Longitude:**	109° 32' 20.663 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,827.00 ft

Wellbore OH

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	05/12/2011	11.11	65.89	52,350

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	235.36

Survey Program **Date** 07/13/2011

From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
5.00	2,808.00	Survey #1 SDI MWD SURFACE (OH)	MWD SDI	MWD - Standard ver 1.0.1
2,886.00	10,484.00	Survey #2 SDI MWD PRODUCTION (OH)	MWD SDI	MWD - Standard ver 1.0.1

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
5.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00
186.00	0.35	141.80	186.00	-0.43	0.34	-0.03	0.19	0.19	0.00
FIRST SDI MWD SURFACE SURVEY									
277.00	0.09	149.97	277.00	-0.71	0.55	-0.05	0.29	-0.29	8.98
370.00	1.58	234.88	369.99	-1.52	-0.46	1.24	1.69	1.60	91.30
465.00	3.43	243.93	464.89	-3.52	-4.09	5.36	1.99	1.95	9.53
560.00	5.10	244.20	559.63	-6.61	-10.44	12.35	1.76	1.76	0.28
656.00	7.30	243.40	655.06	-11.19	-19.74	22.60	2.29	2.29	-0.83
751.00	9.23	239.97	749.07	-17.71	-31.73	36.17	2.10	2.03	-3.61

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-22D1CS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Site:	NBU 921-15N Pad	**MD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Well:	NBU 921-22D1CS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

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)
846.00	11.08	239.10	842.58	-26.21	-46.16	52.88	1.95	1.95	-0.92
941.00	13.37	237.60	935.41	-36.79	-63.27	72.97	2.43	2.41	-1.58
1,035.00	15.56	234.09	1,026.43	-50.01	-82.66	96.43	2.51	2.33	-3.73
1,131.00	17.50	235.05	1,118.46	-65.83	-104.92	123.74	2.04	2.02	1.00
1,226.00	19.35	234.44	1,208.59	-83.16	-129.44	153.77	1.96	1.95	-0.64
1,321.00	20.40	234.96	1,297.93	-101.82	-155.80	186.06	1.12	1.11	0.55
1,417.00	21.81	236.63	1,387.49	-121.24	-184.39	220.62	1.60	1.47	1.74
1,512.00	22.86	236.02	1,475.36	-141.26	-214.43	256.72	1.13	1.11	-0.64
1,608.00	24.27	236.02	1,563.35	-162.71	-246.26	295.09	1.47	1.47	0.00
1,702.00	25.76	237.43	1,648.53	-184.51	-279.49	334.83	1.71	1.59	1.50
1,797.00	26.47	235.67	1,733.83	-207.56	-314.37	376.63	1.11	0.75	-1.85
1,891.00	28.23	233.56	1,817.32	-232.58	-349.56	419.80	2.14	1.87	-2.24
1,986.00	28.58	232.77	1,900.89	-259.68	-385.73	464.96	0.54	0.37	-0.83
2,081.00	27.08	232.42	1,984.90	-286.61	-420.96	509.26	1.59	-1.58	-0.37
2,177.00	26.73	233.21	2,070.50	-312.87	-455.57	552.66	0.52	-0.36	0.82
2,272.00	25.32	232.94	2,155.87	-337.91	-488.89	594.30	1.49	-1.48	-0.28
2,367.00	23.48	234.52	2,242.38	-361.14	-520.52	633.53	2.05	-1.94	1.66
2,460.00	22.07	234.26	2,328.13	-382.10	-549.79	669.52	1.52	-1.52	-0.28
2,555.00	21.10	235.32	2,416.47	-402.25	-578.34	704.47	1.10	-1.02	1.12
2,650.00	20.58	236.72	2,505.25	-421.15	-606.36	738.26	0.76	-0.55	1.47
2,746.00	20.40	237.95	2,595.18	-439.28	-634.64	771.84	0.49	-0.19	1.28
2,808.00	19.61	236.72	2,653.44	-450.73	-652.50	793.04	1.44	-1.27	-1.98
LAST SDI MWD SURFACE SURVEY									
2,886.00	17.94	234.78	2,727.28	-464.84	-673.26	818.14	2.29	-2.14	-2.49
FIRST SDI MWD PRODUCTION SURVEY									
2,976.00	19.35	237.50	2,812.56	-480.84	-697.16	846.90	1.84	1.57	3.02
3,067.00	21.81	237.76	2,897.75	-497.97	-724.18	878.86	2.71	2.70	0.29
3,158.00	21.46	236.62	2,982.34	-516.14	-752.38	912.39	0.60	-0.38	-1.25
3,248.00	23.48	236.45	3,065.50	-535.11	-781.07	946.78	2.25	2.24	-0.19
3,339.00	22.95	238.91	3,149.13	-554.29	-811.37	982.62	1.21	-0.58	2.70
3,429.00	23.21	237.76	3,231.93	-572.81	-841.40	1,017.85	0.58	0.29	-1.28
3,520.00	25.32	238.03	3,314.89	-592.68	-873.08	1,055.21	2.32	2.32	0.30
3,610.00	26.03	239.35	3,396.00	-612.94	-906.39	1,094.13	1.01	0.79	1.47
3,701.00	26.56	238.56	3,477.58	-633.73	-940.93	1,134.37	0.70	0.58	-0.87
3,792.00	26.12	240.14	3,559.14	-654.32	-975.66	1,174.64	0.91	-0.48	1.74
3,882.00	24.01	237.06	3,640.66	-674.14	-1,008.21	1,212.69	2.76	-2.34	-3.42
3,973.00	23.13	238.56	3,724.07	-693.53	-1,039.00	1,249.04	1.17	-0.97	1.65
4,063.00	21.72	238.82	3,807.26	-711.38	-1,068.33	1,283.32	1.57	-1.57	0.29
4,154.00	22.42	240.14	3,891.59	-728.73	-1,097.79	1,317.42	0.94	0.77	1.45
4,245.00	21.46	238.82	3,976.00	-745.99	-1,127.08	1,351.33	1.19	-1.05	-1.45
4,335.00	19.96	238.38	4,060.18	-762.57	-1,154.25	1,383.11	1.68	-1.67	-0.49
4,426.00	16.80	233.19	4,146.54	-778.60	-1,178.01	1,411.77	3.91	-3.47	-5.70
4,516.00	14.77	227.75	4,233.14	-794.11	-1,196.92	1,436.14	2.79	-2.26	-6.04

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-22D1CS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Site:	NBU 921-15N Pad	**MD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Well:	NBU 921-22D1CS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

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)
4,607.00	14.25	229.33	4,321.24	-809.21	-1,214.00	1,458.77	0.72	-0.57	1.74
4,698.00	13.72	230.56	4,409.54	-823.36	-1,230.83	1,480.67	0.67	-0.58	1.35
4,788.00	13.19	226.25	4,497.07	-837.24	-1,246.49	1,501.44	1.26	-0.59	-4.79
4,879.00	12.66	232.14	4,585.77	-850.54	-1,261.86	1,521.65	1.56	-0.58	6.47
4,969.00	12.05	241.93	4,673.70	-861.02	-1,277.94	1,540.83	2.42	-0.68	10.88
5,060.00	10.02	259.91	4,763.04	-866.88	-1,294.12	1,557.48	4.36	-2.23	19.76
5,151.00	7.83	271.69	4,852.94	-868.08	-1,308.12	1,569.67	3.12	-2.41	12.95
5,241.00	5.54	279.16	4,942.32	-867.21	-1,318.53	1,577.75	2.72	-2.54	8.30
5,332.00	2.55	299.20	5,033.09	-865.52	-1,324.64	1,581.81	3.59	-3.29	22.02
5,422.00	0.37	325.21	5,123.05	-864.31	-1,326.55	1,582.70	2.47	-2.42	28.90
5,513.00	0.53	22.96	5,214.05	-863.68	-1,326.56	1,582.34	0.50	0.18	63.46
5,604.00	0.18	62.25	5,305.05	-863.22	-1,326.27	1,581.85	0.45	-0.38	43.18
5,694.00	0.53	109.18	5,395.05	-863.29	-1,325.75	1,581.46	0.48	0.39	52.14
5,785.00	0.51	156.56	5,486.04	-863.80	-1,325.19	1,581.29	0.46	-0.02	52.07
5,875.00	0.53	151.37	5,576.04	-864.54	-1,324.83	1,581.41	0.06	0.02	-5.77
5,966.00	1.05	148.74	5,667.03	-865.62	-1,324.20	1,581.50	0.57	0.57	-2.89
6,057.00	1.62	184.75	5,758.01	-867.61	-1,323.87	1,582.37	1.09	0.63	39.57
6,147.00	1.67	188.02	5,847.97	-870.18	-1,324.16	1,584.07	0.12	0.06	3.63
6,238.00	1.41	190.83	5,938.94	-872.59	-1,324.55	1,585.76	0.30	-0.29	3.09
6,328.00	1.58	182.22	6,028.91	-874.92	-1,324.81	1,587.30	0.31	0.19	-9.57
6,419.00	1.49	216.76	6,119.88	-877.12	-1,325.57	1,589.17	1.01	-0.10	37.96
6,510.00	1.41	212.98	6,210.85	-879.01	-1,326.88	1,591.33	0.14	-0.09	-4.15
6,600.00	1.41	208.41	6,300.82	-880.91	-1,328.01	1,593.34	0.12	0.00	-5.08
6,691.00	1.41	201.82	6,391.79	-882.93	-1,328.96	1,595.27	0.18	0.00	-7.24
6,782.00	1.32	208.76	6,482.77	-884.89	-1,329.88	1,597.14	0.21	-0.10	7.63
6,872.00	1.62	206.56	6,572.74	-886.94	-1,330.95	1,599.18	0.34	0.33	-2.44
6,963.00	1.69	192.16	6,663.70	-889.40	-1,331.81	1,601.29	0.46	0.08	-15.82
7,053.00	1.76	202.17	6,753.66	-891.98	-1,332.61	1,603.41	0.34	0.08	11.12
7,144.00	1.76	190.39	6,844.62	-894.65	-1,333.39	1,605.57	0.40	0.00	-12.95
7,235.00	1.77	190.48	6,935.57	-897.40	-1,333.90	1,607.55	0.01	0.01	0.10
7,325.00	2.07	186.14	7,025.52	-900.39	-1,334.32	1,609.60	0.37	0.33	-4.82
7,416.00	1.98	187.63	7,116.46	-903.58	-1,334.71	1,611.73	0.11	-0.10	1.64
7,506.00	1.85	176.86	7,206.41	-906.57	-1,334.83	1,613.53	0.42	-0.14	-11.97
7,597.00	2.02	178.18	7,297.36	-909.64	-1,334.70	1,615.17	0.19	0.19	1.45
7,688.00	0.70	171.93	7,388.34	-911.79	-1,334.57	1,616.29	1.46	-1.45	-6.87
7,778.00	0.70	7.58	7,478.33	-911.79	-1,334.42	1,616.16	1.54	0.00	-182.61
7,869.00	0.44	33.77	7,569.33	-910.95	-1,334.16	1,615.47	0.40	-0.29	28.78
7,959.00	1.14	27.27	7,659.32	-909.87	-1,333.55	1,614.35	0.78	0.78	-7.22
8,050.00	1.23	25.33	7,750.30	-908.18	-1,332.72	1,612.71	0.11	0.10	-2.13
8,140.00	0.77	44.19	7,840.29	-906.87	-1,331.89	1,611.28	0.62	-0.51	20.96
8,231.00	1.06	49.77	7,931.27	-905.89	-1,330.82	1,609.84	0.33	0.32	6.13
8,322.00	0.97	60.49	8,022.26	-904.97	-1,329.50	1,608.24	0.23	-0.10	11.78
8,412.00	0.97	35.26	8,112.25	-903.97	-1,328.40	1,606.76	0.47	0.00	-28.03
8,503.00	0.79	73.41	8,203.24	-903.16	-1,327.36	1,605.44	0.66	-0.20	41.92

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-22D1CS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Site:	NBU 921-15N Pad	**MD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Well:	NBU 921-22D1CS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

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)
8,593.00	0.97	351.58	8,293.23	-902.23	-1,326.87	1,604.52	1.29	0.20	-90.92
8,684.00	0.34	73.78	8,384.23	-901.40	-1,326.73	1,603.92	1.08	-0.69	90.33
8,775.00	0.75	142.56	8,475.22	-901.79	-1,326.11	1,603.64	0.77	0.45	75.58
8,865.00	1.40	176.09	8,565.21	-903.36	-1,325.67	1,604.17	0.98	0.72	37.26
8,956.00	1.58	262.90	8,656.18	-904.62	-1,326.84	1,605.85	2.25	0.20	95.40
9,046.00	1.44	255.94	8,746.15	-905.05	-1,329.17	1,608.01	0.26	-0.16	-7.73
9,137.00	1.14	230.29	8,837.13	-905.91	-1,330.98	1,609.98	0.71	-0.33	-28.19
9,228.00	0.88	267.82	8,928.12	-906.51	-1,332.37	1,611.47	0.76	-0.29	41.24
9,318.00	0.61	274.36	9,018.11	-906.50	-1,333.54	1,612.43	0.31	-0.30	7.27
9,409.00	0.53	183.54	9,109.11	-906.88	-1,334.05	1,613.06	0.89	-0.09	-99.80
9,499.00	1.19	178.16	9,199.10	-908.23	-1,334.04	1,613.83	0.74	0.73	-5.98
9,590.00	1.32	203.05	9,290.08	-910.14	-1,334.42	1,615.23	0.61	0.14	27.35
9,680.00	1.58	192.50	9,380.05	-912.31	-1,335.10	1,617.01	0.41	0.29	-11.72
9,771.00	2.29	159.37	9,471.00	-915.24	-1,334.73	1,618.37	1.42	0.78	-36.41
9,862.00	1.66	142.84	9,561.94	-917.99	-1,333.29	1,618.75	0.93	-0.69	-18.16
9,998.00	2.37	141.44	9,697.86	-921.76	-1,330.35	1,618.47	0.52	0.52	-1.03
10,043.00	1.85	145.30	9,742.83	-923.08	-1,329.36	1,618.41	1.20	-1.16	8.58
10,134.00	1.93	124.03	9,833.78	-925.15	-1,327.25	1,617.85	0.77	0.09	-23.37
10,224.00	1.49	128.17	9,923.74	-926.72	-1,325.07	1,616.95	0.51	-0.49	4.60
10,315.00	2.11	130.54	10,014.69	-928.54	-1,322.87	1,616.17	0.69	0.68	2.60
10,425.00	1.58	153.74	10,124.64	-931.21	-1,320.66	1,615.88	0.82	-0.48	21.09
LAST SDI MWD PRODUCTION SURVEY									
10,484.00	1.58	153.74	10,183.62	-932.67	-1,319.94	1,616.11	0.00	0.00	0.00
SDI PROJECTION TO TD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
186.00	186.00	-0.43	0.34	FIRST SDI MWD SURFACE SURVEY
2,808.00	2,653.44	-450.73	-652.50	LAST SDI MWD SURFACE SURVEY
2,886.00	2,727.28	-464.84	-673.26	FIRST SDI MWD PRODUCTION SURVEY
10,425.00	10,124.64	-931.21	-1,320.66	LAST SDI MWD PRODUCTION SURVEY
10,484.00	10,183.62	-932.67	-1,319.94	SDI PROJECTION TO TD

Checked By: _____ Approved By: _____ Date: _____

Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12
NBU 921-15N Pad
NBU 921-22D1CS

OH

Design: OH

Survey Report - Geographic

13 July, 2011

Anadarko
Petroleum Corporation

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-22D1CS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Site:	NBU 921-15N Pad	**MD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Well:	NBU 921-22D1CS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Project Uintah County, UT UTM12

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site NBU 921-15N Pad, SECTION 22 T9S R21E

Site Position:		**Northing:**	14,540,265.88 usft	**Latitude:**	40° 1' 47.435 N
From:	Lat/Long	**Easting:**	2,049,430.74 usft	**Longitude:**	109° 32' 20.152 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.94 °

Well NBU 921-22D1CS, 358 FSL 2113 FWL

Well Position	**+N/-S**	0.00 ft	**Northing:**	14,540,263.77 usft	**Latitude:**	40° 1' 47.420 N
	+E/-W	0.00 ft	**Easting:**	2,049,391.01 usft	**Longitude:**	109° 32' 20.663 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,827.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	05/12/2011	11.11	65.89	52,350

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	235.36

Survey Program **Date** 07/13/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
5.00	2,808.00	Survey #1 SDI MWD SURFACE (OH)	MWD SDI	MWD - Standard ver 1.0.1
2,886.00	10,484.00	Survey #2 SDI MWD PRODUCTION (OH)	MWD SDI	MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,540,263.77	2,049,391.01	40° 1' 47.420 N	109° 32' 20.663 W
5.00	0.00	0.00	5.00	0.00	0.00	14,540,263.77	2,049,391.01	40° 1' 47.420 N	109° 32' 20.663 W
186.00	0.35	141.80	186.00	-0.43	0.34	14,540,263.34	2,049,391.36	40° 1' 47.416 N	109° 32' 20.658 W
FIRST SDI MWD SURFACE SURVEY									
277.00	0.09	149.97	277.00	-0.71	0.55	14,540,263.06	2,049,391.57	40° 1' 47.413 N	109° 32' 20.656 W
370.00	1.58	234.88	369.99	-1.52	-0.46	14,540,262.25	2,049,390.57	40° 1' 47.405 N	109° 32' 20.669 W
465.00	3.43	243.93	464.89	-3.52	-4.09	14,540,260.19	2,049,386.98	40° 1' 47.386 N	109° 32' 20.715 W
560.00	5.10	244.20	559.63	-6.61	-10.44	14,540,256.99	2,049,380.68	40° 1' 47.355 N	109° 32' 20.797 W
656.00	7.30	243.40	655.06	-11.19	-19.74	14,540,252.26	2,049,371.46	40° 1' 47.310 N	109° 32' 20.917 W
751.00	9.23	239.97	749.07	-17.71	-31.73	14,540,245.55	2,049,359.58	40° 1' 47.245 N	109° 32' 21.071 W
846.00	11.08	239.10	842.58	-26.21	-46.16	14,540,236.81	2,049,345.29	40° 1' 47.161 N	109° 32' 21.256 W

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-22D1CS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Site:	NBU 921-15N Pad	**MD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Well:	NBU 921-22D1CS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
941.00	13.37	237.60	935.41	-36.79	-63.27	14,540,225.96	2,049,328.35	40° 1' 47.057 N	109° 32' 21.476 W
1,035.00	15.56	234.09	1,026.43	-50.01	-82.66	14,540,212.42	2,049,309.18	40° 1' 46.926 N	109° 32' 21.726 W
1,131.00	17.50	235.05	1,118.46	-65.83	-104.92	14,540,196.24	2,049,287.18	40° 1' 46.770 N	109° 32' 22.012 W
1,226.00	19.35	234.44	1,208.59	-83.16	-129.44	14,540,178.50	2,049,262.96	40° 1' 46.598 N	109° 32' 22.327 W
1,321.00	20.40	234.96	1,297.93	-101.82	-155.80	14,540,159.41	2,049,236.91	40° 1' 46.414 N	109° 32' 22.666 W
1,417.00	21.81	236.63	1,387.49	-121.24	-184.39	14,540,139.53	2,049,208.64	40° 1' 46.222 N	109° 32' 23.034 W
1,512.00	22.86	236.02	1,475.36	-141.26	-214.43	14,540,119.02	2,049,178.93	40° 1' 46.024 N	109° 32' 23.420 W
1,608.00	24.27	236.02	1,563.35	-162.71	-246.26	14,540,097.05	2,049,147.46	40° 1' 45.812 N	109° 32' 23.829 W
1,702.00	25.76	237.43	1,648.53	-184.51	-279.49	14,540,074.71	2,049,114.58	40° 1' 45.597 N	109° 32' 24.256 W
1,797.00	26.47	235.67	1,733.83	-207.56	-314.37	14,540,051.09	2,049,080.09	40° 1' 45.369 N	109° 32' 24.705 W
1,891.00	28.23	233.56	1,817.32	-232.58	-349.56	14,540,025.49	2,049,045.31	40° 1' 45.121 N	109° 32' 25.157 W
1,986.00	28.58	232.77	1,900.89	-259.68	-385.73	14,539,997.81	2,049,009.59	40° 1' 44.854 N	109° 32' 25.622 W
2,081.00	27.08	232.42	1,984.90	-286.61	-420.96	14,539,970.30	2,048,974.81	40° 1' 44.587 N	109° 32' 26.075 W
2,177.00	26.73	233.21	2,070.50	-312.87	-455.57	14,539,943.48	2,048,940.64	40° 1' 44.328 N	109° 32' 26.520 W
2,272.00	25.32	232.94	2,155.87	-337.91	-488.89	14,539,917.90	2,048,907.73	40° 1' 44.080 N	109° 32' 26.949 W
2,367.00	23.48	234.52	2,242.38	-361.14	-520.52	14,539,894.15	2,048,876.49	40° 1' 43.851 N	109° 32' 27.355 W
2,460.00	22.07	234.26	2,328.13	-382.10	-549.79	14,539,872.72	2,048,847.57	40° 1' 43.643 N	109° 32' 27.732 W
2,555.00	21.10	235.32	2,416.47	-402.25	-578.34	14,539,852.10	2,048,819.35	40° 1' 43.444 N	109° 32' 28.099 W
2,650.00	20.58	236.72	2,505.25	-421.15	-606.36	14,539,832.75	2,048,791.65	40° 1' 43.257 N	109° 32' 28.459 W
2,746.00	20.40	237.95	2,595.18	-439.28	-634.64	14,539,814.15	2,048,763.66	40° 1' 43.078 N	109° 32' 28.823 W
2,808.00	19.61	236.72	2,653.44	-450.73	-652.50	14,539,802.41	2,048,745.99	40° 1' 42.965 N	109° 32' 29.052 W
LAST SDI MWD SURFACE SURVEY									
2,886.00	17.94	234.78	2,727.28	-464.84	-673.26	14,539,787.96	2,048,725.47	40° 1' 42.826 N	109° 32' 29.319 W
FIRST SDI MWD PRODUCTION SURVEY									
2,976.00	19.35	237.50	2,812.56	-480.84	-697.16	14,539,771.57	2,048,701.83	40° 1' 42.667 N	109° 32' 29.626 W
3,067.00	21.81	237.76	2,897.75	-497.97	-724.18	14,539,754.00	2,048,675.10	40° 1' 42.498 N	109° 32' 29.974 W
3,158.00	21.46	236.62	2,982.34	-516.14	-752.38	14,539,735.37	2,048,647.21	40° 1' 42.318 N	109° 32' 30.336 W
3,248.00	23.48	236.45	3,065.50	-535.11	-781.07	14,539,715.93	2,048,618.83	40° 1' 42.131 N	109° 32' 30.705 W
3,339.00	22.95	238.91	3,149.13	-554.29	-811.37	14,539,696.26	2,048,588.84	40° 1' 41.941 N	109° 32' 31.095 W
3,429.00	23.21	237.76	3,231.93	-572.81	-841.40	14,539,677.24	2,048,559.12	40° 1' 41.758 N	109° 32' 31.481 W
3,520.00	25.32	238.03	3,314.89	-592.68	-873.08	14,539,656.86	2,048,527.78	40° 1' 41.562 N	109° 32' 31.888 W
3,610.00	26.03	239.35	3,396.00	-612.94	-906.39	14,539,636.05	2,048,494.80	40° 1' 41.362 N	109° 32' 32.317 W
3,701.00	26.56	238.56	3,477.58	-633.73	-940.93	14,539,614.70	2,048,460.61	40° 1' 41.156 N	109° 32' 32.761 W
3,792.00	26.12	240.14	3,559.14	-654.32	-975.66	14,539,593.55	2,048,426.22	40° 1' 40.953 N	109° 32' 33.207 W
3,882.00	24.01	237.06	3,640.66	-674.14	-1,008.21	14,539,573.19	2,048,394.00	40° 1' 40.757 N	109° 32' 33.626 W
3,973.00	23.13	238.56	3,724.07	-693.53	-1,039.00	14,539,553.30	2,048,363.53	40° 1' 40.565 N	109° 32' 34.021 W
4,063.00	21.72	238.82	3,807.26	-711.38	-1,068.33	14,539,534.98	2,048,334.50	40° 1' 40.389 N	109° 32' 34.399 W
4,154.00	22.42	240.14	3,891.59	-728.73	-1,097.79	14,539,517.14	2,048,305.33	40° 1' 40.217 N	109° 32' 34.777 W
4,245.00	21.46	238.82	3,976.00	-745.99	-1,127.08	14,539,499.40	2,048,276.32	40° 1' 40.046 N	109° 32' 35.154 W
4,335.00	19.96	238.38	4,060.18	-762.57	-1,154.25	14,539,482.38	2,048,249.43	40° 1' 39.882 N	109° 32' 35.503 W
4,426.00	16.80	233.19	4,146.54	-778.60	-1,178.01	14,539,465.97	2,048,225.94	40° 1' 39.724 N	109° 32' 35.809 W
4,516.00	14.77	227.75	4,233.14	-794.11	-1,196.92	14,539,450.15	2,048,207.28	40° 1' 39.571 N	109° 32' 36.052 W
4,607.00	14.25	229.33	4,321.24	-809.21	-1,214.00	14,539,434.77	2,048,190.45	40° 1' 39.421 N	109° 32' 36.271 W
4,698.00	13.72	230.56	4,409.54	-823.36	-1,230.83	14,539,420.34	2,048,173.86	40° 1' 39.282 N	109° 32' 36.488 W
4,788.00	13.19	226.25	4,497.07	-837.24	-1,246.49	14,539,406.21	2,048,158.43	40° 1' 39.144 N	109° 32' 36.689 W
4,879.00	12.66	232.14	4,585.77	-850.54	-1,261.86	14,539,392.66	2,048,143.27	40° 1' 39.013 N	109° 32' 36.887 W
4,969.00	12.05	241.93	4,673.70	-861.02	-1,277.94	14,539,381.92	2,048,127.37	40° 1' 38.909 N	109° 32' 37.093 W
5,060.00	10.02	259.91	4,763.04	-866.88	-1,294.12	14,539,375.80	2,048,111.29	40° 1' 38.851 N	109° 32' 37.301 W
5,151.00	7.83	271.69	4,852.94	-868.08	-1,308.12	14,539,374.36	2,048,097.31	40° 1' 38.839 N	109° 32' 37.481 W
5,241.00	5.54	279.16	4,942.32	-867.21	-1,318.53	14,539,375.06	2,048,086.88	40° 1' 38.848 N	109° 32' 37.615 W
5,332.00	2.55	299.20	5,033.09	-865.52	-1,324.64	14,539,376.65	2,048,080.75	40° 1' 38.865 N	109° 32' 37.694 W
5,422.00	0.37	325.21	5,123.05	-864.31	-1,326.55	14,539,377.83	2,048,078.82	40° 1' 38.877 N	109° 32' 37.718 W
5,513.00	0.53	22.96	5,214.05	-863.68	-1,326.56	14,539,378.46	2,048,078.80	40° 1' 38.883 N	109° 32' 37.719 W
5,604.00	0.18	62.25	5,305.05	-863.22	-1,326.27	14,539,378.92	2,048,079.09	40° 1' 38.887 N	109° 32' 37.715 W
5,694.00	0.53	109.18	5,395.05	-863.29	-1,325.75	14,539,378.86	2,048,079.61	40° 1' 38.887 N	109° 32' 37.708 W

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-22D1CS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Site:	NBU 921-15N Pad	**MD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Well:	NBU 921-22D1CS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,785.00	0.51	156.56	5,486.04	-863.80	-1,325.19	14,539,378.36	2,048,080.17	40° 1' 38.882 N	109° 32' 37.701 W
5,875.00	0.53	151.37	5,576.04	-864.54	-1,324.83	14,539,377.63	2,048,080.54	40° 1' 38.875 N	109° 32' 37.696 W
5,966.00	1.05	148.74	5,667.03	-865.62	-1,324.20	14,539,376.56	2,048,081.20	40° 1' 38.864 N	109° 32' 37.688 W
6,057.00	1.62	184.75	5,758.01	-867.61	-1,323.87	14,539,374.57	2,048,081.55	40° 1' 38.844 N	109° 32' 37.684 W
6,147.00	1.67	188.02	5,847.97	-870.18	-1,324.16	14,539,372.00	2,048,081.31	40° 1' 38.819 N	109° 32' 37.688 W
6,238.00	1.41	190.83	5,938.94	-872.59	-1,324.55	14,539,369.58	2,048,080.95	40° 1' 38.795 N	109° 32' 37.693 W
6,328.00	1.58	182.22	6,028.91	-874.92	-1,324.81	14,539,367.25	2,048,080.74	40° 1' 38.772 N	109° 32' 37.696 W
6,419.00	1.49	216.76	6,119.88	-877.12	-1,325.57	14,539,365.04	2,048,080.01	40° 1' 38.750 N	109° 32' 37.706 W
6,510.00	1.41	212.98	6,210.85	-879.01	-1,326.88	14,539,363.13	2,048,078.73	40° 1' 38.731 N	109° 32' 37.723 W
6,600.00	1.41	208.41	6,300.82	-880.91	-1,328.01	14,539,361.21	2,048,077.63	40° 1' 38.713 N	109° 32' 37.737 W
6,691.00	1.41	201.82	6,391.79	-882.93	-1,328.96	14,539,359.17	2,048,076.71	40° 1' 38.693 N	109° 32' 37.749 W
6,782.00	1.32	208.76	6,482.77	-884.89	-1,329.88	14,539,357.19	2,048,075.83	40° 1' 38.673 N	109° 32' 37.761 W
6,872.00	1.62	206.56	6,572.74	-886.94	-1,330.95	14,539,355.13	2,048,074.79	40° 1' 38.653 N	109° 32' 37.775 W
6,963.00	1.69	192.16	6,663.70	-889.40	-1,331.81	14,539,352.65	2,048,073.98	40° 1' 38.629 N	109° 32' 37.786 W
7,053.00	1.76	202.17	6,753.66	-891.98	-1,332.61	14,539,350.06	2,048,073.22	40° 1' 38.603 N	109° 32' 37.796 W
7,144.00	1.76	190.39	6,844.62	-894.65	-1,333.39	14,539,347.38	2,048,072.48	40° 1' 38.577 N	109° 32' 37.806 W
7,235.00	1.77	190.48	6,935.57	-897.40	-1,333.90	14,539,344.62	2,048,072.02	40° 1' 38.550 N	109° 32' 37.813 W
7,325.00	2.07	186.14	7,025.52	-900.39	-1,334.32	14,539,341.63	2,048,071.64	40° 1' 38.520 N	109° 32' 37.818 W
7,416.00	1.98	187.63	7,116.46	-903.58	-1,334.71	14,539,338.43	2,048,071.31	40° 1' 38.489 N	109° 32' 37.823 W
7,506.00	1.85	176.86	7,206.41	-906.57	-1,334.83	14,539,335.44	2,048,071.23	40° 1' 38.459 N	109° 32' 37.825 W
7,597.00	2.02	178.18	7,297.36	-909.64	-1,334.70	14,539,332.37	2,048,071.41	40° 1' 38.429 N	109° 32' 37.823 W
7,688.00	0.70	171.93	7,388.34	-911.79	-1,334.57	14,539,330.22	2,048,071.58	40° 1' 38.407 N	109° 32' 37.822 W
7,778.00	0.70	7.58	7,478.33	-911.79	-1,334.42	14,539,330.22	2,048,071.73	40° 1' 38.407 N	109° 32' 37.820 W
7,869.00	0.44	33.77	7,569.33	-910.95	-1,334.16	14,539,331.07	2,048,071.98	40° 1' 38.416 N	109° 32' 37.816 W
7,959.00	1.14	27.27	7,659.32	-909.87	-1,333.55	14,539,332.16	2,048,072.56	40° 1' 38.426 N	109° 32' 37.808 W
8,050.00	1.23	25.33	7,750.30	-908.18	-1,332.72	14,539,333.86	2,048,073.37	40° 1' 38.443 N	109° 32' 37.798 W
8,140.00	0.77	44.19	7,840.29	-906.87	-1,331.89	14,539,335.18	2,048,074.18	40° 1' 38.456 N	109° 32' 37.787 W
8,231.00	1.06	49.77	7,931.27	-905.89	-1,330.82	14,539,336.18	2,048,075.24	40° 1' 38.466 N	109° 32' 37.773 W
8,322.00	0.97	60.49	8,022.26	-904.97	-1,329.50	14,539,337.13	2,048,076.53	40° 1' 38.475 N	109° 32' 37.756 W
8,412.00	0.97	35.26	8,112.25	-903.97	-1,328.40	14,539,338.14	2,048,077.62	40° 1' 38.485 N	109° 32' 37.742 W
8,503.00	0.79	73.41	8,203.24	-903.16	-1,327.36	14,539,338.97	2,048,078.65	40° 1' 38.493 N	109° 32' 37.729 W
8,593.00	0.97	351.58	8,293.23	-902.23	-1,326.87	14,539,339.91	2,048,079.12	40° 1' 38.502 N	109° 32' 37.723 W
8,684.00	0.34	73.78	8,384.23	-901.40	-1,326.73	14,539,340.75	2,048,079.25	40° 1' 38.510 N	109° 32' 37.721 W
8,775.00	0.75	142.56	8,475.22	-901.79	-1,326.11	14,539,340.36	2,048,079.88	40° 1' 38.506 N	109° 32' 37.713 W
8,865.00	1.40	176.09	8,565.21	-903.36	-1,325.67	14,539,338.80	2,048,080.34	40° 1' 38.491 N	109° 32' 37.707 W
8,956.00	1.58	262.90	8,656.18	-904.62	-1,326.84	14,539,337.52	2,048,079.19	40° 1' 38.478 N	109° 32' 37.722 W
9,046.00	1.44	255.94	8,746.15	-905.05	-1,329.17	14,539,337.05	2,048,076.87	40° 1' 38.474 N	109° 32' 37.752 W
9,137.00	1.14	230.29	8,837.13	-905.91	-1,330.98	14,539,336.17	2,048,075.08	40° 1' 38.466 N	109° 32' 37.775 W
9,228.00	0.88	267.82	8,928.12	-906.51	-1,332.37	14,539,335.54	2,048,073.69	40° 1' 38.460 N	109° 32' 37.793 W
9,318.00	0.61	274.36	9,018.11	-906.50	-1,333.54	14,539,335.53	2,048,072.53	40° 1' 38.460 N	109° 32' 37.808 W
9,409.00	0.53	183.54	9,109.11	-906.88	-1,334.05	14,539,335.14	2,048,072.02	40° 1' 38.456 N	109° 32' 37.815 W
9,499.00	1.19	178.16	9,199.10	-908.23	-1,334.04	14,539,333.79	2,048,072.05	40° 1' 38.443 N	109° 32' 37.815 W
9,590.00	1.32	203.05	9,290.08	-910.14	-1,334.42	14,539,331.87	2,048,071.70	40° 1' 38.424 N	109° 32' 37.820 W
9,680.00	1.58	192.50	9,380.05	-912.31	-1,335.10	14,539,329.70	2,048,071.06	40° 1' 38.402 N	109° 32' 37.828 W
9,771.00	2.29	159.37	9,471.00	-915.24	-1,334.73	14,539,326.78	2,048,071.48	40° 1' 38.373 N	109° 32' 37.824 W
9,862.00	1.66	142.84	9,561.94	-917.99	-1,333.29	14,539,324.05	2,048,072.96	40° 1' 38.346 N	109° 32' 37.805 W
9,998.00	2.37	141.44	9,697.86	-921.76	-1,330.35	14,539,320.33	2,048,075.96	40° 1' 38.309 N	109° 32' 37.767 W
10,043.00	1.85	145.30	9,742.83	-923.08	-1,329.36	14,539,319.02	2,048,076.98	40° 1' 38.296 N	109° 32' 37.754 W
10,134.00	1.93	124.03	9,833.78	-925.15	-1,327.25	14,539,316.99	2,048,079.12	40° 1' 38.275 N	109° 32' 37.727 W
10,224.00	1.49	128.17	9,923.74	-926.72	-1,325.07	14,539,315.46	2,048,081.32	40° 1' 38.260 N	109° 32' 37.699 W
10,315.00	2.11	130.54	10,014.69	-928.54	-1,322.87	14,539,313.67	2,048,083.55	40° 1' 38.242 N	109° 32' 37.671 W
10,425.00	1.58	153.74	10,124.64	-931.21	-1,320.66	14,539,311.03	2,048,085.81	40° 1' 38.215 N	109° 32' 37.643 W
LAST SDI MWD PRODUCTION SURVEY									
10,484.00	1.58	153.74	10,183.62	-932.67	-1,319.94	14,539,309.58	2,048,086.55	40° 1' 38.201 N	109° 32' 37.633 W
SDI PROJECTION TO TD									

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 921-22D1CS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Site:	NBU 921-15N Pad	**MD Reference:**	GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
Well:	NBU 921-22D1CS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
186.00	186.00	-0.43	0.34	FIRST SDI MWD SURFACE SURVEY
2,808.00	2,653.44	-450.73	-652.50	LAST SDI MWD SURFACE SURVEY
2,886.00	2,727.28	-464.84	-673.26	FIRST SDI MWD PRODUCTION SURVEY
10,425.00	10,124.64	-931.21	-1,320.66	LAST SDI MWD PRODUCTION SURVEY
10,484.00	10,183.62	-932.67	-1,319.94	SDI PROJECTION TO TD

Checked By: _____ Approved By: _____ Date: _____

Form 3160-3
(August 2007)

RECEIVED
JUN 30 2009
BLM

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
UTU0147566

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
891008900A

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone

8. Lease Name and Well No.
NBU 921-22D1CS

2. Name of Operator
KERRMCGEE OIL&GAS ONSHORE LP
Contact: DANIELLE E PIERNOT
E-Mail: Danielle.Piernot@anadarko.com

9. API Well No.
43-047-50531

3a. Address
PO BOX 173779
DENVER, CO 80202-3779

3b. Phone No. (include area code)
Ph: 720-929-6156
Fx: 720-929-7156

10. Field and Pool, or Exploratory
NATURAL BUTTES

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface SESW 358FSL 2113FWL 40.02980 N Lat, 109.53976 W Lon (Sec. 15)

At proposed prod. zone NWNW 566FNL 789FWL 40.02729 N Lat, 109.54449 W Lon (Sec. 22)

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 15 T9S R21E Mer SLB

14. Distance in miles and direction from nearest town or post office*
APPROXIMATELY 26 MILES SOUTHEAST OF OURAY, UTAH

12. County or Parish
UINTAH

13. State
UT

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
566 FEET

16. No. of Acres in Lease
160.00

17. Spacing Unit dedicated to this well

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.
APPROXIMATELY 340 FEET

19. Proposed Depth
10572 MD
10100 TVD

20. BLM/BIA Bond No. on file
WYB000291

21. Elevations (Show whether DF, KB, RT, GL, etc.
4827 GL

22. Approximate date work will start
07/20/2009

23. Estimated duration
60-90 DAYS

24. Attachments

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

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

25. Signature
(Electronic Submission)

Name (Printed/Typed)
DANIELLE E PIERNOT Ph: 720-929-6156

Date
06/30/2009

Title
REGULATORY ANALYST

Approved by (Signature)

Name (Printed/Typed)
James H. Sparger

Date
NOV 12 2010

Title
Acting Assistant Field Manager
Lands & Mineral Resources

Office
VERNAL FIELD OFFICE

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

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

RECEIVED
DEC 06 2010

Additional Operator Remarks (see next page)

Electronic Submission #71517 verified by the BLM Well Information System
For KERRMCGEE OIL&GAS ONSHORE LP, sent to the Vernal
Committed to AFMSS for processing by GAIL JENKINS on 07/02/2009 ()

DIV. OF OIL, GAS & MINING

NOS apd posted 7/6/09

NOTICE OF APPROVAL

CONDITIONS OF APPROVAL ATTACHED

AFMSS#

UDOGM

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

096X5511YAE

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE
170 South 500 East VERNAL, UT 84078 (435) 781-4400

CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	**Kerr McGee Oil & Gas Onshore LP**	**Location:**	**SESW, Sec 15, T9S R21E**
Well No:	**NBU 921-22D1CS**	**Lease No:**	**UTU-0147566**
API No:	**43-047-50531**	**Agreement:**	**Natural Buttes Unit**

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Construction Activity (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	-	The Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist shall be notified at least 48 hours in advance of any construction activity. The Ute Tribal office is open Monday through Thursday.
Construction Completion (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	-	Upon completion of the pertinent APD/ROW construction, notify the Ute Tribe Energy & Minerals Dept. for a Tribal Technician to verify the Affidavit of Completion. Notify the BLM Environmental Scientist prior to moving on the drilling rig.
Spud Notice (Notify BLM Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify BLM Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut_vn_opreport@blm.gov.
BOP & Related Equipment Tests (Notify BLM Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify BLM Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC CONDITIONS OF APPROVAL

- Paint old and new facilities "Shadow Gray."
- Move the existing pipeline off the damage area of the well pad.
- In accordance with the guidelines specified in the Utah BLM Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002, a raptor survey should be conducted prior to expansion of the well pad or pipeline upgrade if construction would take place during raptor nesting season (January 01 through September 30). If active raptor nests are identified during a new survey, KMG should conduct its operations according to the seasonal restrictions detailed in the Uintah Basin-specific RMP guidelines and spatial offsets specified by the USFWS Utah Raptor Guidelines (see Appendix D).
- If project construction operations are not initiated before June 25, 2010, KMG should conduct additional biological surveys in accordance with the guidelines specified in the USFWS Rare Plant Conservation Measures for Uinta Basin hookless cactus (See Appendix D) and conduct its operation according to its specifications.

BIA Standard Conditions of Approval:

- Soil erosion will be mitigated by reseeding all disturbed areas.
- The gathering pipelines will be constructed to lie on the surface. The surface pipelines will not be bladed or cleared of vegetation. Where pipelines are constructed parallel to roads they may be welded on the road and then lifted from the road onto the right-of-way. Where pipelines do not parallel roads but cross-country between sites, they shall be welded in place at well sites or on access roads and then pulled between stations with a suitable piece of equipment. Traffic will be restricted along these areas so that the pipeline right-of-way will not be used as an access road.
- An open drilling system shall be used, unless otherwise specified in 10.0 Additional Stipulations of this document and in the Application for Permit to Drill. A closed drilling system shall be used in all flood plain areas, and other highly sensitive areas, recommended by the Ute Tribe Technician, BIA, and other agencies involved.
- The reserve pit shall be lined with a synthetic leak proof liner. After the drilling operation is complete, excess fluids shall be removed from the reserve pit and either hauled to an approved disposal site or shall be used to drill other wells. When the fluids are removed the pit shall be backfilled a minimum of 3.0' below the soil surface elevation.
- A closed production system shall be used. This means all produced water and oil field fluid wastes shall be contained in leak proof tanks. These fluids shall be disposed of in either approved injection wells or disposal pits.
- Major low water crossings will be armored with pit run material to protect them from erosion.

- All personnel should refrain from collecting any paleontological fossils and from disturbing any fossil resources in the area.

- If fossils are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.

- Before the site is abandoned the company will be required to restore the right-of-way to near its original state. The disturbed area will be reseeded with desirable perennial vegetation. If necessary, the Bureau of Indian Affairs or Bureau of Land Management will provide a suitable seed mixture.

- Noxious weeds will be controlled on all surface disturbances within the project area. If noxious weeds spread from the project area onto adjoining land, the company will also be responsible for their control.

- If project construction operations are scheduled to occur after December 31, 2009, KMG should conduct annual raptor surveys in accordance with the guidelines specified in the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002. If active raptor nest are indentified during a new survey, KMG should conduct its operations according to the seasonal restrictions detailed in the Uinta basin-specific RMP guidelines and spatial offsets specified by the USFWS Utah Raptor Gui9ldlines (See Appendix D).

- USFWS threatened and endangered plant and animal conservation measures will be followed, as appropriate to the species identified by the biological resource survey (See Appendix D).

- All personnel should refrain from collecting artifacts and from disturbing any significant cultural resources in the area.

- If artifacts or any culturally sensitive materials are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.

DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE CONDITIONS OF APPROVAL

- A Gama Ray Log shall be run from TD to surface.

Variances Granted:

Air Drilling:

- Properly lubricated and maintained rotating head, variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore, variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for two truck/trailer mounted air compressors located within 40 feet from the well bore and 60' from the blooie line.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for kill fluid.
- Automatic igniter. Variance granted for igniter due to there being no productive formations while drilling with air.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

- No aggressive/fresh hard-banded drill pipe shall be used within casing.

- **Cement baskets shall not be run on surface casing.**

- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.

- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.

- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

- **Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**

- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.

- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:

    - Operator name, address, and telephone number.
    - Well name and number.
    - Well location (¼¼, Sec., Twn, Rng, and P.M.).
    - Date well was placed in a producing status (date of first production for which royalty will be paid).
    - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
    - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
    - Unit agreement and/or participating area name and number, if applicable.
    - Communitization agreement number, if applicable.

- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.

- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.

- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or

data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.

- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.

- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.

- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.

- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.