

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

FORM 3

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL

| | | | |
|---|---|--|----------------|
| 2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/> | | 1. WELL NAME and NUMBER NBU 921-22C1CS | |
| 4. TYPE OF WELL Gas Well <input type="checkbox"/> Coalbed Methane Well: NO <input type="checkbox"/> | | 3. FIELD OR WILDCAT NATURAL BUTTES | |
| 6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P. | | 5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES | |
| 8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217 | | 7. OPERATOR PHONE 720 929-6587 | |
| 10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU 0147566 | | 11. MINERAL OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/> | |
| 13. NAME OF SURFACE OWNER (if box 12 = 'fee') | | 12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/> | |
| 15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') | | 14. SURFACE OWNER PHONE (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 <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/> | |
| 19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/> | | 16. SURFACE OWNER E-MAIL (if box 12 = 'fee') | |
| 20. LOCATION OF WELL | FOOTAGES | QTR-QTR | SECTION |
| LOCATION AT SURFACE | 359 FSL 2133 FWL | SESW | 15 |
| Top of Uppermost Producing Zone | 446 FNL 2071 FWL | NENW | 22 |
| At Total Depth | 446 FNL 2071 FWL | NENW | 22 |
| 21. COUNTY UINTAH | 22. DISTANCE TO NEAREST LEASE LINE (Feet) 446 | 23. NUMBER OF ACRES IN DRILLING UNIT 160 | |
| | 25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 370 | 26. PROPOSED DEPTH MD: 10279 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

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

| | | |
|--|---|--|
| NAME Danielle Piernot | TITLE Regulatory Analyst | PHONE 720 929-6156 |
| SIGNATURE | DATE 06/30/2009 | EMAIL danielle.piernot@anadarko.com |
| API NUMBER ASSIGNED 43047505280000 | APPROVAL  Permit Manager | |

Proposed Hole, Casing, and Cement

| String | Hole Size | Casing Size | Top (MD) | Bottom (MD) | | |
|---------------|------------------|--------------------|-----------------|--------------------|--|--|
| Prod | 7.875 | 4.5 | 0 | 10279 | | |
| Pipe | Grade | Length | Weight | | | |
| | Grade P-110 LT&C | 10279 | 11.6 | | | |
| | | | | | | |

Proposed Hole, Casing, and Cement

| String | Hole Size | Casing Size | Top (MD) | Bottom (MD) | | |
|---------------|------------------|--------------------|-----------------|--------------------|--|--|
| Surf | 12.25 | 9.625 | 0 | 2635 | | |
| Pipe | Grade | Length | Weight | | | |
| | Grade J-55 LT&C | 2635 | 36.0 | | | |
| | | | | | | |

NW Cor. Sec. 15
Found 2006
Aluminum Cap with
Pile of Stones

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

Sec. 15

N0°02'W (G.L.O.)
N00°02'03"W - 5290.23' (Meas.)

1/4 Cor.
Not Found

WELL LOCATION: NBU 921-22C1CS

ELEV. UNGRADED GROUND = 4826.8'

NBU 921-22C1CS (Surface Position)
NAD 83 LATITUDE = 40.029806° (40° 01' 47.300")
LONGITUDE = 109.539690° (109° 32' 22.885")
NAD 27 LATITUDE = 40.029841° (40° 01' 47.427")
LONGITUDE = 109.539002° (109° 32' 20.407")

Well Surface
Position

2133'

Found 2006
Aluminum Cap
With Fence Post

N89°35'05"W - 2642.95' (Meas.)

N89°57'W 79.96 (G.L.O.)

359'

Found 2006
Aluminum Cap
with Stone

2071'

446'

Bottom
of Hole

N00°17'32"E - 5284.34' (Meas.)

NBU 921-22C1CS (Bottom Hole)
NAD 83 LATITUDE = 40.027599° (40° 01' 39.355")
LONGITUDE = 109.539910° (109° 32' 23.677")
NAD 27 LATITUDE = 40.027634° (40° 01' 39.482")
LONGITUDE = 109.539222° (109° 32' 21.199")

2646.31' (Measured)
N00°03'12"E (Basis of Bearings)

Found 2006
Aluminum Cap in
Pile of Stones

N89°47'40"W 5291.60' (Meas.)

Sec. 22

S 1/4 Cor. Sec. 22
Found 2006 Aluminum
Cap with Stone Under
E/W Fence

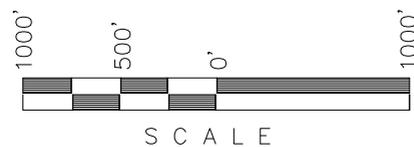
Found 2006
Aluminum Cap in
Pile of Stones

N0°02'W (G.L.O.)

N0°01'W (G.L.O.)

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 S04°25'57"W 806.56' 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 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'.



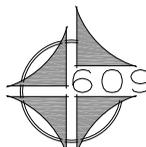
SURVEYOR'S CERTIFICATE

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

No. 362251
KOLBY R. KAY

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



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

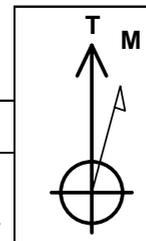
NBU 921-22C1CS
WELL PLAT
446' FNL, 2071' FWL (Bottom Hole)
NE 1/4 NW 1/4 OF SECTION 22, T9S, R21E,
S.L.B.&M. UINTAH COUNTY, UTAH.

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 3 OF 13 |
| DATE DRAWN: 11-17-08 | DRAWN BY: E.M.S. | |
| SCALE: 1" = 1000' | | Date Last Revised: 01-22-09 |



Site: NBU 921-15N Pad
Well: NBU 921-22C1CS
Wellbore: OH
Design: Plan #1

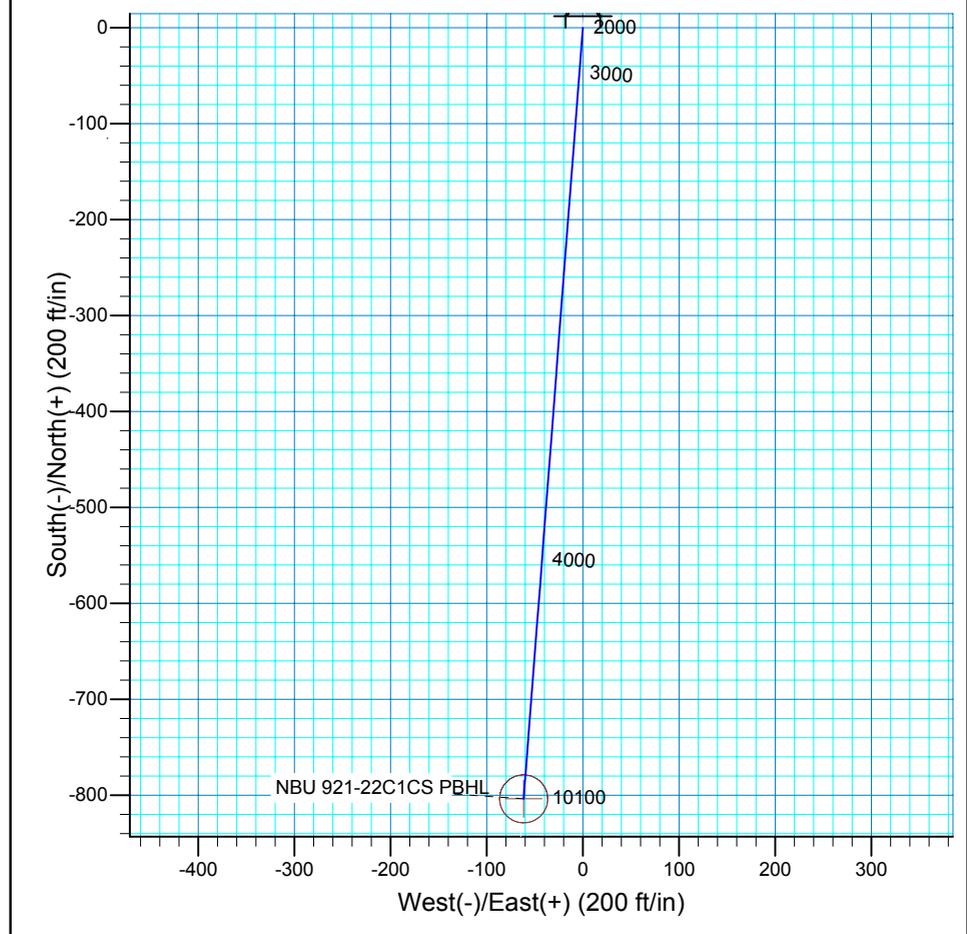
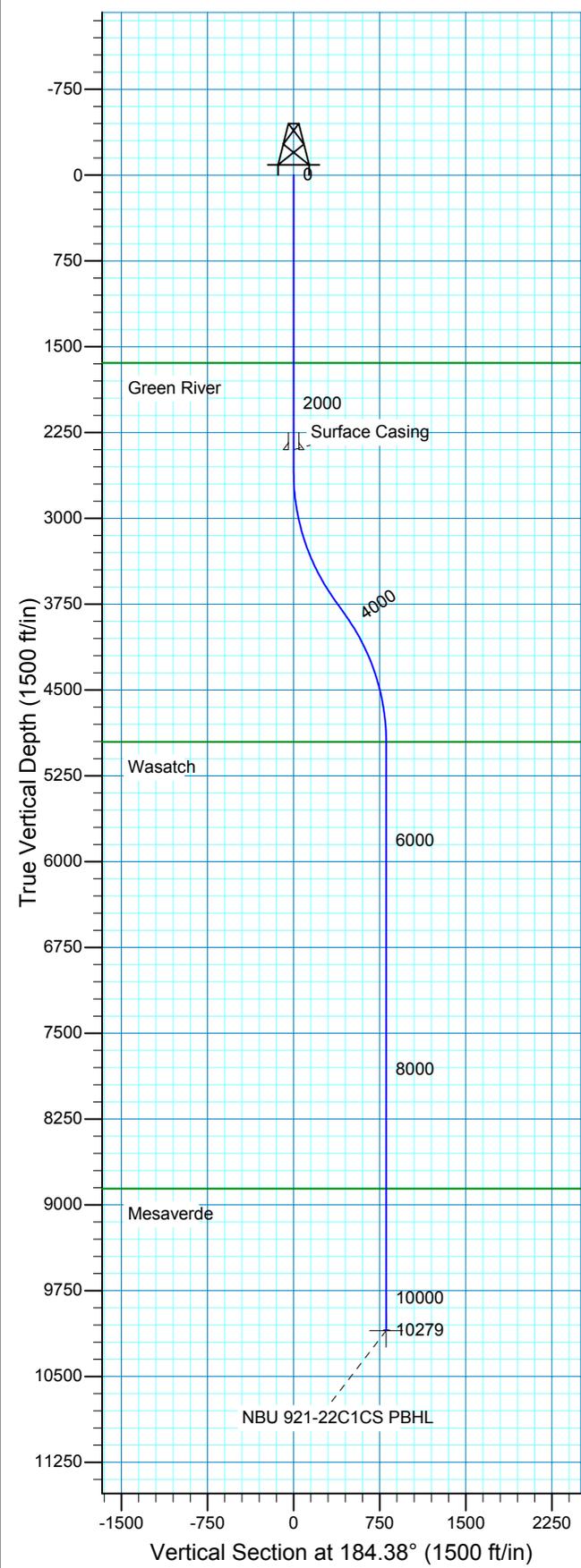


Azimuths to True North
Magnetic North: 11.37°

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

WELL DETAILS: NBU 921-22C1CS

GL 4826' & RKB 18' @ 4844.00ft 4826.00
+N/-S 0.00 +E/-W 0.00 Northing 623935.23 Easting 2549083.04 Latitude 40° 1' 47.427 N Longitude 109° 32' 20.407 W



Plan: Plan #1 (NBU 921-22C1CS/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 | |
| 3770.93 | 35.13 | 184.38 | 3698.94 | -346.82 | -26.58 | 3.00 | 184.38 | 347.84 | |
| 3963.04 | 35.13 | 184.38 | 3856.06 | -457.05 | -35.03 | 0.00 | 0.00 | 458.39 | |
| 5133.97 | 0.00 | 0.00 | 4955.00 | -803.87 | -61.61 | 3.00 | 180.00 | 806.23 | |
| 10278.97 | 0.00 | 0.00 | 10100.00 | -803.87 | -61.61 | 0.00 | 0.00 | 806.23 | NBU 921-22C1CS PBHL |



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore

LP

Uintah County, UT NAD27

NBU 921-15N Pad

NBU 921-22C1CS

OH

Plan: Plan #1

Standard Planning Report

06 March, 2009



Scientific Drilling Planning Report

| | |
|---|---|
| Database: EDM 2003.16 Multi User DB | Local Co-ordinate Reference: Well NBU 921-22C1CS |
| 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 921-22C1CS | 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 921-22C1CS, 359' FSL 2133' FWL | | | | | | |
| Well Position | +N/-S | 0.00 ft | Northing: | 623,935.23 ft | Latitude: | 40° 1' 47.427 N |
| | +E/-W | 0.00 ft | Easting: | 2,549,083.04 ft | Longitude: | 109° 32' 20.407 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) | +N/-S | +E/-W | Direction |
| | (ft) | (ft) | (ft) | (°) |
| | 0.00 | 0.00 | 0.00 | 184.38 |

| 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 | |
| 3,770.93 | 35.13 | 184.38 | 3,698.94 | -346.82 | -26.58 | 3.00 | 3.00 | 0.00 | 184.38 | |
| 3,963.04 | 35.13 | 184.38 | 3,856.06 | -457.05 | -35.03 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5,133.97 | 0.00 | 0.00 | 4,955.00 | -803.87 | -61.61 | 3.00 | -3.00 | 0.00 | 180.00 | |
| 10,278.97 | 0.00 | 0.00 | 10,100.00 | -803.87 | -61.61 | 0.00 | 0.00 | 0.00 | 0.00 | NBU 921-22C1CS PE |



Scientific Drilling Planning Report

| | |
|---|---|
| Database: EDM 2003.16 Multi User DB | Local Co-ordinate Reference: Well NBU 921-22C1CS |
| 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 921-22C1CS | 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 |
| 1,642.00 | 0.00 | 0.00 | 1,642.00 | 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 |
| Surface Casing | | | | | | | | | |
| 2,500.00 | 0.00 | 0.00 | 2,500.00 | 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 |
| 2,700.00 | 3.00 | 184.38 | 2,699.95 | -2.61 | -0.20 | 2.62 | 3.00 | 3.00 | 0.00 |
| 2,800.00 | 6.00 | 184.38 | 2,799.63 | -10.43 | -0.80 | 10.46 | 3.00 | 3.00 | 0.00 |
| 2,900.00 | 9.00 | 184.38 | 2,898.77 | -23.44 | -1.80 | 23.51 | 3.00 | 3.00 | 0.00 |
| 3,000.00 | 12.00 | 184.38 | 2,997.08 | -41.61 | -3.19 | 41.74 | 3.00 | 3.00 | 0.00 |
| 3,100.00 | 15.00 | 184.38 | 3,094.31 | -64.89 | -4.97 | 65.08 | 3.00 | 3.00 | 0.00 |
| 3,200.00 | 18.00 | 184.38 | 3,190.18 | -93.20 | -7.14 | 93.48 | 3.00 | 3.00 | 0.00 |
| 3,300.00 | 21.00 | 184.38 | 3,284.43 | -126.48 | -9.69 | 126.85 | 3.00 | 3.00 | 0.00 |
| 3,400.00 | 24.00 | 184.38 | 3,376.81 | -164.63 | -12.62 | 165.12 | 3.00 | 3.00 | 0.00 |
| 3,500.00 | 27.00 | 184.38 | 3,467.06 | -207.55 | -15.91 | 208.16 | 3.00 | 3.00 | 0.00 |
| 3,600.00 | 30.00 | 184.38 | 3,554.93 | -255.12 | -19.55 | 255.87 | 3.00 | 3.00 | 0.00 |
| 3,700.00 | 33.00 | 184.38 | 3,640.18 | -307.22 | -23.54 | 308.12 | 3.00 | 3.00 | 0.00 |
| 3,770.93 | 35.13 | 184.38 | 3,698.94 | -346.82 | -26.58 | 347.84 | 3.00 | 3.00 | 0.00 |
| 3,800.00 | 35.13 | 184.38 | 3,722.72 | -363.50 | -27.86 | 364.57 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 35.13 | 184.38 | 3,804.50 | -420.88 | -32.26 | 422.11 | 0.00 | 0.00 | 0.00 |
| 3,963.04 | 35.13 | 184.38 | 3,856.06 | -457.05 | -35.03 | 458.39 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 34.02 | 184.38 | 3,886.49 | -477.96 | -36.63 | 479.36 | 3.00 | -3.00 | 0.00 |
| 4,100.00 | 31.02 | 184.38 | 3,970.81 | -531.55 | -40.74 | 533.11 | 3.00 | -3.00 | 0.00 |
| 4,200.00 | 28.02 | 184.38 | 4,057.81 | -580.67 | -44.50 | 582.37 | 3.00 | -3.00 | 0.00 |
| 4,300.00 | 25.02 | 184.38 | 4,147.28 | -625.19 | -47.91 | 627.02 | 3.00 | -3.00 | 0.00 |
| 4,400.00 | 22.02 | 184.38 | 4,238.96 | -664.97 | -50.96 | 666.92 | 3.00 | -3.00 | 0.00 |
| 4,500.00 | 19.02 | 184.38 | 4,332.61 | -699.92 | -53.64 | 701.97 | 3.00 | -3.00 | 0.00 |
| 4,600.00 | 16.02 | 184.38 | 4,427.96 | -729.93 | -55.94 | 732.07 | 3.00 | -3.00 | 0.00 |
| 4,700.00 | 13.02 | 184.38 | 4,524.76 | -754.92 | -57.86 | 757.13 | 3.00 | -3.00 | 0.00 |



Scientific Drilling Planning Report

| | |
|---|---|
| Database: EDM 2003.16 Multi User DB | Local Co-ordinate Reference: Well NBU 921-22C1CS |
| 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 921-22C1CS | 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) | |
| 4,800.00 | 10.02 | 184.38 | 4,622.73 | -774.83 | -59.38 | 777.10 | 3.00 | -3.00 | 0.00 | |
| 4,900.00 | 7.02 | 184.38 | 4,721.62 | -789.60 | -60.51 | 791.91 | 3.00 | -3.00 | 0.00 | |
| 5,000.00 | 4.02 | 184.38 | 4,821.14 | -799.19 | -61.25 | 801.53 | 3.00 | -3.00 | 0.00 | |
| 5,100.00 | 1.02 | 184.38 | 4,921.03 | -803.57 | -61.58 | 805.92 | 3.00 | -3.00 | 0.00 | |
| 5,133.97 | 0.00 | 0.00 | 4,955.00 | -803.87 | -61.61 | 806.23 | 3.00 | -3.00 | 0.00 | |
| Wasatch | | | | | | | | | | |
| 5,200.00 | 0.00 | 0.00 | 5,021.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 5,300.00 | 0.00 | 0.00 | 5,121.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 5,400.00 | 0.00 | 0.00 | 5,221.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 5,500.00 | 0.00 | 0.00 | 5,321.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 5,600.00 | 0.00 | 0.00 | 5,421.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 5,700.00 | 0.00 | 0.00 | 5,521.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 5,800.00 | 0.00 | 0.00 | 5,621.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 5,900.00 | 0.00 | 0.00 | 5,721.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 6,000.00 | 0.00 | 0.00 | 5,821.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 6,100.00 | 0.00 | 0.00 | 5,921.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 6,200.00 | 0.00 | 0.00 | 6,021.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 6,300.00 | 0.00 | 0.00 | 6,121.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 6,400.00 | 0.00 | 0.00 | 6,221.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 6,500.00 | 0.00 | 0.00 | 6,321.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 6,600.00 | 0.00 | 0.00 | 6,421.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 6,700.00 | 0.00 | 0.00 | 6,521.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 6,800.00 | 0.00 | 0.00 | 6,621.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 6,900.00 | 0.00 | 0.00 | 6,721.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 7,000.00 | 0.00 | 0.00 | 6,821.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 7,100.00 | 0.00 | 0.00 | 6,921.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 7,200.00 | 0.00 | 0.00 | 7,021.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 7,300.00 | 0.00 | 0.00 | 7,121.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 7,400.00 | 0.00 | 0.00 | 7,221.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 7,500.00 | 0.00 | 0.00 | 7,321.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 7,600.00 | 0.00 | 0.00 | 7,421.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 7,700.00 | 0.00 | 0.00 | 7,521.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 7,800.00 | 0.00 | 0.00 | 7,621.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 7,900.00 | 0.00 | 0.00 | 7,721.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 8,000.00 | 0.00 | 0.00 | 7,821.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 8,100.00 | 0.00 | 0.00 | 7,921.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 8,200.00 | 0.00 | 0.00 | 8,021.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 8,300.00 | 0.00 | 0.00 | 8,121.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 8,400.00 | 0.00 | 0.00 | 8,221.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 8,500.00 | 0.00 | 0.00 | 8,321.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 8,600.00 | 0.00 | 0.00 | 8,421.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 8,700.00 | 0.00 | 0.00 | 8,521.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 8,800.00 | 0.00 | 0.00 | 8,621.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 8,900.00 | 0.00 | 0.00 | 8,721.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 9,000.00 | 0.00 | 0.00 | 8,821.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 9,037.97 | 0.00 | 0.00 | 8,859.00 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| Mesaverde | | | | | | | | | | |
| 9,100.00 | 0.00 | 0.00 | 8,921.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 9,200.00 | 0.00 | 0.00 | 9,021.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 9,300.00 | 0.00 | 0.00 | 9,121.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 9,400.00 | 0.00 | 0.00 | 9,221.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 9,500.00 | 0.00 | 0.00 | 9,321.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 9,600.00 | 0.00 | 0.00 | 9,421.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |



Scientific Drilling
Planning Report

| | | | |
|------------------|-----------------------------------|-------------------------------------|--------------------------------|
| Database: | EDM 2003.16 Multi User DB | Local Co-ordinate Reference: | Well NBU 921-22C1CS |
| 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 921-22C1CS | 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) | |
| 9,700.00 | 0.00 | 0.00 | 9,521.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 9,800.00 | 0.00 | 0.00 | 9,621.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 9,900.00 | 0.00 | 0.00 | 9,721.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 10,000.00 | 0.00 | 0.00 | 9,821.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 10,100.00 | 0.00 | 0.00 | 9,921.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 10,200.00 | 0.00 | 0.00 | 10,021.03 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |
| 10,278.97 | 0.00 | 0.00 | 10,100.00 | -803.87 | -61.61 | 806.23 | 0.00 | 0.00 | 0.00 | |

| Targets | | | | | | | | | | |
|---|---------------|--------------|-----------|------------|------------|---------------|--------------|-----------------|-------------------|--|
| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude | |
| NBU 921-22C1CS PBHL - hit/miss target - Shape - plan hits target center - Circle (radius 25.00) | 0.00 | 0.00 | 10,100.00 | -803.87 | -61.61 | 623,130.20 | 2,549,039.07 | 40° 1' 39.482 N | 109° 32' 21.199 W | |

| Casing Points | | | | | | |
|---------------------|---------------------|----------------|----------------------|--------------------|--|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (in) | Hole Diameter (in) | | |
| 2,400.00 | 2,400.00 | Surface Casing | 9.625 | 13.500 | | |

| Formations | | | | | | |
|---------------------|---------------------|-------------|-----------|---------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) | |
| 1,642.00 | 1,642.00 | Green River | | 0.00 | | |
| 5,133.97 | 4,955.00 | Wasatch | | 0.00 | | |
| 9,037.97 | 8,859.00 | Mesaverde | | 0.00 | | |

NBU 921-22C1CS

Pad: NBU 921-15N

Surface: 359' FSL, 2,133' FWL (SE/4SW/4) Sec. 15

BHL: 446' FNL 2,071' FWL (NE/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:

| <u>Formation</u> | <u>Depth</u> | <u>Resource</u> |
|------------------|--------------|-----------------|
| Uinta | 0 – Surface | |
| Green River | 1,642' | |
| Birds Nest | 1,931' | Water |
| Mahogany | 2,432' | Water |
| Wasatch | 4,955' | Gas |
| Mesaverde | 7,934' | Gas |
| MVU2 | 8,859' | Gas |
| MVL1 | 9,448' | Gas |
| TVD | 10,100' | |
| TD | 10,279' | |

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 10,279' TD, approximately equals 6,297 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. Variations:

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.



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 2,635 | 36.00 | J-55 | LTC | 0.85 | 1.64 | 6.08 |
| | | | | | | 7,780 | 6,350 | 201,000 |
| PRODUCTION | 4-1/2" | 0 to 9,829 | 11.60 | I-80 | LTC | 1.91 | 1.09 | 2.06 |
| | | | | | | 10,690 | 8,650 | 279,000 |
| | 4-1/2" | 9,829 to 10,279 | 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 6,297 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 | 2,135' | 65/35 Poz + 6% Gel + 10 pps gilsonite | 500 | 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 | 4,449' | Premium Lite II + 3% KCl + 0.25 pps | 420 | 40% | 11.00 | 3.38 | |
| | | | celloflake + 5 pps gilsonite + 10% gel | | | | | |
| | | | + 0.5% extender | | | | | |
| | TAIL | 5,830' | 50/50 Poz/G + 10% salt + 2% gel | 1,430 | 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.

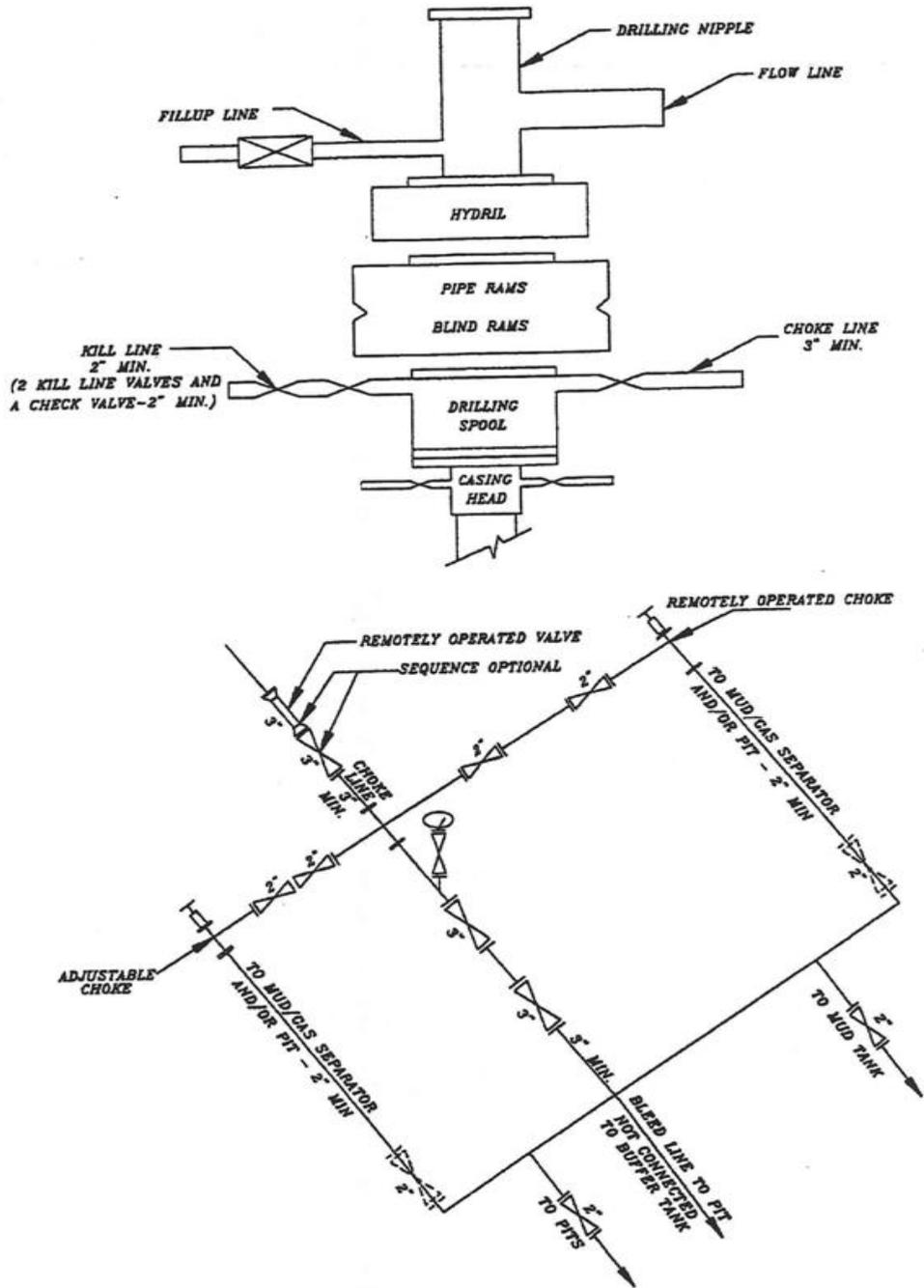
Surveys will be taken at 1,000' minimum intervals.

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 921-22C1CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

WELL PAD INTERFERENCE PLAT

DIRECTIONAL PAD - NBU 921-15N



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

| 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' |

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

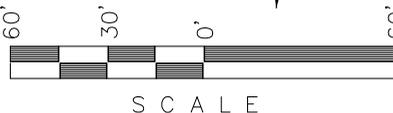
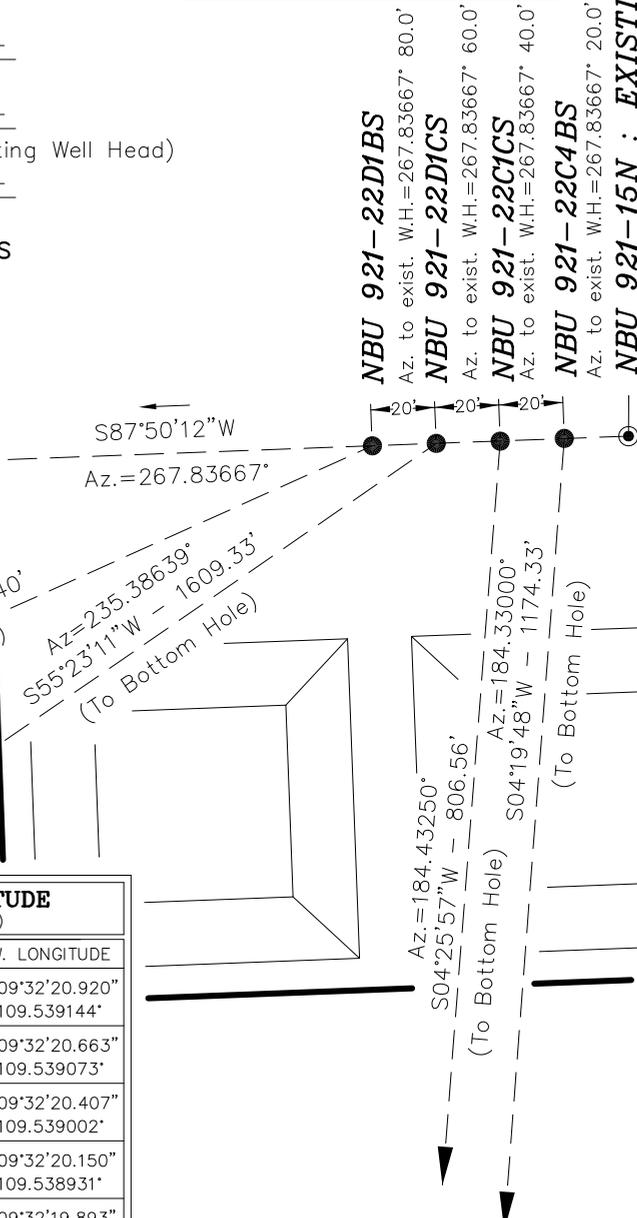
BASIS OF BEARINGS IS THE WEST LINE OF THE NW 1/4 OF SECTION 22, T9S, R21E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°03'12"E.

| 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° |

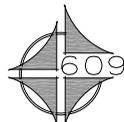
| LATITUDE & LONGITUDE | | |
|------------------------|-----------------------------|-------------------------------|
| Bottom Hole - (NAD 83) | | |
| WELL | N. LATITUDE | W. LONGITUDE |
| 921-22D1BS | 40°01'41.607" 40.028224° | 109°32'39.768" 109.544380° |
| 921-22D1CS | 40°01'38.250" 40.027292° | 109°32'40.153" 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 | | |
|------------------------|-----------------------------|-------------------------------|
| 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° |

| 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° |



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



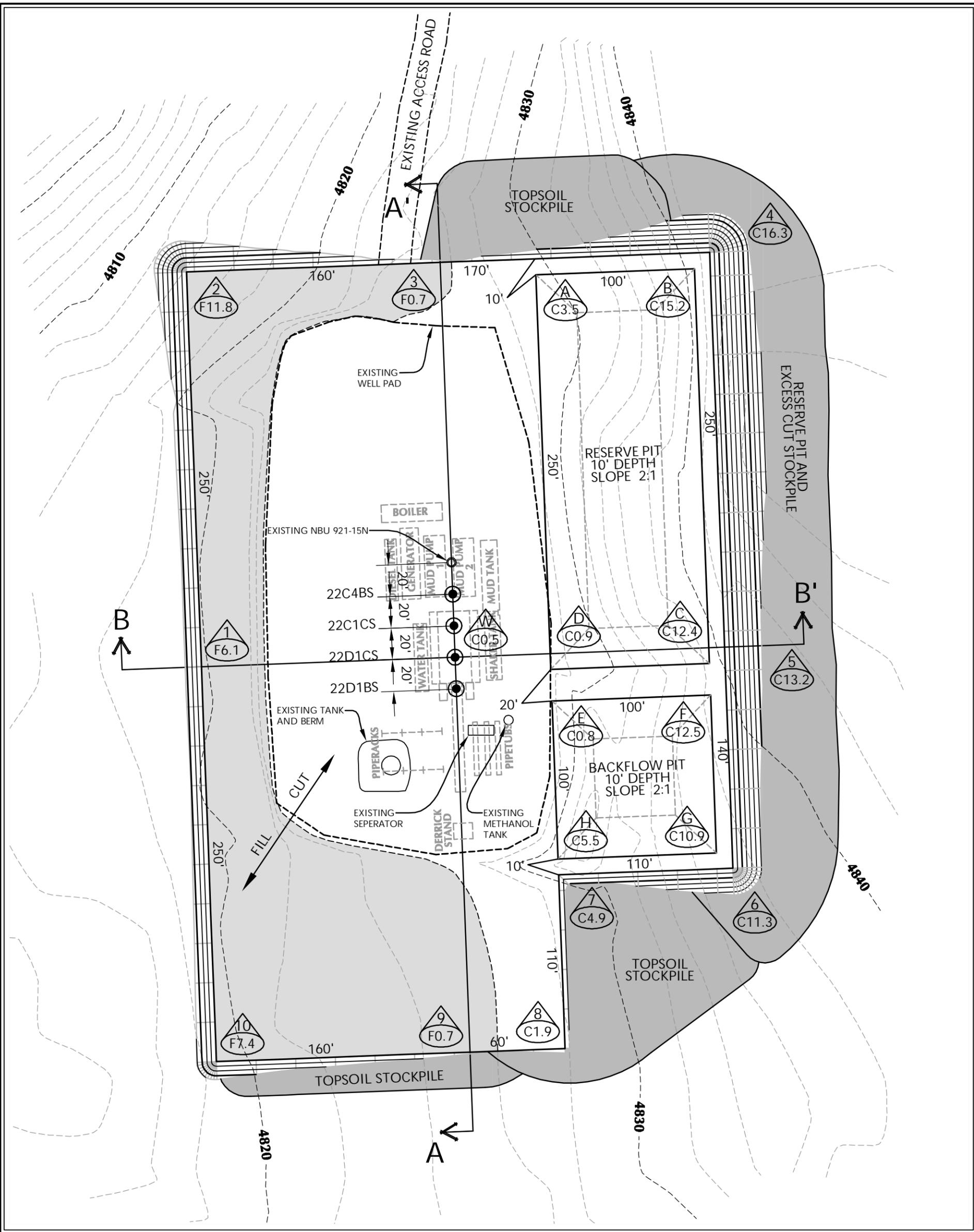
CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

| | |
|-------------------------|---------------------|
| 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

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.



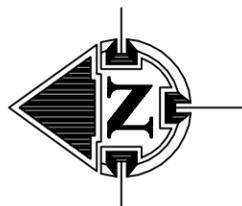
WELL PAD NBU 921-15N QUANTITIES

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

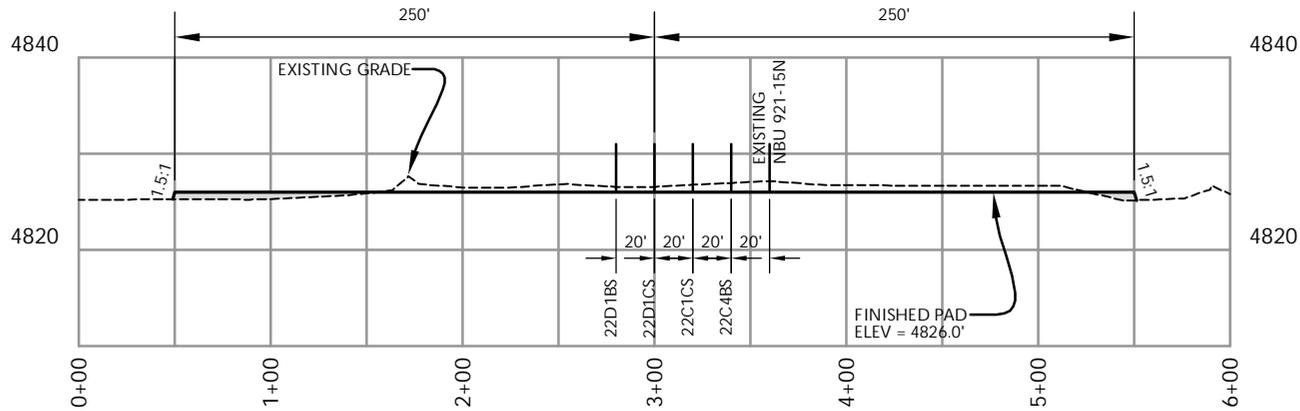


609 CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

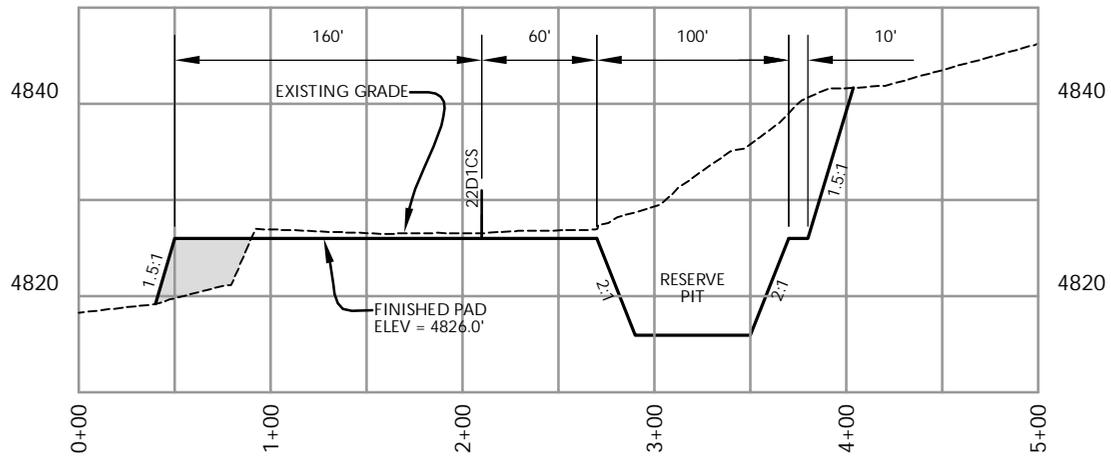
WELL PAD - LOCATION LAYOUT
 NBU 921-22D1BS, NBU 921-22D1CS,
 NBU 921-22C1CS, NBU 921-22C4BS
 LOCATED IN SECTION 15, T.9S., R.21E.
 S.L.B.&M., UINTAH COUNTY, UTAH

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

Timberline (435) 789-1365
 Engineering & Land Surveying, Inc.
 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.**

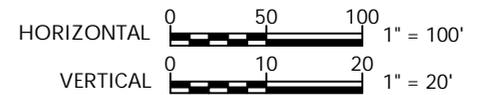
1099 18th Street - Denver, Colorado 80202

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

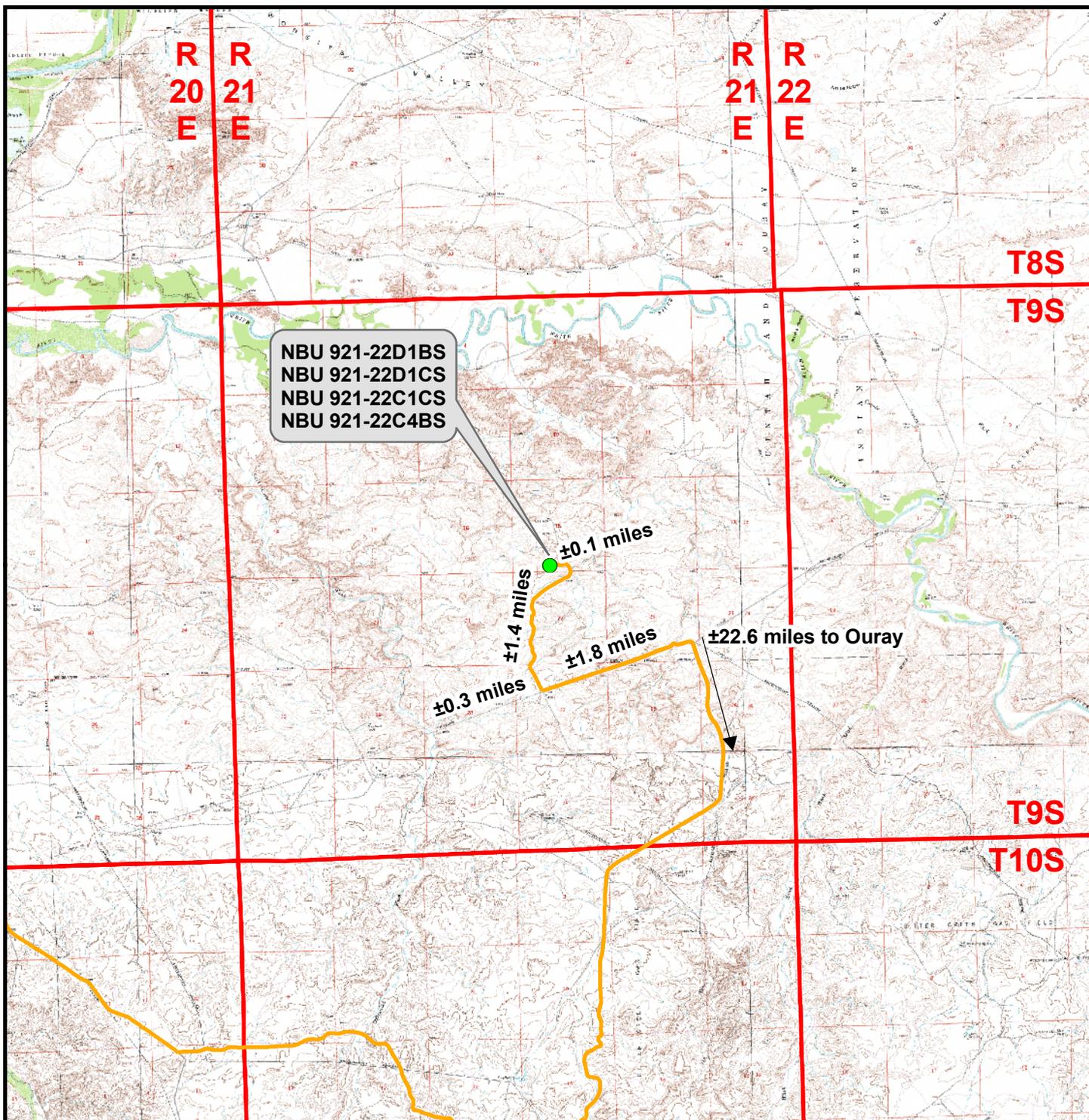


CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

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



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



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**

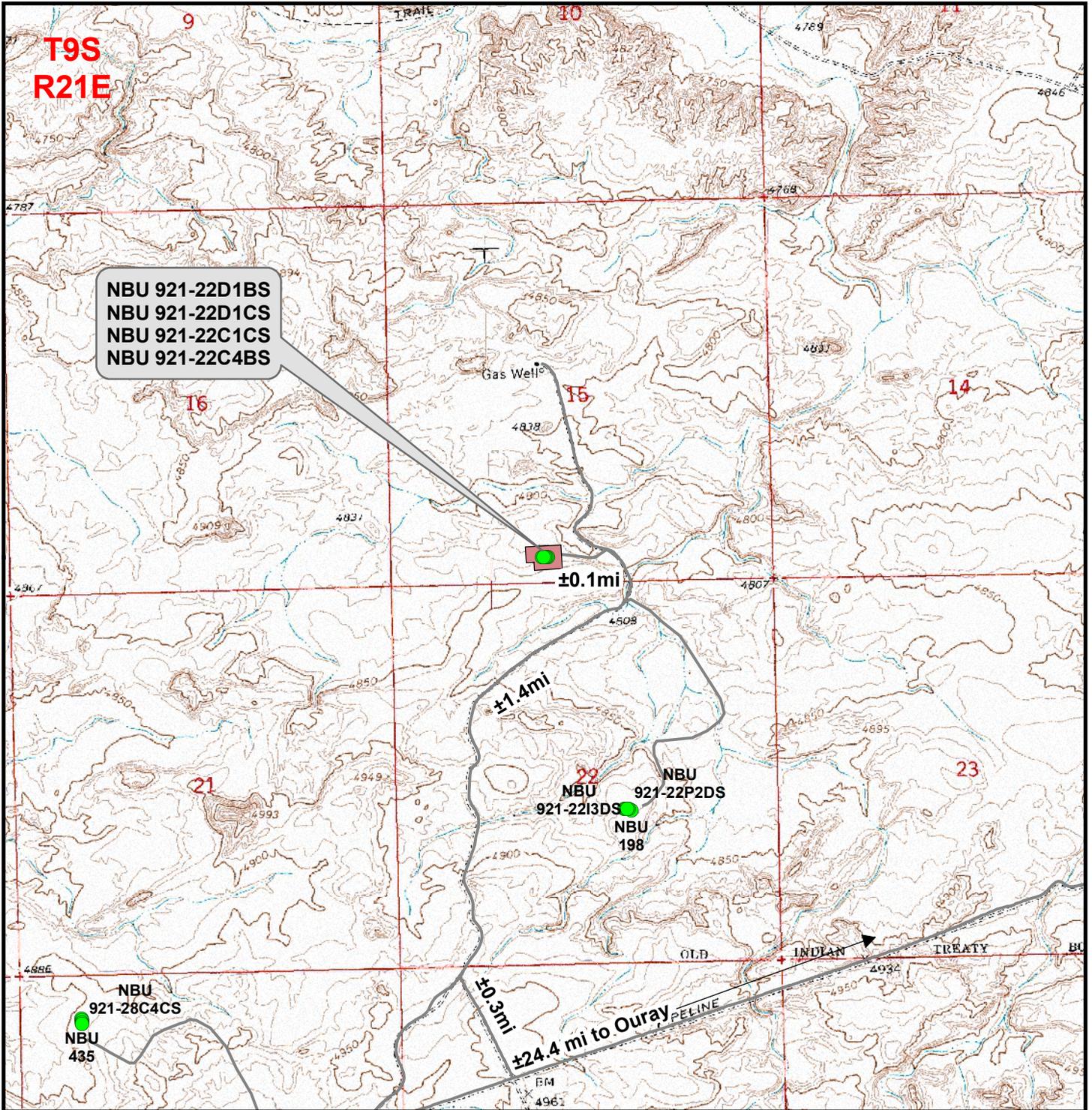


CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan, WY 82801
 Phone (307) 674-0609
 Fax (307) 674-0182



| | |
|------------------|-------------------|
| Scale: 1:100,000 | NAD83 USP Central |
| Drawn: JELO | Date: 10 Feb 2009 |
| Revised: | Date: |

| |
|-----------|
| Sheet No: |
| 9 |
| 9 of 13 |



Legend

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

Total Proposed Road Length: ±0ft

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

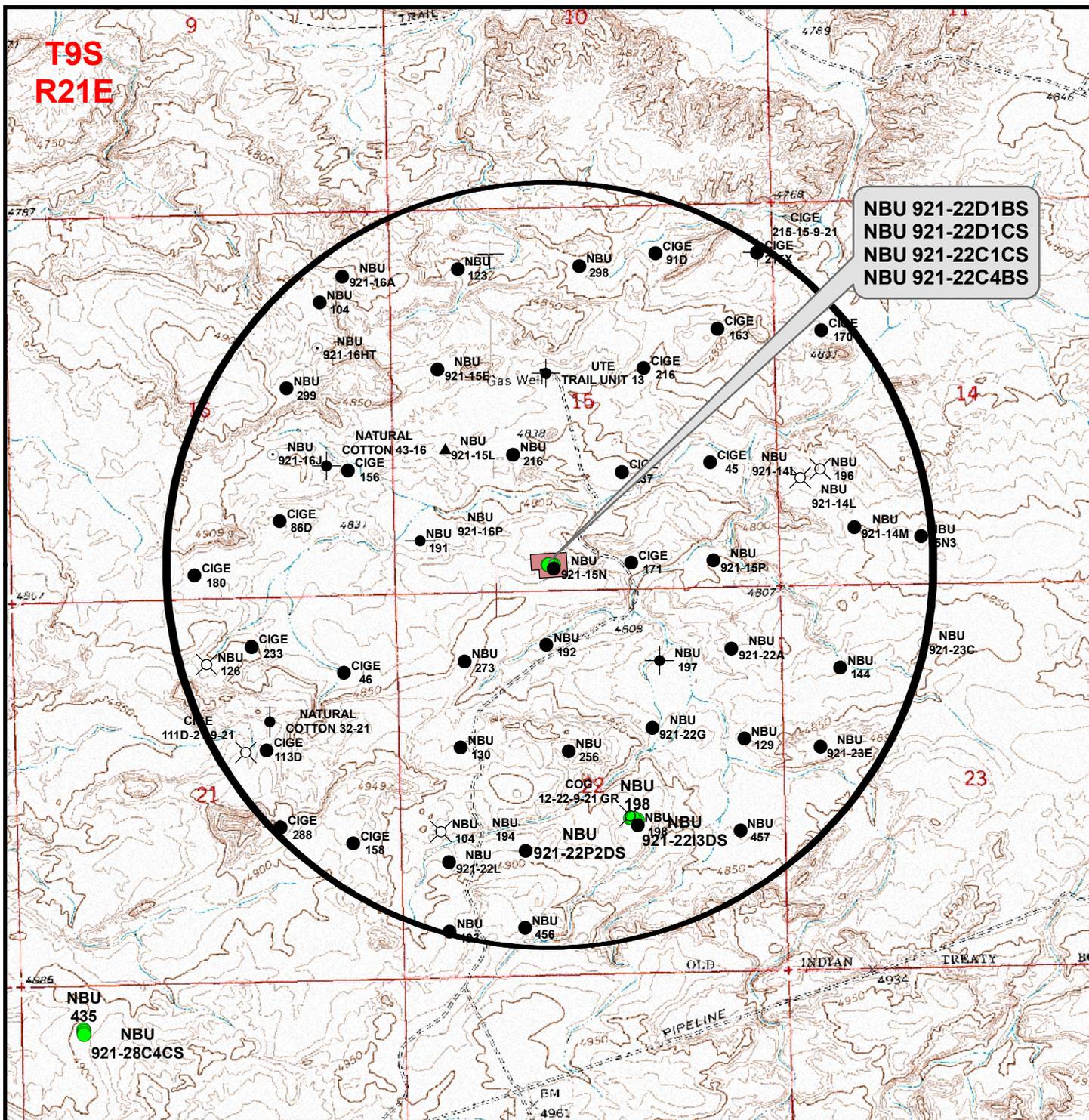
**NBU 921-22D1BS, NBU 921-22D1CS,
 NBU 921-22C1CS & NBU 921-22C4BS**
Topo B
Located In Section 15, T9S, R21E
S.L.B.&M., Uintah County, Utah

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



| | |
|--------------------|-------------------|
| Scale: 1" = 2000ft | NAD83 USP Central |
| Drawn: JELO | Date: 10 Feb 2009 |
| Revised: | Date: |

Sheet No:
10 10 of 13



**NBU 921-22D1BS
NBU 921-22D1CS
NBU 921-22C1CS
NBU 921-22C4BS**

Legend

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

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

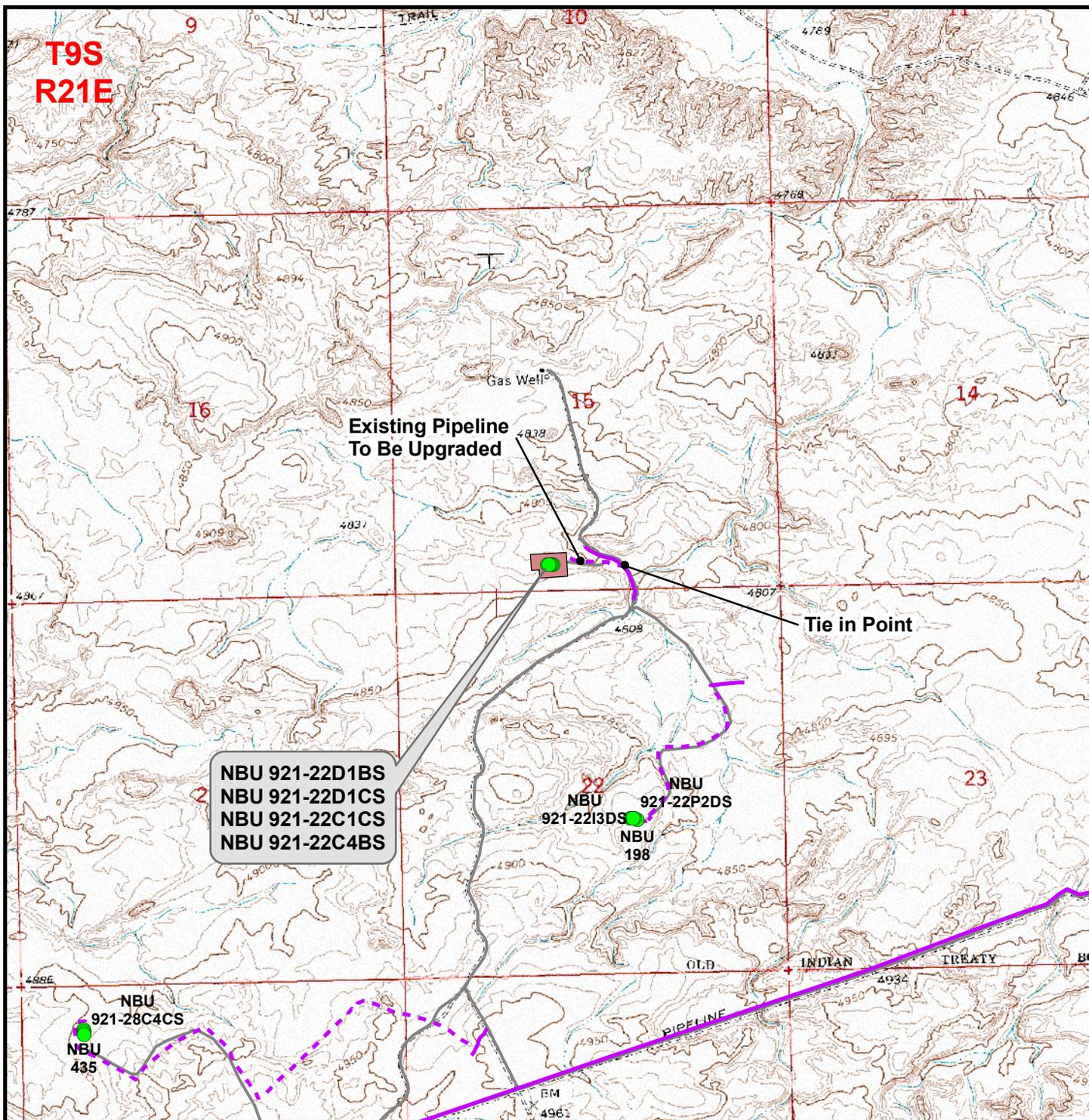
**NBU 921-22D1BS, NBU 921-22D1CS,
NBU 921-22C1CS & NBU 921-22C4BS
Topo C
Located In Section 15, T9S, R21E
S.L.B.&M., Uintah County, Utah**

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



| | |
|--------------------|-------------------|
| Scale: 1" = 2000ft | NAD83 USP Central |
| Drawn: JELO | Date: 10 Feb 2009 |
| Revised: | Date: |

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|------------------------------|
| Sheet No: 11 of 13 |
|------------------------------|



Legend

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

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

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**



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



| | |
|--------------------|-------------------|
| Scale: 1" = 2000ft | NAD83 USP Central |
| Drawn: JELO | Date: 10 Feb 2009 |
| Revised: | Date: |

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|---------------------------------|
| Sheet No: 12 12 of 13 |
|---------------------------------|

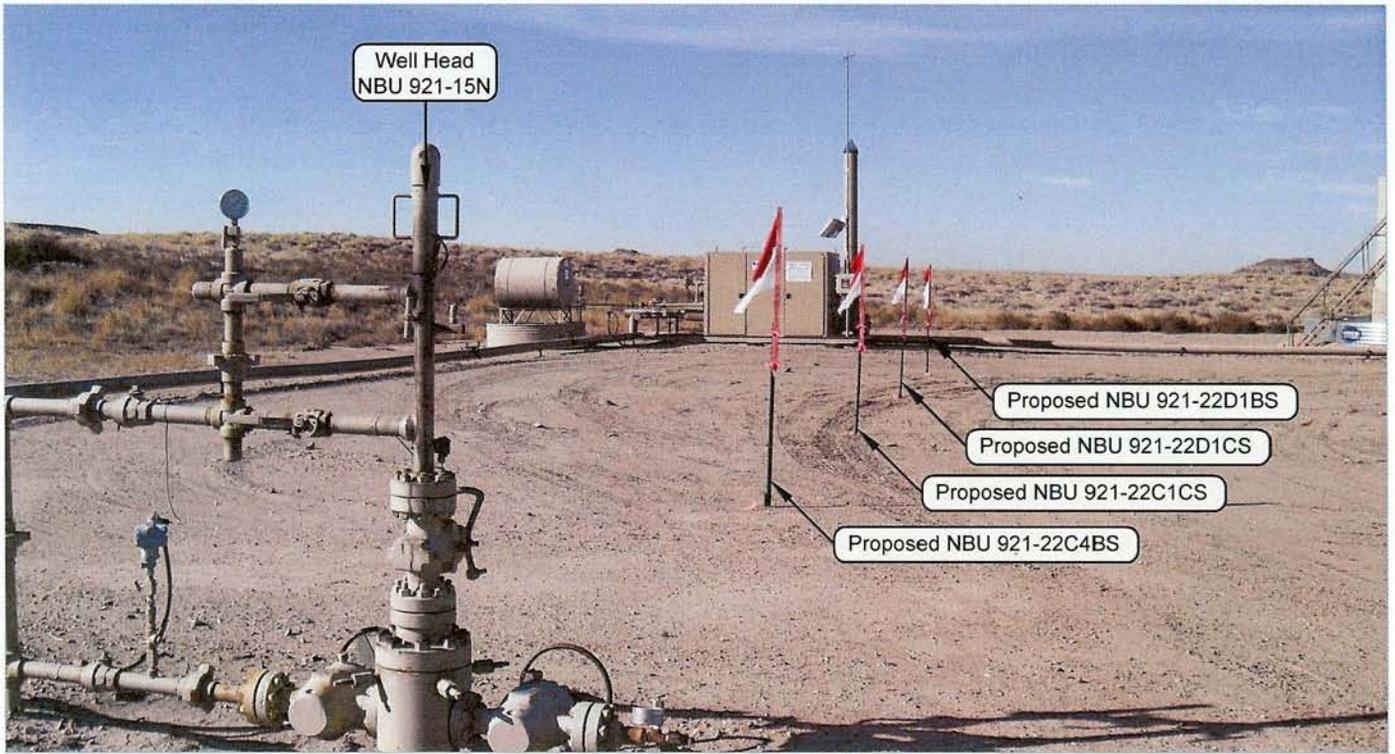


PHOTO VIEW: FROM EXISTING WELL HEAD TO LOCATION STAKES CAMERA ANGLE: SOUTHWESTERLY



PHOTO VIEW: FROM EXISTING ROAD CAMERA ANGLE: WESTERLY

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



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

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

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

| | | |
|--|----------------|--|
| <i>Timberline</i> | (435) 789-1365 | SHEET 8 OF 13 |
| 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

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

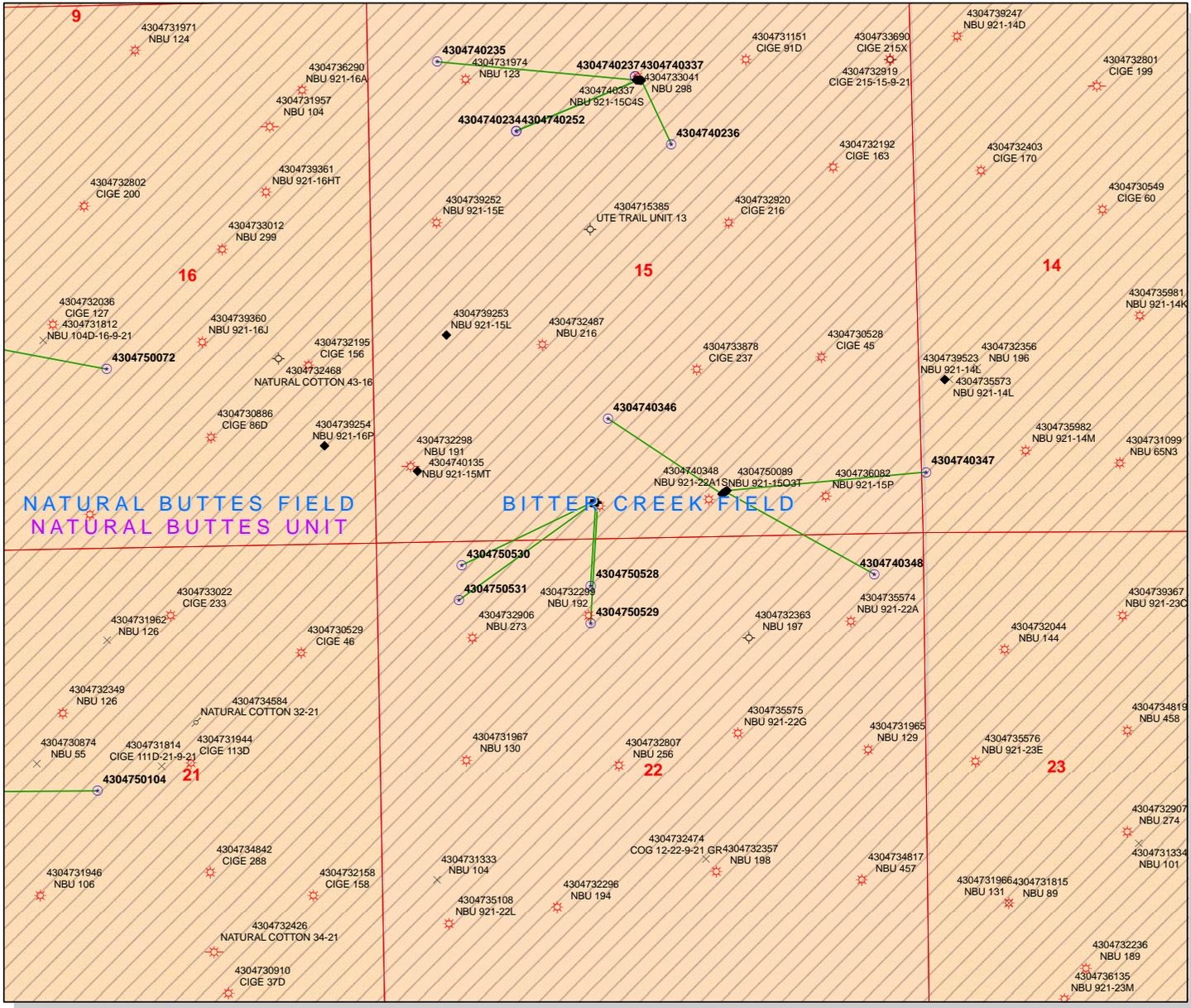
Prepared for

**Anadarko Petroleum Corp.
and
Ute Tribe
Uintah and Ouray Reservation**

Prepared by

SWCA Environmental Consultants

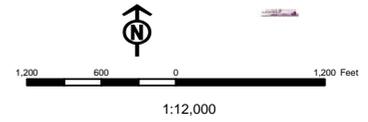
SWCA #UT09-14314-20



API Number: 4304750528
Well Name: NBU 921-22C1CS
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 | Wells Query Events |
| STATUS | <all other values> |
| ACTIVE | APD |
| EXPLORATORY | DRL |
| GAS STORAGE | GI |
| NF PP OIL | GS |
| NF SECONDARY | LA |
| PI OIL | NEW |
| PP GAS | OPS |
| PP GEOTHERMIL | PA |
| PP OIL | PGW |
| SECONDARY | POW |
| TERMINATED | RET |
| Fields | SGW |
| STATUS | SOW |
| ACTIVE | TA |
| COMBINED | TW |
| Sections | WD |
| | WI |
| | WS |



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



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 921-22C1CS
T9S-R21E
Section 15: SESW (Surf), Section 22: NENW (Bottom)
Surface: 359' FSL, 2133' FWL (Sec. 15)
Bottom Hole: 446' FNL, 2071' FWL (Sec. 22)
Uintah County, Utah

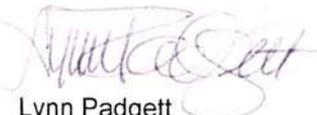
Dear Ms. Mason:

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 921-22C1CS 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

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 6/30/2009

API NO. ASSIGNED: 43047505280000

WELL NAME: NBU 921-22C1CS

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: 0359 FSL 2133 FWL

Engineering Review:

BOTTOM: 0446 FNL 2071 FWL

Geology Review:

COUNTY: UINTAH

LATITUDE: 40.02983

LONGITUDE: -109.53898

UTM SURF EASTINGS: 624664.00

NORTHINGS: 4431880.00

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 SEC 22 NENW:

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 921-22C1CS
API Well Number: 43047505280000
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

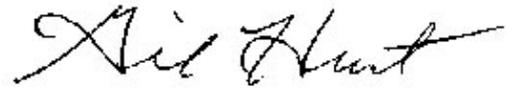
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <http://oilgas.ogm.utah.gov>

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

| | |
|---|--|
| STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING | FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0147566 |
|---|--|

| | | |
|--|--|--|
| SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr |
| 1. TYPE OF WELL Gas Well | 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES | |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. | 8. WELL NAME and NUMBER: NBU 921-22C1CS | |
| 3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 | PHONE NUMBER: 720 929-6007 Ext | 9. API NUMBER: 43047505280000 |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 0359 FSL 2133 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 15 Township: 09.0S Range: 21.0E Meridian: S | 9. FIELD and POOL or WILDCAT: NATURAL BUTTES | |
| | | COUNTY: UINTAH |
| | | STATE: UTAH |

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|--|--|---|---|
| <input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 8/3/2010 | <input type="checkbox"/> ACIDIZE | <input type="checkbox"/> ALTER CASING | <input type="checkbox"/> CASING REPAIR |
| <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS | <input type="checkbox"/> CHANGE TUBING | <input type="checkbox"/> CHANGE WELL NAME |
| <input type="checkbox"/> SPUD REPORT Date of Spud: | <input type="checkbox"/> CHANGE WELL STATUS | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> CONVERT WELL TYPE |
| <input type="checkbox"/> DRILLING REPORT Report Date: | <input type="checkbox"/> DEEPEN | <input type="checkbox"/> FRACTURE TREAT | <input type="checkbox"/> NEW CONSTRUCTION |
| | <input type="checkbox"/> OPERATOR CHANGE | <input type="checkbox"/> PLUG AND ABANDON | <input type="checkbox"/> PLUG BACK |
| | <input type="checkbox"/> PRODUCTION START OR RESUME | <input type="checkbox"/> RECLAMATION OF WELL SITE | <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION |
| | <input type="checkbox"/> REPERFORATE CURRENT FORMATION | <input type="checkbox"/> SIDETRACK TO REPAIR WELL | <input type="checkbox"/> TEMPORARY ABANDON |
| | <input type="checkbox"/> TUBING REPAIR | <input type="checkbox"/> VENT OR FLARE | <input type="checkbox"/> WATER DISPOSAL |
| | <input type="checkbox"/> WATER SHUTOFF | <input type="checkbox"/> SI TA STATUS EXTENSION | <input checked="" type="checkbox"/> APD EXTENSION |
| | <input type="checkbox"/> WILDCAT WELL DETERMINATION | <input type="checkbox"/> OTHER | OTHER: <input style="width: 100px;" type="text"/> |

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

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) Danielle Piernot | PHONE NUMBER 720 929-6156 | TITLE Regulatory Analyst |
| SIGNATURE N/A | DATE 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 43047505280000

API: 43047505280000

Well Name: NBU 921-22C1CS

Location: 0359 FSL 2133 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:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

JUN 30 2009

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

APPLICATION FOR PERMIT TO DRILL OR REENTER **BLM**

| | | |
|--|--|---|
| 1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER | | 5. Lease Serial No. UTU0147566 |
| 1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone | | 6. If Indian, Allottee or Tribe Name |
| 2. Name of Operator KERRMCGEE OIL&GAS ONSHORE LP Contact: DANIELLE E PIERNOT Email: Danielle.Piernot@anadarko.com | | 7. If Unit or CA Agreement, Name and No. 891008900A |
| 3a. Address PO BOX 173779 DENVER, CO 80202-3779 | | 8. Lease Name and Well No. NBU 921-22C1CS |
| 3b. Phone No. (include area code) Ph: 720-929-6156 Fx: 720-929-7156 | | 9. API Well No. 43-047-50528 |
| 4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESW 359FSL 2133FWL 40.02981 N Lat, 109.53969 W Lon (Sec. 15) At proposed prod. zone NENW 446FNL 2071FWL 40.02760 N Lat, 109.53991 W Lon (Sec. 22) | | 10. Field and Pool, or Exploratory NATURAL BUTTES |
| 14. Distance in miles and direction from nearest town or post office* APPROXIMATELY 26 MILES SOUTHEAST OF OURAY, UTAH | | 11. Sec., T., R., M., or Blk. and Survey or Area Sec 15 T9S R21E Mer SLB |
| 15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 446 FEET | 16. No. of Acres in Lease 160.00 | 12. County or Parish UINTAH |
| 18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. APPROXIMATELY 370 FEET | 19. Proposed Depth 10279 MD 10100 TVD | 13. State UT |
| 21. Elevations (Show whether DF, KB, RT, GL, etc.) 4827 GL | 22. Approximate date work will start 07/20/2009 | 17. Spacing Unit dedicated to this well |
| | | 20. BLM/BIA Bond No. on file WYB000291 |
| | | 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:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- 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 11 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.

Additional Operator Remarks (see next page)

Electronic Submission #71514 verified by the BLM Well Information System
For KERRMCGEE OIL&GAS ONSHORE LP, sent to the Vernal
Committed to AFMSS for processing by CAH JENKINS on 07/02/2009

NOS and posted 7/6/09

RECEIVED

AFMSS#

NOV 17 2010

CONDITIONS OF APPROVAL ATTACHED

NOTICE OF APPROVAL

UDOGM

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

096XJ5111AE



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 921-22C1CS Lease No: UTU-0147566
API No: 43-047-50528 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 identified 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 Guidelines (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.

| | | |
|---|--|---|
| STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING | | FORM 9 |
| SUNDRY NOTICES AND REPORTS ON WELLS | | 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0147566 |
| Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr |
| | | 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES |
| 1. TYPE OF WELL Gas Well | 8. WELL NAME and NUMBER: NBU 921-22C1CS | |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. | 9. API NUMBER: 43047505280000 | |
| 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: 0359 FSL 2133 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 | |
| <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 5/14/2011 <input type="checkbox"/> DRILLING REPORT Report Date: | <input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> OTHER | |
| <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/> | | |
| 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. | | |
| 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 10:52 HRS. | | |
| Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY | | |
| NAME (PLEASE PRINT) Sheila Wopsock | PHONE NUMBER 435 781-7024 | TITLE Regulatory Analyst |
| SIGNATURE N/A | DATE 5/17/2011 | |

| | | |
|---|--|---|
| STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING | | FORM 9 |
| SUNDRY NOTICES AND REPORTS ON WELLS | | 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0147566 |
| Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr |
| | | 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES |
| 1. TYPE OF WELL Gas Well | 8. WELL NAME and NUMBER: NBU 921-22C1CS | |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. | 9. API NUMBER: 43047505280000 | |
| 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: 0359 FSL 2133 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 | |
| <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 5/23/2011 | <input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> OTHER | |
| <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/> | | |
| 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU AIR RIG ON MAY 21, 2011. DRILLED SURFACE HOLE TO 2788'. 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) Andy Lytle | PHONE NUMBER 720 929-6100 | TITLE Regulatory Analyst |
| SIGNATURE N/A | DATE 5/24/2011 | |

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 921-22C1CS
 Qtr/Qtr SESW Section 15 Township 9S Range 21E
 Lease Serial Number UTU-0147566
 API Number 4304750528

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

Date/Time 05/14/2011 10:00 HRS AM PM

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

- Surface Casing
- Intermediate Casing
- Production Casing
- Liner
- Other

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

Date/Time 05/22/2011 14:00 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

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP
Address: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078

Operator Account Number: N 2995

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 | | |
| <i>B</i> | 99999 | <i>2900</i> | 5/14/2011 | | <i>5/31/11</i> | | |
| Comments: MIRU PETE MARTIN BUCKET RIG. <i>WSMVD</i> SPUD WELL LOCATION ON 05/14/2011 AT 0900 HRS <i>BHL = Sec 22 NENW</i> | | | | | | | |

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 | | |
| <i>B</i> | 99999 | <i>2900</i> | 5/14/2011 | | <i>5/31/11</i> | | |
| Comments: MIRU PETE MARTIN BUCKET RIG. <i>WSMVD</i> SPUD WELL LOCATION ON 05/14/2011 AT 10:25 HRS. <i>BHL = Sec 22 NENW</i> | | | | | | | |

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 | | |
| <i>B</i> | 99999 | <i>2900</i> | 5/14/2011 | | <i>5/31/11</i> | | |
| Comments: MIRU PETE MARTIN BUCKET RIG. <i>WSMVD</i> SPUD WELL LOCATION ON 05/14/2011 AT 12:45 HRS. <i>BHL = Sec 22 NWNW</i> | | | | | | | |

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

SHEILA WOPSOCK

Name (Please Print)

Signature

REGULATORY ANALYST

5/16/2011

Title

Date

RECEIVED

MAY 18 2011

DIV. OF OIL, GAS & MINING

| | | |
|--|--|---|
| STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING | | FORM 9 |
| SUNDRY NOTICES AND REPORTS ON WELLS | | 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0147566 |
| Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. | | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute Tr |
| | | 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES |
| 1. TYPE OF WELL Gas Well | 8. WELL NAME and NUMBER: NBU 921-22C1CS | |
| 2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. | 9. API NUMBER: 43047505280000 | |
| 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: 0359 FSL 2133 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 | |
| <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 6/21/2011 | <input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER | |
| | <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/> | |
| 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU ROTARY RIG. FINISHED DRILLING FROM 2788' TO 10,279' ON JUNE 19, 2011. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING TO 9699'. RAN 4 1/2" 11.6# P110 CSG FROM 9699' TO 10,270'. CEMENTED PRODUCTION CASING. RELEASED ENSIGN RIG 145 ON JUNE 21, 2011 @ 18:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES. | | |
| NAME (PLEASE PRINT) Andy Lytle | | PHONE NUMBER 720 929-6100 |
| SIGNATURE N/A | | TITLE Regulatory Analyst |
| | | DATE 6/22/2011 |

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 _____

2. Name of Operator
KERR MCGEE OIL & GAS ONSHORE; Mail: andrew.lytle@anadarko.com
 Contact: ANDREW LYTLE

3. Address P.O. BOX 173779
DENVER, CO 80217
 3a. Phone No. (include area code)
Ph: 720-929-6100

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
 At surface Sec 15 T9S R21E Mer SLB
 SESW 359FSL 2133FWL 40.029806 N Lat, 109.539690 W Lon
 At top prod interval reported below Sec 22 T9S R21E Mer SLB
 NENW 439FNL 2062FWL
 At total depth Sec 22 T9S R21E Mer SLB
 NENW 441FNL 2073FWL

6. If Indian, Allottee or Tribe Name
 7. Unit or CA Agreement Name and No.
UTU63047A
 8. Lease Name and Well No.
NBU 921-22C1CS
 9. API Well No.
43-047-50528
 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
06/19/2011
 16. Date Completed
 D & A Ready to Prod.
08/25/2011
 17. Elevations (DF, KB, RT, GL)*
4826 GL

18. Total Depth: MD 10282
TVD 10171
 19. Plug Back T.D.: MD 10227
TVD 10116
 20. Depth Bridge Plug Set: MD
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
BHV-SD/DSN/ACTR-CBL/GR/CT
 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 | | 2781 | | 525 | | 0 | |
| 7.875 | 4.500 I-80 | 11.6 | | 9699 | | 1952 | | 900 | |
| 7.875 | 4.500 P-110 | 11.6 | 9699 | 10270 | | | | | |

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 | 9505 | | | | | | | |

25. Producing Intervals

| Formation | Top | Bottom | Perforated Interval | Size | No. Holes | Perf. Status |
|--------------|------|--------|---------------------|-------|-----------|--------------|
| A) WASATCH | 7570 | 7608 | 7570 TO 7608 | 0.360 | 24 | OPEN |
| B) MESAVERDE | 8040 | 10059 | 8040 TO 10059 | 0.360 | 191 | OPEN |
| C) | | | | | | |
| D) | | | | | | |

26. Perforation Record

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

| Depth Interval | Amount and Type of Material |
|----------------|---|
| 7570 TO 10059 | PUMP 7,501 BBLs SLICK H2O & 145,811# 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 |
|---------------------|-------------------|--------------|-----------------|---------|---------|-----------|-----------------------|-------------|-------------------|
| 08/25/2011 | 09/01/2011 | 24 | → | 0.0 | 2217.0 | 160.0 | | | FLows FROM WELL |
| Choke Size | Tbg. Press. Flwg. | Csg. Press. | 24 Hr. Rate | Oil BBL | Gas MCF | Water BBL | Gas:Oil Ratio | Well Status | |
| 20/64 | SI 1235 | 2102.0 | → | 0 | 2217 | 160 | | 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. | Csg. Press. | 24 Hr. Rate | Oil BBL | Gas MCF | Water BBL | Gas:Oil Ratio | Well Status | |
| | SI | | → | | | | | | |

(See Instructions and spaces for additional data on reverse side)
 ELECTRONIC SUBMISSION #119085 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
 ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

RECEIVED
OCT 11 2011

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 BIRD'S NEST MAHOAGANY WASATCH MESAVERDE | 1592 1939 2310 5084 8014 | 8014 10282 | | | |

32. Additional remarks (include plugging procedure):

Attached is the chronological well history, perforation report & final survey.
Sundry Notice dated 6/22/2011 indicated TD of 10,279'; TD should have been 10,282'.

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 #119085 Verified by the BLM Well Information System.
For KERR MCGEE OIL & GAS ONSHORE,, sent to the Vernal**

Name (please print) ANDREW LYTLE Title REGULATORY ANALYST

Signature (Electronic Submission) Date 10/03/2011

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 fraudulent statements or representations as to any matter within its jurisdiction.

**US ROCKIES REGION
Operation Summary Report**

| | | | |
|--|--|---|--|
| Well: NBU 921-22C1CS BLUE | | Spud Conductor: 5/14/2011 | Spud Date: 5/21/2011 |
| 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: 6/21/2011 |
| Active Datum: RKB @4,839.00ft (above Mean Sea Level) | | UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/359/W/0/2133/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|-----------|----------------|---------------|--------|--------|----------|-----|--|--|
| 5/21/2011 | 8:00 - 10:30 | 2.50 | MIRU | 01 | C | P | | SKID RIG & RIG UP |
| | 10:30 - 13:00 | 2.50 | PRPSPD | 14 | A | P | | WELD ON CONDUCTOR & RIG UP FLOWLINE |
| | 13:00 - 13:30 | 0.50 | PRPSPD | 06 | A | P | | PU 12.25" BIT (SN 7133304) & MM (SN 8031) |
| | 13:30 - 15:00 | 1.50 | DRLSUR | 02 | B | P | | SPUD 12.25" SURFACE HOLE F/ 40'- T/ 225' /// ROP= 185' @ 123'/hr /// WOB=18-20K /// RPM=55/100 /// SPP= 950/700 /// GPM=595 |
| | 15:00 - 17:00 | 2.00 | DRLSUR | 06 | A | P | | TOOH & PU DIR TOOLS, SCRIBE & TIH TO 225' |
| | 17:00 - 0:00 | 7.00 | DRLSUR | 02 | D | P | | DIR DRLG 12.25" SURFACE HOLE F/ 225'- T/ 951' /// ROP= 726' @ 103'/hr /// WOB= 18-22K /// RPM= 55/100 /// SPP= 1250/970 /// GPM= 595 /// NO LOSSES |
| | 5/22/2011 | 0:00 - 6:00 | 6.00 | DRLSUR | 02 | D | P | DIR DRLG 12.25" SURFACE HOLE F/ 951'-T/ 1491' /// ROP= 540' @ 90'/hr /// WOB= 18-22K /// RPM= 55/100 /// SPP= 1250/970 /// GPM= 595 /// NO LOSSES |
| | 6:00 - 6:00 | 0.00 | DRLSUR | 02 | D | P | DIR DRLG 12.25" SURFACE HOLE F/ 2219' /// ROP= 728' @ 61'/hr /// WOB= 20-24K /// RPM= 55/100 /// SPP= 1350/1050 /// GPM= 595 /// NO LOSSES | |
| | 6:00 - 0:00 | 18.00 | DRLSUR | 02 | D | P | DIR DRLG 12.25" SURFACE HOLE F/ 2219'- 2566' /// ROP= 347' @ 58'/hr /// WOB= 20-24K /// RPM= 55/100 /// SPP= 1350/1050 /// GPM= 595 /// NO LOSSES | |
| 5/23/2011 | - | | CSG | | | | CONDUCTOR CASING: Cond. Depth set: 40 Cement sx used: 28 | |
| | | | | | | | SPUD DATE/TIME: 5/21/2011 13:30 | |
| | | | | | | | SURFACE HOLE: Surface From depth: 40 Surface To depth: 2,788 Total SURFACE hours: 36.00 Surface Casing size: 9-5/8" # of casing joints ran: 5-Mar Casing set MD: 2,769.0 # 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 bbis to surface: 35 Describe cement issues: NONE Describe hole issues: NONE | |
| | 0:00 - 3:30 | 3.50 | DRLSUR | 02 | D | P | DIR DRLG 12.25" SURFACE HOLE F/ 2566'- T/ 2788' /// ROP= 222' @ 63'/hr /// WOB= 20-24K /// RPM= 55/100 /// SPP= 1350/1050 /// GPM= 595 /// NO LOSSES // LAST SURVEY @ 2739'= 18.29 DEG, 183.81 /// 9' ABOVE & 1' LEFT OF LINE /// 67.20% ROTATE, 32.80% SLIDE | |
| | 3:30 - 4:30 | 1.00 | DRLSUR | 05 | C | P | CIRC & COND HOLE FOR TRIP/9.625" CSG | |
| | 4:30 - 8:00 | 3.50 | DRLSUR | 06 | A | P | TOOH & LDDS & DIR TOOLS | |
| | 8:00 - 11:30 | 3.50 | CSG | 12 | C | P | PJSM & RUM 65 JT'S 9-5/8", 40#, J-55, LT&C CSG /// SHOE SET @ 2769', BAFFLE @ 2725' | |
| | 11:30 - 12:00 | 0.50 | CSG | 05 | A | P | CIRC 9-5/8" SURFACE CSG @ 2769 | |

**US ROCKIES REGION
Operation Summary Report**

| | | | | | |
|--|--|---|--|--|--|
| Well: NBU 921-22C1CS BLUE | | Spud Conductor: 5/14/2011 | | Spud Date: 5/21/2011 | |
| 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: 6/21/2011 | |
| Active Datum: RKB @4,839.00ft (above Mean Sea Level) | | UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/359/W/0/2133/0/0 | | | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|-----------|----------------|---------------|--------|------|----------|-----|--------------|---|
| | 12:00 - 14:30 | 2.50 | CSG | 12 | E | P | | PJSM W/ SUPERIOR CMT CREW /// TEST LINES TO 2500 PSI /// PUMP 25 BBL SPACER /// LEAD = 200 SX CLASS-G CMT @ 11.0 WT & 3.82 YIELD /// TAIL = 225 SX CLASS G CMT @ 15.8 WT & 1.15 YIELD /// DROP PLUG & DISPLACE W/ 185 BBL'S WATER /// PLUG DN @ 14:23 5/23/2011 /// BUMP PLUG @ 970 PSI /// FINAL LIFT = 660 PSI /// CHECK FLOATS - HELD W/ 1.5 BBL'S BACK /// FULL RETURNS THROUGH OUT JOB /// 35 BBL'S CMT TO SURFACE |
| | 14:30 - 15:00 | 0.50 | CSG | 14 | A | P | | CUT OFF CONDUCTOR & HANG 9-5/8" CSG |
| | 15:00 - 16:00 | 1.00 | CSG | 12 | E | P | | RUN 200' OF 1" PIPE DN BACKSIDE & PUMP TOP OUT W/ 100 SX CLASS G CMT @ 15.8 WT & 1.15 YIELD /// RELEASE RIG @ 16:00 05/23/2011 TO THE NBU 921-22D1CS |
| 6/12/2011 | 3:00 - 4:00 | 1.00 | MIRU | 01 | C | P | | PULL OUT CAT WALK. DISCONNECT FLOWLINE FROM PITS. DISSCONNECT FLARE LINES. PLACE MATTING BOARDS IN FRONT OF RIG. |
| | 4:00 - 6:30 | 2.50 | MIRU | 01 | C | P | | SKID RIG 20' FOWARD OVER WELL BORE. SET DOWN STACK . CENTER RIG OVER STACK. LEVEL RIG. RE-CENTER RIG OVER STACK. MOVE CATWALK BACK INTO PLACE. TIGHTEN GERONIMO. |
| | 6:30 - 8:00 | 1.50 | MIRU | 14 | A | P | | NIPPLE DOWN QUICK FLANGE. NIPPLE UP FLOW LINE. RECONNECT FLARE LINES. FILL PITS W/ RESERVE PIT WATER. |
| | 8:00 - 9:00 | 1.00 | MIRU | 14 | A | P | | START TEST. BAD O-RING ON QUICK FLANGE ON BOP. UNDO FLOWLINE AND PICK UP STACK. C/O O RING. SET STACK BACK DOWN. NIPPLE BACK UP STACK. RE-ASSEMBLE FLOWLINE. ASSEMBLE FLOW LINE TO PITS. |
| | 9:00 - 13:30 | 4.50 | MIRU | 15 | A | P | | HOLD SAFETY MEETING. TEST TOP DRIVE VALVE, FLOOR VALVE, DART VALVE, PIPE AND BLIND RAMS, INSIDE AND OUTSIDE KILL LINE VALVES INSIDE CHOKE LINE VALVE, HCR VALVE, CHOKE LINE, CHOKE MANIFOLD VALVES AND CHOKES TO 5000 PSI FOR 10 MIN AND 250 PSI FOR 5 MIN. TEST ANNULAR TO 2500 PSI FOR 10 MIN AND 250 PSI FOR 5 MIN. TEST CSG TO 1500 PSI FOR 30 MIN. SET WEAR BUSHING WITH ID 8 1/8" W/ NO ABNORMAL WEAR. |
| | 13:30 - 14:00 | 0.50 | MIRU | 07 | A | P | | SERVICE RIG. INSTALL SAVER SUB. PERFORM RIG INSPECTION. |
| | 14:00 - 17:30 | 3.50 | MIRU | 06 | A | P | | P/U 6 1/2" BAKER INTEQ MOTOR 5/6 4.0 .21 RPG 1.5 BH (SN 10325385) MAKE UP VAREL VM 616P2HR W/ 8-15'S (SN 4003175) SCRIBE MOTOR AND DIRECTIONAL TOOLS. INSTALL EM TOOL. TRIP IN HOLE TO 2700'. (INSTALL NEW ROT HEAD RUBBER @ 2300') |
| | 17:30 - 20:00 | 2.50 | MIRU | 09 | A | P | | SLIP AND CUT DRILL LINE. |
| | 20:00 - 20:30 | 0.50 | DRLPRO | 02 | F | P | | DRILL CEMENT AND FLOAT EQUIPMENT. 2700'-2792' WOB 10-14K AVE WOB 12K, SPM 105, GPM 472, PSI ON/OFF 1000/700, DIFF 300, MOT RPM 99, ROT 30, TOR ON/OFF/UP 7/3/3, PU/SO/ROT 124/119/120, DRAG 4K. CIRC RESERVE PIT WITH 8.4# WATER. (BOP DRILL50 SEC) |

**US ROCKIES REGION
Operation Summary Report**

| | | | | | |
|--|--|---|--|--|--|
| Well: NBU 921-22C1CS BLUE | | Spud Conductor: 5/14/2011 | | Spud Date: 5/21/2011 | |
| 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: 6/21/2011 | |
| Active Datum: RKB @4,839.00ft (above Mean Sea Level) | | UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/359/W/0/2133/0/0 | | | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|-----------|----------------|---------------|--------|------|----------|-----|--------------|--|
| | 20:30 - 0:00 | 3.50 | DRLPRO | 02 | D | P | | DRILL SLIDE 2792'-3144' (352', 101'/HR) 'WOB 15-20K AVE WOB 18K, SPM 105, GPM 472, PSI ON/OFF 1050/700, DIFF 350, MOT RPM 99, ROT 30, TOR ON/OFF/UP 7/4/4, PU/SO/ROT 136/130/132, DRAG 4K. CIRC RESERVE PIT WITH 8.4# WATER. SLIDE 44' @ 85'/HR. 12% SLIDE 88% ROT. (WENT THROUGH PUMP #1 AND #2 WHILE DRILLING, UNABLE TO GO THROUGH PUMPS ON LAST HOLE BECAUSE WE DID NOT LOG) RUNNING BOTH PUMPS @ MIDNIGHT FOR 540 GPM. |
| 6/13/2011 | 0:00 - 6:00 | 6.00 | DRLPRO | 02 | D | P | | DRILL SLIDE 3144'-3760' (616', 103'/HR) 'WOB 15-20K AVE WOB 18K, SPM 120, GPM 540, PSI ON/OFF 1475/975, DIFF 500, MOT RPM 113, ROT 45-50, TOR ON/OFF/UP 8/5/5, PU/SO/ROT 134/120/123, DRAG 11K. CIRC RESERVE PIT WITH 8.4# WATER. SLIDE 117' @ 75'/HR. 19% SLIDE 81% ROT. SLIDE TO DROP ANGLE. |
| | 6:00 - 9:30 | 3.50 | DRLPRO | 02 | D | P | | DRILL SLIDE 3760'-4183' (423', 121'/HR) WOB 15-20K AVE WOB 18K, SPM 120, GPM 540, PSI ON/OFF 1450/1000, DIFF 450, MOT RPM 113, ROT 45-50, TOR ON/OFF/UP 8/5/5, PU/SO/ROT 144/128/133, DRAG 11K. CIRC RESERVE PIT WITH 8.4# WATER. SLIDE 82' @ 70'/HR. 20% SLIDE 80% ROT. NO LOSSES |
| | 9:30 - 14:00 | 4.50 | DRLPRO | 02 | D | P | | DRILL SLIDE 4183'-4757' (574', 128'/HR) WOB 15-22K AVE WOB 20K, SPM 105, GPM 473, PSI ON/OFF 1250/800, DIFF 450, MOT RPM 99, ROT 45-50, TOR ON/OFF/UP 8/5/5, PU/SO/ROT 147/132/137, DRAG 10K. CIRC RESERVE PIT WITH 8.4# WATER. SLIDE 82' @ 60'/HR. 20% SLIDE 80% ROT. CHANGING PONY ROD IN PUMP #1. NO LOSSES |
| | 14:00 - 14:30 | 0.50 | DRLPRO | 07 | A | P | | RIG SERVICE. FUNCTION PIPE RAMS. SERVICE TOP DRIVE. |
| | 14:30 - 17:30 | 3.00 | DRLPRO | 02 | D | P | | DRILL SLIDE 4757'-5049' (292', 97'/HR) WOB 15-22K AVE WOB 20K, SPM 105, GPM 473, PSI ON/OFF 1250/950, DIFF 300, MOT RPM 99, ROT 45-50, TOR ON/OFF/UP 8/5/5, PU/SO/ROT 152/135/141, DRAG 11K. CIRC RESERVE PIT WITH 8.4# WATER. SLIDE 20' @ 45'/HR. 7% SLIDE 93% ROT. (CHANGING PONY ROD IN PUMP #1. CHECKING CLAMPS AND PONY RODS ON PUMP #1) NO LOSSES |
| | 17:30 - 0:00 | 6.50 | DRLPRO | 02 | D | P | | DRILL SLIDE 5049'-5918' (869', 137'/HR) WOB 18-23K AVE WOB 21K, SPM 120, GPM 540, PSI ON/OFF 1750/1250, DIFF 500, MOT RPM 113, ROT 45-50, TOR ON/OFF/UP 10/7/7, PU/SO/ROT 166/139/150, DRAG 15K. CIRC RESERVE PIT WITH 8.4# WATER. SLIDE 32' @ 65'/HR. 4% SLIDE 96% ROT. NO LOSSES |
| 6/14/2011 | 0:00 - 6:00 | 6.00 | DRLPRO | 02 | D | P | | DRILL SLIDE 5918'-6559' (651', 109'/HR) WOB 18-23K AVE WOB 21K, SPM 120, GPM 540, PSI ON/OFF 1550/1150, DIFF 400, MOT RPM 113, ROT 45-50, TOR ON/OFF/UP 10/6/8, PU/SO/ROT 174/153/161, DRAG 13K. CIRC RESERVE PIT WITH 8.4# WATER. SLIDE 30' @ 65'/HR. 5% SLIDE 95% ROT. STARTED TAKING LOSSES @ 6200'. LOSING 150 BBLs HR. PUMP GEL AND LCM SWEEP TO CONTROL LOSSES. TRACE OIL COMING UP FROM 6200'. (600 BBLs LOSS IN PIT.) |

US ROCKIES REGION
Operation Summary Report

| | | |
|--|---------------------------|---|
| Well: NBU 921-22C1CS BLUE | Spud Conductor: 5/14/2011 | Spud Date: 5/21/2011 |
| 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: 6/21/2011 |
| Active Datum: RKB @4,839.00ft (above Mean Sea Level) | | UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/359/W/0/2133/0/0 |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|-----------|----------------|---------------|--------|------|----------|-----|--------------|--|
| | 6:00 - 9:00 | 3.00 | DRLPRO | 02 | D | P | | DRILL SLIDE 6559'- 6841' (282',94'/HR) WOB 15-22K AVE WOB 21K, SPM 105, GPM 473, PSI ON/OFF 1250/850, DIFF 400, MOT RPM 99, ROT 45-50, TOR ON/OFF/UP 10/6/7, PU/SO/ROT 185/155/165, DRAG 20K. CIRC RESERVE PIT WITH 8.4# WATER. SLIDE 0' . 0% SLIDE 100%. DRILL WITH 1 PUMP. GO THROUGH PUMPS AND FIND PRESSURE LOSS. (PLUGGED UP SUCTIONS). LOSSES TAPERED DOWN TO 40 BBLs HR. (120 BBLs LOSS IN PIT) PUMP GEL AND SAWDUST SWEEPS TO CONTROL LOSSES. (BOP DRILL 69 SEC) |
| | 9:00 - 9:30 | 0.50 | DRLPRO | 07 | A | P | | RIG SERVICE. SERVICE TOP DRIVE. CHANGE HOSE ON ELEVATORS. FUNCTION PIPE RAMS AND ANNULAR. |
| | 9:30 - 20:30 | 11.00 | DRLPRO | 02 | D | P | | DRILL SLIDE 6841'-7747' (906', 82'/HR) WOB 18-25K AVE WOB 22K, SPM 120, GPM 540, PSI ON/OFF 1850/1450, DIFF 400, MOT RPM 113, ROT 45-50, TOR ON/OFF/UP 11/7/11, PU/SO/ROT 208/165/178, DRAG 30K. CIRC RESERVE PIT WITH 8.4# WATER. SLIDE 20' @ 50'/HR. 2% SLIDE 98% ROT. LOSING 10 BBLs HR. (LOSS 110 BBLs.) PUMP GEL AND SAWDUST SWEEPS TO CONTROL LOSSES. |
| | 20:30 - 0:00 | 3.50 | DRLPRO | 02 | D | P | | DRILL SLIDE 7747'-7920' (173', 49'/HR) WOB 18-24K AVE WOB 21K, SPM 105, GPM 473, PSI ON/OFF 1675/1300, DIFF 375, MOT RPM 99, ROT 40, TOR ON/OFF/UP 9/5/10, PU/SO/ROT 206/169/180, DRAG 26K. CIRC SLIDE 38' @ 38'/HR . 22% SLIDE 78%. (MESA VERDE TRANSITION) START MUD UP AT 7747'. PUMP GEL AND SAWDUST SWEEP AHEAD AND DISPLACE HOLE WITH 400 BLS OF 12.2# MUD AND 150 BBLs OF FRESH WATER. MUD IN 9.5/32 OUT 9.5/31 LCM 3%. NO LOSSES AT THIS TIME. |
| 6/15/2011 | 0:00 - 7:00 | 7.00 | DRLPRO | 02 | D | P | | DRILL SLIDE 7920'-8281' (361',52'/HR) WOB 18-24K AVE WOB 20K, SPM 105, GPM 473, PSI ON/OFF 1725/1325, DIFF 375, MOT RPM 99, ROT 40, TOR ON/OFF/UP 10/6/11, PU/SO/ROT 206/172/188, DRAG 18K. CIRC SLIDE 15' @ 40'/HR . 4% SLIDE 96% ROT. RUNNING 1 PUMP THROUGH MESA TRANSITION TO SLOW DOWN DH RPM. MUD IN 9.5/ 32 MUD OUT 9.6/32 LCM 3%. |
| | 7:00 - 17:00 | 10.00 | DRLPRO | 02 | D | P | | DRILL SLIDE 8281'-8834' (553', 55'/HR) WOB 18-25K AVE WOB 22K, SPM 120, GPM 540, PSI ON/OFF 2300/1950, DIFF 350, MOT RPM 113, ROT 40-45, TOR ON/OFF/UP 10/8/12, PU/SO/ROT 218/178/189, DRAG 29K. SLIDE 0' . 0% SLIDE 100% ROT. MUD IN 10.5/35 MUD OUT 10.4/36 LCM 8%. NO LOSSES. 2' FLARE FROM 8790'. USE 230 BBLs OF 12.2 STORED MUD TO RAISE MUD WT TO 10.2) |
| | 17:00 - 22:00 | 5.00 | DRLPRO | 02 | D | P | | DRILL SLIDE 8834'- 9016' (182', 36'/HR) WOB 18-25K AVE WOB 23K, SPM 120, GPM 540, PSI ON/OFF 2350/1950, DIFF 400, MOT RPM 113, ROT 40-45, TOR ON/OFF/UP 9/8/13, PU/SO/ROT 218/178/189, DRAG 29K. SLIDE 12' @ 20' . 7% SLIDE 93% ROT. MUD IN 10.8/36 MUD OUT 10.8/36 LCM 8%. NO LOSSES. BIT SLOWED DOWN FROM A STEADY 50' TO LESS THEN 20' HR AVE @ 8995'. UNABLE TO GET BIT TO DRILL. (MVU21 FORMATION STARTED @ 9004') |

US ROCKIES REGION
Operation Summary Report

| | | | | | |
|--|--|---------------------------|---|--|--|
| Well: NBU 921-22C1CS BLUE | | Spud Conductor: 5/14/2011 | | Spud Date: 5/21/2011 | |
| 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: 6/21/2011 | |
| Active Datum: RKB @4,839.00ft (above Mean Sea Level) | | | UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/359/W/0/2133/0/0 | | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|-----------|----------------|---------------|--------|------|----------|-----|--------------|--|
| | 22:00 - 23:30 | 1.50 | DRLPRO | 06 | A | P | | PUMP AND ROT 12 STDS OUT OF HOLE. (80 K OVER PULL WITH OUT PUMP AND ROT.) MIX 35 BBL 13# PILL AND PUMP FOR DRY JOB. |
| | 23:30 - 0:00 | 0.50 | DRLPRO | 06 | A | P | | TRIP OUT OF HOLE FOR BIT. PULL TO 7492' @ RT. NO TIGHT HOLE AND HOLE TAKING PROPER AMOUNT OF FLUID. |
| 6/16/2011 | 0:00 - 6:00 | 6.00 | DRLPRO | 06 | A | P | | TRIP OUT OF HOLE. NO TIGHT HOLE ON TRIP OUT. HOLE TAKE PROPER FLUID ON TRIP OUT. PULL ROT HEAD RUBBER @ 1100'. TRIP OUT. PULL EM TOOL AND STAND BACK DIRECTIONAL ASSEMBLY. BREAK BIT AND LD .21 BAKER MOTOR. HOLE STAYING FULL W/ NO FLOW. WORK PIPE AND BLIND RAMS. (RIG CENTER AND LEVEL OVER HOLE) |
| | 6:00 - 9:30 | 3.50 | DRLPRO | 06 | A | P | | MAKE UP Q506FX W/ 6/16'S (SN 7134020) ONTO BAKER INTEQ .16 RPG 1.5 BH MOTOR (SN 406) . SCRIBE MOTOR AND DIRECTIONAL TOOLS AND INSTALL EM TOOL.FILL BHA WITH WATER. TRIP IN HOLE W/ HWDP AND INSTALL ROT HEAD RUBBER. TRIP TO SHOE @ 2800'. BREAK CIRC. |
| | 9:30 - 10:00 | 0.50 | DRLPRO | 07 | A | P | | SERVICE RIG AND TOP DRIVE. CHANGE OUT SAVER SUB. |
| | 10:00 - 12:00 | 2.00 | DRLPRO | 06 | A | P | | TRIP IN HOLE TO 5500'. NO TIGHT HOLE. |
| | 12:00 - 12:30 | 0.50 | DRLPRO | 22 | L | X | | ATTEMPT TO BREAK CIRC. DRILL STRING PLUGGED OFF WHEN PIPE FILLED UP. WORK PIPE AND PRESSURE UP TO 3000 PSI SEVERAL TIMES. UNABLE TO UNPLUG DRILL STRING. |
| | 12:30 - 19:00 | 6.50 | DRLPRO | 22 | L | X | | TRIP OUT WET. PUMP MUD FROM CELLAR OVER SHAKERS INTO STEEL PITS. HOLE STILL TAKE PROPER FLUID. NO TIGHT HOLE. PULL ROT HEAD RUBBER @ 1100'. TRIP OUT. PLUG WAS AT TOP OF DIRECTIONAL TOOLS. (SAND AND SAWDUST) CLEAN OUT PLUG. CHECK EM TOOL. CHECK FLOAT AND BIT JETS.. CHECK MOTOR. (MOTOR STILL OK) EM TOOL STILL OK. HOLE STILL DORMANT (RIG STILL LEVEL AND CENTER OVER HOLE.) (WINDY TRIP) |
| | 19:00 - 0:00 | 5.00 | DRLPRO | 06 | G | P | | SCRIBE MOTOR AND AND DIRECTIONAL TOOLS. INSTALL EM TOOL TRIP IN HOLE W/ HWDP. INSTALL ROT HEAD RUBBER. FILL BHA W/ WATER. TRIP TO SHOE. BREAK CIRC. 2300, 4600', TRIPPING IN @ 5200' RT. (WINDY TRIP TILL 22:00) |
| 6/17/2011 | 0:00 - 3:00 | 3.00 | DRLPRO | 06 | A | P | | TRIP IN HOLE. BREAK CIRC. 6300',8000'. TRIP TO 8834'. NO TIGHT HOLE ON TRIP IN. NO LOSSES ON TRIP. |
| | 3:00 - 4:00 | 1.00 | DRLPRO | 03 | E | P | | WASH AND REAM 8834-9016'. TIGHT HOLE AND FILL 8934'. GOOD CIRC. MUD IN 10.8/44 MUD OUT 10.4/43 GAS CUT. 10' FLARE ON BOTTOMS UP. |
| | 4:00 - 4:30 | 0.50 | MAINT | 08 | A | Z | | BLACK OUT RIG. RESTART GENERATORS. REBOOT RIG COMS. |
| | 4:30 - 7:30 | 3.00 | DRLPRO | 02 | D | P | | DRILL 9016'- 9196' (180, 60'/HR) WOB 13-19K AVE WOB 16K, SPM 105, GPM 473, PSI ON/OFF 2050/1725, DIFF 325, MOT RPM 75, ROT 40-50, TOR ON/OFF/UP 12/12/13, PU/SO/ROT 215/174/186, DRAG 29K. CIRC SLIDE 0'. 0% SLIDE 100% ROT. MUD IN 11.1/ 36 MUD OUT 11.1/39 LCM 10%. NO LOSSES. |
| | 7:30 - 8:00 | 0.50 | DRLPRO | 07 | A | P | | SERVICE RIG. FUNCTION ANNULAR. SERVICE TOP DRIVE AND IDM. |

US ROCKIES REGION
Operation Summary Report

| | | | | | |
|--|--|---------------------------|---|----------------------|--|
| Well: NBU 921-22C1CS BLUE | | Spud Conductor: 5/14/2011 | | Spud Date: 5/21/2011 | |
| Project: UTAH-UJINTAH | | | Site: NBU 921-15N PAD | | Rig Name No: ENSIGN 145/145, CAPSTAR 310/310 |
| Event: DRILLING | | | Start Date: 5/8/2011 | | End Date: 6/21/2011 |
| Active Datum: RKB @4,839.00ft (above Mean Sea Level) | | | UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/359/W/0/2133/0/0 | | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|-----------|----------------|---------------|--------|------|----------|-----|--------------|--|
| | 8:00 - 20:30 | 12.50 | DRLPRO | 02 | D | P | | DRILL SLIDE 9196'- 9730' (534', 43'/HR) WOB 13-19K AVE WOB 16K, SPM 105, GPM 473, PSI ON/OFF 2300/2000, DIFF 305, MOT RPM 75, ROT 40-50, TOR ON/OFF/UP 11/10/14, PU/SO/ROT 229/180/195, DRAG 34K. CIRC SLIDE 20'. 4% SLIDE 96% ROT. MUD IN 12/ 41 MUD OUT 12/43 LCM 14%. NO LOSSES. |
| | 20:30 - 21:00 | 0.50 | DRLPRO | 05 | A | P | | BIT STOP DRILLING. CIRC AND CONDITION HOLE. UNBALL BIT. |
| | 21:00 - 0:00 | 3.00 | DRLPRO | 02 | D | P | | DRILL SLIDE 9730'-9830' (100', 33'/HR) WOB 10-26K AVE WOB 18K, SPM 105, GPM 473, PSI ON/OFF 2325/2050, DIFF 275, MOT RPM 75, ROT 40-50, TOR ON/OFF/UP 11/10/14, PU/SO/ROT 220/180/196, DRAG 24K. CIRC SLIDE 0'. 0% SLIDE 100% ROT. MUD IN 12/ 40 MUD OUT 12/42 LCM 13%. NO LOSSES. |
| 6/18/2011 | 0:00 - 3:30 | 3.50 | DRLPRO | 02 | D | P | | DRILL 9830'-9916' (86',24'/HR) WOB 10-26K AVE WOB 18K, SPM 105, GPM 473, PSI ON/OFF 2175/2050, DIFF 125, MOT RPM 75, ROT 40-50, TOR ON/OFF/UP 11/10/14, PU/SO/ROT 240/190/203, DRAG 37K. CIRC SLIDE 0'. 0% SLIDE 100% ROT. MUD IN 12.1/ 40 MUD OUT 11.7/42 LCM 13%. GAS CUT. GAS SHOW FROM 9880'-9895' FORMATIONS. CUTTING MUD WT FROM 12.2 TO 11.6. MUD CUT OF .6. IGNITER NOT WORKING. UNABLE TO SEE FLARE GAS. BIT DRILLING LESS THEN 10' HR. |
| | 3:30 - 6:00 | 2.50 | DRLPRO | 05 | B | P | | CIRCULATE HOLE AND RAISE MUD WT TO 12.5. MUD IN 12.6/ 39. MUD OUT 12.5/41 15% LCM. CHECK FLOW AND BUILD 14.4# 35 BBL PILL AND HOLD FOR DRY JOB. CHECK FLOW. |
| | 6:00 - 9:00 | 3.00 | DRLPRO | 06 | A | P | | PUMP AND ROT OUT 18 STDS OF DP. PULLING 60K OVER WHILE PUMPING AND ROT. LD 1 SINGLE TO ALTER BREAK ON TRIP. HOLE TAKING PROPER FLUID. PUMPING MUD FROM WET PIPE BACK TO MUD TANKS. CHECK FLOW. PUMP DRY JOB @ 8393'. |
| | 9:00 - 12:00 | 3.00 | DRLPRO | 06 | A | P | | TRIP FOR BIT. 60 K DRAG. NO TIGHT HOLE AT BIT. 5500' TO 4500' IDM STARTED ACTING UP. ROTATER OVER DRIVE PROBLEM. |
| | 12:00 - 12:30 | 0.50 | DRLPRO | 07 | A | P | | RIG SERVICE. SERVICE TOP DRIVE AND RIG. |
| | 12:30 - 13:00 | 0.50 | DRLPRO | 08 | A | P | | ROTATER OVER DRIVE PROBLEM ON IDM. LUBRICATE IDM. |
| | 13:00 - 17:00 | 4.00 | DRLPRO | 02 | D | P | | TRIP FOR BIT. NO TIGHT HOLE. HOLE TAKING RIGHT AMOUNT OF FLUID ON TRIP. CHECK FLOW SEVERAL TIMES ON TRIP. PULL ROT RUBBER @ 1100'. STD BACK HWDP. STD BACK DIRECTIONAL ASSEMBLY. PULL MOTOR (CHECK FLOAT) AND BREAK BIT. CHECK MOTOR AND MOTOR DRAINS GOOD (21 HRS). WORK PIPE AND BLIND RAMS. |
| | 17:00 - 0:00 | 7.00 | DRLPRO | 02 | D | P | | MAKE UP BIT #3. Q506F W/ 6-16'S. (SN 7132145). MAKE UP DIRECTION ASSEMBLY. TRIP IN HOLE W/ HWDP. INSTALL ROT. HEAD RUBBER. TRIP IN HOLE. BREAK CIRC. @ 2800', 6000', 8100'. WASH BRIDGE @ 8742'. TRIP IN TO 9531', NO GAINS OR LOSSES ON TRIP. |
| 6/19/2011 | 0:00 - 0:30 | 0.50 | DRLPRO | 06 | A | P | | TRIP IN HOLE FROM 9531'-9850' . WASH TO BOTTOM 9916'. 15' FLARE ON BOTTOMS UP W/ .3 #GAS CUT. MUD IN 12.5/ 42 OUT 12.2/44. NO FILL. |

US ROCKIES REGION
Operation Summary Report

| | | | | | |
|--|--|---|--|--|--|
| Well: NBU 921-22C1CS BLUE | | Spud Conductor: 5/14/2011 | | Spud Date: 5/21/2011 | |
| 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: 6/21/2011 | |
| Active Datum: RKB @4,839.00ft (above Mean Sea Level) | | UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/359/W/0/2133/0/0 | | | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|-----------|----------------|---------------|--------|------|----------|-----|--------------|--|
| | 0:30 - 8:30 | 8.00 | DRLPRO | 02 | D | P | | DRILL 9916'-10282' (366',45'/HR) TD 6/19/2011 08:30. WOB 15-22 AVE WOB 18K, SPM 105, GPM 473, PSI ON/OFF 2650/2250, DIFF 400, MOT RPM 75, ROT 40-50, TOR ON/OFF/UP 13/13/14, PU/SO/ROT 257/193/211, DRAG 46K. CIRC SLIDE 0'. 0% SLIDE 100% ROT. MUD IN 12.5/ 46 MUD OUT 12.3/36 LCM 16%. GAS CUT. SMALL 3' CONNECTION FLARE FROM 10,060 TO 10070'. 4' BOTTOMS UP FLARE FROM 10160'-10170'. |
| | 8:30 - 10:00 | 1.50 | EVALPR | 05 | A | P | | CIRC AND CONDITION HOLE FOR WIPER TRIP. WORK PIPE UP AND DOWN WHILE CIRC. CIRC BOTTOMS UP. MUD IN 12.5/42 OUT 12.4/50 15% LCM. BUILD 35 BBL 14.6# PILL AND HOLD FOR DRY JOB. CHECK FLOW. |
| | 10:00 - 13:30 | 3.50 | EVALPR | 06 | E | P | | PUMP AND ROT OUT 18 STDS OF DP (70 K OVER PULL) HOLE TAKING PROPER FLUID. NO FLOW. NO LOSSES. PUMP DRY JOB. |
| | 13:30 - 17:00 | 3.50 | EVALPR | 06 | E | P | | WIPER TRIP TO SHOE NO TIGHT HOLE. (WINDY AND RAINY). HOLE TOOK EXACT FLUID TO FILL ON TRIP TO SHOE. |
| | 17:00 - 17:30 | 0.50 | EVALPR | 05 | A | P | | CIRC HEAVY PILL OUT OF PIPE AND UP SURFACE CSG. |
| | 17:30 - 21:30 | 4.00 | EVALPR | 06 | E | P | | TRIP BACK TO BOTTOM. NO TIGHT HOLE. 10' FILL ON BOTTOM. BREAK CIRC. 5800' AND 8100'. NO GAIN OR LOSS ON TRIP. |
| | 21:30 - 0:00 | 2.50 | EVALPR | 05 | A | P | | CIRC AND CONDITION MUD. REAM PIPE UP AND DOWN WHILE CIRC. 10' FLARE WITH .6 GAS CUT ON BOTTOMS UP GAS. CIRC AND CONDITON HOLE MAINTAINING 12.5. MUD IN 12.6/43 MUD OUT 12.6/46 LCM 13%. MIX 35 BBL 14.5# PILL AND HOLD FOR DRY JOB. |
| 6/20/2011 | 0:00 - 8:30 | 8.50 | EVALPR | 06 | B | P | | PUMP AND ROT OUT 18 STD, W/ 65K OVER PULL. HOLE TAKING PROPER FLUID. PUMP MUD FROM CELLAR BACK TO MUD TANKS. PUMP DRY JOB. |
| | 8:30 - 14:30 | 6.00 | EVALPR | 11 | D | P | | HOLD SAFETY MEETING W/ HALLIBURTON LOGGERS. INSTALL LOGGING CHIVES. P/U TRIPLE COMBO LOGGING TOOLS. RUN TRIPLE COMBO TOOLS. HIT BRIDGE @ 8925'. TRY WORKING THROUGH BRIDGE. UNABLE TO WORK TOOLS THROUGH BRIDGE. LOG UP FROM BRIDGE W/ TRIPLE COMBO TOOLS. LAYDOWN TRIPLE COMBO TOOLS. |
| | 14:30 - 19:30 | 5.00 | EVALPR | 11 | D | P | | P/U SONIC DIPOLE LOGGING TOOLS AND FMI LOGGING TOOLS. RUN IN HOLE AND LOG UP FROM 5500' TO 2769' SURFACE CSG TD. HOLD SAFETY MEETING AND RIG DOWN LOGGING TOOLS. |
| | 19:30 - 20:30 | 1.00 | CSG | 12 | A | P | | PULL WEAR BUSHING. HOLD SAFETY MEETING WITH WEATHERFORD CSG CREW. RIG UP CSG CREW. |
| | 20:30 - 0:00 | 3.50 | CSG | 07 | A | P | | MAKE UP 4.5" P-110 DCT AUTO FILL FLOAT SHOE AND AUTO FILL DCT FLOAT COLLAR ONTO 4.5" P-110 11.6# BTC SHOE JT W/ THREAD LOCK. RUN IN HOLE WITH TOTAL OF 13 JTS OF 4.5" P-110 11.6# BTC CSG. (TOTAL OF 570' P-110 ON BOTTOM). AVERAGE MAKE UP OF 6500 TORQUE. CONTINUE RUNNING IN HOLE W/ 4.5" I-80 11.6# BTC CSG. RUN MESA MARKER JT BETWEEN JT#52 AND JT #53. RUNNING CSG 3200' @ REPORT TIME. |
| 6/21/2011 | 0:00 - 2:00 | 2.00 | CSG | 12 | C | P | | RUN 4.5" I-80 11.6# BTC CSG FROM 3100'-5150'. PIPE STOPPED AUTO FILLING @ 4000'. BREAK CIRC. 4100'. |

US ROCKIES REGION
Operation Summary Report

| | | | |
|--|--|---|--|
| Well: NBU 921-22C1CS BLUE | | Spud Conductor: 5/14/2011 | Spud Date: 5/21/2011 |
| 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: 6/21/2011 |
| Active Datum: RKB @4,839.00ft (above Mean Sea Level) | | UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/359/W/0/2133/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|------|----------------|---------------|-------|------|----------|-----|--------------|---|
| | 2:00 - 3:00 | 1.00 | MAINT | 08 | A | Z | | SKATE SHEAVE FELL OFF. REPAIR ON SKATE SHEAVE ON PIPE RACK. CIRC. CSG PULLING FREE. |
| | 3:00 - 7:00 | 4.00 | CSG | 12 | C | P | | RUN 4.5" I-80 11.6# BTC CSG FROM 5150'-10270'. FILL PIPE @ 7100'. FILL PIPE WASH THROUGH BRIDGE @ 8925'. (RAN TOTAL OF 13 JTS OF 4.5" P-110 11.6# CSG (570') ON BOTTOM AND 230 JTS OF 4.5" I-80 11.6# BTC CSG ON TOP. SET DCT P-110 FLOAT SHOE @ 10270' KB. SET DCT P-110 FLOAT COLLAR @ 10225' KB. SET TOP OF MESA VERDE MARKER @ 8036' KB. SET TOP OF WASATCH MARKER @ 5084'. INSTALL BJ CEMENT HEAD. |
| | 7:00 - 9:00 | 2.00 | CSG | 05 | D | P | | CIRC DOWN CSG WHILE WAITING ON BJ TO RIG UP. MUD WT 12.5 VIS 42 LCM 13%. 5' FLARE ON BOTTOMS UP. START SHAKING OUT LCM. PREPARE MUD FOR STORAGE. HOLD SAFETY MEETING W/ BJ CEMENTERS. (SUCK OUT CELLAR WHILE CIRC.) |
| | 9:00 - 12:30 | 3.50 | CSG | 12 | E | P | | PRESSURE TEST LINES TO 4500 PSI. START 40 BBLS OF FRESH WATER DOWN AS SPACER. START LEAD CEMENT. WHEN SWITCHING FROM BULK TRUCK TO SILO ON LEAD CEMENT THERE WAS A PROBLEM WITH CEMENT CONTROL VALVE ON LINE INTO TRUCK. HAD TO RE-ROUTE BULK CEMENT LINES TO OTHER SIDE OF TRUCK.(25 MIN). PUMP 246 BBLS (715 SX) OF 12.6 PPG 1.93 YD 10.09 GAL/SK LEAD CEMENT. PUMP 288 BBLS (1237 SX) OF 14.3# 1.31 YD 5.41 GAL/SK. POZ 50/50 TAIL CEMENT. SHUT DOWN FLUSH LINES. DROP TOP PLUG AND DISPLACE W/ 158.5 BBLS OF FRESH WATER TREATED W/ CLAYCARE AND MAGNACIDE. CIRC THROUGH OUT. 90% CIRC. NO FLUSH TO PIT. LIFT PSI OF 2841 @ 3 BBLS MIN. BUMP PLUG 3574 PSI. . PRESSURE HELD 5 MINS. FLOAT HELD. FLOW BACK 2 BBLS. EST. TOC FOR LEAD 727', EST TOC FOR TAIL 4400'. RIG DOWN CEMENTERS. FLUSH THROUGH STACK AND MUD LINES WITH RESERVE PIT WATER. (SAVED 1000 BBLS OF MUD IN UPRIGHTS AND PREMIX) |
| | 12:30 - 14:30 | 2.00 | CSG | 14 | A | P | | SET C-22 SLIPS DOWN STACK. SET 90K ON SLIPS. TAKE OFF TURN BUCKLES, UNDO FLOW LINE. NIPPLE DOWN STACK. DO HOT WORK PERMIT AND CUT OFF 15' CSG. |
| | 14:30 - 18:00 | 3.50 | RDMO | 14 | A | P | | CLEAN PITS. (ENSGN PERFORMED HAIR FOLICLE AND URINE ANALYSIS FOR CONTROLLED SUBSTANCES ON CREW) RELEASE RIG 6/21/2011 18:00. |

US ROCKIES REGION
Operation Summary Report

| | | | |
|--|--|---|--|
| Well: NBU 921-22C1CS BLUE | | Spud Conductor: 5/14/2011 | Spud Date: 5/21/2011 |
| 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: 6/21/2011 |
| Active Datum: RKB @4,839.00ft (above Mean Sea Level) | | UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/359/W/0/2133/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|------|----------------|---------------|-------|------|----------|-----|--------------|---|
| | 18:00 - 18:00 | 0.00 | RDMO | | | | | <p>CONDUCTOR CASING: Cond. Depth set: 40 Cement sx used: 28</p> <p>SPUD DATE/TIME: 5/21/2011 13:30</p> <p>SURFACE HOLE: Surface From depth: 40 Surface To depth: 2,788 Total SURFACE hours: 36.00 Surface Casing size: 9-5/8" # of casing joints ran: 5-Mar Casing set MD: 2,769.0 # 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</p> <p>PRODUCTION: Rig Move/Skid start date/time: 6/12/2011 3:00 Rig Move/Skid finish date/time: 6/12/2011 6:30 Total MOVE hours: 3.5 Prod Rig Spud date/time: 6/12/2011 20:00 Rig Release date/time: 6/21/2011 18:00 Total SPUD to RR hours: 214.0 Planned depth MD 10,292 Planned depth TVD 10,113 Actual MD: 10,282 Actual TVD: 10,170 Open Wells \$: AFE \$: Open wells \$/ft:</p> <p>PRODUCTION HOLE: Prod. From depth: 2,792 Prod. To depth: 10,282 Total PROD hours: 103 Log Depth: TRIPLE COMBO 8916', DIPOLE SONIC AND FMI LOGS 5500' Production Casing size: 4.5 P110 & 4.5 I-80 # of casing joints ran: 13 JTS OF P-110, 230 JTS OF I-80 Casing set MD: 10,270.0 # sx of cement: 1,952 Cement blend (ppg): LEAD 12.6, TAIL 14.3 Cement yield (ft3/sk): LEAD 1.93, TAIL 1.31 Est. TOC (Lead & Tail) or 2 Stage : LEAD 727', TAIL 4434' Describe cement issues: 90% CIRC. Describe hole issues: HARD FORMATIONS 3 BITS</p> <p>DIRECTIONAL INFO: KOP: 557 Max angle: 22.34 Departure: 801.26 Max dogleg MD: 3248' 2.72 DOG LEG</p> |

1 General

1.1 Customer Information

| | | | |
|----------------|-------------------|--|--|
| Company | US ROCKIES REGION | | |
| Representative | | | |
| Address | | | |

1.2 Well Information

| | | | |
|--------------|--|--------------|--|
| Well | NBU 921-22C1CS BLUE | | |
| Common Name | NBU 921-22C1CS | | |
| Well Name | NBU 921-22C1CS | Wellbore No. | OH |
| Report No. | 1 | Report Date | 8/12/2011 |
| Project | UTAH-UINTAH | Site | NBU 921-15N PAD |
| Rig Name/No. | | Event | COMPLETION |
| Start Date | 8/15/2011 | End Date | 8/25/2011 |
| Spud Date | 5/21/2011 | Active Datum | RKB @4,839.00ft (above Mean Sea Level) |
| UWI | NE/NW/0/9/S/21/E/22/0/0/26/PM/S/359/W/0/2133/0/0 | | |

1.3 General

| | | | | | |
|---------------------|----------------------|-----------------|-----------|------------|----------|
| Contractor | CASED HOLE SOLUTIONS | Job Method | PERFORATE | Supervisor | ED GUDAC |
| Perforated Assembly | PRODUCTION CASING | Conveyed Method | WIRELINE | | |

1.4 Initial Conditions

| | | | | | | | |
|-------------------|---------|--------------------|--|------------------|----------------------------|--------------------------|-------------------|
| Fluid Type | | Fluid Density | | Gross Interval | 7,570.0 (ft)-10,059.0 (ft) | Start Date/Time | 8/15/2011 12:00AM |
| Surface Press | | Estimate Res Press | | No. of Intervals | 37 | End Date/Time | 8/15/2011 12:00AM |
| TVD Fluid Top | | Fluid Head | | Total Shots | 215 | Net Perforation Interval | 55.00 (ft) |
| Hydrostatic Press | | Press Difference | | Avg Shot Density | 3.91 (shot/ft) | Final Surface Pressure | |
| Balance Cond | NEUTRAL | | | | | Final Press Date | |

1.5 Summary

2 Intervals

2.1 Perforated Interval

| Date | Formation/Reservoir | CCL@ (ft) | CCL-T S (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 | WASATCH/ | | | 7,570.0 | 7,573.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO | |
| | | | | | | | | | | | | | | N | |

2.1 Perforated Interval (Continued)

| Date | Formation/ Reservoir | CCL@ (ft) | CCL-T S (ft) | MD Top (ft) | MD Base (ft) | Shot Density (shot/ft) | Misfires/ Add. Shot | Diamete r (in) | Carr Type /Carr Manuf | Carr Size (in) | Phasing (°) | Charge Desc /Charge Manufacturer | Charge Weight (gram) | Reason | Misrun |
|---------|-------------------------|--------------|--------------------|----------------|-----------------|------------------------------|------------------------|----------------------|-----------------------|----------------------|----------------|-------------------------------------|----------------------------|----------------|--------|
| 12:00AM | WASATCH/ | | | 7,605.0 | 7,608.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 8,040.0 | 8,046.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 8,184.0 | 8,185.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 8,313.0 | 8,315.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 8,340.0 | 8,341.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 8,388.0 | 8,389.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 8,400.0 | 8,401.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 8,466.0 | 8,467.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 8,477.0 | 8,478.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 8,504.0 | 8,506.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 8,635.0 | 8,636.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 8,671.0 | 8,672.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 8,796.0 | 8,797.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 8,859.0 | 8,860.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 8,881.0 | 8,882.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 8,912.0 | 8,913.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 8,946.0 | 8,948.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 9,012.0 | 9,013.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 9,021.0 | 9,022.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 9,122.0 | 9,123.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00AM | MESAVERDE/ | | | 9,144.0 | 9,145.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |

2.1 Perforated Interval (Continued)

| Date | Formation/ Reservoir | CCL@ (ft) | CCL-T S (ft) | MD Top (ft) | MD Base (ft) | Shot Density (shot/ft) | Misfires/ Add. Shot | Diamete r (in) | Carr Type /Carr Manuf | Carr Size (in) | Phasing (°) | Charge Desc /Charge Manufacturer | Charge Weight (gram) | Reason | Misrun |
|-------|-------------------------|--------------|--------------------|----------------|-----------------|------------------------------|------------------------|----------------------|-----------------------|----------------------|----------------|-------------------------------------|----------------------------|----------------|--------|
| 12:00 | AMMESAVERDE/ | | | 9,198.0 | 9,200.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00 | AMMESAVERDE/ | | | 9,344.0 | 9,345.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 12:00 | AMMESAVERDE/ | | | 9,361.0 | 9,363.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 12:00 | AMMESAVERDE/ | | | 9,390.0 | 9,391.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 12:00 | AMMESAVERDE/ | | | 9,424.0 | 9,426.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00 | AMMESAVERDE/ | | | 9,478.0 | 9,479.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00 | AMMESAVERDE/ | | | 9,550.0 | 9,551.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00 | AMMESAVERDE/ | | | 9,580.0 | 9,581.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00 | AMMESAVERDE/ | | | 9,635.0 | 9,636.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00 | AMMESAVERDE/ | | | 9,649.0 | 9,650.0 | 3.00 | | 0.360 | EXP/ | 3.375 | 120.00 | | 23.00 | PRODUCTIO N | |
| 12:00 | AMMESAVERDE/ | | | 9,752.0 | 9,754.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00 | AMMESAVERDE/ | | | 9,832.0 | 9,834.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00 | AMMESAVERDE/ | | | 9,860.0 | 9,862.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00 | AMMESAVERDE/ | | | 9,930.0 | 9,931.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |
| 12:00 | AMMESAVERDE/ | | | 10,058.0 | 10,059.0 | 4.00 | | 0.360 | EXP/ | 3.375 | 90.00 | | 23.00 | PRODUCTIO N | |

3 Plots

**US ROCKIES REGION
Operation Summary Report**

| | | |
|--|---|----------------------|
| Well: NBU 921-22C1CS BLUE | Spud Conductor: 5/14/2011 | Spud Date: 5/21/2011 |
| Project: UTAH-UINTAH | Site: NBU 921-15N PAD | Rig Name No: GWS 1/1 |
| Event: COMPLETION | Start Date: 8/15/2011 | End Date: 8/25/2011 |
| Active Datum: RKB @4,839.00ft (above Mean Sea Level) | UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/359/W/0/2133/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|-----------|----------------|---------------|-------|------|----------|-----|--------------|---|
| 8/11/2011 | 6:45 - 7:00 | 0.25 | COMP | 48 | D | P | | HELD SAFETY MEETING HIGH PRESSURE |
| | 7:00 - 7:00 | 0.00 | COMP | 33 | D | P | | FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 13 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 25 PSI. 1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 169 PSI. 2ND PSI TEST T/ 7000 PSI. HELD FOR 30 MIN. LOST 32 PSI. BLEED OFF PSI. MOVE T/ NEXT WELL. SWIFWE. |
| 8/12/2011 | 6:45 - 7:00 | 0.25 | COMP | 48 | | P | | HELD SAFETY MEETING |
| | 7:00 - 13:00 | 6.00 | COMP | 37 | | P | | RU CASED HOLE PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER PERF DESIGN. POOH SWIFW |

US ROCKIES REGION
Operation Summary Report

| | | | |
|--|--|---|----------------------|
| Well: NBU 921-22C1CS BLUE | | Spud Conductor: 5/14/2011 | Spud Date: 5/21/2011 |
| Project: UTAH-UINTAH | | Site: NBU 921-15N PAD | Rig Name No: GWS 1/1 |
| Event: COMPLETION | | Start Date: 8/15/2011 | End Date: 8/25/2011 |
| Active Datum: RKB @4,839.00ft (above Mean Sea Level) | | UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/359/W/0/2133/0/0 | |

| 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 | | <p>FRAC STG 1)WHP 2000 PSI, BRK 2966 PSI @ 4.7 BPM. ISIP 2966 PSI, FG .74 PUMP 100 BBLS @ 39.2 BPM @ 6061 PSI = 65% HOLES OPEN. ISIP 3078 PSI, FG .75 NPI 112 PSI. MP 6568 PSI, MR 50.5 BPM, AP 6148 PSI, AR 46.5 BPM, PMP 776 BBLS SW & 10,536 LBS OF 30/50 SND & NO RESIN SND. TOTAL PROP 10,536 LBS X-OVER TO W L</p> <p>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 @ 9784' P/U PERF AS PER PERF DESIGN. POOH X-OVER FOR FRAC CREW</p> <p>FRAC STG 2)WHP 2750 PSI, BRK 4510 PSI @ 4.7 BPM. ISIP 3467 PSI, FG .78 PUMP 100 BBLS @ 38.7 BPM @ 6057 PSI = 77% HOLES OPEN. ISIP 3185 PSI, FG .77, NPI -282 PSI. MP 6542 PSI, MR 50.5 BPM, AP 6034 PSI, AR 48.9 BPM, PMP 631 BBLS SW & 10,621 LBS OF 30/50 SND & NO RESIN SND. TOTAL PROP 10,621 LBS X-OVER FOR W L</p> <p>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 @ 9509' P/U PERF AS PER PERF DESIGN. POOH.X-OVER FOR FRAC CREW</p> <p>FRAC STG 3)WHP 1724 PSI, BRK 4494 PSI @ 4.8 BPM. ISIP 3474 PSI, FG .81 PUMP 100 BBLS @ 50.2 BPM @ 5903 PSI = 100% HOLES OPEN. ISIP 2955 PSI, FG .77, NPI -519 PSI. MP 6172 PSI, MR 50.5 BPM, AP 5422 PSI, AR 50.3 BPM, PMP 990 BBLS SW & 19,664 LBS OF 30/50 SND & NO RESIN SND. TOTAL PROP 19,664 LBS X-OVER FOR W L</p> <p>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 @ 9250' P/U PERF AS PER PERF DESIGN. POOH.X-OVER FOR FRAC CREW</p> <p>FRAC STG 4)WHP 984 PSI, BRK 5184 PSI @ 4.7 BPM. ISIP 4318 PSI, FG .91 PUMP 100 BBLS @ 42.3 BPM @ 6127 PSI = 100% HOLES OPEN. ISIP 2812 PSI, FG .75, NPI -1506 PSI. MP 6755 PSI, MR 50.8 BPM, AP 5618 PSI, AR 49.5 BPM, PMP 901 BBLS SW & 17,479 LBS OF 30/50 SND & NO RESIN SND.TOTAL PROP 17,479 LBS X-OVER FOR W L</p> <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 @ 8978' P/U PERF AS PER PERF DESIGN. POOH.X-OVER FOR FRAC CREW</p> <p>PERF STG 4)PU 4 1/2 8K HAL CBP & 3 1/8 EXP</p> |

US ROCKIES REGION
Operation Summary Report

| | | |
|--|---|----------------------|
| Well: NBU 921-22C1CS BLUE | Spud Conductor: 5/14/2011 | Spud Date: 5/21/2011 |
| Project: UTAH-UINTAH | Site: NBU 921-15N PAD | Rig Name No: GWS 1/1 |
| Event: COMPLETION | Start Date: 8/15/2011 | End Date: 8/25/2011 |
| Active Datum: RKB @4,839.00ft (above Mean Sea Level) | UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/359/W/0/2133/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|------|----------------|---------------|-------|------|----------|-----|--------------|--|
| | | | | | | | | <p>GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 9250' P/U PERF AS PER PERF DESIGN. POOH.X-OVER FOR FRAC CREW</p> <p>FRAC STG 5)WHP 2085 PSI, BRK 4940 PSI @ 4.7 BPM. ISIP 4047 PSI, FG .89 PUMP 100 BBLS @ 42.10 BPM @ 6017 PSI = 100% HOLES OPEN. ISIP 2922 PSI, FG .77, NPI -1125 PSI. MP 6313 PSI, MR 50.6 BPM, AP 5750 PSI, AR 48.7 BPM, PMP 806 BBLS SW & 15,359 LBS OF 30/50 SND & NO RESIN SND.TOTAL PROP 15,359 LBS X-OVER TO W L</p> <p>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 @ 8978' P/U PERF AS PER PERF DESIGN. POOH.SWINF</p> |

US ROCKIES REGION
Operation Summary Report

| | | | |
|--|--|---|----------------------|
| Well: NBU 921-22C1CS BLUE | | Spud Conductor: 5/14/2011 | Spud Date: 5/21/2011 |
| Project: UTAH-UINTAH | | Site: NBU 921-15N PAD | Rig Name No: GWS 1/1 |
| Event: COMPLETION | | Start Date: 8/15/2011 | End Date: 8/25/2011 |
| Active Datum: RKB @4,839.00ft (above Mean Sea Level) | | UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/359/W/0/2133/0/0 | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|-----------|----------------|---------------|-------|------|----------|-----|--------------|---|
| 8/16/2011 | 7:00 - 18:00 | 11.00 | COMP | 36 | B | P | | <p>FRAC STG 6)WHP 1856 PSI, BRK 5049 PSI @ 4.7 BPM. ISIP 3718 PSI, FG .87 CALC PERFS OPEN @ 36.9 BPM @ 5412 PSI = 98% HOLES OPEN. ISIP 2551 PSI, FG .74, NPI -1167 PSI. MP 6586 PSI, MR 50.3 BPM, AP 6139 PSI, AR 45.9 BPM, PMP 623 BBLS SW & 11,034 LBS OF 30/50 SND X-OVER TO W L</p> <p>PERF STG 7)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8431' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW</p> <p>FRAC STG 7)WHP 2155 PSI, BRK 4553 PSI @ 4.9 BPM. ISIP 3513 PSI, FG .86 CALC PERFS OPEN BBLS @ 444.8 BPM @ 5758 PSI = 100% HOLES OPEN. ISIP 2551 PSI, FG .75, NPI -962 PSI. MP 6604 PSI, MR 47.9 BPM, AP 6136 PSI, AR 45.8 BPM, PMP 713 BBLS SW & 13,292 LBS OF 30/50 SND X-OVER FOR W L</p> <p>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 @ 8096' P/U PERF AS PER PERF DESIGN. POOH. X-OVER FOR FRAC CREW</p> <p>FRAC STG 8)WHP 595 PSI, BRK 3466 PSI @ 4.5 BPM. ISIP 2026 PSI, FG .69 CALC PERF OPEN @ BBLS @ 50.3 BPM @ 5296 PSI = 83% HOLES OPEN. ISIP 2710 PSI, FG .78, NPI 684 PSI. MP 6589 PSI, MR 50.7 BPM, AP 4998 PSI, AR 50.3 BPM, PMP 1434 BBLS SW & 31,053 LBS OF 30/50 SND X-OVER FOR W L</p> <p>PERF STG 9)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7658' P/U PERF AS PER PERF DESIGN. POOH X-OVER FOR FRAC CREW.</p> <p>FRAC STG 9)WHP 406 PSI, BRK 3083 PSI @ 6.8 BPM. ISIP 2486 PSI, FG .77 CALC PERFS OPEN @ 43.8 BPM @ 5727 PSI = 68% HOLES OPEN. ISIP 2400 PSI, FG .75, NPI -86 PSI. MP 6321 PSI, MR 51.2 BPM, AP 5118 PSI, AR 50.4 BPM, PMP 627 BBLS SW & 16,773 LBS OF 30/50 SND.X-OVER FOR W L</p> <p>PU 4 1/2 CBP RIH SET KILL PLUG @ 7520 POOH RD W L SWI</p> <p>TOTAL SAND =145,811 # TOTAL TOTAL CLFL = 7501 BBLS TOTAL SCALE =928 GAL TOTAL BIO =148 GAL</p> |

US ROCKIES REGION
Operation Summary Report

| | | | | | |
|--|--|---|--|----------------------|--|
| Well: NBU 921-22C1CS BLUE | | Spud Conductor: 5/14/2011 | | Spud Date: 5/21/2011 | |
| Project: UTAH-UINTAH | | Site: NBU 921-15N PAD | | Rig Name No: GWS 1/1 | |
| Event: COMPLETION | | Start Date: 8/15/2011 | | End Date: 8/25/2011 | |
| Active Datum: RKB @4,839.00ft (above Mean Sea Level) | | UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/359/W/0/2133/0/0 | | | |

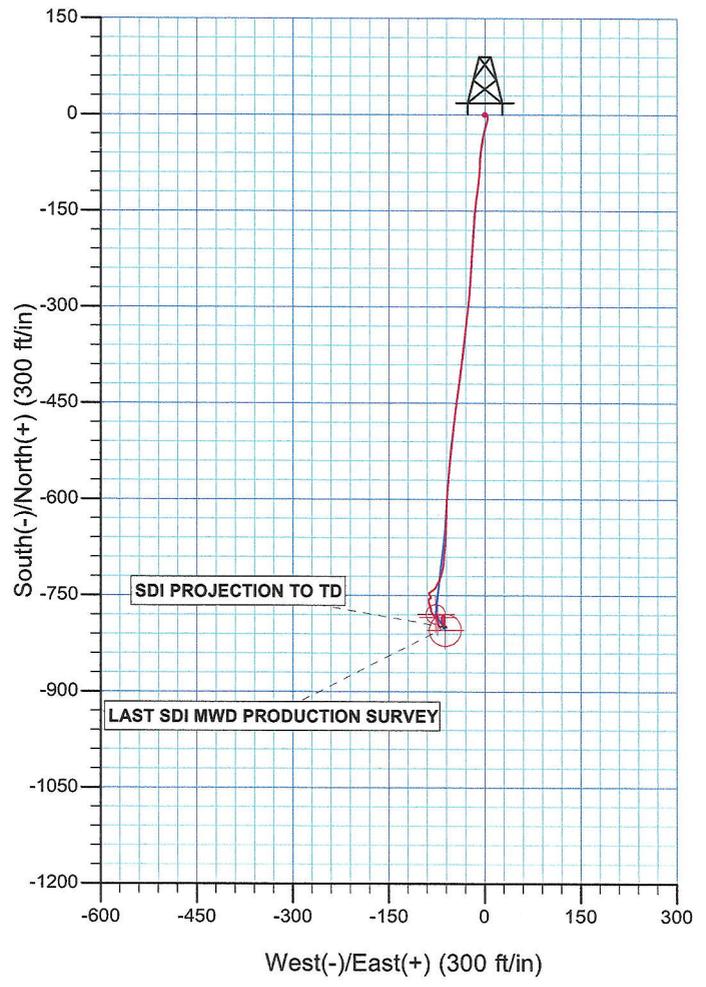
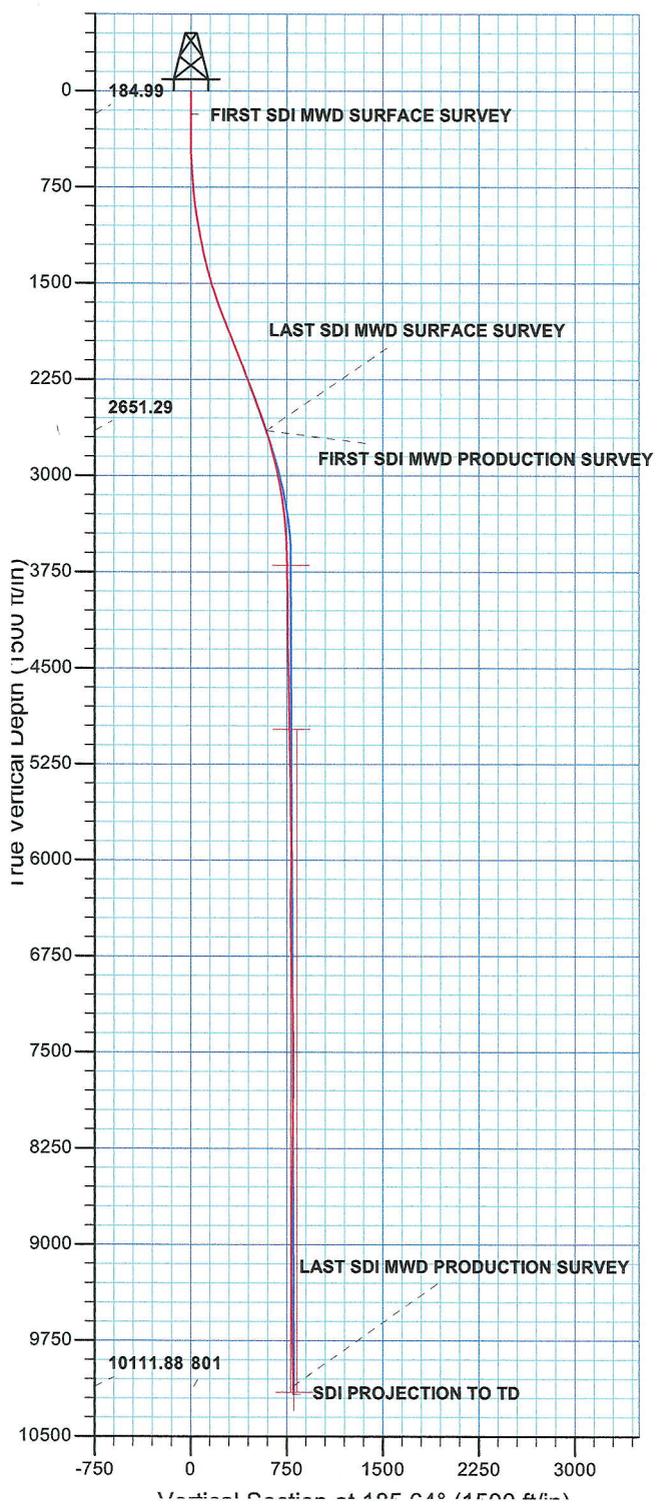
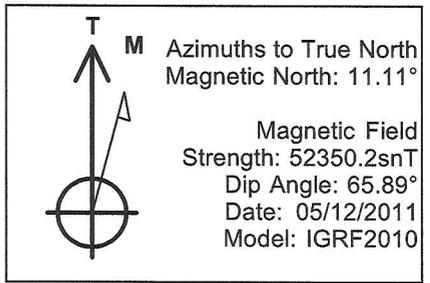
| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|-----------|----------------|---------------|-------|------|----------|-----|--------------|---|
| 8/23/2011 | 13:00 - 17:00 | 4.00 | COMP | 31 | I | P | | MIRU, SPOT EQUIP, ND WH, NU BOP, RU FLOOR & TBG EQUIP, PU TBG, REMOVE THREAD PROTECTORS, TALLY & DRIFT TBG, SWI, SDFN. HSM, SLIPS, TRIPS & FALLS, PU TBG. |
| 8/24/2011 | 7:00 - 7:15 | 0.25 | COMP | 48 | | P | | PU TBG, REMOVE PROTECTORS, TALLY & DRIFT, RU POWER SWIVEL, INSTAL STRIPPING RUBBER, FILL TBG BREAK CIRC, PRESS TEST BOPS TO 3,000 PSI FOR 15 MIN 0 PSI LOSS, SURFACE CSG VALVE OPEN & LOCKED, START DRLG PLUGS. |
| | 7:15 - 17:00 | 9.75 | COMP | 31 | I | P | | C/O 25' SAND, TAG 1ST PLUG @ 7,520' DRL PLUG IN 7 MIN. 400 PSI INCREASE RIH, CSG PRESS 0 PSI. C/O 20' SAND, TAG 2ND PLUG @ 7,658' DRL PLUG IN 8 MIN. 600 PSI INCREASE RIH, CSG PRESS 50 PSI. C/O 25' SAND, TAG 3RD PLUG @ 8,096' DRL PLUG IN 8 MIN. 500 PSI INCREASE RIH, CSG PRESS 100 PSI. C/O 20' SAND, TAG 4TH PLUG @ 8,431' DRL PLUG IN 10 MIN. 300 PSI INCREASE RIH, CSG PRESS 200 PSI. C/O 30' SAND, TAG 5TH PLUG @ 8,722' DRL PLUG IN 9 MIN. 600 PSI INCREASE RIH, CSG PRESS 275 PSI. C/O 0' SAND, TAG 6TH PLUG @ 8,978' DRL PLUG IN 6 MIN. 0 PSI INCREASE RIH, CSG PRESS 0 PSI. C/O 30' SAND TO TOP OF 7TH PLUG @ 9,250', LET WELL CLEAN UP FOR 20 MIN, PU 30' OFF PLUG, SWI, SDFN, D/O REMAINING PLUGS IN AM. HSM, SLIPS, TRIPS & FALLS, POWER SWIVEL |
| 8/25/2011 | 7:00 - 7:15 | 0.25 | COMP | 48 | | P | | |

**US ROCKIES REGION
Operation Summary Report**

| | | | | | |
|--|--|---|--|----------------------|--|
| Well: NBU 921-22C1CS BLUE | | Spud Conductor: 5/14/2011 | | Spud Date: 5/21/2011 | |
| Project: UTAH-UINTAH | | Site: NBU 921-15N PAD | | Rig Name No: GWS 1/1 | |
| Event: COMPLETION | | Start Date: 8/15/2011 | | End Date: 8/25/2011 | |
| Active Datum: RKB @4,839.00ft (above Mean Sea Level) | | UWI: NE/NW/0/9/S/21/E/22/0/0/26/PM/S/359/W/0/2133/0/0 | | | |

| Date | Time Start-End | Duration (hr) | Phase | Code | Sub Code | P/U | MD From (ft) | Operation |
|-----------|----------------|---------------|-------|------|----------|-----|--------------|---|
| | 7:15 - 13:00 | 5.75 | COMP | 44 | C | P | | <p>SICP 2,600 PSI, OPEN WELL BLEED DOWN PRESS, OPEN RAMS, D/O REMAINING PLUGS, SURFACE VALVE OPEN & LOCKED.</p> <p>C/O 0' SAND, TAG 7TH PLUG @ 9,250' DRL PLUG IN 9 MIN. 800 PSI INCREASE RIH, CSG PRESS 600 PSI.</p> <p>C/O 25' SAND, TAG 8TH PLUG @ 9,509' DRL PLUG IN 10 MIN. 400 PSI INCREASE RIH, CSG PRESS 600 PSI.</p> <p>C/O 20' SAND, TAG 9TH PLUG @ 9,784' DRL PLUG IN 9 MIN. 600 PSI INCREASE RIH, CSG PRESS 450 PSI.</p> <p>PBTD @ 10,225', BTM PERF @ 10,059', RIH TAG @ 10,138', C/O FROM 10,138' TO 10,204', 143' PAST BTM PERF W/ 323 JTS 2 3/8" L-80 TBG, LD 22 JTS, PU & STRIP IN TBG HANGER & LAND TBG W/ 301 JTS 2 3/8" L-80, EOT 9,504.72'. (BOTH SETS OF PIPE RAMS LEAKING WILL C/O BEFORE NEXT D/O)</p> <p>RD POWER SWIVEL, FLOOR & TBG EQUIP, ND BOPS, NU WH, DROP BALL TO SHEAR OFF BIT W/ 2,900 PSI, LET BIT FALL FOR 20 MIN.</p> <p>TURN OVER TO FLOW BACK CREW, RD & MOVE TO NBU 921-22D1CS.</p> <p>KB= 14' 4 1/16" WEATHERFORD HANGER= .83' TBG DELIVERED 316 JTS 301 JTS 2 3/8" L-80 = 9,488.69' TBG USED 301 JTS POBS= 2.20' TBG RETURNED 2 JTS BAD THREADS EOT @ 9,504.72' TRANSFER 13 JTS TO NEXT WELL ON PAD</p> <p>TOTAL EXTRA TBG ON LOCATION 45 JTS</p> <p>TWTR= 7501 BBLs TWR= 1,500 BBLs TWLTR= 6,001 BBLs CALLED CDC TALKED TO JUSTIN</p> |
| 8/26/2011 | 7:00 - | | | 33 | A | | | <p>7 AM FLBK REPORT: CP 2900#, TP 1825#, 20/64" CK, 41 BWPH, LIGHT SAND, 1686 GAS TTL BBLs RECOVERED: 2477 BBLs LEFT TO RECOVER: 5024</p> |
| 8/27/2011 | 7:00 - | | | 33 | A | | | <p>7 AM FLBK REPORT: CP 2600#, TP 1700#, 20/64" CK, 28 BWPH, LIGHT SAND, 2106 GAS TTL BBLs RECOVERED: 3276 BBLs LEFT TO RECOVER: 4225</p> |
| 8/28/2011 | 7:00 - | | | 33 | A | | | <p>7 AM FLBK REPORT: CP 2325#, TP 1500#, 20/64" CK, 21 BWPH, LIGHT SAND, 2268 GAS TTL BBLs RECOVERED: 3830 BBLs LEFT TO RECOVER: 3671</p> |
| 8/29/2011 | 7:00 - | | | 33 | A | | | <p>7 AM FLBK REPORT: CP 2200#, TP 1375#, 20/64" CK, 16 BWPH, LIGHT SAND, 2201 GAS TTL BBLs RECOVERED: 4257 BBLs LEFT TO RECOVER: 3244</p> |

| | | | | | |
|---|---------------|-------------------------|-----------------------|-----------------------------|--------------------------------|
| WELL DETAILS: NBU 921-22C1CS | | | | | |
| GL 4827' & KB 14' @ 4841.00R (ENSIGN 145) | | | | | |
| +N/-S 0.00 | +E/-W 0.00 | Northing 14540264.83 | Easting 2049410.88 | Latitude 40° 1' 47.428 N | Longitude 109° 32' 20.407 W |



| |
|---|
| 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 |



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

**Uintah County, UT UTM12
NBU 921-15N Pad
NBU 921-22C1CS**

OH

Design: OH

Standard Survey Report

22 June, 2011

Anadarko 
Petroleum Corporation

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 921-15N Pad
Well: NBU 921-22C1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-22C1CS
TVD Reference: GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
MD Reference: GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
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 921-22C1CS, 359 FSL 2133 FWL | | | | | |
| Well Position | +N-S | 0.00 ft | Northing: | 14,540,264.82 usft | Latitude: | 40° 1' 47.428 N |
| | +E-W | 0.00 ft | Easting: | 2,049,410.88 usft | Longitude: | 109° 32' 20.407 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 | 185.64 | |

| | | | | | |
|-----------------------|-----------------|-----------------------------------|------------------|--------------------------|--|
| Survey Program | Date 06/22/2011 | | | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 5.00 | 2,744.00 | Survey #1 SDI MWD SURFACE (OH) | MWD SDI | MWD - Standard ver 1.0.1 | |
| 2,886.00 | 10,282.00 | Survey #2 SDI MWD PRODUCTION (OH) | MWD SDI | MWD - Standard ver 1.0.1 | |

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N-S (ft) | +E-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
|-------------------------------------|-----------------|-------------|---------------------|-----------|-----------|-----------------------|-----------------------|----------------------|---------------------|--|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5.00 | 0.00 | 0.00 | 5.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 185.00 | 1.14 | 88.89 | 184.99 | 0.03 | 1.79 | -0.21 | 0.63 | 0.63 | 0.00 | |
| FIRST SDI MWD SURFACE SURVEY | | | | | | | | | | |
| 275.00 | 0.62 | 112.18 | 274.98 | -0.13 | 3.14 | -0.18 | 0.69 | -0.58 | 25.88 | |
| 368.00 | 0.53 | 163.60 | 367.97 | -0.73 | 3.72 | 0.37 | 0.54 | -0.10 | 55.29 | |
| 463.00 | 1.85 | 168.43 | 462.95 | -2.66 | 4.16 | 2.24 | 1.39 | 1.39 | 5.08 | |
| 558.00 | 2.55 | 183.81 | 557.88 | -6.27 | 4.32 | 5.81 | 0.96 | 0.74 | 16.19 | |
| 654.00 | 3.96 | 193.48 | 653.72 | -11.62 | 3.41 | 11.23 | 1.57 | 1.47 | 10.07 | |
| 749.00 | 5.63 | 197.26 | 748.39 | -19.26 | 1.26 | 19.05 | 1.79 | 1.76 | 3.98 | |

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 921-15N Pad
Well: NBU 921-22C1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-22C1CS
TVD Reference: GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
MD Reference: GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
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) |
|--|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 844.00 | 6.51 | 193.04 | 842.86 | -28.96 | -1.34 | 28.95 | 1.04 | 0.93 | -4.44 |
| 940.00 | 7.74 | 189.00 | 938.11 | -40.65 | -3.58 | 40.80 | 1.38 | 1.28 | -4.21 |
| 1,034.00 | 9.15 | 188.91 | 1,031.09 | -54.29 | -5.72 | 54.58 | 1.50 | 1.50 | -0.10 |
| 1,129.00 | 10.64 | 181.44 | 1,124.68 | -70.52 | -7.12 | 70.87 | 2.07 | 1.57 | -7.86 |
| 1,224.00 | 12.22 | 185.57 | 1,217.79 | -89.29 | -8.31 | 89.68 | 1.87 | 1.66 | 4.35 |
| 1,319.00 | 13.45 | 186.27 | 1,310.42 | -110.28 | -10.49 | 110.78 | 1.31 | 1.29 | 0.74 |
| 1,413.00 | 14.86 | 187.42 | 1,401.56 | -133.10 | -13.24 | 133.76 | 1.53 | 1.50 | 1.22 |
| 1,510.00 | 16.53 | 183.99 | 1,494.94 | -159.20 | -15.81 | 159.99 | 1.97 | 1.72 | -3.54 |
| 1,606.00 | 18.11 | 184.34 | 1,586.59 | -187.71 | -17.89 | 188.56 | 1.65 | 1.65 | 0.36 |
| 1,700.00 | 20.14 | 182.85 | 1,675.40 | -218.44 | -19.80 | 219.33 | 2.22 | 2.16 | -1.59 |
| 1,795.00 | 20.84 | 183.99 | 1,764.39 | -251.63 | -21.79 | 252.56 | 0.85 | 0.74 | 1.20 |
| 1,890.00 | 21.63 | 185.04 | 1,852.94 | -285.93 | -24.50 | 286.96 | 0.92 | 0.83 | 1.11 |
| 1,984.00 | 21.63 | 186.27 | 1,940.32 | -320.41 | -27.92 | 321.61 | 0.48 | 0.00 | 1.31 |
| 2,080.00 | 21.98 | 187.15 | 2,029.45 | -355.83 | -32.09 | 357.26 | 0.50 | 0.36 | 0.92 |
| 2,175.00 | 22.34 | 186.27 | 2,117.43 | -391.41 | -36.27 | 393.08 | 0.52 | 0.38 | -0.93 |
| 2,270.00 | 21.02 | 188.12 | 2,205.71 | -426.23 | -40.65 | 428.16 | 1.56 | -1.39 | 1.95 |
| 2,365.00 | 20.31 | 186.89 | 2,294.60 | -459.47 | -45.03 | 461.67 | 0.88 | -0.75 | -1.29 |
| 2,458.00 | 20.31 | 186.10 | 2,381.82 | -491.54 | -48.69 | 493.94 | 0.29 | 0.00 | -0.85 |
| 2,553.00 | 19.96 | 186.45 | 2,471.01 | -524.04 | -52.26 | 526.64 | 0.39 | -0.37 | 0.37 |
| 2,649.00 | 19.43 | 185.13 | 2,561.39 | -556.23 | -55.53 | 558.99 | 0.72 | -0.55 | -1.38 |
| 2,744.00 | 18.29 | 183.81 | 2,651.29 | -586.84 | -57.93 | 589.70 | 1.28 | -1.20 | -1.39 |
| LAST SDI MWD SURFACE SURVEY - FIRST SDI MWD PRODUCTION SURVEY | | | | | | | | | |
| 2,886.00 | 15.12 | 181.61 | 2,787.28 | -627.60 | -59.93 | 630.45 | 2.28 | -2.23 | -1.55 |
| 2,976.00 | 13.19 | 182.84 | 2,874.55 | -649.59 | -60.77 | 652.42 | 2.17 | -2.14 | 1.37 |
| 3,067.00 | 12.05 | 182.22 | 2,963.35 | -669.45 | -61.65 | 672.27 | 1.26 | -1.25 | -0.68 |
| 3,158.00 | 11.52 | 185.12 | 3,052.43 | -687.99 | -62.83 | 690.84 | 0.87 | -0.58 | 3.19 |
| 3,248.00 | 9.15 | 188.46 | 3,140.96 | -704.03 | -64.69 | 706.97 | 2.72 | -2.63 | 3.71 |
| 3,339.00 | 8.79 | 197.69 | 3,230.86 | -717.81 | -67.87 | 721.00 | 1.63 | -0.40 | 10.14 |
| 3,429.00 | 6.86 | 204.02 | 3,320.01 | -729.27 | -72.14 | 732.83 | 2.35 | -2.14 | 7.03 |
| 3,520.00 | 5.36 | 214.74 | 3,410.50 | -737.73 | -76.78 | 741.70 | 2.06 | -1.65 | 11.78 |
| 3,611.00 | 4.04 | 238.12 | 3,501.20 | -742.91 | -81.92 | 747.37 | 2.53 | -1.45 | 25.69 |
| 3,701.00 | 2.11 | 239.62 | 3,591.06 | -745.43 | -86.04 | 750.27 | 2.15 | -2.14 | 1.67 |
| 3,792.00 | 0.88 | 147.15 | 3,682.04 | -746.86 | -87.11 | 751.81 | 2.55 | -1.35 | -101.62 |
| 3,882.00 | 1.23 | 142.06 | 3,772.03 | -748.20 | -86.14 | 753.05 | 0.40 | 0.39 | -5.66 |
| 3,973.00 | 1.41 | 159.20 | 3,863.00 | -750.02 | -85.14 | 754.76 | 0.47 | 0.20 | 18.84 |
| 4,063.00 | 1.67 | 159.28 | 3,952.97 | -752.28 | -84.29 | 756.92 | 0.29 | 0.29 | 0.09 |
| 4,154.00 | 0.53 | 229.33 | 4,043.95 | -753.80 | -84.14 | 758.42 | 1.73 | -1.25 | 76.98 |
| 4,245.00 | 0.97 | 252.80 | 4,134.95 | -754.30 | -85.19 | 759.02 | 0.58 | 0.48 | 25.79 |
| 4,335.00 | 0.35 | 293.32 | 4,224.94 | -754.41 | -86.17 | 759.23 | 0.82 | -0.69 | 45.02 |
| 4,426.00 | 0.62 | 203.76 | 4,315.94 | -754.75 | -86.63 | 759.61 | 0.78 | 0.30 | -98.42 |
| 4,516.00 | 1.30 | 181.14 | 4,405.92 | -756.22 | -86.84 | 761.09 | 0.85 | 0.76 | -25.13 |
| 4,607.00 | 1.58 | 183.89 | 4,496.90 | -758.50 | -86.95 | 763.38 | 0.32 | 0.31 | 3.02 |
| 4,698.00 | 0.62 | 155.50 | 4,587.88 | -760.20 | -86.83 | 765.06 | 1.18 | -1.05 | -31.20 |

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 921-15N Pad
Well: NBU 921-22C1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-22C1CS
TVD Reference: GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
MD Reference: GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
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) | |
| 4,788.00 | 0.79 | 162.45 | 4,677.87 | -761.24 | -86.44 | 766.05 | 0.21 | 0.19 | 7.72 | |
| 4,879.00 | 1.32 | 172.38 | 4,768.86 | -762.88 | -86.11 | 767.65 | 0.61 | 0.58 | 10.91 | |
| 4,969.00 | 2.02 | 168.25 | 4,858.82 | -765.46 | -85.65 | 770.17 | 0.79 | 0.78 | -4.59 | |
| 5,060.00 | 1.49 | 149.79 | 4,949.77 | -768.05 | -84.73 | 772.66 | 0.84 | -0.58 | -20.29 | |
| 5,151.00 | 0.88 | 168.60 | 5,040.76 | -769.76 | -84.00 | 774.29 | 0.79 | -0.67 | 20.67 | |
| 5,241.00 | 0.26 | 183.19 | 5,130.75 | -770.64 | -83.87 | 775.15 | 0.70 | -0.69 | 16.21 | |
| 5,332.00 | 0.79 | 185.65 | 5,221.75 | -771.47 | -83.94 | 775.98 | 0.58 | 0.58 | 2.70 | |
| 5,422.00 | 1.06 | 167.11 | 5,311.73 | -772.90 | -83.82 | 777.39 | 0.44 | 0.30 | -20.60 | |
| 5,513.00 | 1.14 | 177.30 | 5,402.72 | -774.62 | -83.59 | 779.09 | 0.23 | 0.09 | 11.20 | |
| 5,604.00 | 0.88 | 130.46 | 5,493.71 | -775.98 | -83.01 | 780.38 | 0.92 | -0.29 | -51.47 | |
| 5,694.00 | 0.97 | 139.33 | 5,583.69 | -777.01 | -81.99 | 781.30 | 0.19 | 0.10 | 9.86 | |
| 5,785.00 | 1.41 | 143.11 | 5,674.67 | -778.49 | -80.82 | 782.66 | 0.49 | 0.48 | 4.15 | |
| 5,875.00 | 1.58 | 150.58 | 5,764.64 | -780.45 | -79.54 | 784.49 | 0.29 | 0.19 | 8.30 | |
| 5,966.00 | 1.49 | 145.22 | 5,855.61 | -782.52 | -78.25 | 786.42 | 0.19 | -0.10 | -5.89 | |
| 6,057.00 | 0.70 | 106.99 | 5,946.59 | -783.65 | -77.05 | 787.43 | 1.14 | -0.87 | -42.01 | |
| 6,147.00 | 1.06 | 13.21 | 6,036.59 | -783.00 | -76.33 | 786.71 | 1.45 | 0.40 | -104.20 | |
| 6,238.00 | 0.97 | 8.02 | 6,127.57 | -781.42 | -76.03 | 785.11 | 0.14 | -0.10 | -5.70 | |
| 6,328.00 | 0.70 | 8.81 | 6,217.56 | -780.12 | -75.84 | 783.80 | 0.30 | -0.30 | 0.88 | |
| 6,419.00 | 0.35 | 18.31 | 6,308.56 | -779.31 | -75.67 | 782.97 | 0.40 | -0.38 | 10.44 | |
| 6,510.00 | 0.00 | 358.00 | 6,399.56 | -779.04 | -75.58 | 782.70 | 0.38 | -0.38 | 0.00 | |
| 6,600.00 | 0.26 | 172.82 | 6,489.56 | -779.25 | -75.55 | 782.90 | 0.29 | 0.29 | 0.00 | |
| 6,691.00 | 0.44 | 166.23 | 6,580.56 | -779.79 | -75.45 | 783.43 | 0.20 | 0.20 | -7.24 | |
| 6,782.00 | 0.70 | 160.25 | 6,671.55 | -780.65 | -75.17 | 784.26 | 0.29 | 0.29 | -6.57 | |
| 6,872.00 | 1.14 | 172.03 | 6,761.54 | -782.06 | -74.87 | 785.63 | 0.53 | 0.49 | 13.09 | |
| 6,963.00 | 1.41 | 172.99 | 6,852.52 | -784.07 | -74.60 | 787.60 | 0.30 | 0.30 | 1.05 | |
| 7,053.00 | 1.49 | 173.26 | 6,942.49 | -786.33 | -74.33 | 789.83 | 0.09 | 0.09 | 0.30 | |
| 7,144.00 | 1.67 | 168.07 | 7,033.45 | -788.80 | -73.92 | 792.25 | 0.25 | 0.20 | -5.70 | |
| 7,235.00 | 1.67 | 162.54 | 7,124.42 | -791.36 | -73.25 | 794.73 | 0.18 | 0.00 | -6.08 | |
| 7,325.00 | 1.85 | 170.45 | 7,214.37 | -794.05 | -72.61 | 797.34 | 0.34 | 0.20 | 8.79 | |
| 7,416.00 | 0.62 | 133.27 | 7,305.35 | -795.83 | -72.01 | 799.06 | 1.55 | -1.35 | -40.86 | |
| 7,506.00 | 0.70 | 134.32 | 7,395.35 | -796.55 | -71.26 | 799.70 | 0.09 | 0.09 | 1.17 | |
| 7,597.00 | 0.88 | 152.16 | 7,486.34 | -797.56 | -70.54 | 800.63 | 0.33 | 0.20 | 19.60 | |
| 7,688.00 | 1.06 | 170.53 | 7,577.32 | -799.00 | -70.07 | 802.02 | 0.39 | 0.20 | 20.19 | |
| 7,778.00 | 0.18 | 128.52 | 7,667.32 | -799.91 | -69.82 | 802.90 | 1.04 | -0.98 | -46.68 | |
| 7,869.00 | 1.23 | 49.07 | 7,758.31 | -799.36 | -68.97 | 802.27 | 1.33 | 1.15 | -87.31 | |
| 7,959.00 | 1.23 | 56.28 | 7,848.29 | -798.19 | -67.44 | 800.96 | 0.17 | 0.00 | 8.01 | |
| 8,050.00 | 0.53 | 90.11 | 7,939.28 | -797.65 | -66.21 | 800.30 | 0.93 | -0.77 | 37.18 | |
| 8,140.00 | 0.97 | 34.22 | 8,029.27 | -797.02 | -65.36 | 799.59 | 0.89 | 0.49 | -62.10 | |
| 8,231.00 | 0.88 | 23.84 | 8,120.26 | -795.75 | -64.65 | 798.25 | 0.21 | -0.10 | -11.41 | |
| 8,322.00 | 0.62 | 30.17 | 8,211.25 | -794.68 | -64.12 | 797.14 | 0.30 | -0.29 | 6.96 | |
| 8,412.00 | 0.79 | 53.46 | 8,301.25 | -793.89 | -63.37 | 796.28 | 0.37 | 0.19 | 25.88 | |
| 8,503.00 | 1.32 | 10.13 | 8,392.23 | -792.49 | -62.69 | 794.81 | 1.01 | 0.58 | -47.62 | |
| 8,593.00 | 1.32 | 353.17 | 8,482.21 | -790.44 | -62.63 | 792.76 | 0.43 | 0.00 | -18.84 | |
| 8,684.00 | 0.70 | 340.51 | 8,573.19 | -788.87 | -62.94 | 791.24 | 0.72 | -0.68 | -13.91 | |

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 921-15N Pad
Well: NBU 921-22C1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-22C1CS
TVD Reference: GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
MD Reference: GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

| 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) |
|---------------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 8,775.00 | 0.62 | 18.39 | 8,664.19 | -787.88 | -62.97 | 790.25 | 0.48 | -0.09 | 41.63 |
| 8,865.00 | 1.58 | 348.42 | 8,754.17 | -786.20 | -63.06 | 788.59 | 1.21 | 1.07 | -33.30 |
| 8,956.00 | 1.23 | 342.18 | 8,845.14 | -784.04 | -63.61 | 786.50 | 0.42 | -0.38 | -6.86 |
| 9,046.00 | 0.97 | 347.37 | 8,935.13 | -782.38 | -64.08 | 784.89 | 0.31 | -0.29 | 5.77 |
| 9,137.00 | 0.79 | 350.27 | 9,026.12 | -781.01 | -64.35 | 783.55 | 0.20 | -0.20 | 3.19 |
| 9,227.00 | 0.88 | 247.79 | 9,116.11 | -780.66 | -65.10 | 783.28 | 1.45 | 0.10 | -113.87 |
| 9,318.00 | 1.06 | 200.59 | 9,207.10 | -781.71 | -66.04 | 784.42 | 0.87 | 0.20 | -51.87 |
| 9,409.00 | 1.06 | 195.23 | 9,298.08 | -783.31 | -66.56 | 786.06 | 0.11 | 0.00 | -5.89 |
| 9,499.00 | 0.79 | 202.43 | 9,388.07 | -784.69 | -67.01 | 787.48 | 0.33 | -0.30 | 8.00 |
| 9,590.00 | 0.88 | 180.99 | 9,479.06 | -785.97 | -67.26 | 788.77 | 0.35 | 0.10 | -23.56 |
| 9,680.00 | 1.49 | 178.00 | 9,569.04 | -787.83 | -67.23 | 790.62 | 0.68 | 0.68 | -3.32 |
| 9,771.00 | 1.23 | 165.78 | 9,660.02 | -789.96 | -66.95 | 792.71 | 0.43 | -0.29 | -13.43 |
| 9,862.00 | 1.41 | 150.14 | 9,750.99 | -791.87 | -66.15 | 794.54 | 0.44 | 0.20 | -17.19 |
| 9,952.00 | 1.49 | 149.17 | 9,840.96 | -793.84 | -65.00 | 796.39 | 0.09 | 0.09 | -1.08 |
| 10,043.00 | 1.58 | 135.55 | 9,931.93 | -795.75 | -63.52 | 798.14 | 0.41 | 0.10 | -14.97 |
| 10,133.00 | 1.32 | 130.98 | 10,021.90 | -797.32 | -61.87 | 799.54 | 0.32 | -0.29 | -5.08 |
| 10,223.00 | 1.23 | 139.42 | 10,111.88 | -798.73 | -60.46 | 800.81 | 0.23 | -0.10 | 9.38 |
| LAST SDI MWD PRODUCTION SURVEY | | | | | | | | | |
| 10,282.00 | 1.23 | 139.42 | 10,170.87 | -799.69 | -59.63 | 801.68 | 0.00 | 0.00 | 0.00 |
| SDI PROJECTION TO TD | | | | | | | | | |

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment |
|---------------------|---------------------|-------------------|------------|---------------------------------|
| | | +N/-S (ft) | +E/-W (ft) | |
| 185.00 | 184.99 | 0.03 | 1.79 | FIRST SDI MWD SURFACE SURVEY |
| 2,744.00 | 2,651.29 | -586.84 | -57.93 | LAST SDI MWD SURFACE SURVEY |
| 2,744.00 | 2,651.29 | -586.84 | -57.93 | FIRST SDI MWD PRODUCTION SURVEY |
| 10,223.00 | 10,111.88 | -798.73 | -60.46 | LAST SDI MWD PRODUCTION SURVEY |
| 10,282.00 | 10,170.87 | -799.69 | -59.63 | 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 921-22C1CS**

OH

Design: OH

Survey Report - Geographic

22 June, 2011

| | |
|---|--|
| Company: Kerr McGee Oil and Gas Onshore LP | Local Co-ordinate Reference: Well NBU 921-22C1CS |
| 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 921-22C1CS | 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 921-22C1CS, 359 FSL 2133 FWL |
| Well Position +N/-S 0.00 ft Northing: 14,540,264.82 usft Latitude: 40° 1' 47.428 N |
| +E/-W 0.00 ft Easting: 2,049,410.88 usft Longitude: 109° 32' 20.407 W |
| Position Uncertainty 0.00 ft Wellhead Elevation: ft Ground Level: 4,827.00 ft |

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

| | | | | |
|--|-----------------------------------|------------------------|------------------------|-----------------------------|
| Design OH | | | | |
| Audit Notes: | | | | |
| Version: 1.0 Phase: ACTUAL Tie On Depth: 0.00 | | | | |
| Vertical Section: | Depth From (TVD) (ft) 0.00 | +N/-S (ft) 0.00 | +E/-W (ft) 0.00 | Direction (°) 185.64 |

| |
|---|
| Survey Program Date 06/22/2011 |
| From (ft) To (ft) Survey (Wellbore) Tool Name Description |
| 5.00 2,744.00 Survey #1 SDI MWD SURFACE (OH) MWD SDI MWD - Standard ver 1.0.1 |
| 2,886.00 10,282.00 Survey #2 SDI MWD PRODUCTION (OH) MWD SDI MWD - Standard ver 1.0.1 |

| 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 | 14,540,264.82 | 2,049,410.88 | 40° 1' 47.428 N | 109° 32' 20.407 W |
| 5.00 | 0.00 | 0.00 | 5.00 | 0.00 | 0.00 | 14,540,264.82 | 2,049,410.88 | 40° 1' 47.428 N | 109° 32' 20.407 W |
| 185.00 | 1.14 | 88.89 | 184.99 | 0.03 | 1.79 | 14,540,264.89 | 2,049,412.67 | 40° 1' 47.428 N | 109° 32' 20.384 W |
| FIRST SDI MWD SURFACE SURVEY | | | | | | | | | |
| 275.00 | 0.62 | 112.18 | 274.98 | -0.13 | 3.14 | 14,540,264.74 | 2,049,414.02 | 40° 1' 47.426 N | 109° 32' 20.367 W |
| 368.00 | 0.53 | 163.60 | 367.97 | -0.73 | 3.72 | 14,540,264.15 | 2,049,414.61 | 40° 1' 47.420 N | 109° 32' 20.359 W |
| 463.00 | 1.85 | 168.43 | 462.95 | -2.66 | 4.16 | 14,540,262.23 | 2,049,415.08 | 40° 1' 47.401 N | 109° 32' 20.354 W |
| 558.00 | 2.55 | 183.81 | 557.88 | -6.27 | 4.32 | 14,540,258.63 | 2,049,415.30 | 40° 1' 47.366 N | 109° 32' 20.352 W |
| 654.00 | 3.96 | 193.48 | 653.72 | -11.62 | 3.41 | 14,540,253.27 | 2,049,414.48 | 40° 1' 47.313 N | 109° 32' 20.363 W |
| 749.00 | 5.63 | 197.26 | 748.39 | -19.26 | 1.26 | 14,540,245.59 | 2,049,412.45 | 40° 1' 47.237 N | 109° 32' 20.391 W |
| 844.00 | 6.51 | 193.04 | 842.86 | -28.96 | -1.34 | 14,540,235.85 | 2,049,410.02 | 40° 1' 47.141 N | 109° 32' 20.424 W |

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 921-15N Pad
Well: NBU 921-22C1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-22C1CS
TVD Reference: GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
MD Reference: GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

| Survey | | | | | | | | | |
|--|-------------|---------|----------|---------|--------|---------------|--------------|-----------------|-------------------|
| Measured | | | Vertical | | | Map | Map | | |
| Depth | Inclination | Azimuth | Depth | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| (ft) | (°) | (°) | (ft) | (ft) | (ft) | (usft) | (usft) | | |
| 940.00 | 7.74 | 189.00 | 938.11 | -40.65 | -3.58 | 14,540,224.13 | 2,049,407.97 | 40° 1' 47.026 N | 109° 32' 20.453 W |
| 1,034.00 | 9.15 | 188.91 | 1,031.09 | -54.29 | -5.72 | 14,540,210.46 | 2,049,406.04 | 40° 1' 46.891 N | 109° 32' 20.481 W |
| 1,129.00 | 10.64 | 181.44 | 1,124.68 | -70.52 | -7.12 | 14,540,194.21 | 2,049,404.92 | 40° 1' 46.731 N | 109° 32' 20.499 W |
| 1,224.00 | 12.22 | 185.57 | 1,217.79 | -89.29 | -8.31 | 14,540,175.42 | 2,049,404.03 | 40° 1' 46.545 N | 109° 32' 20.514 W |
| 1,319.00 | 13.45 | 186.27 | 1,310.42 | -110.28 | -10.49 | 14,540,154.40 | 2,049,402.19 | 40° 1' 46.338 N | 109° 32' 20.542 W |
| 1,413.00 | 14.86 | 187.42 | 1,401.56 | -133.10 | -13.24 | 14,540,131.53 | 2,049,399.82 | 40° 1' 46.112 N | 109° 32' 20.577 W |
| 1,510.00 | 16.53 | 183.99 | 1,494.94 | -159.20 | -15.81 | 14,540,105.39 | 2,049,397.68 | 40° 1' 45.854 N | 109° 32' 20.610 W |
| 1,606.00 | 18.11 | 184.34 | 1,586.59 | -187.71 | -17.89 | 14,540,076.86 | 2,049,396.07 | 40° 1' 45.572 N | 109° 32' 20.637 W |
| 1,700.00 | 20.14 | 182.85 | 1,675.40 | -218.44 | -19.80 | 14,540,046.10 | 2,049,394.66 | 40° 1' 45.268 N | 109° 32' 20.662 W |
| 1,795.00 | 20.84 | 183.99 | 1,764.39 | -251.63 | -21.79 | 14,540,012.88 | 2,049,393.22 | 40° 1' 44.940 N | 109° 32' 20.687 W |
| 1,890.00 | 21.63 | 185.04 | 1,852.94 | -285.93 | -24.50 | 14,539,978.54 | 2,049,391.07 | 40° 1' 44.601 N | 109° 32' 20.722 W |
| 1,984.00 | 21.63 | 186.27 | 1,940.32 | -320.41 | -27.92 | 14,539,944.01 | 2,049,388.22 | 40° 1' 44.260 N | 109° 32' 20.766 W |
| 2,080.00 | 21.98 | 187.15 | 2,029.45 | -355.83 | -32.09 | 14,539,908.53 | 2,049,384.63 | 40° 1' 43.910 N | 109° 32' 20.820 W |
| 2,175.00 | 22.34 | 186.27 | 2,117.43 | -391.41 | -36.27 | 14,539,872.88 | 2,049,381.03 | 40° 1' 43.559 N | 109° 32' 20.874 W |
| 2,270.00 | 21.02 | 188.12 | 2,205.71 | -426.23 | -40.65 | 14,539,838.00 | 2,049,377.22 | 40° 1' 43.215 N | 109° 32' 20.930 W |
| 2,365.00 | 20.31 | 186.89 | 2,294.60 | -459.47 | -45.03 | 14,539,804.69 | 2,049,373.39 | 40° 1' 42.886 N | 109° 32' 20.986 W |
| 2,458.00 | 20.31 | 186.10 | 2,381.82 | -491.54 | -48.69 | 14,539,772.56 | 2,049,370.26 | 40° 1' 42.569 N | 109° 32' 21.033 W |
| 2,553.00 | 19.96 | 186.45 | 2,471.01 | -524.04 | -52.26 | 14,539,740.00 | 2,049,367.22 | 40° 1' 42.248 N | 109° 32' 21.079 W |
| 2,649.00 | 19.43 | 185.13 | 2,561.39 | -556.23 | -55.53 | 14,539,707.77 | 2,049,364.48 | 40° 1' 41.930 N | 109° 32' 21.121 W |
| 2,744.00 | 18.29 | 183.81 | 2,651.29 | -586.84 | -57.93 | 14,539,677.12 | 2,049,362.58 | 40° 1' 41.627 N | 109° 32' 21.152 W |
| LAST SDI MWD SURFACE SURVEY - FIRST SDI MWD PRODUCTION SURVEY | | | | | | | | | |
| 2,886.00 | 15.12 | 181.61 | 2,787.28 | -627.60 | -59.93 | 14,539,636.34 | 2,049,361.25 | 40° 1' 41.224 N | 109° 32' 21.178 W |
| 2,976.00 | 13.19 | 182.84 | 2,874.55 | -649.59 | -60.77 | 14,539,614.34 | 2,049,360.77 | 40° 1' 41.007 N | 109° 32' 21.189 W |
| 3,067.00 | 12.05 | 182.22 | 2,963.35 | -669.45 | -61.65 | 14,539,594.46 | 2,049,360.21 | 40° 1' 40.810 N | 109° 32' 21.200 W |
| 3,158.00 | 11.52 | 185.12 | 3,052.43 | -687.99 | -62.83 | 14,539,575.90 | 2,049,359.34 | 40° 1' 40.627 N | 109° 32' 21.215 W |
| 3,248.00 | 9.15 | 188.46 | 3,140.96 | -704.03 | -64.69 | 14,539,559.84 | 2,049,357.75 | 40° 1' 40.469 N | 109° 32' 21.239 W |
| 3,339.00 | 8.79 | 197.69 | 3,230.86 | -717.81 | -67.87 | 14,539,546.01 | 2,049,354.80 | 40° 1' 40.332 N | 109° 32' 21.280 W |
| 3,429.00 | 6.86 | 204.02 | 3,320.01 | -729.27 | -72.14 | 14,539,534.48 | 2,049,350.71 | 40° 1' 40.219 N | 109° 32' 21.335 W |
| 3,520.00 | 5.36 | 214.74 | 3,410.50 | -737.73 | -76.78 | 14,539,525.95 | 2,049,346.21 | 40° 1' 40.136 N | 109° 32' 21.394 W |
| 3,611.00 | 4.04 | 238.12 | 3,501.20 | -742.91 | -81.92 | 14,539,520.68 | 2,049,341.15 | 40° 1' 40.084 N | 109° 32' 21.460 W |
| 3,701.00 | 2.11 | 239.62 | 3,591.06 | -745.43 | -86.04 | 14,539,518.10 | 2,049,337.07 | 40° 1' 40.059 N | 109° 32' 21.513 W |
| 3,792.00 | 0.88 | 147.15 | 3,682.04 | -746.86 | -87.11 | 14,539,516.65 | 2,049,336.03 | 40° 1' 40.045 N | 109° 32' 21.527 W |
| 3,882.00 | 1.23 | 142.06 | 3,772.03 | -748.20 | -86.14 | 14,539,515.32 | 2,049,337.02 | 40° 1' 40.032 N | 109° 32' 21.515 W |
| 3,973.00 | 1.41 | 159.20 | 3,863.00 | -750.02 | -85.14 | 14,539,513.52 | 2,049,338.05 | 40° 1' 40.014 N | 109° 32' 21.502 W |
| 4,063.00 | 1.67 | 159.28 | 3,952.97 | -752.28 | -84.29 | 14,539,511.27 | 2,049,338.94 | 40° 1' 39.992 N | 109° 32' 21.491 W |
| 4,154.00 | 0.53 | 229.33 | 4,043.95 | -753.80 | -84.14 | 14,539,509.76 | 2,049,339.12 | 40° 1' 39.977 N | 109° 32' 21.489 W |
| 4,245.00 | 0.97 | 252.80 | 4,134.95 | -754.30 | -85.19 | 14,539,509.24 | 2,049,338.07 | 40° 1' 39.972 N | 109° 32' 21.503 W |
| 4,335.00 | 0.35 | 293.32 | 4,224.94 | -754.41 | -86.17 | 14,539,509.11 | 2,049,337.09 | 40° 1' 39.971 N | 109° 32' 21.515 W |
| 4,426.00 | 0.62 | 203.76 | 4,315.94 | -754.75 | -86.63 | 14,539,508.76 | 2,049,336.64 | 40° 1' 39.967 N | 109° 32' 21.521 W |
| 4,516.00 | 1.30 | 181.14 | 4,405.92 | -756.22 | -86.84 | 14,539,507.29 | 2,049,336.45 | 40° 1' 39.953 N | 109° 32' 21.524 W |
| 4,607.00 | 1.58 | 183.89 | 4,496.90 | -758.50 | -86.95 | 14,539,505.01 | 2,049,336.38 | 40° 1' 39.930 N | 109° 32' 21.525 W |
| 4,698.00 | 0.62 | 155.50 | 4,587.88 | -760.20 | -86.83 | 14,539,503.31 | 2,049,336.53 | 40° 1' 39.913 N | 109° 32' 21.524 W |
| 4,788.00 | 0.79 | 162.45 | 4,677.87 | -761.24 | -86.44 | 14,539,502.28 | 2,049,336.94 | 40° 1' 39.903 N | 109° 32' 21.519 W |
| 4,879.00 | 1.32 | 172.38 | 4,768.86 | -762.88 | -86.11 | 14,539,500.65 | 2,049,337.29 | 40° 1' 39.887 N | 109° 32' 21.514 W |
| 4,969.00 | 2.02 | 168.25 | 4,858.82 | -765.46 | -85.65 | 14,539,498.08 | 2,049,337.79 | 40° 1' 39.861 N | 109° 32' 21.508 W |
| 5,060.00 | 1.49 | 149.79 | 4,949.77 | -768.05 | -84.73 | 14,539,495.50 | 2,049,338.76 | 40° 1' 39.836 N | 109° 32' 21.497 W |
| 5,151.00 | 0.88 | 168.60 | 5,040.76 | -769.76 | -84.00 | 14,539,493.80 | 2,049,339.52 | 40° 1' 39.819 N | 109° 32' 21.487 W |
| 5,241.00 | 0.26 | 183.19 | 5,130.75 | -770.64 | -83.87 | 14,539,492.93 | 2,049,339.66 | 40° 1' 39.810 N | 109° 32' 21.486 W |
| 5,332.00 | 0.79 | 185.65 | 5,221.75 | -771.47 | -83.94 | 14,539,492.09 | 2,049,339.60 | 40° 1' 39.802 N | 109° 32' 21.486 W |
| 5,422.00 | 1.06 | 167.11 | 5,311.73 | -772.90 | -83.82 | 14,539,490.67 | 2,049,339.75 | 40° 1' 39.788 N | 109° 32' 21.485 W |
| 5,513.00 | 1.14 | 177.30 | 5,402.72 | -774.62 | -83.59 | 14,539,488.95 | 2,049,340.01 | 40° 1' 39.771 N | 109° 32' 21.482 W |
| 5,604.00 | 0.88 | 130.46 | 5,493.71 | -775.98 | -83.01 | 14,539,487.60 | 2,049,340.60 | 40° 1' 39.757 N | 109° 32' 21.475 W |
| 5,694.00 | 0.97 | 139.33 | 5,583.69 | -777.01 | -81.99 | 14,539,486.59 | 2,049,341.64 | 40° 1' 39.747 N | 109° 32' 21.461 W |
| 5,785.00 | 1.41 | 143.11 | 5,674.67 | -778.49 | -80.82 | 14,539,485.13 | 2,049,342.84 | 40° 1' 39.733 N | 109° 32' 21.446 W |
| 5,875.00 | 1.58 | 150.58 | 5,764.64 | -780.45 | -79.54 | 14,539,483.18 | 2,049,344.15 | 40° 1' 39.713 N | 109° 32' 21.430 W |

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 921-15N Pad
Well: NBU 921-22C1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-22C1CS
TVD Reference: GL 4827' & KB 14' @ 4841.00ft (ENSGN 145)
MD Reference: GL 4827' & KB 14' @ 4841.00ft (ENSGN 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
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 |
| 5,966.00 | 1.49 | 145.22 | 5,855.61 | -782.52 | -78.25 | 14,539,481.14 | 2,049,345.47 | 40° 1' 39.693 N | 109° 32' 21.413 W |
| 6,057.00 | 0.70 | 106.99 | 5,946.59 | -783.65 | -77.05 | 14,539,480.03 | 2,049,346.70 | 40° 1' 39.682 N | 109° 32' 21.398 W |
| 6,147.00 | 1.06 | 13.21 | 6,036.59 | -783.00 | -76.33 | 14,539,480.69 | 2,049,347.40 | 40° 1' 39.688 N | 109° 32' 21.389 W |
| 6,238.00 | 0.97 | 8.02 | 6,127.57 | -781.42 | -76.03 | 14,539,482.27 | 2,049,347.67 | 40° 1' 39.704 N | 109° 32' 21.385 W |
| 6,328.00 | 0.70 | 8.81 | 6,217.56 | -780.12 | -75.84 | 14,539,483.58 | 2,049,347.84 | 40° 1' 39.716 N | 109° 32' 21.382 W |
| 6,419.00 | 0.35 | 18.31 | 6,308.56 | -779.31 | -75.67 | 14,539,484.39 | 2,049,348.00 | 40° 1' 39.725 N | 109° 32' 21.380 W |
| 6,510.00 | 0.00 | 358.00 | 6,399.56 | -779.04 | -75.58 | 14,539,484.66 | 2,049,348.09 | 40° 1' 39.727 N | 109° 32' 21.379 W |
| 6,600.00 | 0.26 | 172.82 | 6,489.56 | -779.25 | -75.55 | 14,539,484.45 | 2,049,348.11 | 40° 1' 39.725 N | 109° 32' 21.379 W |
| 6,691.00 | 0.44 | 166.23 | 6,580.56 | -779.79 | -75.45 | 14,539,483.91 | 2,049,348.23 | 40° 1' 39.720 N | 109° 32' 21.377 W |
| 6,782.00 | 0.70 | 160.25 | 6,671.55 | -780.65 | -75.17 | 14,539,483.05 | 2,049,348.52 | 40° 1' 39.711 N | 109° 32' 21.374 W |
| 6,872.00 | 1.14 | 172.03 | 6,761.54 | -782.06 | -74.87 | 14,539,481.65 | 2,049,348.85 | 40° 1' 39.697 N | 109° 32' 21.370 W |
| 6,963.00 | 1.41 | 172.99 | 6,852.52 | -784.07 | -74.60 | 14,539,479.65 | 2,049,349.15 | 40° 1' 39.677 N | 109° 32' 21.366 W |
| 7,053.00 | 1.49 | 173.26 | 6,942.49 | -786.33 | -74.33 | 14,539,477.40 | 2,049,349.46 | 40° 1' 39.655 N | 109° 32' 21.363 W |
| 7,144.00 | 1.67 | 168.07 | 7,033.45 | -788.80 | -73.92 | 14,539,474.93 | 2,049,349.91 | 40° 1' 39.631 N | 109° 32' 21.358 W |
| 7,235.00 | 1.67 | 162.54 | 7,124.42 | -791.36 | -73.25 | 14,539,472.38 | 2,049,350.62 | 40° 1' 39.605 N | 109° 32' 21.349 W |
| 7,325.00 | 1.85 | 170.45 | 7,214.37 | -794.05 | -72.61 | 14,539,469.71 | 2,049,351.30 | 40° 1' 39.579 N | 109° 32' 21.341 W |
| 7,416.00 | 0.62 | 133.27 | 7,305.35 | -795.83 | -72.01 | 14,539,467.93 | 2,049,351.93 | 40° 1' 39.561 N | 109° 32' 21.333 W |
| 7,506.00 | 0.70 | 134.32 | 7,395.35 | -796.55 | -71.26 | 14,539,467.23 | 2,049,352.69 | 40° 1' 39.554 N | 109° 32' 21.323 W |
| 7,597.00 | 0.88 | 152.16 | 7,486.34 | -797.56 | -70.54 | 14,539,466.23 | 2,049,353.43 | 40° 1' 39.544 N | 109° 32' 21.314 W |
| 7,688.00 | 1.06 | 170.53 | 7,577.32 | -799.00 | -70.07 | 14,539,464.79 | 2,049,353.92 | 40° 1' 39.530 N | 109° 32' 21.308 W |
| 7,778.00 | 0.18 | 128.52 | 7,667.32 | -799.91 | -69.82 | 14,539,463.89 | 2,049,354.18 | 40° 1' 39.521 N | 109° 32' 21.305 W |
| 7,869.00 | 1.23 | 49.07 | 7,758.31 | -799.36 | -68.97 | 14,539,464.45 | 2,049,355.02 | 40° 1' 39.526 N | 109° 32' 21.294 W |
| 7,959.00 | 1.23 | 56.28 | 7,848.29 | -798.19 | -67.44 | 14,539,465.64 | 2,049,356.54 | 40° 1' 39.538 N | 109° 32' 21.274 W |
| 8,050.00 | 0.53 | 90.11 | 7,939.28 | -797.65 | -66.21 | 14,539,466.21 | 2,049,357.76 | 40° 1' 39.543 N | 109° 32' 21.258 W |
| 8,140.00 | 0.97 | 34.22 | 8,029.27 | -797.02 | -65.36 | 14,539,466.85 | 2,049,358.60 | 40° 1' 39.549 N | 109° 32' 21.248 W |
| 8,231.00 | 0.88 | 23.84 | 8,120.26 | -795.75 | -64.65 | 14,539,468.14 | 2,049,359.29 | 40° 1' 39.562 N | 109° 32' 21.238 W |
| 8,322.00 | 0.62 | 30.17 | 8,211.25 | -794.68 | -64.12 | 14,539,469.21 | 2,049,359.80 | 40° 1' 39.573 N | 109° 32' 21.232 W |
| 8,412.00 | 0.79 | 53.46 | 8,301.25 | -793.89 | -63.37 | 14,539,470.01 | 2,049,360.53 | 40° 1' 39.580 N | 109° 32' 21.222 W |
| 8,503.00 | 1.32 | 10.13 | 8,392.23 | -792.49 | -62.69 | 14,539,471.43 | 2,049,361.20 | 40° 1' 39.594 N | 109° 32' 21.213 W |
| 8,593.00 | 1.32 | 353.17 | 8,482.21 | -790.44 | -62.63 | 14,539,473.48 | 2,049,361.22 | 40° 1' 39.615 N | 109° 32' 21.212 W |
| 8,684.00 | 0.70 | 340.51 | 8,573.19 | -788.87 | -62.94 | 14,539,475.04 | 2,049,360.89 | 40° 1' 39.630 N | 109° 32' 21.216 W |
| 8,775.00 | 0.62 | 18.39 | 8,664.19 | -787.88 | -62.97 | 14,539,476.03 | 2,049,360.84 | 40° 1' 39.640 N | 109° 32' 21.217 W |
| 8,865.00 | 1.58 | 348.42 | 8,754.17 | -786.20 | -63.06 | 14,539,477.70 | 2,049,360.72 | 40° 1' 39.656 N | 109° 32' 21.218 W |
| 8,956.00 | 1.23 | 342.18 | 8,845.14 | -784.04 | -63.61 | 14,539,479.85 | 2,049,360.13 | 40° 1' 39.678 N | 109° 32' 21.225 W |
| 9,046.00 | 0.97 | 347.37 | 8,935.13 | -782.38 | -64.08 | 14,539,481.51 | 2,049,359.64 | 40° 1' 39.694 N | 109° 32' 21.231 W |
| 9,137.00 | 0.79 | 350.27 | 9,026.12 | -781.01 | -64.35 | 14,539,482.87 | 2,049,359.35 | 40° 1' 39.708 N | 109° 32' 21.235 W |
| 9,227.00 | 0.88 | 247.79 | 9,116.11 | -780.66 | -65.10 | 14,539,483.21 | 2,049,358.60 | 40° 1' 39.711 N | 109° 32' 21.244 W |
| 9,318.00 | 1.06 | 200.59 | 9,207.10 | -781.71 | -66.04 | 14,539,482.15 | 2,049,357.67 | 40° 1' 39.701 N | 109° 32' 21.256 W |
| 9,409.00 | 1.06 | 195.23 | 9,298.08 | -783.31 | -66.56 | 14,539,480.54 | 2,049,357.18 | 40° 1' 39.685 N | 109° 32' 21.263 W |
| 9,499.00 | 0.79 | 202.43 | 9,388.07 | -784.69 | -67.01 | 14,539,479.15 | 2,049,356.75 | 40° 1' 39.671 N | 109° 32' 21.269 W |
| 9,590.00 | 0.88 | 180.99 | 9,479.06 | -785.97 | -67.26 | 14,539,477.87 | 2,049,356.52 | 40° 1' 39.659 N | 109° 32' 21.272 W |
| 9,680.00 | 1.49 | 178.00 | 9,569.04 | -787.83 | -67.23 | 14,539,476.01 | 2,049,356.58 | 40° 1' 39.640 N | 109° 32' 21.272 W |
| 9,771.00 | 1.23 | 165.78 | 9,660.02 | -789.96 | -66.95 | 14,539,473.89 | 2,049,356.89 | 40° 1' 39.619 N | 109° 32' 21.268 W |
| 9,862.00 | 1.41 | 150.14 | 9,750.99 | -791.87 | -66.15 | 14,539,471.98 | 2,049,357.72 | 40° 1' 39.600 N | 109° 32' 21.258 W |
| 9,952.00 | 1.49 | 149.17 | 9,840.96 | -793.84 | -65.00 | 14,539,470.04 | 2,049,358.90 | 40° 1' 39.581 N | 109° 32' 21.243 W |
| 10,043.00 | 1.58 | 135.55 | 9,931.93 | -795.75 | -63.52 | 14,539,468.15 | 2,049,360.42 | 40° 1' 39.562 N | 109° 32' 21.224 W |
| 10,133.00 | 1.32 | 130.98 | 10,021.90 | -797.32 | -61.87 | 14,539,466.61 | 2,049,362.10 | 40° 1' 39.547 N | 109° 32' 21.203 W |
| 10,223.00 | 1.23 | 139.42 | 10,111.88 | -798.73 | -60.46 | 14,539,465.22 | 2,049,363.53 | 40° 1' 39.533 N | 109° 32' 21.184 W |
| LAST SDI MWD PRODUCTION SURVEY | | | | | | | | | |
| 10,282.00 | 1.23 | 139.42 | 10,170.87 | -799.69 | -59.63 | 14,539,464.27 | 2,049,364.37 | 40° 1' 39.523 N | 109° 32' 21.174 W |
| SDI PROJECTION TO TD | | | | | | | | | |

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12
Site: NBU 921-15N Pad
Well: NBU 921-22C1CS
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 921-22C1CS
TVD Reference: GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
MD Reference: GL 4827' & KB 14' @ 4841.00ft (ENSIGN 145)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM5000-RobertS-Local

Design Annotations

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment |
|---------------------|---------------------|-------------------|------------|---------------------------------|
| | | +N/-S (ft) | +E/-W (ft) | |
| 185.00 | 184.99 | 0.03 | 1.79 | FIRST SDI MWD SURFACE SURVEY |
| 2,744.00 | 2,651.29 | -586.84 | -57.93 | LAST SDI MWD SURFACE SURVEY |
| 2,744.00 | 2,651.29 | -586.84 | -57.93 | FIRST SDI MWD PRODUCTION SURVEY |
| 10,223.00 | 10,111.88 | -798.73 | -60.46 | LAST SDI MWD PRODUCTION SURVEY |
| 10,282.00 | 10,170.87 | -799.69 | -59.63 | SDI PROJECTION TO TD |

Checked By: _____ Approved By: _____ Date: _____