

State of New Mexico  
Energy, Minerals and Natural Resources Department

Susana Martinez  
Governor

David Martin  
Cabinet Secretary

Brett F. Woods, Ph.D.  
Deputy Cabinet Secretary

Jami Bailey, Division Director  
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-4 or 3160-5 form.

Operator Signature Date: 12/8/14

Well information:

| API WELL #         | Well Name        | Well # | Operator Name               | Type | Stat | County   | Surf. Owner | UL | Sec | Twp | N/S | Rng | W/E | Feet | NS | Ft   | EW |
|--------------------|------------------|--------|-----------------------------|------|------|----------|-------------|----|-----|-----|-----|-----|-----|------|----|------|----|
| 30-043-21225-00-00 | LYBROOK G01 2206 | 001H   | ENCANA OIL & GAS (USA) INC. | O    | N    | Sandoval | F           | G  | 1   | 22  | N   | 6   | W   | 2406 | N  | 1314 | E  |

Application Type:

- ☐ P&A    ☒ Drilling/Casing Change    ☐ Location Change  
☐ Recomplete/DHC (For hydraulic fracturing operations review EPA Underground injection control Guidance #84)  
☐ Other:

Conditions of Approval:

**Notify NMOCD 24hrs prior to beginning operations, casing & cement**

**See APD Conditions of approval regarding Hydraulic Fracturing, Oil base muds and Well-bore communication.**

**Hold C104 for As Drilled Plat/Directional Survey/NSL/NSP**

*Charlie T. Lerrin*

NMOCD Approved by Signature

Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

DEC 08 2014

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator  
Encana Oil & Gas (USA) Inc.

3a. Address  
370 17th Street, Suite 1700  
Denver, CO 80202

3b. Phone No. (include area code)  
720-876-5331

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
SHL: 2406' FNL and 1314' FEL Sec 1, T22N, R6W  
BHL: 330' FSL and 1870' FEL Sec 12, T22N, R6W

5. Lease Serial No.  
NMNM 109385

6. If Indian, Allottee or Tribe Name  
N/A

7. If Unit of CA/Agreement, Name and/or No.

N/A

8. Well Name and No.  
Lybrook G01-2206 01H

9. API Well No.  
30-043-21225

10. Field and Pool or Exploratory Area  
Lybrook Gallup

11. County or Parish, State  
Sandoval County, NM

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                   |                                           |                                                    |                                         |
|------------------------------------------------------|--------------------------------------------------|-------------------------------------------|----------------------------------------------------|-----------------------------------------|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize                 | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing            | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair           | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input type="checkbox"/> Other          |
|                                                      | <input checked="" type="checkbox"/> Change Plans | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       |                                         |
|                                                      | <input type="checkbox"/> Convert to Injection    | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            |                                         |

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleting horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleting in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Encana Oil & Gas (USA) Inc. (Encana) wishes to modify the drilling plan for the Lybrook G01-2206 01H well to cement the 4 1/2" production liner, instead of running open hole swell packers, as previously planned. Attached is an updated Directional Drilling Plan, 10-Point Drilling Plan and Wellbore Diagram that reflect this change. Please note, the 7" ICP was also moved from approximately 72 degrees to approximately 55 degrees.

**OIL CONS. DIV DIST. 3**

**DEC 09 2014**

**CONDITIONS OF APPROVAL**

Adhere to previously issued stipulations

**BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS**

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Holly Hill

Title Regulatory Analyst

Signature

*Holly Hill*

Date

12/4/14

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

*William Tambekou*

Title

*Petroleum Engineer*

Date

12/08/2014

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

Office FFO

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

(Instructions on page 2)

**NMOCDA**

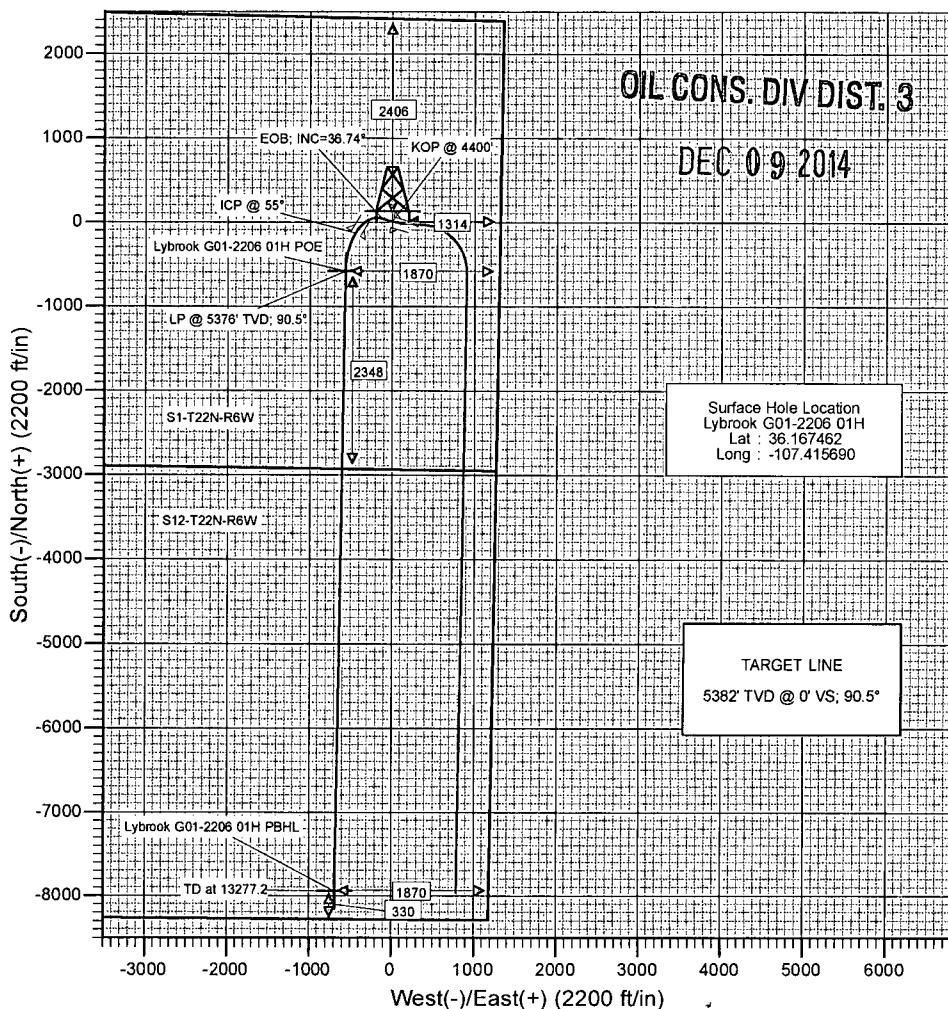
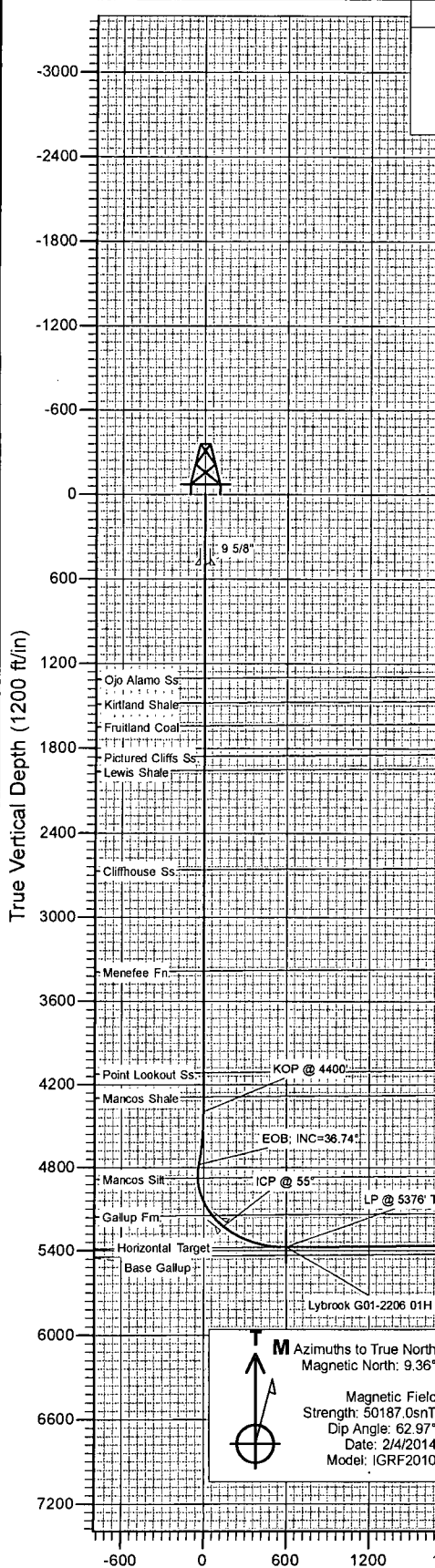


Project: Sandoval County, NM  
 Site: S1-T22N-R6W  
 Well: Lybrook G01-2206 01H  
 Wellbore: Hz  
 Design: Plan #2



#### SECTION DETAILS

| Sec | MD      | Inc   | Azi    | TVD    | +N/-S   | +E/-W  | Dleg | TFace   | VSec   | Target                    |
|-----|---------|-------|--------|--------|---------|--------|------|---------|--------|---------------------------|
| 1   | 0.0     | 0.00  | 0.00   | 0.0    | 0.0     | 0.0    | 0.00 | 0.00    | 0.0    |                           |
| 2   | 4400.0  | 0.00  | 0.00   | 4400.0 | 0.0     | 0.0    | 0.00 | 0.00    | 0.0    |                           |
| 3   | 4808.2  | 36.74 | 286.20 | 4780.8 | 35.3    | -121.4 | 9.00 | 286.20  | -33.3  |                           |
| 4   | 5913.6  | 90.50 | 180.92 | 5376.7 | -590.9  | -565.3 | 9.00 | -102.06 | 599.9  | Lybrook G01-2206 01H POE  |
| 5   | 13277.2 | 90.50 | 180.92 | 5312.5 | -7953.3 | -682.9 | 0.00 | 0.00    | 7963.2 | Lybrook G01-2206 01H PBHL |



#### DESIGN TARGET DETAILS

| Name                      | +N/-S   | +E/-W  | Northing   | Easting    | Latitude  | Longitude   |
|---------------------------|---------|--------|------------|------------|-----------|-------------|
| Lybrook G01-2206 01H PBHL | -7953.3 | -682.9 | 1874346.63 | 1295573.37 | 36.145616 | -107.418003 |
| Lybrook G01-2206 01H POE  | -590.9  | -565.3 | 1881707.10 | 1295779.40 | 36.165839 | -107.417605 |

#### FORMATION TOP DETAILS

| TVDPath | MDPath | Formation           |
|---------|--------|---------------------|
| 1308.0  | 1308.0 | Ojo Alamo Ss.       |
| 1484.0  | 1484.0 | Kirtland Shale      |
| 1645.0  | 1645.0 | Fruitland Coal      |
| 1861.0  | 1861.0 | Pictured Cliffs Ss. |
| 1961.0  | 1961.0 | Lewis Shale         |
| 2666.0  | 2666.0 | Cliffhouse Ss.      |
| 3388.0  | 3388.0 | Menefee Fn.         |
| 4120.0  | 4120.0 | Point Lookout Ss.   |
| 4293.0  | 4293.0 | Mancos Shale        |
| 4878.4  | 4928.9 | Mancos Silt         |
| 5147.4  | 5282.0 | Gallup Fm.          |

Plan #2  
 Lybrook G01-2206 01H  
 14xxx; LR  
 WELL @ 6955.0ft (Original Well Elev)  
 Ground Elevation @ 6939.0  
 North American Datum 1983  
 Well Lybrook G01-2206 01H, True North

# Planning Report

|                  |                             |                                     |                                      |
|------------------|-----------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | USA EDM 5000 Multi Users DB | <b>Local Co-ordinate Reference:</b> | Well Lybrook G01-2206 01H            |
| <b>Company:</b>  | EnCana Oil & Gas (USA) Inc  | <b>TVD Reference:</b>               | WELL @ 6955.0ft (Original Well Elev) |
| <b>Project:</b>  | Sandoval County, NM         | <b>MD Reference:</b>                | WELL @ 6955.0ft (Original Well Elev) |
| <b>Site:</b>     | S1-T22N-R6W                 | <b>North Reference:</b>             | True                                 |
| <b>Well:</b>     | Lybrook G01-2206 01H        | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Hz                          |                                     |                                      |
| <b>Design:</b>   | Plan #2                     |                                     |                                      |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | Sandoval County, NM       |                      |                |
| <b>Map System:</b> | US State Plane 1983       | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983 |                      |                |
| <b>Map Zone:</b>   | New Mexico Central Zone   |                      |                |

|                              |             |                     |                 |                                  |
|------------------------------|-------------|---------------------|-----------------|----------------------------------|
| <b>Site</b>                  | S1-T22N-R6W |                     |                 |                                  |
| <b>Site Position:</b>        |             | <b>Northing:</b>    | 1,882,291.13 ft | <b>Latitude:</b> 36.167462       |
| <b>From:</b>                 | Lat/Long    | <b>Easting:</b>     | 1,296,351.77 ft | <b>Longitude:</b> -107.415690    |
| <b>Position Uncertainty:</b> | 0.0 ft      | <b>Slot Radius:</b> | 13.200 in       | <b>Grid Convergence:</b> -0.69 ° |

|                             |                      |        |                            |                 |
|-----------------------------|----------------------|--------|----------------------------|-----------------|
| <b>Well</b>                 | Lybrook G01-2206 01H |        |                            |                 |
| <b>Well Position</b>        | <b>+N/-S</b>         | 0.0 ft | <b>Northing:</b>           | 1,882,291.13 ft |
|                             | <b>+E/-W</b>         | 0.0 ft | <b>Easting:</b>            | 1,296,351.77 ft |
| <b>Position Uncertainty</b> |                      | 0.0 ft | <b>Wellhead Elevation:</b> | ft              |
|                             |                      |        | <b>Ground Level:</b>       | 6,939.0 ft      |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Hz                |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2010          | 2/4/2014           | 9.36                   | 62.97                | 50,187                     |

|                          |                         |              |                      |                  |
|--------------------------|-------------------------|--------------|----------------------|------------------|
| <b>Design</b>            | Plan #2                 |              |                      |                  |
| <b>Audit Notes:</b>      |                         |              |                      |                  |
| <b>Version:</b>          | <b>Phase:</b>           | PLAN         | <b>Tie On Depth:</b> | 0.0              |
| <b>Vertical Section:</b> | <b>Depth From (TVD)</b> | <b>+N/-S</b> | <b>+E/-W</b>         | <b>Direction</b> |
|                          | (ft)                    | (ft)         | (ft)                 | (°)              |
|                          | 0.0                     | 0.0          | 0.0                  | 180.92           |

|                       |                    |                |                       |              |              |                    |                   |                  |            |                     |
|-----------------------|--------------------|----------------|-----------------------|--------------|--------------|--------------------|-------------------|------------------|------------|---------------------|
| <b>Plan Sections</b>  |                    |                |                       |              |              |                    |                   |                  |            |                     |
| <b>Measured Depth</b> | <b>Inclination</b> | <b>Azimuth</b> | <b>Vertical Depth</b> | <b>+N/-S</b> | <b>+E/-W</b> | <b>Dogleg Rate</b> | <b>Build Rate</b> | <b>Turn Rate</b> | <b>TFO</b> | <b>Target</b>       |
| (ft)                  | (°)                | (°)            | (ft)                  | (ft)         | (ft)         | (°/100ft)          | (°/100ft)         | (°/100ft)        | (°)        |                     |
| 0.0                   | 0.00               | 0.00           | 0.0                   | 0.0          | 0.0          | 0.00               | 0.00              | 0.00             | 0.00       |                     |
| 4,400.0               | 0.00               | 0.00           | 4,400.0               | 0.0          | 0.0          | 0.00               | 0.00              | 0.00             | 0.00       |                     |
| 4,808.2               | 36.74              | 286.20         | 4,780.8               | 35.3         | -121.4       | 9.00               | 9.00              | 0.00             | 286.20     |                     |
| 5,913.6               | 90.50              | 180.92         | 5,376.7               | -590.9       | -565.3       | 9.00               | 4.86              | -9.53            | -102.06    | Lybrook G01-2206 01 |
| 13,277.2              | 90.50              | 180.92         | 5,312.5               | -7,953.3     | -682.9       | 0.00               | 0.00              | 0.00             | 0.00       | Lybrook G01-2206 01 |

# Planning Report

|           |                             |                              |                                      |
|-----------|-----------------------------|------------------------------|--------------------------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well Lybrook G01-2206 01H            |
| Company:  | EnCana Oil & Gas (USA) Inc  | TVD Reference:               | WELL @ 6955.0ft (Original Well Elev) |
| Project:  | Sandoval County, NM         | MD Reference:                | WELL @ 6955.0ft (Original Well Elev) |
| Site:     | S1-T22N-R6W                 | North Reference:             | True                                 |
| Well:     | Lybrook G01-2206 01H        | Survey Calculation Method:   | Minimum Curvature                    |
| Wellbore: | Hz                          |                              |                                      |
| Design:   | Plan #2                     |                              |                                      |

| 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) | Comments / Formations |
| 0.0                 | 0.00            | 0.00        | 0.0                 | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 100.0               | 0.00            | 0.00        | 100.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 200.0               | 0.00            | 0.00        | 200.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 300.0               | 0.00            | 0.00        | 300.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 400.0               | 0.00            | 0.00        | 400.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 500.0               | 0.00            | 0.00        | 500.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 9 5/8"                |
| 600.0               | 0.00            | 0.00        | 600.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 700.0               | 0.00            | 0.00        | 700.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 800.0               | 0.00            | 0.00        | 800.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 900.0               | 0.00            | 0.00        | 900.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 1,000.0             | 0.00            | 0.00        | 1,000.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 1,100.0             | 0.00            | 0.00        | 1,100.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 1,200.0             | 0.00            | 0.00        | 1,200.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 1,300.0             | 0.00            | 0.00        | 1,300.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 1,308.0             | 0.00            | 0.00        | 1,308.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Ojo Alamo Ss.         |
| 1,400.0             | 0.00            | 0.00        | 1,400.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 1,484.0             | 0.00            | 0.00        | 1,484.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Kirtland Shale        |
| 1,500.0             | 0.00            | 0.00        | 1,500.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 1,600.0             | 0.00            | 0.00        | 1,600.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 1,645.0             | 0.00            | 0.00        | 1,645.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Fruitland Coal        |
| 1,700.0             | 0.00            | 0.00        | 1,700.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 1,800.0             | 0.00            | 0.00        | 1,800.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 1,861.0             | 0.00            | 0.00        | 1,861.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Pictured Cliffs Ss.   |
| 1,900.0             | 0.00            | 0.00        | 1,900.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 1,961.0             | 0.00            | 0.00        | 1,961.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Lewis Shale           |
| 2,000.0             | 0.00            | 0.00        | 2,000.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 2,100.0             | 0.00            | 0.00        | 2,100.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 2,200.0             | 0.00            | 0.00        | 2,200.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 2,300.0             | 0.00            | 0.00        | 2,300.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 2,400.0             | 0.00            | 0.00        | 2,400.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 2,500.0             | 0.00            | 0.00        | 2,500.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 2,600.0             | 0.00            | 0.00        | 2,600.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 2,666.0             | 0.00            | 0.00        | 2,666.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Cliffhouse Ss.        |
| 2,700.0             | 0.00            | 0.00        | 2,700.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 2,800.0             | 0.00            | 0.00        | 2,800.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 2,900.0             | 0.00            | 0.00        | 2,900.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 3,000.0             | 0.00            | 0.00        | 3,000.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 3,100.0             | 0.00            | 0.00        | 3,100.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 3,200.0             | 0.00            | 0.00        | 3,200.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 3,300.0             | 0.00            | 0.00        | 3,300.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 3,388.0             | 0.00            | 0.00        | 3,388.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Menefee Fn.           |
| 3,400.0             | 0.00            | 0.00        | 3,400.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 3,500.0             | 0.00            | 0.00        | 3,500.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 3,600.0             | 0.00            | 0.00        | 3,600.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 3,700.0             | 0.00            | 0.00        | 3,700.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 3,800.0             | 0.00            | 0.00        | 3,800.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 3,900.0             | 0.00            | 0.00        | 3,900.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 4,000.0             | 0.00            | 0.00        | 4,000.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 4,100.0             | 0.00            | 0.00        | 4,100.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 4,120.0             | 0.00            | 0.00        | 4,120.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Point Lookout Ss.     |
| 4,200.0             | 0.00            | 0.00        | 4,200.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 4,293.0             | 0.00            | 0.00        | 4,293.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Mancos Shale          |

# Planning Report

|           |                             |                              |                                      |
|-----------|-----------------------------|------------------------------|--------------------------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well Lybrook G01-2206 01H            |
| Company:  | EnCana Oil & Gas (USA) Inc  | TVD Reference:               | WELL @ 6955.0ft (Original Well Elev) |
| Project:  | Sandoval County, NM         | MD Reference:                | WELL @ 6955.0ft (Original Well Elev) |
| Site:     | S1-T22N-R6W                 | North Reference:             | True                                 |
| Well:     | Lybrook G01-2206 01H        | Survey Calculation Method:   | Minimum Curvature                    |
| Wellbore: | Hz                          |                              |                                      |
| Design:   | Plan #2                     |                              |                                      |

| 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) | Comments / Formations |
| 4,300.0             | 0.00            | 0.00        | 4,300.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 4,400.0             | 0.00            | 0.00        | 4,400.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | KOP @ 4400'           |
| 4,500.0             | 9.00            | 286.20      | 4,499.6             | 2.2        | -7.5       | -2.1                  | 9.00                  | 9.00                 |                       |
| 4,600.0             | 18.00           | 286.20      | 4,596.7             | 8.7        | -29.9      | -8.2                  | 9.00                  | 9.00                 |                       |
| 4,700.0             | 27.00           | 286.20      | 4,689.0             | 19.4       | -66.6      | -18.3                 | 9.00                  | 9.00                 |                       |
| 4,800.0             | 36.00           | 286.20      | 4,774.2             | 33.9       | -116.8     | -32.0                 | 9.00                  | 9.00                 |                       |
| 4,808.2             | 36.74           | 286.20      | 4,780.8             | 35.3       | -121.4     | -33.3                 | 9.00                  | 9.00                 | EOB; INC=36.74°       |
| 4,900.0             | 35.81           | 272.31      | 4,854.9             | 44.0       | -174.7     | -41.2                 | 9.00                  | -1.02                |                       |
| 4,928.9             | 35.85           | 267.87      | 4,878.4             | 44.1       | -191.6     | -41.0                 | 9.00                  | 0.15                 | Mancos Silt           |
| 5,000.0             | 36.65           | 257.12      | 4,935.8             | 38.6       | -233.2     | -34.8                 | 9.00                  | 1.12                 |                       |
| 5,100.0             | 39.29           | 243.11      | 5,014.7             | 17.5       | -290.6     | -12.9                 | 9.00                  | 2.64                 |                       |
| 5,200.0             | 43.41           | 230.97      | 5,089.9             | -18.5      | -345.7     | 24.0                  | 9.00                  | 4.12                 |                       |
| 5,282.0             | 47.61           | 222.45      | 5,147.4             | -58.6      | -388.0     | 64.9                  | 9.00                  | 5.13                 | Gallup Fm.            |
| 5,300.0             | 48.61           | 220.74      | 5,159.4             | -68.6      | -396.9     | 75.0                  | 9.00                  | 5.56                 |                       |
| 5,400.0             | 54.58           | 212.14      | 5,221.6             | -131.7     | -443.2     | 138.8                 | 9.00                  | 5.97                 |                       |
| 5,406.5             | 54.99           | 211.62      | 5,225.4             | -136.2     | -446.0     | 143.4                 | 9.00                  | 6.28                 | ICP @ 55°             |
| 5,500.0             | 61.08           | 204.77      | 5,274.9             | -206.1     | -483.3     | 213.8                 | 9.00                  | 6.51                 |                       |
| 5,600.0             | 67.92           | 198.29      | 5,317.9             | -290.0     | -516.2     | 298.3                 | 9.00                  | 6.85                 |                       |
| 5,700.0             | 75.00           | 192.42      | 5,349.7             | -381.3     | -541.2     | 390.0                 | 9.00                  | 7.08                 |                       |
| 5,800.0             | 82.22           | 186.93      | 5,369.5             | -477.9     | -557.6     | 486.8                 | 9.00                  | 7.22                 |                       |
| 5,900.0             | 89.51           | 181.63      | 5,376.7             | -577.3     | -565.0     | 586.2                 | 9.00                  | 7.29                 |                       |
| 5,913.6             | 90.50           | 180.92      | 5,376.7             | -590.9     | -565.3     | 599.9                 | 9.00                  | 7.30                 | LP @ 5376' TVD; 90.5° |
| 6,000.0             | 90.50           | 180.92      | 5,375.9             | -677.2     | -566.7     | 686.2                 | 0.00                  | 0.00                 |                       |
| 6,100.0             | 90.50           | 180.92      | 5,375.1             | -777.2     | -568.3     | 786.2                 | 0.00                  | 0.00                 |                       |
| 6,200.0             | 90.50           | 180.92      | 5,374.2             | -877.2     | -569.9     | 886.2                 | 0.00                  | 0.00                 |                       |
| 6,300.0             | 90.50           | 180.92      | 5,373.3             | -977.2     | -571.5     | 986.2                 | 0.00                  | 0.00                 |                       |
| 6,400.0             | 90.50           | 180.92      | 5,372.5             | -1,077.2   | -573.1     | 1,086.2               | 0.00                  | 0.00                 |                       |
| 6,500.0             | 90.50           | 180.92      | 5,371.6             | -1,177.2   | -574.7     | 1,186.2               | 0.00                  | 0.00                 |                       |
| 6,600.0             | 90.50           | 180.92      | 5,370.7             | -1,277.1   | -576.3     | 1,286.2               | 0.00                  | 0.00                 |                       |
| 6,700.0             | 90.50           | 180.92      | 5,369.8             | -1,377.1   | -577.9     | 1,386.2               | 0.00                  | 0.00                 |                       |
| 6,800.0             | 90.50           | 180.92      | 5,369.0             | -1,477.1   | -579.5     | 1,486.2               | 0.00                  | 0.00                 |                       |
| 6,900.0             | 90.50           | 180.92      | 5,368.1             | -1,577.1   | -581.1     | 1,586.2               | 0.00                  | 0.00                 |                       |
| 7,000.0             | 90.50           | 180.92      | 5,367.2             | -1,677.1   | -582.7     | 1,686.2               | 0.00                  | 0.00                 |                       |
| 7,100.0             | 90.50           | 180.92      | 5,366.4             | -1,777.1   | -584.3     | 1,786.2               | 0.00                  | 0.00                 |                       |
| 7,200.0             | 90.50           | 180.92      | 5,365.5             | -1,877.0   | -585.9     | 1,886.2               | 0.00                  | 0.00                 |                       |
| 7,300.0             | 90.50           | 180.92      | 5,364.6             | -1,977.0   | -587.5     | 1,986.2               | 0.00                  | 0.00                 |                       |
| 7,400.0             | 90.50           | 180.92      | 5,363.7             | -2,077.0   | -589.1     | 2,086.2               | 0.00                  | 0.00                 |                       |
| 7,500.0             | 90.50           | 180.92      | 5,362.9             | -2,177.0   | -590.7     | 2,186.2               | 0.00                  | 0.00                 |                       |
| 7,600.0             | 90.50           | 180.92      | 5,362.0             | -2,277.0   | -592.3     | 2,286.2               | 0.00                  | 0.00                 |                       |
| 7,700.0             | 90.50           | 180.92      | 5,361.1             | -2,377.0   | -593.9     | 2,386.2               | 0.00                  | 0.00                 |                       |
| 7,800.0             | 90.50           | 180.92      | 5,360.3             | -2,476.9   | -595.4     | 2,486.2               | 0.00                  | 0.00                 |                       |
| 7,900.0             | 90.50           | 180.92      | 5,359.4             | -2,576.9   | -597.0     | 2,586.2               | 0.00                  | 0.00                 |                       |
| 8,000.0             | 90.50           | 180.92      | 5,358.5             | -2,676.9   | -598.6     | 2,686.2               | 0.00                  | 0.00                 |                       |
| 8,100.0             | 90.50           | 180.92      | 5,357.6             | -2,776.9   | -600.2     | 2,786.2               | 0.00                  | 0.00                 |                       |
| 8,200.0             | 90.50           | 180.92      | 5,356.8             | -2,876.9   | -601.8     | 2,886.2               | 0.00                  | 0.00                 |                       |
| 8,300.0             | 90.50           | 180.92      | 5,355.9             | -2,976.9   | -603.4     | 2,986.2               | 0.00                  | 0.00                 |                       |
| 8,400.0             | 90.50           | 180.92      | 5,355.0             | -3,076.8   | -605.0     | 3,086.2               | 0.00                  | 0.00                 |                       |
| 8,500.0             | 90.50           | 180.92      | 5,354.2             | -3,176.8   | -606.6     | 3,186.2               | 0.00                  | 0.00                 |                       |
| 8,600.0             | 90.50           | 180.92      | 5,353.3             | -3,276.8   | -608.2     | 3,286.1               | 0.00                  | 0.00                 |                       |
| 8,700.0             | 90.50           | 180.92      | 5,352.4             | -3,376.8   | -609.8     | 3,386.1               | 0.00                  | 0.00                 |                       |
| 8,800.0             | 90.50           | 180.92      | 5,351.5             | -3,476.8   | -611.4     | 3,486.1               | 0.00                  | 0.00                 |                       |
| 8,900.0             | 90.50           | 180.92      | 5,350.7             | -3,576.8   | -613.0     | 3,586.1               | 0.00                  | 0.00                 |                       |

# Planning Report

|           |                             |                              |                                      |
|-----------|-----------------------------|------------------------------|--------------------------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well Lybrook G01-2206 01H            |
| Company:  | EnCana Oil & Gas (USA) Inc  | TVD Reference:               | WELL @ 6955.0ft (Original Well Elev) |
| Project:  | Sandoval County, NM         | MD Reference:                | WELL @ 6955.0ft (Original Well Elev) |
| Site:     | S1-T22N-R6W                 | North Reference:             | True                                 |
| Well:     | Lybrook G01-2206 01H        | Survey Calculation Method:   | Minimum Curvature                    |
| Wellbore: | Hz                          |                              |                                      |
| Design:   | Plan #2                     |                              |                                      |

| 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) | Comments / Formations |
| 9,000.0             | 90.50           | 180.92      | 5,349.8             | -3,676.7   | -614.6     | 3,686.1               | 0.00                  | 0.00                 |                       |
| 9,100.0             | 90.50           | 180.92      | 5,348.9             | -3,776.7   | -616.2     | 3,786.1               | 0.00                  | 0.00                 |                       |
| 9,200.0             | 90.50           | 180.92      | 5,348.0             | -3,876.7   | -617.8     | 3,886.1               | 0.00                  | 0.00                 |                       |
| 9,300.0             | 90.50           | 180.92      | 5,347.2             | -3,976.7   | -619.4     | 3,986.1               | 0.00                  | 0.00                 |                       |
| 9,400.0             | 90.50           | 180.92      | 5,346.3             | -4,076.7   | -621.0     | 4,086.1               | 0.00                  | 0.00                 |                       |
| 9,500.0             | 90.50           | 180.92      | 5,345.4             | -4,176.7   | -622.6     | 4,186.1               | 0.00                  | 0.00                 |                       |
| 9,600.0             | 90.50           | 180.92      | 5,344.6             | -4,276.6   | -624.2     | 4,286.1               | 0.00                  | 0.00                 |                       |
| 9,700.0             | 90.50           | 180.92      | 5,343.7             | -4,376.6   | -625.8     | 4,386.1               | 0.00                  | 0.00                 |                       |
| 9,800.0             | 90.50           | 180.92      | 5,342.8             | -4,476.6   | -627.4     | 4,486.1               | 0.00                  | 0.00                 |                       |
| 9,900.0             | 90.50           | 180.92      | 5,341.9             | -4,576.6   | -629.0     | 4,586.1               | 0.00                  | 0.00                 |                       |
| 10,000.0            | 90.50           | 180.92      | 5,341.1             | -4,676.6   | -630.6     | 4,686.1               | 0.00                  | 0.00                 |                       |
| 10,100.0            | 90.50           | 180.92      | 5,340.2             | -4,776.6   | -632.2     | 4,786.1               | 0.00                  | 0.00                 |                       |
| 10,200.0            | 90.50           | 180.92      | 5,339.3             | -4,876.5   | -633.8     | 4,886.1               | 0.00                  | 0.00                 |                       |
| 10,300.0            | 90.50           | 180.92      | 5,338.5             | -4,976.5   | -635.4     | 4,986.1               | 0.00                  | 0.00                 |                       |
| 10,400.0            | 90.50           | 180.92      | 5,337.6             | -5,076.5   | -637.0     | 5,086.1               | 0.00                  | 0.00                 |                       |
| 10,500.0            | 90.50           | 180.92      | 5,336.7             | -5,176.5   | -638.6     | 5,186.1               | 0.00                  | 0.00                 |                       |
| 10,600.0            | 90.50           | 180.92      | 5,335.8             | -5,276.5   | -640.2     | 5,286.1               | 0.00                  | 0.00                 |                       |
| 10,700.0            | 90.50           | 180.92      | 5,335.0             | -5,376.5   | -641.8     | 5,386.1               | 0.00                  | 0.00                 |                       |
| 10,800.0            | 90.50           | 180.92      | 5,334.1             | -5,476.4   | -643.4     | 5,486.1               | 0.00                  | 0.00                 |                       |
| 10,900.0            | 90.50           | 180.92      | 5,333.2             | -5,576.4   | -645.0     | 5,586.1               | 0.00                  | 0.00                 |                       |
| 11,000.0            | 90.50           | 180.92      | 5,332.4             | -5,676.4   | -646.6     | 5,686.1               | 0.00                  | 0.00                 |                       |
| 11,100.0            | 90.50           | 180.92      | 5,331.5             | -5,776.4   | -648.2     | 5,786.1               | 0.00                  | 0.00                 |                       |
| 11,200.0            | 90.50           | 180.92      | 5,330.6             | -5,876.4   | -649.8     | 5,886.0               | 0.00                  | 0.00                 |                       |
| 11,300.0            | 90.50           | 180.92      | 5,329.7             | -5,976.4   | -651.4     | 5,986.0               | 0.00                  | 0.00                 |                       |
| 11,400.0            | 90.50           | 180.92      | 5,328.9             | -6,076.3   | -653.0     | 6,086.0               | 0.00                  | 0.00                 |                       |
| 11,500.0            | 90.50           | 180.92      | 5,328.0             | -6,176.3   | -654.6     | 6,186.0               | 0.00                  | 0.00                 |                       |
| 11,600.0            | 90.50           | 180.92      | 5,327.1             | -6,276.3   | -656.2     | 6,286.0               | 0.00                  | 0.00                 |                       |
| 11,700.0            | 90.50           | 180.92      | 5,326.3             | -6,376.3   | -657.8     | 6,386.0               | 0.00                  | 0.00                 |                       |
| 11,800.0            | 90.50           | 180.92      | 5,325.4             | -6,476.3   | -659.3     | 6,486.0               | 0.00                  | 0.00                 |                       |
| 11,900.0            | 90.50           | 180.92      | 5,324.5             | -6,576.3   | -660.9     | 6,586.0               | 0.00                  | 0.00                 |                       |
| 12,000.0            | 90.50           | 180.92      | 5,323.6             | -6,676.2   | -662.5     | 6,686.0               | 0.00                  | 0.00                 |                       |
| 12,100.0            | 90.50           | 180.92      | 5,322.8             | -6,776.2   | -664.1     | 6,786.0               | 0.00                  | 0.00                 |                       |
| 12,200.0            | 90.50           | 180.92      | 5,321.9             | -6,876.2   | -665.7     | 6,886.0               | 0.00                  | 0.00                 |                       |
| 12,300.0            | 90.50           | 180.92      | 5,321.0             | -6,976.2   | -667.3     | 6,986.0               | 0.00                  | 0.00                 |                       |
| 12,400.0            | 90.50           | 180.92      | 5,320.1             | -7,076.2   | -668.9     | 7,086.0               | 0.00                  | 0.00                 |                       |
| 12,500.0            | 90.50           | 180.92      | 5,319.3             | -7,176.2   | -670.5     | 7,186.0               | 0.00                  | 0.00                 |                       |
| 12,600.0            | 90.50           | 180.92      | 5,318.4             | -7,276.1   | -672.1     | 7,286.0               | 0.00                  | 0.00                 |                       |
| 12,700.0            | 90.50           | 180.92      | 5,317.5             | -7,376.1   | -673.7     | 7,386.0               | 0.00                  | 0.00                 |                       |
| 12,800.0            | 90.50           | 180.92      | 5,316.7             | -7,476.1   | -675.3     | 7,486.0               | 0.00                  | 0.00                 |                       |
| 12,900.0            | 90.50           | 180.92      | 5,315.8             | -7,576.1   | -676.9     | 7,586.0               | 0.00                  | 0.00                 |                       |
| 13,000.0            | 90.50           | 180.92      | 5,314.9             | -7,676.1   | -678.5     | 7,686.0               | 0.00                  | 0.00                 |                       |
| 13,100.0            | 90.50           | 180.92      | 5,314.0             | -7,776.1   | -680.1     | 7,786.0               | 0.00                  | 0.00                 |                       |
| 13,200.0            | 90.50           | 180.92      | 5,313.2             | -7,876.0   | -681.7     | 7,886.0               | 0.00                  | 0.00                 |                       |
| 13,277.2            | 90.50           | 180.92      | 5,312.5             | -7,953.3   | -682.9     | 7,963.2               | 0.00                  | 0.00                 | TD at 13277.2         |

# Planning Report

|                  |                             |                                     |                                      |
|------------------|-----------------------------|-------------------------------------|--------------------------------------|
| <b>Database:</b> | USA EDM 5000 Multi Users DB | <b>Local Co-ordinate Reference:</b> | Well Lybrook G01-2206 01H            |
| <b>Company:</b>  | EnCana Oil & Gas (USA) Inc  | <b>TVD Reference:</b>               | WELL @ 6955.0ft (Original Well Elev) |
| <b>Project:</b>  | Sandoval County, NM         | <b>MD Reference:</b>                | WELL @ 6955.0ft (Original Well Elev) |
| <b>Site:</b>     | S1-T22N-R6W                 | <b>North Reference:</b>             | True                                 |
| <b>Well:</b>     | Lybrook G01-2206 01H        | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Wellbore:</b> | Hz                          |                                     |                                      |
| <b>Design:</b>   | Plan #2                     |                                     |                                      |

| Targets                   |           |          |         |          |        |              |              |           |             |
|---------------------------|-----------|----------|---------|----------|--------|--------------|--------------|-----------|-------------|
| Target Name               | Dip Angle | Dip Dir. | TVD     | +N/-S    | +E/-W  | Northing     | Easting      | Latitude  | Longitude   |
| - hit/miss target         | (°)       | (°)      | (ft)    | (ft)     | (ft)   | (ft)         | (ft)         |           |             |
| - Shape                   |           |          |         |          |        |              |              |           |             |
| Lybrook G01-2206 01H I    | 0.00      | 0.00     | 5,376.7 | -590.9   | -565.3 | 1,881,707.10 | 1,295,779.40 | 36.165839 | -107.417605 |
| - plan hits target center |           |          |         |          |        |              |              |           |             |
| - Point                   |           |          |         |          |        |              |              |           |             |
| Lybrook G01-2206 01H I    | 0.00      | 0.00     | 5,312.5 | -7,953.3 | -682.9 | 1,874,346.63 | 1,295,573.37 | 36.145616 | -107.418003 |
| - plan hits target center |           |          |         |          |        |              |              |           |             |
| - Point                   |           |          |         |          |        |              |              |           |             |

| Casing Points  |                |           |                 |               |
|----------------|----------------|-----------|-----------------|---------------|
| Measured Depth | Vertical Depth | Name      | Casing Diameter | Hole Diameter |
| (ft)           | (ft)           |           | (in)            | (in)          |
| 500.0          | 500.0          | 9 5/8"    | 0.000           | 0.000         |
| 5,406.5        | 5,225.4        | ICP @ 55° | 0.000           | 0.000         |

| Formations     |                |                     |           |       |               |
|----------------|----------------|---------------------|-----------|-------|---------------|
| Measured Depth | Vertical Depth | Name                | Lithology | Dip   | Dip Direction |
| (ft)           | (ft)           |                     |           | (°)   | (°)           |
| 1,308.0        | 1,308.0        | Ojo Alamo Ss.       |           | -0.50 | 180.92        |
| 1,484.0        | 1,484.0        | Kirtland Shale      |           | -0.50 | 180.92        |
| 1,645.0        | 1,645.0        | Fruitland Coal      |           | -0.50 | 180.92        |
| 1,861.0        | 1,861.0        | Pictured Cliffs Ss. |           | -0.50 | 180.92        |
| 1,961.0        | 1,961.0        | Lewis Shale         |           | -0.50 | 180.92        |
| 2,666.0        | 2,666.0        | Cliffhouse Ss.      |           | -0.50 | 180.92        |
| 3,388.0        | 3,388.0        | Menefee Fn.         |           | -0.50 | 180.92        |
| 4,120.0        | 4,120.0        | Point Lookout Ss.   |           | -0.50 | 180.92        |
| 4,293.0        | 4,293.0        | Mancos Shale        |           | -0.50 | 180.92        |
| 4,928.9        | 4,878.0        | Mancos Silt         |           | -0.50 | 180.92        |
| 5,282.0        | 5,148.0        | Gallup Fm.          |           | -0.50 | 180.92        |

| Plan Annotations |                |                   |        |                       |
|------------------|----------------|-------------------|--------|-----------------------|
| Measured Depth   | Vertical Depth | Local Coordinates |        | Comment               |
| (ft)             | (ft)           | +N/-S             | +E/-W  |                       |
| (ft)             | (ft)           | (ft)              | (ft)   |                       |
| 4,400.0          | 4,400.0        | 0.0               | 0.0    | KOP @ 4400'           |
| 4,808.2          | 4,780.8        | 35.3              | -121.4 | EOB; INC=36.74°       |
| 5,913.6          | 5,376.7        | -590.9            | -565.3 | LP @ 5376' TVD; 90.5° |
| 13,277.2         | 5,312.5        | -7,953.3          | -682.9 | TD at 13277.2         |



# **EnCana Oil & Gas (USA) Inc**

**Sandoval County, NM**

**S1-T22N-R6W**

**Lybrook G01-2206 01H**

**Hz**

**Plan #2**

## **Anticollision Report**

**02 December, 2014**

# Anticollision Report

|                           |                            |                                     |                                      |
|---------------------------|----------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | EnCana Oil & Gas (USA) Inc | <b>Local Co-ordinate Reference:</b> | Well Lybrook G01-2206 01H            |
| <b>Project:</b>           | Sandoval County, NM        | <b>TVD Reference:</b>               | WELL @ 6955.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | S1-T22N-R6W                | <b>MD Reference:</b>                | WELL @ 6955.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                      | <b>North Reference:</b>             | True                                 |
| <b>Reference Well:</b>    | Lybrook G01-2206 01H       | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0ft                      | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Hz                         | <b>Database:</b>                    | USA EDM 5000 Multi Users DB          |
| <b>Reference Design:</b>  | Plan #2                    | <b>Offset TVD Reference:</b>        | Offset Datum                         |

|                              |                                                                     |                |                     |
|------------------------------|---------------------------------------------------------------------|----------------|---------------------|
| Reference                    | Plan #2                                                             |                |                     |
| Filter type:                 | NO GLOBAL FILTER: Using user defined selection & filtering criteria |                |                     |
| Interpolation Method:        | MD Interval 100.0ft                                                 | Error Model:   | Systematic Ellipse  |
| Depth Range:                 | Unlimited                                                           | Scan Method:   | Closest Approach 3D |
| Results Limited by:          | Maximum center-center distance of 1,000.0ft                         | Error Surface: | Elliptical Conic    |
| Warning Levels Evaluated at: | 2.00 Sigma                                                          |                |                     |

|                            |                |                          |                  |                    |
|----------------------------|----------------|--------------------------|------------------|--------------------|
| <b>Survey Tool Program</b> | <b>Date</b>    | 12/2/2014                |                  |                    |
| <b>From (ft)</b>           | <b>To (ft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Description</b> |
| 0.0                        | 13,277.2       | Plan #2 (Hz)             | Geolink MWD      | Geolink MWD        |

|                                     |                                      |                                   |                                      |                                       |                          |                |  |
|-------------------------------------|--------------------------------------|-----------------------------------|--------------------------------------|---------------------------------------|--------------------------|----------------|--|
| <b>Summary</b>                      |                                      |                                   |                                      |                                       |                          |                |  |
| <b>Site Name</b>                    | <b>Reference Measured Depth (ft)</b> | <b>Offset Measured Depth (ft)</b> | <b>Distance Between Centres (ft)</b> | <b>Distance Between Ellipses (ft)</b> | <b>Separation Factor</b> | <b>Warning</b> |  |
| Offset Well - Wellbore - Design     |                                      |                                   |                                      |                                       |                          |                |  |
| S1-T22N-R6W                         |                                      |                                   |                                      |                                       |                          |                |  |
| Lybrook G01-2206 02H - Hz - Plan #1 | 4,400.0                              | 4,400.0                           | 30.1                                 | 14.8                                  | 1.968                    | CC, ES, SF     |  |

# Anticollision Report

|                           |                            |                                     |                                      |
|---------------------------|----------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | EnCana Oil & Gas (USA) Inc | <b>Local Co-ordinate Reference:</b> | Well Lybrook G01-2206 01H            |
| <b>Project:</b>           | Sandoval County, NM        | <b>TVD Reference:</b>               | WELL @ 6955.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | S1-T22N-R6W                | <b>MD Reference:</b>                | WELL @ 6955.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                      | <b>North Reference:</b>             | True                                 |
| <b>Reference Well:</b>    | Lybrook G01-2206 01H       | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0ft                      | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Hz                         | <b>Database:</b>                    | USA EDM 5000 Multi Users DB          |
| <b>Reference Design:</b>  | Plan #2                    | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Offset Design S1-T22N-R6W - Lybrook G01-2206 02H - Hz - Plan #1 |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                  |                    | Offset Site Error: |
|-----------------------------------------------------------------|---------------------|---------------------|---------------------|----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------|--------------------|--------------------|
| Survey Program: 0-Geolink MWD                                   |                     |                     |                     |                |             |                       |                                   |            |                      |                       |                  |                    | 0.0 ft             |
| Reference                                                       | Offset              | Semi Major Axis     |                     | Distance       |             | Total                 |                                   | Separation |                      | Warning               |                  | Offset Well Error: |                    |
| Measured Depth (ft)                                             | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Uncertainty Axis | Factor             |                    |
| 0.0                                                             | 0.0                 | 0.0                 | 0.0                 | 0.0            | 0.0         | 91.39                 | -0.7                              | 30.1       | 30.1                 |                       |                  |                    |                    |
| 100.0                                                           | 100.0               | 100.0               | 100.0               | 0.1            | 0.1         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 29.8                  | 0.29             | 102.719            |                    |
| 200.0                                                           | 200.0               | 200.0               | 200.0               | 0.3            | 0.3         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 29.5                  | 0.64             | 46.894             |                    |
| 300.0                                                           | 300.0               | 300.0               | 300.0               | 0.5            | 0.5         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 29.1                  | 0.99             | 30.382             |                    |
| 400.0                                                           | 400.0               | 400.0               | 400.0               | 0.7            | 0.7         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 28.8                  | 1.34             | 22.470             |                    |
| 500.0                                                           | 500.0               | 500.0               | 500.0               | 0.8            | 0.8         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 28.4                  | 1.69             | 17.827             |                    |
| 600.0                                                           | 600.0               | 600.0               | 600.0               | 1.0            | 1.0         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 28.1                  | 2.04             | 14.775             |                    |
| 700.0                                                           | 700.0               | 700.0               | 700.0               | 1.2            | 1.2         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 27.7                  | 2.39             | 12.615             |                    |
| 800.0                                                           | 800.0               | 800.0               | 800.0               | 1.4            | 1.4         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 27.4                  | 2.74             | 11.006             |                    |
| 900.0                                                           | 900.0               | 900.0               | 900.0               | 1.5            | 1.5         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 27.0                  | 3.09             | 9.761              |                    |
| 1,000.0                                                         | 1,000.0             | 1,000.0             | 1,000.0             | 1.7            | 1.7         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 26.7                  | 3.43             | 8.769              |                    |
| 1,100.0                                                         | 1,100.0             | 1,100.0             | 1,100.0             | 1.9            | 1.9         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 26.3                  | 3.78             | 7.960              |                    |
| 1,200.0                                                         | 1,200.0             | 1,200.0             | 1,200.0             | 2.1            | 2.1         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 26.0                  | 4.13             | 7.288              |                    |
| 1,300.0                                                         | 1,300.0             | 1,300.0             | 1,300.0             | 2.2            | 2.2         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 25.6                  | 4.48             | 6.720              |                    |
| 1,400.0                                                         | 1,400.0             | 1,400.0             | 1,400.0             | 2.4            | 2.4         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 25.3                  | 4.83             | 6.234              |                    |
| 1,500.0                                                         | 1,500.0             | 1,500.0             | 1,500.0             | 2.6            | 2.6         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 24.9                  | 5.18             | 5.814              |                    |
| 1,600.0                                                         | 1,600.0             | 1,600.0             | 1,600.0             | 2.8            | 2.8         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 24.6                  | 5.53             | 5.447              |                    |
| 1,700.0                                                         | 1,700.0             | 1,700.0             | 1,700.0             | 2.9            | 2.9         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 24.2                  | 5.88             | 5.124              |                    |
| 1,800.0                                                         | 1,800.0             | 1,800.0             | 1,800.0             | 3.1            | 3.1         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 23.9                  | 6.23             | 4.837              |                    |
| 1,900.0                                                         | 1,900.0             | 1,900.0             | 1,900.0             | 3.3            | 3.3         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 23.5                  | 6.58             | 4.580              |                    |
| 2,000.0                                                         | 2,000.0             | 2,000.0             | 2,000.0             | 3.5            | 3.5         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 23.2                  | 6.93             | 4.349              |                    |
| 2,100.0                                                         | 2,100.0             | 2,100.0             | 2,100.0             | 3.6            | 3.6         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 22.8                  | 7.27             | 4.140              |                    |
| 2,200.0                                                         | 2,200.0             | 2,200.0             | 2,200.0             | 3.8            | 3.8         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 22.5                  | 7.62             | 3.951              |                    |
| 2,300.0                                                         | 2,300.0             | 2,300.0             | 2,300.0             | 4.0            | 4.0         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 22.1                  | 7.97             | 3.778              |                    |
| 2,400.0                                                         | 2,400.0             | 2,400.0             | 2,400.0             | 4.2            | 4.2         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 21.8                  | 8.32             | 3.619              |                    |
| 2,500.0                                                         | 2,500.0             | 2,500.0             | 2,500.0             | 4.3            | 4.3         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 21.4                  | 8.67             | 3.474              |                    |
| 2,600.0                                                         | 2,600.0             | 2,600.0             | 2,600.0             | 4.5            | 4.5         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 21.1                  | 9.02             | 3.339              |                    |
| 2,700.0                                                         | 2,700.0             | 2,700.0             | 2,700.0             | 4.7            | 4.7         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 20.7                  | 9.37             | 3.215              |                    |
| 2,800.0                                                         | 2,800.0             | 2,800.0             | 2,800.0             | 4.9            | 4.9         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 20.4                  | 9.72             | 3.099              |                    |
| 2,900.0                                                         | 2,900.0             | 2,900.0             | 2,900.0             | 5.0            | 5.0         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 20.1                  | 10.07            | 2.992              |                    |
| 3,000.0                                                         | 3,000.0             | 3,000.0             | 3,000.0             | 5.2            | 5.2         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 19.7                  | 10.42            | 2.892              |                    |
| 3,100.0                                                         | 3,100.0             | 3,100.0             | 3,100.0             | 5.4            | 5.4         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 19.4                  | 10.77            | 2.798              |                    |
| 3,200.0                                                         | 3,200.0             | 3,200.0             | 3,200.0             | 5.6            | 5.6         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 19.0                  | 11.11            | 2.710              |                    |
| 3,300.0                                                         | 3,300.0             | 3,300.0             | 3,300.0             | 5.7            | 5.7         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 18.7                  | 11.46            | 2.627              |                    |
| 3,400.0                                                         | 3,400.0             | 3,400.0             | 3,400.0             | 5.9            | 5.9         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 18.3                  | 11.81            | 2.550              |                    |
| 3,500.0                                                         | 3,500.0             | 3,500.0             | 3,500.0             | 6.1            | 6.1         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 18.0                  | 12.16            | 2.477              |                    |
| 3,600.0                                                         | 3,600.0             | 3,600.0             | 3,600.0             | 6.3            | 6.3         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 17.6                  | 12.51            | 2.407              |                    |
| 3,700.0                                                         | 3,700.0             | 3,700.0             | 3,700.0             | 6.4            | 6.4         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 17.3                  | 12.86            | 2.342              |                    |
| 3,800.0                                                         | 3,800.0             | 3,800.0             | 3,800.0             | 6.6            | 6.6         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 16.9                  | 13.21            | 2.280              |                    |
| 3,900.0                                                         | 3,900.0             | 3,900.0             | 3,900.0             | 6.8            | 6.8         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 16.6                  | 13.56            | 2.222              |                    |
| 4,000.0                                                         | 4,000.0             | 4,000.0             | 4,000.0             | 7.0            | 7.0         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 16.2                  | 13.91            | 2.166              |                    |
| 4,100.0                                                         | 4,100.0             | 4,100.0             | 4,100.0             | 7.1            | 7.1         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 15.9                  | 14.26            | 2.113              |                    |
| 4,200.0                                                         | 4,200.0             | 4,200.0             | 4,200.0             | 7.3            | 7.3         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 15.5                  | 14.60            | 2.062              |                    |
| 4,300.0                                                         | 4,300.0             | 4,300.0             | 4,300.0             | 7.5            | 7.5         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 15.2                  | 14.95            | 2.014              |                    |
| 4,400.0                                                         | 4,400.0             | 4,400.0             | 4,400.0             | 7.7            | 7.7         | 91.39                 | -0.7                              | 30.1       | 30.1                 | 14.8                  | 15.30            | 1.968 CC, ES, SF   |                    |
| 4,500.0                                                         | 4,499.6             | 4,499.6             | 4,499.6             | 7.8            | 7.8         | 168.08                | -0.7                              | 30.1       | 37.7                 | 22.2                  | 15.53            | 2.431              |                    |
| 4,600.0                                                         | 4,596.7             | 4,596.7             | 4,596.7             | 8.0            | 8.0         | 172.35                | -0.7                              | 30.1       | 60.8                 | 45.3                  | 15.49            | 3.922              |                    |
| 4,700.0                                                         | 4,689.0             | 4,688.4             | 4,686.4             | 8.3            | 8.2         | 174.90                | -0.7                              | 30.3       | 99.0                 | 83.8                  | 15.20            | 6.516              |                    |
| 4,800.0                                                         | 4,774.2             | 4,750.0             | 4,749.7             | 8.7            | 8.3         | 175.52                | -1.2                              | 35.5       | 158.2                | 143.5                 | 14.65            | 10.795             |                    |
| 4,900.0                                                         | 4,854.9             | 4,800.0             | 4,798.9             | 9.3            | 8.4         | -165.76               | -2.0                              | 44.5       | 230.9                | 215.8                 | 15.06            | 15.329             |                    |
| 5,000.0                                                         | 4,935.8             | 4,850.0             | 4,847.1             | 10.0           | 8.5         | -147.74               | -3.1                              | 57.7       | 307.0                | 291.1                 | 15.83            | 19.393             |                    |
| 5,100.0                                                         | 5,014.7             | 4,881.3             | 4,876.6             | 10.7           | 8.5         | -130.05               | -4.0                              | 68.1       | 385.0                | 368.1                 | 16.88            | 22.812             |                    |

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

|                           |                            |                                     |                                      |
|---------------------------|----------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>           | EnCana Oil & Gas (USA) Inc | <b>Local Co-ordinate Reference:</b> | Well Lybrook G01-2206 01H            |
| <b>Project:</b>           | Sandoval County, NM        | <b>TVD Reference:</b>               | WELL @ 6955.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | S1-T22N-R6W                | <b>MD Reference:</b>                | WELL @ 6955.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                      | <b>North Reference:</b>             | True                                 |
| <b>Reference Well:</b>    | Lybrook G01-2206 01H       | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Well Error:</b>        | 0.0ft                      | <b>Output errors are at</b>         | 2.00 sigma                           |
| <b>Reference Wellbore</b> | Hz                         | <b>Database:</b>                    | USA EDM 5000 Multi Users DB          |
| <b>Reference Design:</b>  | Plan #2                    | <b>Offset TVD Reference:</b>        | Offset Datum                         |

| Offset Design   S1-T22N-R6W - Lybrook G01-2206 02H - Hz - Plan #1 |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                        |         | Offset Site Error: 0.0 ft |  |
|-------------------------------------------------------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------------|---------|---------------------------|--|
| Survey Program: 0-Geolink MWD                                     |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                        |         | Offset Well Error: 0.0 ft |  |
| Reference                                                         |                     | Offset              |                     | Semi Major Axis |             |                       |                                   | Distance   |                      |                       |                        | Warning |                           |  |
| Measured Depth (ft)                                               | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis |         | Separation Factor         |  |
| 5,200.0                                                           | 5,089.9             | 4,900.0             | 4,894.0             | 11.5            | 8.6         | -113.23               | -4.7                              | 75.1       | 464.4                | 446.2                 | 18.18                  | 25.535  |                           |  |
| 5,300.0                                                           | 5,159.4             | 4,933.0             | 4,924.0             | 12.3            | 8.7         | -101.14               | -5.8                              | 88.8       | 543.4                | 524.0                 | 19.38                  | 28.044  |                           |  |
| 5,400.0                                                           | 5,221.6             | 4,950.0             | 4,939.1             | 13.2            | 8.7         | -89.64                | -6.5                              | 96.5       | 621.8                | 601.4                 | 20.48                  | 30.367  |                           |  |
| 5,500.0                                                           | 5,274.9             | 4,966.2             | 4,953.3             | 14.2            | 8.8         | -80.53                | -7.2                              | 104.2      | 698.6                | 677.4                 | 21.27                  | 32.853  |                           |  |
| 5,600.0                                                           | 5,317.9             | 4,977.4             | 4,963.0             | 15.3            | 8.8         | -73.04                | -7.7                              | 109.8      | 773.0                | 751.3                 | 21.70                  | 35.629  |                           |  |
| 5,700.0                                                           | 5,349.7             | 4,985.7             | 4,970.1             | 16.3            | 8.9         | -67.14                | -8.1                              | 114.1      | 844.3                | 822.5                 | 21.80                  | 38.735  |                           |  |
| 5,800.0                                                           | 5,369.5             | 5,000.0             | 4,982.2             | 17.4            | 8.9         | -63.38                | -8.7                              | 121.7      | 911.9                | 890.1                 | 21.74                  | 41.936  |                           |  |
| 5,900.0                                                           | 5,376.7             | 5,000.0             | 4,982.2             | 18.5            | 8.9         | -59.84                | -8.7                              | 121.7      | 974.9                | 953.5                 | 21.40                  | 45.549  |                           |  |

# Anticollision Report

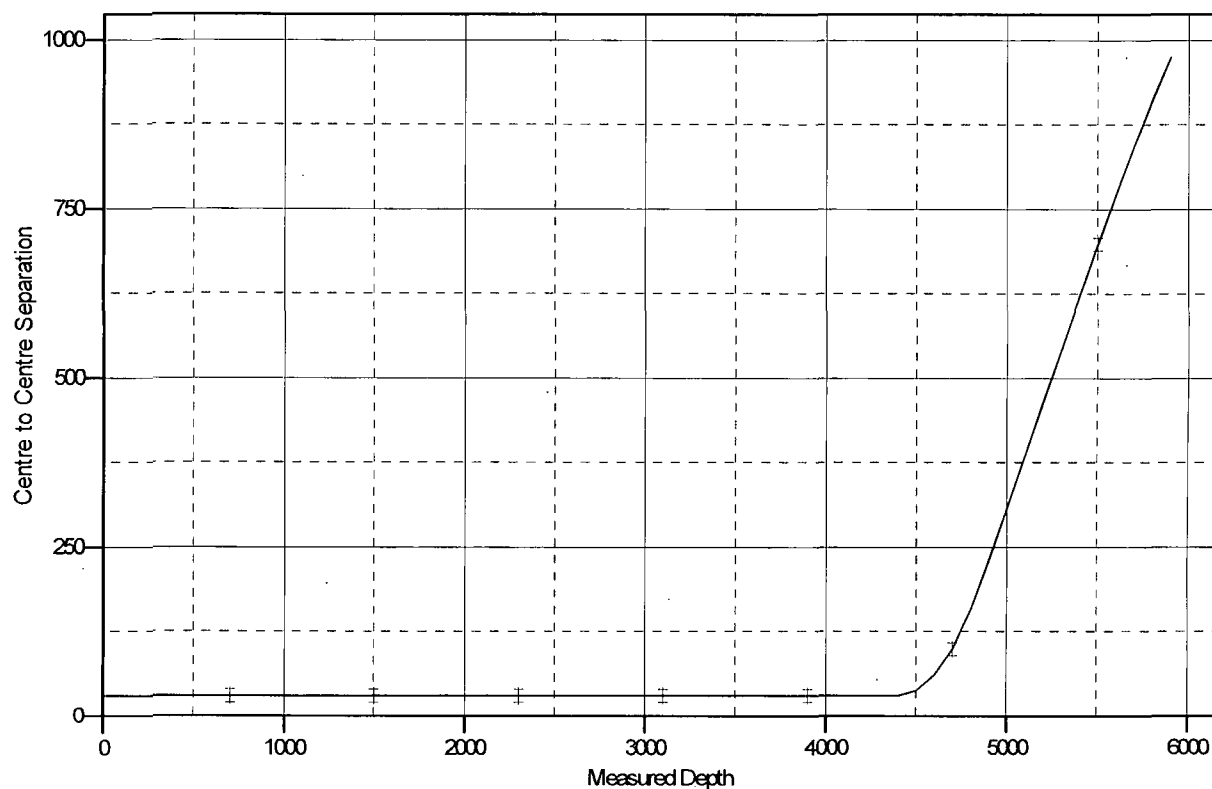
**Company:** EnCana Oil & Gas (USA) Inc  
**Project:** Sandoval County, NM  
**Reference Site:** S1-T22N-R6W  
**Site Error:** 0.0ft  
**Reference Well:** Lybrook G01-2206 01H  
**Well Error:** 0.0ft  
**Reference Wellbore:** Hz  
**Reference Design:** Plan #2

**Local Co-ordinate Reference:** Well Lybrook G01-2206 01H  
**TVD Reference:** WELL @ 6955.0ft (Original Well Elev)  
**MD Reference:** WELL @ 6955.0ft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at:** 2.00 sigma  
**Database:** USA EDM 5000 Multi Users DB  
**Offset TVD Reference:** Offset Datum

Reference Depths are relative to WELL @ 6955.0ft (Original Well Elev)  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -106.250000°

Coordinates are relative to: Lybrook G01-2206 01H  
 Coordinate System is US State Plane 1983, New Mexico Central Zone  
 Grid Convergence at Surface is: -0.69°

## Ladder Plot



## LEGEND

 Lybrook G01-2206 02H, Hz, Plan #1 V0

|                                                                                                                                                       |                      |                              |                                        |         |        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                |                                                      |                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------|----------------------------------------|---------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------|
| LOC: Lybrook G01-2206 01H<br>County: New Mexico<br>WELL: Lybrook G01-2206 01H                                                                         |                      |                              | Encana Natural Gas<br><br>WELL SUMMARY |         |        | ENG: Jeff Villalobos 12/3/14<br>RIG: Aztec 920<br>GLE: 6939<br>RKBE: 6955                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                |                                                      |                          |
| MWD<br>LWD                                                                                                                                            | OPEN HOLE<br>LOGGING | FORM                         | DEPTH<br>TVDMD                         |         |        | HOLE<br>SIZE                                                                                                                                                                                                                                                                                                                                                                                                                         | CASING<br>SPECS                                                                                                                                                                                                                                                                                                                | MW<br>MUD TYPE                                       | DEVIATION<br>INFORMATION |
|                                                                                                                                                       |                      |                              | 60                                     | 60'     |        | 26                                                                                                                                                                                                                                                                                                                                                                                                                                   | 16" 42.09#<br>100sx Type I Neat 16.0ppg cmt                                                                                                                                                                                                                                                                                    | Fresh wtr<br>8.3-9.2                                 |                          |
| Multi-Well pad take survey every stand and run anti-collision report prior to spud                                                                    | None                 | San Jose Fn.                 | 0                                      |         |        | 12 1/4                                                                                                                                                                                                                                                                                                                                                                                                                               | 9 5/8" 36ppf J55 LTC<br><br>TOC Surface with 100% OH Excess: 228 sks Type III Cement + 1% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 0.2% bwoc FL-52A + 58.9% Fresh Water.                                                                                                                                            | Fresh wtr<br>8.3-10                                  | Vertical<br><1°          |
|                                                                                                                                                       |                      | Nacimiento Fn.<br>9 5/8" Csg | surface<br>500                         | 500.0   |        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                |                                                      |                          |
| Survey Every 60'-120', updating anticollision report after surveys. Stop operations and contact drilling engineer if separation factor approaches 1.5 | No OH logs           | Ojo Alamo Ss.                | 1,308                                  |         | 8 3/4  | 7" 26ppf J55 LTC<br><br>TOC @ surface (100% OH excess - 70% Lead 30% Tail)<br>Stage 1 Total: 888sks<br><br>Stage 1 Lead: 503 sks Premium Lite FM + 3% CaCl2 + 0.25/sk Cello Flake + 5#/sk LCM-1 + 8% Bentonite + 0.4% FL-52A + 0.4% Sodium Metasilicate. Mixed at 12.1 ppg. Yield 2.13 cuft/sk.<br><br>Stage 1 Tail: 384 sks Type III Cement + 1% CaCl2 + 0.25#/sk Cello Flake + 0.2% FL-52A. Mixed at 14.6 ppg. Yield 1.38 cuft/sk. | Fresh Wtr<br>8.3-10                                                                                                                                                                                                                                                                                                            | Vertical<br><1°                                      |                          |
|                                                                                                                                                       |                      | Kirtland Shale               | 1,484                                  |         |        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                |                                                      |                          |
|                                                                                                                                                       |                      | Fruitland Coal               | 1,645                                  |         |        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                |                                                      |                          |
|                                                                                                                                                       |                      | Pictured Cliffs Ss.          | 1,861                                  |         |        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                |                                                      |                          |
|                                                                                                                                                       |                      | Lewis Shale                  | 1,961                                  |         |        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                |                                                      |                          |
|                                                                                                                                                       |                      | Cliffhouse Ss.               | 2,666                                  |         |        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                |                                                      |                          |
| Surveys every 30' through the curve                                                                                                                   | Mud logger onsite    | Menefee Fn.                  | 3,388                                  |         | 6 1/8  | 100' overlap at liner top<br><br>7871' Drilled Lateral                                                                                                                                                                                                                                                                                                                                                                               | WBM<br>8.3-10<br><br>TOC @ hanger (50% OH excess)<br>Stage 1 Total: 443sks<br><br>Stage 1 Blend: 443 sks Premium Lite High Strength FM + 0.7% bwoc R-3 + 3% bwow Potassium Chloride + 0.25lbs/sack Cello Flake + 0.5% bwoc CD-32 + 1.15% bwoc FL-52A + 60 lbs/sack Calcium Carbonate + 124.4% Fresh Water. Yield 2.63 cuft/sk. | Horz Inc/TVD 90.5°deg/5382ft<br><br>TD = 13,277.2 MD |                          |
|                                                                                                                                                       |                      | Point Lookout Ss.            | 4,120                                  |         |        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                |                                                      |                          |
|                                                                                                                                                       |                      | Mancos Shale                 | 4,293                                  |         |        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                |                                                      |                          |
|                                                                                                                                                       |                      | KOP                          | 4,400                                  | 4,400.0 |        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                |                                                      |                          |
|                                                                                                                                                       |                      | Mancos Silt                  | 4,878                                  |         |        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                |                                                      |                          |
|                                                                                                                                                       |                      | Gallup Fn.                   | 5,148                                  |         |        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                |                                                      |                          |
| Surveys every stand to TD unless directed otherwise by Geologist                                                                                      | No OH Logs           | 7" Csg                       | 5,225                                  | 5,406.5 | 4 1/2" | 11.6ppf SB80 LTC                                                                                                                                                                                                                                                                                                                                                                                                                     | 8.3-10                                                                                                                                                                                                                                                                                                                         |                                                      |                          |
|                                                                                                                                                       |                      | Horizontal Target TD         | 5,382                                  |         |        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                |                                                      |                          |
|                                                                                                                                                       |                      | Base Gallup                  | 5,442                                  |         |        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                |                                                      |                          |
| MWD<br>Gamma<br>Directional                                                                                                                           |                      |                              |                                        |         |        |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                |                                                      |                          |

#### NOTES:

- 1) Drill with 26" bit to 60', set 16" 42.09ppf conductor pipe
- 2) Drill surface to 500', R&C 9 5/8" casing
- 3) N/U BOP and surface equipment
- 4) Drill to KOP of 4400', 8 3/4 inch holesize
- 5) Start curve at 10deg/100' build rate
- 6) Drill to csg point of 5407' MD
- 7) R&C 7" csg, circ cmt to surface
- 8) Land at ~55 deg, drill lateral to 13277' run 4 1/2 inch cemented liner

Lybrook G01-2206 01H

SHL: SW/4 NE/4 Sec 1 T22N R6W, 2406' FNL, 1314' FEL

BHL: SW/4 SE/4 Sec 12 T22N R6W, 330' FSL, 1870' FEL

New Mexico, New Mexico

**Encana Oil & Gas (USA) Inc.  
Drilling Plan**

**1. ESTIMATED TOPS OF GEOLOGICAL MARKERS (TVD)**

The estimated tops of important geologic markers are as follows:

| <b>Formation</b>    | <b>Depth (TVD) units = feet</b> |
|---------------------|---------------------------------|
| Nacimiento Fn.      | surface                         |
| Ojo Alamo Ss.       | 1,308                           |
| Kirtland Shale      | 1,484                           |
| Fruitland Coal      | 1,645                           |
| Pictured Cliffs Ss. | 1,861                           |
| Lewis Shale         | 1,961                           |
| Cliffhouse Ss.      | 2,666                           |
| Menefee Fn.         | 3,388                           |
| Point Lookout Ss.   | 4,120                           |
| Mancos Shale        | 4,293                           |
| Mancos Silt         | 4,878                           |
| Gallup Fn.          | 5,148                           |
|                     |                                 |

The referenced surface elevation is 6939', KB 6955'

**2. ESTIMATED DEPTH OF POTENTIAL WATER, OIL, GAS,  
& OTHER MINERAL BEARING FORMATIONS**

| <b>Substance</b> | <b>Formation</b>    | <b>Depth (TVD) units = feet</b> |
|------------------|---------------------|---------------------------------|
| Water/Gas        | Fruitland Coal      | 1,645                           |
| Oil/Gas          | Pictured Cliffs Ss. | 1,861                           |
| Oil/Gas          | Cliffhouse Ss.      | 2,666                           |
| Gas              | Menefee Fn.         | 3,388                           |
| Oil/Gas          | Point Lookout Ss.   | 4,120                           |
| Oil/Gas          | Mancos Shale        | 4,293                           |
| Oil/Gas          | Mancos Silt         | 4,878                           |
| Oil/Gas          | Gallup Fn.          | 5,148                           |

All shows of fresh water and minerals will be reported and protected.

Lybrook G01-2206 01H

SHL: Sec Twp Rge, Footages

BHL: NW/4 SE/4 Sec 1 T22N R6W, 2348' FSL, 1870' FEL

New Mexico, New Mexico

### 3. PRESSURE CONTROL

- a) Pressure control equipment and configuration will be designed to meet 2M standards.
- b) Working pressure on rams and BOPE will be 3,000 psi.
- c) Function test and visual inspection of the BOP will be conducted daily and noted in the IADC Daily Drilling Report.
- d) The Annular BOP will be pressure tested to a minimum of 50 percent of its rated working pressure.
- e) Blind and Pipe Rams/BOP will be tested against a test plug to 100 percent of rated working pressure.
- f) Pressure tests are required before drilling out from under all casing strings set and cemented in place.
- g) BOP controls must be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned.
- h) BOP testing procedures and testing frequency will conform to Onshore Order No. 2.
- i) BOP remote controls shall be located on the rig floor at a location readily accessible to the driller. Master controls shall be on the ground at the accumulator and shall have the capability to function all preventers.
- j) The kill line shall be 2-inch minimum and contain two kill line valves, one of which shall be a check valve.
- k) The choke line shall be a 2-inch minimum and contain two choke line valves (2-inch minimum).
- l) The choke and manifold shall contain two adjustable chokes.
- m) Hand wheels shall be installed on all ram preventers.
- n) Safety valves and wrenches (with subs for drill string connections) shall be available on the rig floor at all times.
- o) Inside BOP or float sub shall also be available on the rig floor at all times.

Proposed BOP and choke manifold arrangements are attached.

### 4. CASING & CEMENTING PROGRAM

The proposed casing and cementing program has been designed to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use. The casing setting depth shall be calculated to position the casing seat opposite a competent formation which will contain the maximum pressure to which it will be exposed during normal drilling operations. All indications of useable water shall be reported.

- a) The proposed casing design is as follows:

| Casing           | Depth (MD)   | Hole Size | Csg Size | Weight | Grade         |
|------------------|--------------|-----------|----------|--------|---------------|
| Conductor        | 0'-60'       | 26"       | 16"      | 42.09# |               |
| Surface          | 0'-500'      | 12 1/4"   | 9 5/8"   | 36#    | J55, STC New  |
| Intermediate     | 0'-5407'     | 8 3/4"    | 7"       | 26#    | J55, LTC New  |
| Production Liner | 5307'-13277' | 6 1/8"    | 4 1/2"   | 11.6#  | B80*, LTC New |

| Casing String |              |       |            | Casing Strength Properties |             |                   | Minimum Design Factors |       |         |
|---------------|--------------|-------|------------|----------------------------|-------------|-------------------|------------------------|-------|---------|
| Size          | Weight (ppf) | Grade | Connection | Collapse (psi)             | Burst (psi) | Tensile (1000lbs) | Collapse               | Burst | Tension |
| 9 5/8"        | 36           | J55   | STC        | 2020                       | 3520        | 394               | 1.125                  | 1.1   | 1.5     |
| 7"            | 26           | J55   | LTC        | 4320                       | 4980        | 367               | 1.125                  | 1.1   | 1.5     |
| 4.5"          | 11.6         | B80   | LTC        | 6350                       | 7780        | 201               | 1.125                  | 1.1   | 1.5     |

\*B80 pipe specifications are attached

Casing design is subject to revision based on geologic conditions encountered



Lybrook G01-2206 01H

SHL: Sec Twp Rge, Footages

BHL: NW/4 SE/4 Sec 1 T22N R6W, 2348' FSL, 1870' FEL

Sandoval, New Mexico

All casing strings below the conductor shall be pressure tested to 0.22 psi per foot of casing string length or 1,500 psi, whichever is greater, but not to exceed 70 percent of the minimum internal yield. If pressure declines more than 10 percent in 30 minutes, corrective action shall be taken.

b) The proposed cementing program is as follows

| Casing              | Depth (MD)       | Cement Volume (sacks)                                                         | Cement Type & Yield                                                                                                                                                                                                                               | Designed TOC    | Centralizers                                       |
|---------------------|------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------------------------------|
| Conductor           | 0'-60'           | 100 sks                                                                       | Type I Neat 16 ppg                                                                                                                                                                                                                                | Surface         | None                                               |
| Surface             | 0'-500'          | 228 sks                                                                       | Type III Cement + 1% bwoc<br>Calcium Chloride + 0.25 lbs/sack<br>Cello Flake + 0.2% bwoc FL-52A +<br>58.9% Fresh Water                                                                                                                            | Surface         | 1 per joint on<br>bottom 3 joints                  |
| Intermediate        | 0'-5407'         | 100% open hole excess<br>Stage 1 Lead:<br>503 sks<br>Stage 1 Tail:<br>384 sks | Lead: PremLite + 3% CaCl +<br>0.25lb/sk CelloFlake + 5lb/sk LCM,<br>12.1ppg 2.13cuft/sk<br>Tail: Type III Cmt + 1% CaCl +<br>0.25lb/sk Cello Flake 14.5ppg<br>1.38cuft/sk                                                                         | Surface         | 1 every 3 joints<br>through water<br>bearing zones |
| Production<br>Liner | 5307'-<br>13277' | 50% OH excess<br>Stage 1 Blend Total:<br>443sks                               | Blend: Premium Lite High<br>Strength FM + 0.7% bwoc R-3 +<br>3% bwow Potassium Chloride +<br>0.25lbs/sack Cello Flake + 0.5%<br>bwoc CD-32 + 1.15% bwoc FL-<br>52A + 60 lbs/sack Calcium<br>Carbonate + 124.4% Fresh Water.<br>Yield 2.63 cuft/sk | Liner<br>Hanger | N/A                                                |

Actual volumes will be calculated and determined by conditions onsite. All cement slurries will meet or exceed minimum BLM and New Mexico Oil Conservation Division requirements. Slurries used will be the slurries listed above or equivalent slurries depending on service provider selected. Cement yields may change depending on slurries selected

All waiting on cement times shall be a minimum of 8 hours or adequate to achieve minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

## 5. WELL PLAN & DIRECTIONAL DRILLING PROGRAM

The proposed horizontal well will have a kick off point of 4400'. Directional plans are attached.

| Description           | Proposed Depth (TVD/MD) | Formation |
|-----------------------|-------------------------|-----------|
| Horizontal Lateral TD | 5312'/13277'            | Gallup    |

Lybrook G01-2206 01H

SHL: Sec Twp Rge, Footages

BHL: NW/4 SE/4 Sec 1 T22N R6W, 2348' FSL, 1870' FEL

New Mexico, New Mexico

## 6. DRILLING FLUIDS PROGRAM

### a) Surface through Intermediate Casing Point:

| Hole Size (in) | Depth (TVD/MD)        | Mud Type         | Density (ppg) | Viscosity (sec/qt) | Fluid Loss (cc) |
|----------------|-----------------------|------------------|---------------|--------------------|-----------------|
| 30"            | 0-60'/60'             | Fresh Water      | 8.3-9.2       | 38-100             | 4-28            |
| 12 1/4"        | 0'-500'/500'          | Fresh Water      | 8.3-10        | 60-70              | NC              |
| 8 3/4"         | 500'/500'-5225'/5407' | Fresh Water LSND | 8.3-10        | 40-50              | 8-10            |

### b) Intermediate Casing Point to TD:

| Hole Size (in) | Depth (TVD/MD)               | Mud Type         | Density (ppg) | Viscosity (sec/qt) | Fluid Loss (cc) |
|----------------|------------------------------|------------------|---------------|--------------------|-----------------|
| 6 1/8"         | 5225'/5407'-<br>5312'/13277' | Fresh Water LSND | 8.3-10        | 15-25              | <15             |

- c) There will be sufficient mud on location to control a blowout should one occur. Mud flow and volume will be monitored both visually and with electronic pit volume totalizers. Mud tests shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.
- d) A closed-loop system will be used to recover drilling fluid and dry cuttings in both phases of the well and on all hole intervals. Above-ground tanks will be utilized to hold cuttings and fluids for rig operations. A frac tank will be on location to store fresh water. Waste will be disposed of properly at an EPA-approved hazardous waste facility. Fresh water cuttings will be disposed of at Basin Disposal, Inc. and/or Industrial Ecosystems, Inc. The location will be lined in accordance with the Surface Use Plan of Operations.

## 7. TESTING, CORING, & LOGGING

- a) Drill Stem Testing - None anticipated.
- b) Coring - None anticipated.
- c) Mudd Logging - Mud loggers will be on location from kick off point to TD.
- d) Logging - See below

Cased Hole:

CBL/CCL/GR/VDL will be run as needed for perforating control

## 8. ABNORMAL PRESSURES & HYDROGEN SULFIDE

The anticipated bottom hole pressure is +/- 2519 psi based on a 9.0 ppg at 5382' TVD of the horizontal lateral target. No abnormal pressure or temperatures are anticipated.

No hydrogen sulfide gas is anticipated, however, if H<sub>2</sub>S is encountered, the guidelines in Onshore Order No. 6 will be followed.

## 9. ANTICIPATED START DATE AND DURATION OF OPERATIONS

Drilling is estimated to commence on January 11, 2015. It is anticipated that completion operations will begin within 30 days after the well has been drilled depending on fracture treatment schedules with various pumping service companies.

It is anticipated that the drilling of this well will take approximately 20 days.