

RECEIVED

NOV 30 2012

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Farmington Field Office  
Office of Land Management

APPLICATION FOR PERMIT TO DRILL OR REENTER

|  |   |  |
|--|---|--|
| 1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER   |   | 5. Lease Serial No.<br>NMNM 101058   |
| 1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone               |   | 6. If Indian, Allottee or Tribe Name<br>N/A                                      |
| 2. Name of Operator Encana Oil & Gas (USA) Inc.  |   | 7. If Unit or CA Agreement, Name and No.<br>N/A                                  |
| 3a. Address 370 17th Street, Suite 1700<br>Denver, CO 80202  | 3b. Phone No. (include area code)<br>720-876-5331         | 8. Lease Name and Well No.<br>Good Times L10-2410 01H                            |
| 4. Location of Well (Report location clearly and in accordance with any State requirements.)*<br>At surface L 1753' FSL and 199' FWL Section 10, T24N, R10W<br>At proposed prod. zone L 1753' FSL and 330' FWL Section 9, T24N, R10W |   | 9. API Well No.<br>30-045-35442  |
| 14. Distance in miles and direction from nearest town or post office*<br>+/- 33.5 miles south from intersection of US Hwy 550 and US Hwy 64 in Bloomfield, NM  |   | 10. Field and Pool, or Exploratory<br>Bisti Lower - Gallup                       |
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)<br>SHL is 199' from west lease line  | 16. No. of acres in lease<br>NMNM 101058 - 1,750.52 acres | 11. Sec., T, R, M. or Blk. and Survey or Area<br>Section 10, T24N, R10W NMPM     |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.<br>JUNIPER 44-9 is 552' south of the wellbore   | 19. Proposed Depth<br>5228' TVD/ 10040' MD                | 12. County or Parish<br>San Juan   |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br>6896' GL, 6909' KB  | 22. Approximate date work will start*<br>11/18/2013       | 13. State<br>NM  |
| 24. Attachments  |   | 17. Spacing Unit dedicated to this well<br>160 acres (N2S2 Section 9, T24N R10W) |
|  |   | 20. BLM/BIA Bond No. on file<br>COB-000235<br>RCVD FEB 11 '13                    |
|  |   | 23. Estimated duration<br>25 days OIL CONS. DIV.                                 |

Hold C104  
for Directional Survey  
and "As Drilled" plat

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

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

|  |                                    |                  |
|--|------------------------------------|------------------|
| 25. Signature<br><i>Holly Hill</i>           | Name (Printed/Typed)<br>Holly Hill | Date<br>11/30/12 |
| Title<br>Regulatory Analyst                  |                                    |                  |
| Approved by (Signature)<br><i>Mankiewicz</i> | Name (Printed/Typed)<br>AFN        | Date<br>2/1/13   |
| Title<br>AFN                                 | Office<br>FFO                      |                  |

Application approval 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.  
Conditions of approval, if any, are attached.

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

(Continued on page 2)

\*(Instructions on page 2)

HOLD C104 FOR N/S

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

Hold C104  
for Directional Survey  
and "As Drilled" plat

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

NMCD  
This action is subject to technical and procedural review pursuant to 43 CFR 3100.5 and appeal pursuant to 43 CFR 3105.4

CONFIDENTIAL

NOTIFY AZTEC OCD 24 HRS.  
PRIOR TO CASING & CEMENT

MAR 06 2013

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

District I  
1625 N. French Drive, Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

District II  
811 S. First Street, Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV  
1220 S. St. Francis Drive, Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 1, 2011

Submit one copy to  
Appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Drive  
Santa Fe, NM 87505

☐ AMENDED REPORT

RCVD FEB 20 '13  
OIL CONS. DIV.

DIST. 3

WELL LOCATION AND ACREAGE DEDICATION PLAT

|                                   |   |                            |
|-----------------------------------|---|----------------------------|
| *API Number<br><b>30045-35442</b> | *Pool Code<br>97232                           | *Pool Name<br>BASIN MANCOS |
| *Property Code<br><b>39759</b>    | *Property Name<br>GOOD TIMES L10-2410         | *Well Number<br>01H        |
| *OGRID No.<br>282327              | *Operator Name<br>ENCANA OIL & GAS (USA) INC. | *Elevation<br>6896'        |

<sup>10</sup> Surface Location

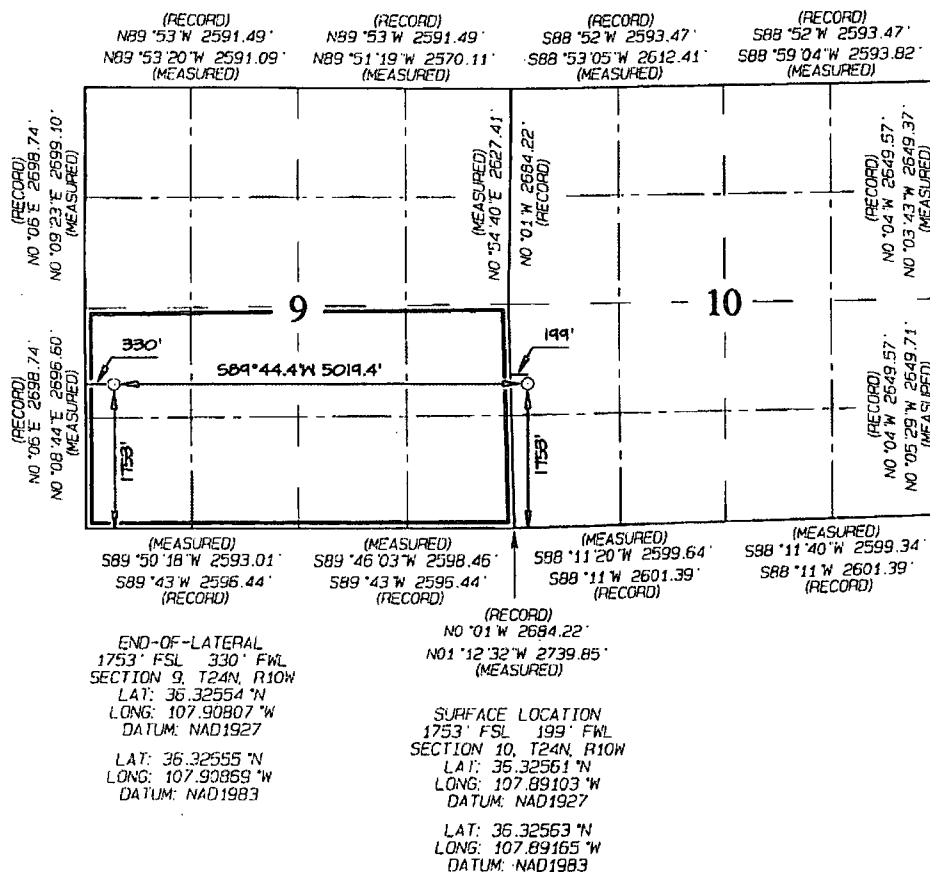
| UL or Lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County   |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| L             | 10      | 24N      | 10W   |         | 1753          | SOUTH            | 199           | WEST           | SAN JUAN |

<sup>11</sup> Bottom Hole Location If Different From Surface

| UL or Lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County   |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| L             | 9       | 24N      | 10W   |         | 1753          | SOUTH            | 330           | WEST           | SAN JUAN |

|   |                               |                                  |                         |
|---|-------------------------------|----------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br>320.0 Acres<br>S/2 - Section 9 | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> Order No. |
|---|-------------------------------|----------------------------------|-------------------------|

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE  
BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Robynn Haden* 2/14/13  
Signature Date  
Robynn Haden

Printed Name  
robynn.haden@encana.com

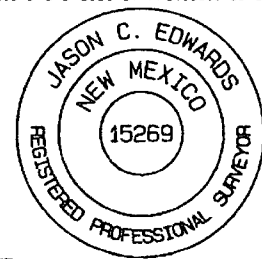
E-mail Address

<sup>18</sup> SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Survey Date: OCTOBER 10, 2012

Signature and Seal of Professional Surveyor



*Jason C. Edwards*  
Certificate Number 15269

**Directions from the Intersection of US Hwy 550 & US Hwy 64**

**in Bloomfield, NM to Encana Oil & Gas (USA) Inc. Good Times L10-2410 01H**

**1753' FSL & 199' FWL, Section 10, T24N, R10W, N.M.P.M., San Juan County, NM**

**Latitude: 36.32563°N Longitude: 107.89165°W Datum: NAD1983**

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 27.9 miles to State Hwy #57 @ Mile Marker 123.4;

Go right (South-westerly) on State Hwy #57 for 3.2 miles to fork in road;

Go right (Westerly) on County Road #7610 for 0.4 miles to fork in road;

Go left which is straight (Westerly) remaining on County Road #7610 for 2.0 miles to fork in road;

Go left (South-easterly) for 300' to new access on right-hand side of existing roadway which continues for 108' to Encana Good Times L10-2410 01H staked location.

Good Times L10-2410 01H

SHL: NWSW Section 10, T24N, R10W  
1753 FSL and 199 FWL

BHL: NWSW Section 9, T24N, R10W  
1753 FSL and 330 FWL

San Juan County, New Mexico

Lease Number: NMNM 101058

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

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

The estimated tops of important geologic markers are as follows:

| <u>Formation</u> | <u>Depth (TVD)</u> |
|------------------|--------------------|
| Ojo Alamo        | 797'               |
| Kirtland         | 934'               |
| Fruitland Coal   | 1349'              |
| Pictured Cliffs  | 1624'              |
| Lewis            | 1759'              |
| Cliffhouse       | 2374'              |
| Menefee          | 3124'              |
| Point Lookout    | 4053'              |
| Mancos           | 4242'              |
| Gallup           | 5059'              |

The referenced surface elevation is 6896', KB 6909'

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

| <u>Substance</u> | <u>Formation</u> | <u>Depth (TVD)</u> |
|------------------|------------------|--------------------|
| Water            | Ojo Alamo        | 797'               |
| Gas              | Fruitland Coal   | 1349'              |
| Gas              | Pictured Cliffs  | 1624'              |
| Gas              | Cliffhouse       | 2374'              |
| Gas              | Point Lookout    | 4053'              |
| Oil/Gas          | Mancos           | 4242'              |

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

### 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.

Good Times L10-2410 01H

SHL: NWSW Section 10, T24N, R10W  
1753 FSL and 199 FWL

BHL: NWSW Section 9, T24N, R10W  
1753 FSL and 330 FWL

San Juan County, New Mexico

Lease Number: NMNM 101058

- 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          | Hole Size | Csg Size | Weight | Grade         |
|------------------|----------------|-----------|----------|--------|---------------|
| Conductor        | 0-60'          | 30"       | 20"      | 94#    | H40, STC New  |
| Surface          | 0'-500'        | 12 1/4"   | 9 5/8"   | 36#    | J55, STC New  |
| Intermediate     | 0'-5450'MD     | 8 1/2"    | 7"       | 26#    | J55, LTC New  |
| Production Liner | 5250'-10040'MD | 6 1/8"    | 4 1/2"   | 11.6#  | B80*, LTC New |

| Casing String |                |       |            | Casing Strength Properties |             |                  | Minimum Design Factors |       |         |
|---------------|----------------|-------|------------|----------------------------|-------------|------------------|------------------------|-------|---------|
| Size          | Weight (lb/ft) | Grade | Connection | Collapse (psi)             | Burst (psi) | Tensile (1000lb) | 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 1/2"        | 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.

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:

Top plugs shall be used to reduce contamination of cement by displacement fluid. A bottom plug or other acceptable technique, such as a pre-flush fluid, inner string cement method, etc. shall be utilized to help isolate the cement from contamination by the mud fluid being displaced ahead of the cement slurry.

Good Times L10-2410 01H

SHL: NWSW Section 10, T24N, R10W  
1753 FSL and 199 FWL

BHL: NWSW Section 9, T24N, R10W  
1753 FSL and 330 FWL

San Juan County, New Mexico

Lease Number: NMNM 101058

| Casing               | Depth                | Cement Volume (sacks)   | Cement Type&Yield  | Designed TOC | Centralizers  |
|----------------------|----------------------|---|--|--------------|---|
| Conductor            | 60'                  | 100sk   | Type I Neat<br>14.8ppg   | Surface      | None  |
| Surface              | 500'                 | 178sk   | Type III Cement +<br>1% CaCl +<br>0.25lb/sk Cello<br>Flake + 0.2% FL,<br>14.6ppg, 1.38cuf/sk   | Surface      | 1 turbolizer per<br>joint on bottom 3<br>joints                                 |
| Intermediate         | 5249'TVD/<br>5450'MD | 30% open<br>hole excess<br>Stage 1 Lead:<br>209sk<br>Stage 1 Tail:<br>144sk<br>Stage 2 Lead:<br>124sk | <b>Lead</b> (Stages 1<br>and 2): PremLite +<br>3% CaCl +<br>0.25lb/sk<br>CelloFlake + 5lb/sk<br>LCM, 12.1ppg<br>2.13cuf/sk<br><b>Tail</b> (Stage 1):<br>Type III Cmt + 1%<br>CaCl + 0.25lb/sk<br>Cello Flake<br>14.5ppg 1.38cuf/sk | Surface      | 1 per joint for<br>bottom 3 joints, 1<br>every 3 joints for<br>remaining joints |
| Production<br>Liner* | 5250'MD-<br>10040'MD | None –<br>External<br>casing<br>packers   | N/A  | N/A          | N/A   |

\*Production liner clarification: Utilizing external swell casing packer system for zonal isolation will not use cement in the production liner.

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 adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

## 5. WELL PLAN & DIRECTIONAL DRILLING PROGRAM

The proposed well will be drilled in two phases. A pilot hole will be drilled in the first phase, followed by kicking off a horizontal lateral in the existing wellbore in the second phase. The intent of drilling a pilot hole is to obtain open hole log data. The intent of the second phase of the well is to plug back the pilot hole with cement to the kick off point. After plugging back, the plan is to drill a horizontal lateral from the kick off point in the existing wellbore to the proposed bottom hole location.

Directional plans are attached.

| Well Phase | Description         | Proposed Depth (TVD/MD) | Formation |
|------------|---------------------|-------------------------|-----------|
| 1          | Vertical Pilot Hole | 5572'/5572'             | Gallup    |
| 2          | Horizontal Lateral  | 5228'/10040'            | Gallup    |

Good Times L10-2410 01H

SHL: NWSW Section 10, T24N, R10W  
1753 FSL and 199 FWL

BHL: NWSW Section 9, T24N, R10W  
1753 FSL and 330 FWL

San Juan County, New Mexico

Lease Number: NMNM 101058

**Proposed Plug Back Procedure:**

KOP 4694'

Set kick plug at KOP

1. Spot 400' kick plug from 4494' – 4894'
  - a. 167sx of Class G cement with salt (0.94ft<sup>3</sup>/sk yield, 17.5ppg)
  - b. Spot tuned spacer
2. Pull uphole and reverse out
3. Pump bottoms up 2 times, pull uphole
4. Tag plug, drill ahead to KOP when cement is solid

**6. DRILLING FLUIDS PROGRAM**

a) Vertical Pilot Hole:

| Hole Size (in) | TVD (ft)  | Mud Type            | Density (lb/gal) | Viscosity (sec/qt) | Fluid Loss (cc) |
|----------------|-----------|---------------------|------------------|--------------------|-----------------|
| 30"            | 0-60'     | Fresh Water         | 8.3-9.2          | 38-100             | 4-28            |
| 12 1/4"        | 0-500'    | Fresh Water         | 8.4-8.6          | 60-70              | NC              |
| 8 1/2"         | 500-5572' | Fresh Water<br>LSND | 8.5-8.8          | 40-50              | 8-10            |

b) Kick off Point to Intermediate Casing Point:

| Hole Size (in) | TVD (ft)                        | Mud Type            | Density (lb/gal) | Viscosity (sec/qt) | Fluid Loss (cc) |
|----------------|---------------------------------|---------------------|------------------|--------------------|-----------------|
| 8 1/2"         | 4694' (KOP)-<br>5249' (5450'MD) | Fresh Water<br>LSND | 8.5-8.8          | 40-50              | 8-10            |

c) Intermediate Casing Point to TD:

| Hole Size (in) | Depth (ft)           | Mud Type                   | Density (lb/gal) | Viscosity (sec/qt) | Fluid Loss (cc) |
|----------------|----------------------|----------------------------|------------------|--------------------|-----------------|
| 6 1/8"         | 5450'MD-<br>10040'MD | Synthetic Oil<br>Based Mud | 8.6-9.0          | 15-25              | <15             |

- d) 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.
- e) 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, including fresh water and oil-based operations. 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.

Good Times L10-2410 01H

SHL: NWSW Section 10, T24N, R10W  
1753 FSL and 199 FWL

BHL: NWSW Section 9, T24N, R10W  
1753 FSL and 330 FWL

San Juan County, New Mexico

Lease Number: NMNM 101058

## **7. TESTING, CORING and LOGGING**

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

Open Hole:

Triple combo with Spectral Gamma TD to surface casing

Specialty logs will be decided real time by onsite geologists

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 +/- 2,608 psi based on a 9.0 ppg at 5572' TVD of the vertical pilot hole. No abnormal pressure or temperatures are anticipated.

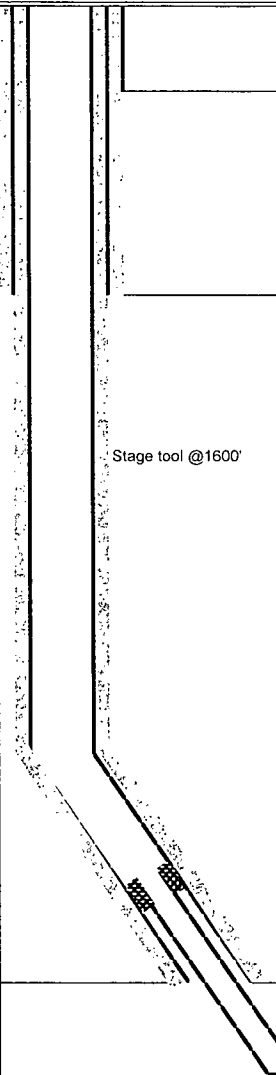
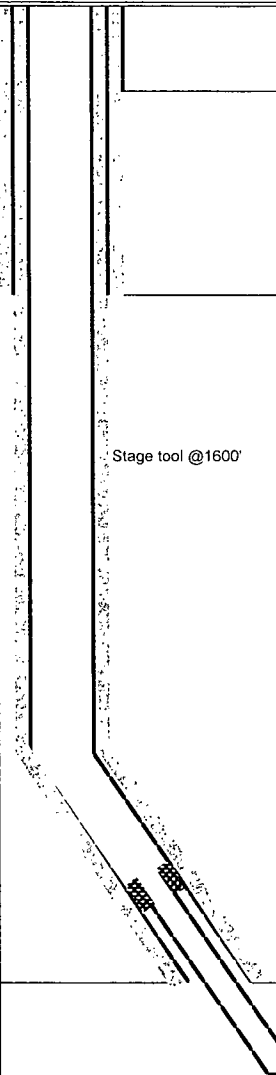
No hydrogen sulfide gas is anticipated, however, if H<sub>2</sub>S is encountered, the guidelines in Onshore Order No. 6 will be followed.

## **9. ANTICIPATED START DATE AND DURATION OF OPERATIONS**

Drilling is estimated to commence on November 18, 2013. 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.

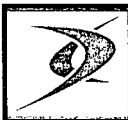
It is anticipated that the drilling of this well will take approximately 25 days.



| LOC: Sec 10-T24N-R10W<br>County: San Juan<br>WELL: Good Times L10-2410 01H |  |  | Encana Natural Gas<br><br>WELL SUMMARY |      |  | <div>encana™</div> <div>natural gas</div> |  | ENG: J. Fox/ A. 11/29/12<br>RIG:<br>GLE: 6896<br>RKBE: 6909 |  |
|--|--|--|--|------|--|---|--|---|--|
| MWD<br>LWD   | OPEN HOLE<br>LOGGING   | FORM   | DEPTH                                  |      |  | HOLE<br>SIZE                              | CASING<br>SPECS  | MW<br>MUD TYPE  | DEVIATION<br>INFORMATION                   |
|  |  |  | TVD                                    | MD   |  |   |  |   |  |
|  |  |  | 60                                     | 60'  |  | 30  | 20" 94#<br>100sx Type I Neat 48.8ppg cmt   | Fresh wtr<br>8.3-9.2  |  |
| Surveys<br>After csg is run  | None   |  |  |      |  | 12 1/4                                    | 9 5/8" 36ppf J55 STC<br><br>TOC @ surface<br>178 sks Type III Cmt  | Fresh wtr<br>8.4-8.6  | Vertical<br><1°                            |
| Surveys<br>every 500'  | No OH logs<br><br><br><br><br><br><br><br><br><br>Mud logger<br>onsite | Ojo Alamo<br>Kirtland  | 797<br>934                             | 5450 |  | 8 1/2                                     | 7" 26ppf J55 LTC<br><br><br>TOC @ surface<br>30% OH excess: 477 sks Total<br>Stage 1 Lead: 209 sks<br>Stage 1 Tail: 144 sks<br>Stage 2 Lead: 124 sks                               | Fresh Wtr<br>8.5-8.8  | Vertical<br><1°                            |
|  |  | Fruiland Coal  | 1349                                   |      |  |   |  |   |  |
|  |  | Pictured Cliffs Ss<br>Lewis Shale                            | 1624<br>1759                           |      |  |   |  |   |  |
|  |  | Cliffhouse Ss<br>Menefee Fn<br>Point Lookout Ss<br>Mancos Sh | 2374<br>3124<br>4053<br>4242           |      |  |   |  |   |  |
|  |  | KICK OFF PT  | 4694                                   |      |  |   |  |   |  |
|  |  | Mancos Silt  | 4826                                   |      |  |   |  |   |  |
|  |  | Gallup Top   | 5059                                   |      |  |   |  |   | KOP<br>4694<br>10 deg/100'                 |
|  |  |  | 5249                                   |      |  |   |  |   |  |
| Surveys<br>every 500'<br>Gyro<br>at CP<br>MWD<br>Gamma<br>Directional      | No OH Logs   | horz target  | 5267                                   | 5599 |  | 6 1/8                                     | 200' overlap at liner top  |   | .25deg updip<br>5228'TVD<br>TD = 10040' MD |
|  |  | Base Gallup  | 5372                                   |      |  |   |  |   |  |
|  |  | Pilot Hole TD  | 5572                                   |      |  |   |  |   |  |
|  |  |  |  |      |  |   | 4440' Lateral  | 8.6-9.0 OBM   |  |
|  |  |  |  |      |  |   | 4 1/2" 11.6ppf SB80 LTC<br><br>Running external swellable csg packers for<br>isolation of prod string<br><br>Plan on setting top packer within 100' of<br>intermediate casing shoe | Switch to OBM<br>8.6-9.0                                    |  |

**NOTES:**

- 1) Drill with 30" bit to 60', set 20" 94# conductor pipe
- 2) Drill surface to 500', R&C 9 5/8" casing
- 3) N/U BOP and surface equipment
- 4) Drill to pilot hole TD of 5572' and run OH logs.
- 5) Spot cement kick plug
- 6) Kick off at 4694' and start curve at 10deg/100' build rate
- 7) Drill to casing point of 5450' MD
- 8) R&C 7" casing, circ cmt to surface, switch to OBM
- 9) Land at 90deg, drill 4440' lateral to 10040', run 4 1/2" liner with external swellable csg packers



## Boomerang Tube LLC

### CASING (OR) TUBING DESCRIPTION AND PERFORMANCE PROPERTIES

|  |       |                 |
|--|-------|-----------------|
| Pipe Outside Diameter (ins)              | _____ | 4.500           |
| Pipe Wall Thickness (ins)                | _____ | 0.250           |
| Nominal Weight Per Foot (lbs)            | _____ | 11.60           |
| Thread Name                              | _____ | Long Thread CSG |
| Grade Name                               | _____ | SB-80           |
| Pipe Minimum Yield (psi)                 | _____ | 80,000          |
| Pipe Minimum Ultimate (psi)              | _____ | 90,000          |
| Coupling Minimum Yield (psi)             | _____ | 80,000          |
| Coupling Minimum Ultimate (psi)          | _____ | 100,000         |
| Coupling or Joint Outside Diameter (ins) | _____ | 5.000           |
| Drift Diameter (ins)                     | _____ | 3.875           |
| Plain End Weight per Foot (lbs)          | _____ | 11.36           |
| Joint Strength (lbs)                     | _____ | 201,000         |
| Internal Yield (psi)                     | _____ | 7,780           |
| Collapse Rating (psi)                    | _____ | 6,350           |

### MAXIMUM DEPTH/LENGTH BASED ON MUD WTS & SAFETY FACTORS

|                                       |       |        |
|---------------------------------------|-------|--------|
| Drilling Mud Weight (ppg)             | _____ | 9.625  |
| Tension Safety Factor                 | _____ | 1.80   |
| Maximum Tension Length (ft)           | _____ | 9,630  |
| Internal Yield Safety Factor          | _____ | 1.10   |
| Maximum Depth for Internal Yield (ft) | _____ | 14,150 |
| Collapse Safety Factor                | _____ | 1.125  |
| Maximum Collapse Depth (ft)           | _____ | 11,290 |

### API RELATED VALUES and INTERMEDIATE CALCULATION RESULTS

|  |       |         |
|--|-------|---------|
| Coupling Thread Fracture Strength          | _____ | 464,000 |
| Pipe Thread Fracture Strength (lbs)        | _____ | 201,000 |
| Pipe Body Plain End Yield (lbs)            | _____ | 267,000 |
| Round Thread Pull-Out (lbs)                | _____ | 219,000 |
| Minimum Make-up Torque (ft-lbs)            | _____ | 1,640   |
| Nominal Make-up Torque (ft-lbs)            | _____ | 2,190   |
| Maximum Make-up Torque (ft-lbs)            | _____ | 2,740   |
| Coupling Internal Yield (psi)              | _____ | 10,660  |
| Pipe Body Internal Yield (psi)             | _____ | 7,780   |
| Leak @ E1 or E7 plane (psi)                | _____ | 17,920  |
| Pipe Hydrostatic Test Pressure @ 80 % SMYS | _____ | 7,100   |



# Cathedral Energy Services

## Planning Report

|                  |                             |                                     |  |
|------------------|-----------------------------|-------------------------------------|--|
| <b>Database:</b> | USA EDM 5000 Multi Users DB | <b>Local Co-ordinate Reference:</b> | Well Good Times L10-2410 01H           |
| <b>Company:</b>  | EnCana Oil & Gas (USA) Inc  | <b>TVD Reference:</b>               | 13' KB @ 6909.0ft (Original Well Elev) |
| <b>Project:</b>  | San Juan County, NM         | <b>MD Reference:</b>                | 13' KB @ 6909.0ft (Original Well Elev) |
| <b>Site:</b>     | S10-T24N-R10W (Good Times)  | <b>North Reference:</b>             | True                                   |
| <b>Well:</b>     | Good Times L10-2410 01H     | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Wellbore:</b> | HZ                          |                                     |  |
| <b>Design:</b>   | Plan #2                     |                                     |  |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | San Juan 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 Western Zone   |                      |                |

|                       |          |                            |                 |                   |             |
|-----------------------|----------|----------------------------|-----------------|-------------------|-------------|
| Site                  |          | S10-T24N-R10W (Good Times) |                 |                   |             |
| Site Position:        |          | Northing:                  | 1,937,831.40 ft | Latitude:         | 36.325610   |
| From:                 | Lat/Long | Easting:                   | 2,706,101.56 ft | Longitude:        | -107.891030 |
| Position Uncertainty: | 0.0 ft   | Slot Radius:               | 13.200 in       | Grid Convergence: | -0.03 °     |

|                      |                         |        |                     |                 |               |             |
|----------------------|-------------------------|--------|---------------------|-----------------|---------------|-------------|
| Well                 | Good Times L10-2410 01H |        |                     |                 |               |             |
| Well Position        | +N/-S                   | 0.0 ft | Northing:           | 1,937,838.79 ft | Latitude:     | 36.325630   |
|                      | +E/-W                   | 0.0 ft | Easting:            | 2,705,918.94 ft | Longitude:    | -107.891650 |
| Position Uncertainty |                         | 0.0 ft | Wellhead Elevation: | ft              | Ground Level: | 6,896.0 ft  |

|                  |                   |                    |                            |                          |                                |
|------------------|-------------------|--------------------|----------------------------|--------------------------|--------------------------------|
| <b>Wellbore</b>  | HZ                |                    |                            |                          |                                |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination<br/>(°)</b> | <b>Dip Angle<br/>(°)</b> | <b>Field Strength<br/>(nT)</b> |
|                  | IGRF2010          | 11/8/2012          | 9.73                       | 63.05                    | 50,337                         |

|                          |                                  |                       |                       |                          |
|--------------------------|----------------------------------|-----------------------|-----------------------|--------------------------|
| <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)<br/>(ft)</b> | <b>+N/-S<br/>(ft)</b> | <b>+E/-W<br/>(ft)</b> | <b>Direction<br/>(°)</b> |
|                          | 0.0                              | 0.0                   | 0.0                   | 269.67                   |

| Plan Sections             |                    |                |                           |               |               |                             |                            |                           |            |                  |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|----------------------------|---------------------------|------------|------------------|
| Measured<br>Depth<br>(ft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Dogleg<br>Rate<br>(°/100ft) | Build<br>Rate<br>(°/100ft) | Turn<br>Rate<br>(°/100ft) | TFO<br>(°) | Target           |
| 0.0                       | 0.00               | 0.00           | 0.0                       | 0.0           | 0.0           | 0.00                        | 0.00                       | 0.00                      | 0.00       |                  |
| 4,694.0                   | 0.00               | 0.00           | 4,694.0                   | 0.0           | 0.0           | 0.00                        | 0.00                       | 0.00                      | 0.00       |                  |
| 5,599.0                   | 90.50              | 269.67         | 5,267.0                   | -3.3          | -577.9        | 10.00                       | 10.00                      | 0.00                      | 269.67     |                  |
| 10,040.7                  | 90.50              | 269.67         | 5,228.2                   | -28.7         | -5,019.4      | 0.00                        | 0.00                       | 0.00                      | 0.00       | L10-2410 01H BHL |

# Cathedral Energy Services

## Planning Report

|  |  |
|--|--|
| <b>Database:</b> USA EDM 5000 Multi Users DB | <b>Local Co-ordinate Reference:</b> Well Good Times L10-2410 01H |
| <b>Company:</b> EnCana Oil & Gas (USA) Inc   | <b>TVD Reference:</b> 13' KB @ 6909.0ft (Original Well Elev)     |
| <b>Project:</b> San Juan County, NM          | <b>MD Reference:</b> 13' KB @ 6909.0ft (Original Well Elev)      |
| <b>Site:</b> S10-T24N-R10W (Good Times)      | <b>North Reference:</b> True                                     |
| <b>Well:</b> Good Times L10-2410 01H         | <b>Survey Calculation Method:</b> Minimum Curvature              |
| <b>Wellbore:</b> HZ                          |  |
| <b>Design:</b> 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                 |                       |
| 797.0               | 0.00            | 0.00        | 797.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Ojo Alamo Ss.         |
| 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                 |                       |
| 934.0               | 0.00            | 0.00        | 934.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Kirtland Shale        |
| 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                 |                       |
| 1,349.0             | 0.00            | 0.00        | 1,349.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Fruitland Coal        |
| 1,400.0             | 0.00            | 0.00        | 1,400.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 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                 |                       |
| 1,624.0             | 0.00            | 0.00        | 1,624.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Pictured Cliffs Ss.   |
| 1,700.0             | 0.00            | 0.00        | 1,700.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 1,759.0             | 0.00            | 0.00        | 1,759.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Lewis Shale           |
| 1,800.0             | 0.00            | 0.00        | 1,800.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 1,900.0             | 0.00            | 0.00        | 1,900.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 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                 |                       |
| 2,374.0             | 0.00            | 0.00        | 2,374.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Cliffhouse Ss.        |
| 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                 |                       |
| 2,700.0             | 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                 |                       |
| 3,124.0             | 0.00            | 0.00        | 3,124.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Menefee Fn.           |
| 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                 |                       |
| 3,400.0             | 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                 |                       |
| 4,053.0             | 0.00            | 0.00        | 4,053.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Point Lookout Ss.     |
| 4,100.0             | 0.00            | 0.00        | 4,100.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 4,200.0             | 0.00            | 0.00        | 4,200.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 4,242.0             | 0.00            | 0.00        | 4,242.0             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | Mancos Shale          |

# Cathedral Energy Services

## Planning Report

|   |  |  |
|---|--|--|
| <b>Database:</b> USA EDM 5000 Multi Users DB<br><b>Company:</b> EnCana Oil & Gas (USA) Inc<br><b>Project:</b> San Juan County, NM<br><b>Site:</b> S10-T24N-R10W (Good Times)<br><b>Well:</b> Good Times L10-2410 01H<br><b>Wellbore:</b> HZ<br><b>Design:</b> Plan #2 | <b>Local Co-ordinate Reference:</b> Well Good Times L10-2410 01H<br><b>TVD Reference:</b> 13' KB @ 6909.0ft (Original Well Elev)<br><b>MD Reference:</b> 13' KB @ 6909.0ft (Original Well Elev)<br><b>North Reference:</b> True<br><b>Survey Calculation Method:</b> Minimum Curvature |  |
|---|--|--|

### Planned Survey

| Measured<br>Depth<br>(ft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Vertical<br>Section<br>(ft) | Dogleg<br>Rate<br>(°/100ft) | Build<br>Rate<br>(°/100ft) | Comments /<br>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                       |                          |
| 4,500.0                   | 0.00               | 0.00           | 4,500.0                   | 0.0           | 0.0           | 0.0                         | 0.00                        | 0.00                       |                          |
| 4,600.0                   | 0.00               | 0.00           | 4,600.0                   | 0.0           | 0.0           | 0.0                         | 0.00                        | 0.00                       |                          |
| 4,694.0                   | 0.00               | 0.00           | 4,694.0                   | 0.0           | 0.0           | 0.0                         | 0.00                        | 0.00                       | KOP @ 4694' MD           |
| 4,700.0                   | 0.60               | 269.67         | 4,700.0                   | 0.0           | 0.0           | 0.0                         | 10.00                       | 10.00                      |                          |
| 4,800.0                   | 10.60              | 269.67         | 4,799.4                   | -0.1          | -9.8          | 9.8                         | 10.00                       | 10.00                      |                          |
| 4,827.1                   | 13.30              | 269.67         | 4,825.9                   | -0.1          | -15.4         | 15.4                        | 10.00                       | 10.00                      | Mancos Silt              |
| 4,900.0                   | 20.60              | 269.67         | 4,895.6                   | -0.2          | -36.6         | 36.6                        | 10.00                       | 10.00                      |                          |
| 5,000.0                   | 30.60              | 269.67         | 4,985.7                   | -0.5          | -79.8         | 79.8                        | 10.00                       | 10.00                      |                          |
| 5,088.2                   | 39.42              | 269.67         | 5,057.9                   | -0.7          | -130.4        | 130.4                       | 10.00                       | 10.00                      | Gallup Fn.               |
| 5,100.0                   | 40.60              | 269.67         | 5,066.9                   | -0.8          | -137.9        | 137.9                       | 10.00                       | 10.00                      |                          |
| 5,200.0                   | 50.60              | 269.67         | 5,136.7                   | -1.2          | -209.3        | 209.3                       | 10.00                       | 10.00                      |                          |
| 5,300.0                   | 60.60              | 269.67         | 5,193.2                   | -1.7          | -291.7        | 291.7                       | 10.00                       | 10.00                      |                          |
| 5,400.0                   | 70.60              | 269.67         | 5,234.4                   | -2.2          | -382.6        | 382.6                       | 10.00                       | 10.00                      |                          |
| 5,454.0                   | 76.00              | 269.67         | 5,249.9                   | -2.5          | -434.3        | 434.3                       | 10.00                       | 10.00                      | 7" Casing Setting Depth" |
| 5,500.0                   | 80.60              | 269.67         | 5,259.3                   | -2.7          | -479.4        | 479.4                       | 10.00                       | 10.00                      |                          |
| 5,599.0                   | 90.50              | 269.67         | 5,267.0                   | -3.3          | -577.9        | 578.0                       | 10.00                       | 10.00                      | LP @ 5599' MD            |
| 5,600.0                   | 90.50              | 269.67         | 5,266.9                   | -3.3          | -578.9        | 578.9                       | 0.00                        | 0.00                       |                          |
| 5,700.0                   | 90.50              | 269.67         | 5,266.1                   | -3.9          | -678.9        | 678.9                       | 0.00                        | 0.00                       |                          |
| 5,800.0                   | 90.50              | 269.67         | 5,265.2                   | -4.5          | -778.9        | 778.9                       | 0.00                        | 0.00                       |                          |
| 5,900.0                   | 90.50              | 269.67         | 5,264.3                   | -5.0          | -878.9        | 878.9                       | 0.00                        | 0.00                       |                          |
| 6,000.0                   | 90.50              | 269.67         | 5,263.5                   | -5.6          | -978.9        | 978.9                       | 0.00                        | 0.00                       |                          |
| 6,100.0                   | 90.50              | 269.67         | 5,262.6                   | -6.2          | -1,078.9      | 1,078.9                     | 0.00                        | 0.00                       |                          |
| 6,200.0                   | 90.50              | 269.67         | 5,261.7                   | -6.7          | -1,178.9      | 1,178.9                     | 0.00                        | 0.00                       |                          |
| 6,300.0                   | 90.50              | 269.67         | 5,260.8                   | -7.3          | -1,278.9      | 1,278.9                     | 0.00                        | 0.00                       |                          |
| 6,400.0                   | 90.50              | 269.67         | 5,260.0                   | -7.9          | -1,378.9      | 1,378.9                     | 0.00                        | 0.00                       |                          |
| 6,500.0                   | 90.50              | 269.67         | 5,259.1                   | -8.5          | -1,478.9      | 1,478.9                     | 0.00                        | 0.00                       |                          |
| 6,600.0                   | 90.50              | 269.67         | 5,258.2                   | -9.0          | -1,578.9      | 1,578.9                     | 0.00                        | 0.00                       |                          |
| 6,700.0                   | 90.50              | 269.67         | 5,257.3                   | -9.6          | -1,678.9      | 1,678.9                     | 0.00                        | 0.00                       |                          |
| 6,800.0                   | 90.50              | 269.67         | 5,256.5                   | -10.2         | -1,778.9      | 1,778.9                     | 0.00                        | 0.00                       |                          |
| 6,900.0                   | 90.50              | 269.67         | 5,255.6                   | -10.7         | -1,878.9      | 1,878.9                     | 0.00                        | 0.00                       |                          |
| 7,000.0                   | 90.50              | 269.67         | 5,254.7                   | -11.3         | -1,978.9      | 1,978.9                     | 0.00                        | 0.00                       |                          |
| 7,100.0                   | 90.50              | 269.67         | 5,253.9                   | -11.9         | -2,078.9      | 2,078.9                     | 0.00                        | 0.00                       |                          |
| 7,200.0                   | 90.50              | 269.67         | 5,253.0                   | -12.4         | -2,178.8      | 2,178.9                     | 0.00                        | 0.00                       |                          |
| 7,300.0                   | 90.50              | 269.67         | 5,252.1                   | -13.0         | -2,278.8      | 2,278.9                     | 0.00                        | 0.00                       |                          |
| 7,400.0                   | 90.50              | 269.67         | 5,251.2                   | -13.6         | -2,378.8      | 2,378.9                     | 0.00                        | 0.00                       |                          |
| 7,500.0                   | 90.50              | 269.67         | 5,250.4                   | -14.2         | -2,478.8      | 2,478.9                     | 0.00                        | 0.00                       |                          |
| 7,600.0                   | 90.50              | 269.67         | 5,249.5                   | -14.7         | -2,578.8      | 2,578.9                     | 0.00                        | 0.00                       |                          |
| 7,700.0                   | 90.50              | 269.67         | 5,248.6                   | -15.3         | -2,678.8      | 2,678.9                     | 0.00                        | 0.00                       |                          |
| 7,800.0                   | 90.50              | 269.67         | 5,247.7                   | -15.9         | -2,778.8      | 2,778.9                     | 0.00                        | 0.00                       |                          |
| 7,900.0                   | 90.50              | 269.67         | 5,246.9                   | -16.4         | -2,878.8      | 2,878.9                     | 0.00                        | 0.00                       |                          |
| 8,000.0                   | 90.50              | 269.67         | 5,246.0                   | -17.0         | -2,978.8      | 2,978.9                     | 0.00                        | 0.00                       |                          |
| 8,100.0                   | 90.50              | 269.67         | 5,245.1                   | -17.6         | -3,078.8      | 3,078.8                     | 0.00                        | 0.00                       |                          |
| 8,200.0                   | 90.50              | 269.67         | 5,244.3                   | -18.2         | -3,178.8      | 3,178.8                     | 0.00                        | 0.00                       |                          |
| 8,300.0                   | 90.50              | 269.67         | 5,243.4                   | -18.7         | -3,278.8      | 3,278.8                     | 0.00                        | 0.00                       |                          |
| 8,400.0                   | 90.50              | 269.67         | 5,242.5                   | -19.3         | -3,378.8      | 3,378.8                     | 0.00                        | 0.00                       |                          |
| 8,500.0                   | 90.50              | 269.67         | 5,241.6                   | -19.9         | -3,478.8      | 3,478.8                     | 0.00                        | 0.00                       |                          |
| 8,600.0                   | 90.50              | 269.67         | 5,240.8                   | -20.4         | -3,578.8      | 3,578.8                     | 0.00                        | 0.00                       |                          |
| 8,700.0                   | 90.50              | 269.67         | 5,239.9                   | -21.0         | -3,678.8      | 3,678.8                     | 0.00                        | 0.00                       |                          |
| 8,800.0                   | 90.50              | 269.67         | 5,239.0                   | -21.6         | -3,778.8      | 3,778.8                     | 0.00                        | 0.00                       |                          |
| 8,900.0                   | 90.50              | 269.67         | 5,238.1                   | -22.2         | -3,878.8      | 3,878.8                     | 0.00                        | 0.00                       |                          |

# Cathedral Energy Services

## Planning Report

|                  |                             |                                     |  |
|------------------|-----------------------------|-------------------------------------|--|
| <b>Database:</b> | USA EDM 5000 Multi Users DB | <b>Local Co-ordinate Reference:</b> | Well Good Times L10-2410 01H           |
| <b>Company:</b>  | EnCana Oil & Gas (USA) Inc  | <b>TVD Reference:</b>               | 13' KB @ 6909.0ft (Original Well Elev) |
| <b>Project:</b>  | San Juan County, NM         | <b>MD Reference:</b>                | 13' KB @ 6909.0ft (Original Well Elev) |
| <b>Site:</b>     | S10-T24N-R10W (Good Times)  | <b>North Reference:</b>             | True                                   |
| <b>Well:</b>     | Good Times L10-2410 01H     | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Wellbore:</b> | HZ                          |                                     |  |
| <b>Design:</b>   | 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           | 269.67      | 5,237.3             | -22.7      | -3,978.7   | 3,978.8               | 0.00                  | 0.00                 |                       |
| 9,100.0             | 90.50           | 269.67      | 5,236.4             | -23.3      | -4,078.7   | 4,078.8               | 0.00                  | 0.00                 |                       |
| 9,200.0             | 90.50           | 269.67      | 5,235.5             | -23.9      | -4,178.7   | 4,178.8               | 0.00                  | 0.00                 |                       |
| 9,300.0             | 90.50           | 269.67      | 5,234.7             | -24.4      | -4,278.7   | 4,278.8               | 0.00                  | 0.00                 |                       |
| 9,400.0             | 90.50           | 269.67      | 5,233.8             | -25.0      | -4,378.7   | 4,378.8               | 0.00                  | 0.00                 |                       |
| 9,500.0             | 90.50           | 269.67      | 5,232.9             | -25.6      | -4,478.7   | 4,478.8               | 0.00                  | 0.00                 |                       |
| 9,600.0             | 90.50           | 269.67      | 5,232.0             | -26.2      | -4,578.7   | 4,578.8               | 0.00                  | 0.00                 |                       |
| 9,700.0             | 90.50           | 269.67      | 5,231.2             | -26.7      | -4,678.7   | 4,678.8               | 0.00                  | 0.00                 |                       |
| 9,800.0             | 90.50           | 269.67      | 5,230.3             | -27.3      | -4,778.7   | 4,778.8               | 0.00                  | 0.00                 |                       |
| 9,900.0             | 90.50           | 269.67      | 5,229.4             | -27.9      | -4,878.7   | 4,878.8               | 0.00                  | 0.00                 |                       |
| 10,000.0            | 90.50           | 269.67      | 5,228.5             | -28.4      | -4,978.7   | 4,978.8               | 0.00                  | 0.00                 |                       |
| 10,040.7            | 90.50           | 269.67      | 5,228.2             | -28.7      | -5,019.4   | 5,019.5               | 0.00                  | 0.00                 | PBHL @ 10040' MD      |

| Targets          |                           |               |              |          |            |            |               |              |                       |
|------------------|---------------------------|---------------|--------------|----------|------------|------------|---------------|--------------|-----------------------|
| Target Name      | - hit/miss target         | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude Longitude    |
| L10-2410 01H BHL | - plan hits target center | 0.00          | 359.96       | 5,228.2  | -28.7      | -5,019.4   | 1,937,813.14  | 2,700,899.49 | 36.325550 -107.908690 |
|                  | - Point                   |               |              |          |            |            |               |              |                       |

| Casing Points       |                     |                          |                      |                    |  |
|---------------------|---------------------|--------------------------|----------------------|--------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name                     | Casing Diameter (in) | Hole Diameter (in) |  |
| 500.0               | 500.0               | 9 5/8"                   | 9.625                | 12.250             |  |
| 5,454.0             | 5,249.9             | 7" Casing Setting Depth" | 7.000                | 7.500              |  |

| Formations          |                     |                     |           |         |                   |  |
|---------------------|---------------------|---------------------|-----------|---------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name                | Lithology | Dip (°) | Dip Direction (°) |  |
| 797.0               | 797.0               | Ojo Alamo Ss.       |           | -0.50   | 269.67            |  |
| 934.0               | 934.0               | Kirtland Shale      |           | -0.50   | 269.67            |  |
| 1,349.0             | 1,349.0             | Fruitland Coal      |           | -0.50   | 269.67            |  |
| 1,624.0             | 1,624.0             | Pictured Cliffs Ss. |           | -0.50   | 269.67            |  |
| 1,759.0             | 1,759.0             | Lewis Shale         |           | -0.50   | 269.67            |  |
| 2,374.0             | 2,374.0             | Cliffhouse Ss.      |           | -0.50   | 269.67            |  |
| 3,124.0             | 3,124.0             | Menefee Fn.         |           | -0.50   | 269.67            |  |
| 4,053.0             | 4,053.0             | Point Lookout Ss.   |           | -0.50   | 269.67            |  |
| 4,242.0             | 4,242.0             | Mancos Shale        |           | -0.50   | 269.67            |  |
| 4,827.1             | 4,826.0             | Mancos Silt         |           | -0.50   | 269.67            |  |
| 5,088.2             | 5,059.0             | Gallup Fn.          |           | -0.50   | 269.67            |  |

# Cathedral Energy Services

## Planning Report

|                  |                             |                                     |  |
|------------------|-----------------------------|-------------------------------------|--|
| <b>Database:</b> | USA EDM 5000 Multi Users DB | <b>Local Co-ordinate Reference:</b> | Well Good Times L10-2410 01H           |
| <b>Company:</b>  | EnCana Oil & Gas (USA) Inc  | <b>TVD Reference:</b>               | 13' KB @ 6909.0ft (Original Well Elev) |
| <b>Project:</b>  | San Juan County, NM         | <b>MD Reference:</b>                | 13' KB @ 6909.0ft (Original Well Elev) |
| <b>Site:</b>     | S10-T24N-R10W (Good Times)  | <b>North Reference:</b>             | True                                   |
| <b>Well:</b>     | Good Times L10-2410 01H     | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Wellbore:</b> | HZ                          |                                     |  |
| <b>Design:</b>   | Plan #2                     |                                     |  |

### Plan Annotations

| Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Local Coordinates |               | Comment          |
|---------------------------|---------------------------|-------------------|---------------|------------------|
|                           |                           | +N/-S<br>(ft)     | +E/-W<br>(ft) |                  |
| 4,694.0                   | 4,694.0                   | 0.0               | 0.0           | KOP @ 4694' MD   |
| 5,599.0                   | 5,267.0                   | -3.3              | -577.9        | LP @ 5599' MD    |
| 10,040.7                  | 5,228.2                   | -28.7             | -5,019.4      | PBHL @ 10040' MD |





## Boomerang Tube LLC

### CASING (OR) TUBING DESCRIPTION AND PERFORMANCE PROPERTIES

|  |       |                 |
|--|-------|-----------------|
| Pipe Outside Diameter (ins)              | _____ | 4.500           |
| Pipe Wall Thickness (ins)                | _____ | 0.250           |
| Nominal Weight Per Foot (lbs)            | _____ | 11.60           |
| Thread Name                              | _____ | Long Thread CSG |
| Grade Name                               | _____ | SB-80           |
| Pipe Minimum Yield (psi)                 | _____ | 80,000          |
| Pipe Minimum Ultimate (psi)              | _____ | 90,000          |
| Coupling Minimum Yield (psi)             | _____ | 80,000          |
| Coupling Minimum Ultimate (psi)          | _____ | 100,000         |
| Coupling or Joint Outside Diameter (ins) | _____ | 5.000           |
| Drift Diameter (ins)                     | _____ | 3.875           |
| Plain End Weight per Foot (lbs)          | _____ | 11.36           |
| Joint Strength (lbs)                     | _____ | 201,000         |
| Internal Yield (psi)                     | _____ | 7,780           |
| Collapse Rating (psi)                    | _____ | 6,350           |

### MAXIMUM DEPTH/LENGTH BASED ON MUD WTS & SAFETY FACTORS

|                                       |       |        |
|---------------------------------------|-------|--------|
| Drilling Mud Weight (ppg)             | _____ | 9.625  |
| Tension Safety Factor                 | _____ | 1.80   |
| Maximum Tension Length (ft)           | _____ | 9,630  |
| Internal Yield Safety Factor          | _____ | 1.10   |
| Maximum Depth for Internal Yield (ft) | _____ | 14,150 |
| Collapse Safety Factor                | _____ | 1.125  |
| Maximum Collapse Depth (ft)           | _____ | 11,290 |

### API RELATED VALUES and INTERMEDIATE CALCULATION RESULTS

|  |       |         |
|--|-------|---------|
| Coupling Thread Fracture Strength          | _____ | 464,000 |
| Pipe Thread Fracture Strength (lbs)        | _____ | 201,000 |
| Pipe Body Plain End Yield (lbs)            | _____ | 267,000 |
| Round Thread Pull-Out (lbs)                | _____ | 219,000 |
| Minimum Make-up Torque (ft-lbs)            | _____ | 1,640   |
| Nominal Make-up Torque (ft-lbs)            | _____ | 2,190   |
| Maximum Make-up Torque (ft-lbs)            | _____ | 2,740   |
| Coupling Internal Yield (psi)              | _____ | 10,660  |
| Pipe Body Internal Yield (psi)             | _____ | 7,780   |
| Leak @ E1 or E7 plane (psi)                | _____ | 17,920  |
| Pipe Hydrostatic Test Pressure @ 80 % SMYS | _____ | 7,100   |

# WELLHEAD BLOWOUT CONTROL SYSTEM



Well name and number:

Good Times L10-2410 01H

