

WELL	<b>Orchard Unit 15-12H</b>	FIELD	<b>CO, Mesa County</b>	STRUCTURE	<b>14-08S-96W (D14OU Pad)</b>
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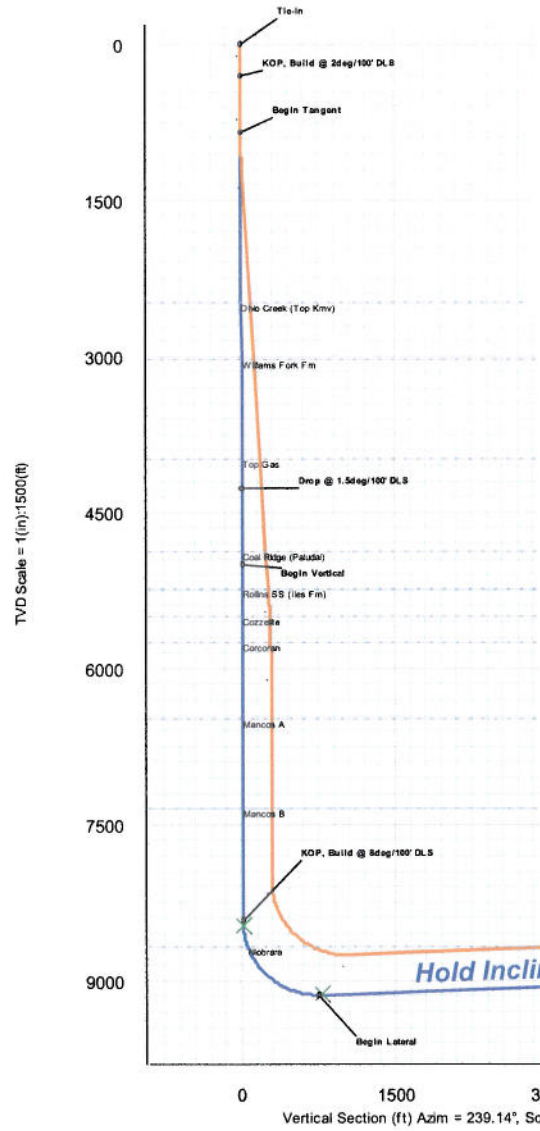
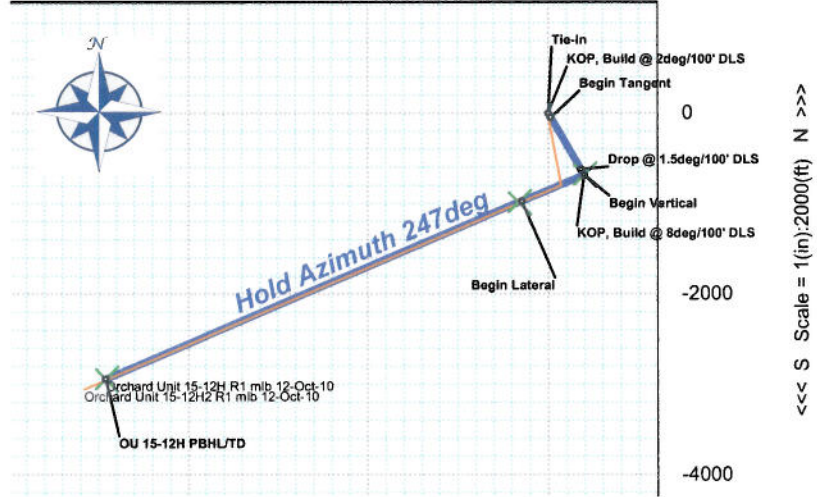
Magnetic Parameters Model: BGM 2010 Dip: 65.650° Mag Dec: 10.466°	Date: October 11, 2010 FS: 52217.9mT	Surface Location Lat: N 39 21 20.318 Lon: W 108 5 3.008	Northings: 14306998.94 RUS Easting: 768545.42 RUS	Grid Conv: -1.95691414° Scale Fact: 1.00046862	Miscellaneous Sht: Orchard Unit 15-12H Plan: R1 mib 12-Oct-10	TVD Ref: RKB(5965ft above MSL) Srvy Date: October 11, 2010
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**Proposal**

<<< W Scale = 1(in):2000(ft) E >>>  
-4000 -2000 0

Grid North  
Tot Corr (M->G 12.4229°)  
Mag Dec (10.466°)  
Grid Conv (-1.95691414°)

Quality Control  
Date Drawn: October 12, 2010  
12:53:36 PM  
Drawn by: Mike Bond  
Checked by:  
Client OK:



Target Name	Shape	Major Axis	N(+)S(-)	Grid Coord E(+)W(-)	TVD	YSec	Local Coord N(+)S(-)	E(+)W(-)
OU 15-12H Landing Point	Point	0.00	14306009.99	768222.74	9135.30	786.51	-988.49	-322.53
OU 15-12H PBHLTD	Point	0.00	14304057.52	763623.02	8960.80	5731.56	-2940.05	-4920.10
OU 15-12H KOP	Point	1.00	14306314.25	768939.54	8473.00	15.90	-684.37	393.94

Critical Point	MD	INCL	AZIM	TVD	YSEC	N(+)S(-)	E(+)W(-)	DLS
Tie-In	0.00	0.00	150.07	0.00	0.00	0.00	0.00	
KOP, Build @ 2deg/100' DLS	300.00	0.00	150.07	300.00	0.00	0.00	0.00	0.00
Begin Tangent	850.95	11.02	150.07	847.56	0.86	-45.77	26.35	2.00
Ohio Creek (Top Kmv)	2524.24	11.02	150.07	2490.00	6.08	-322.96	185.90	0.00
Williams Fork Fm	3083.55	11.02	150.07	3039.00	7.83	-415.61	239.23	0.00
Top Gas	4045.28	11.02	150.07	3983.00	10.83	-574.92	330.93	0.00
Drop @ 1.5deg/100' DLS	4337.59	11.02	150.07	4269.92	11.74	-623.34	358.81	0.00
Coal Ridge (Paludal)	4953.17	1.79	150.07	4881.00	12.86	-682.76	393.01	1.50
Begin Vertical	5072.19	0.00	150.07	5000.00	12.89	-684.37	393.94	1.50
Rollins SS (lies Fm)	5303.19	0.00	150.07	5231.00	12.89	-684.37	393.94	0.00
Cozette	5580.19	0.00	150.07	5508.00	12.89	-684.37	393.94	0.00
Concoan	5821.19	0.00	150.07	5749.00	12.89	-684.37	393.94	0.00
Mancos A	6561.19	0.00	150.07	6489.00	12.89	-684.37	393.94	0.00
Mancos B	7417.19	0.00	150.07	7345.00	12.89	-684.37	393.94	0.00
KOP, Build @ 8deg/100' DLS	8492.94	0.00	150.07	8420.75	12.89	-684.37	393.94	0.00
Niobrara	8755.00	20.96	247.00	8677.00	59.85	-702.89	350.29	8.00
Begin Lateral	9642.94	92.00	247.00	9136.51	747.12	-973.98	-288.34	8.00
OU 15-12H PBHLTD	14677.77	92.00	247.00	8960.80	5731.60	-2940.05	-4920.10	0.00

Vertical Section (ft) Azim = 239.14°, Scale = 1(in):1500(ft) Origin = 0 N/-S, 0 E/-W

Orchard Unit 15-12H R1 mlb 12-Oct-10 Proposal Report

(Non-Def Plan)

Report Date: October 12, 2010 - 01:15 PM  
 Client: EnCana Oil & Gas (USA) Inc.  
 Field: CO, Mesa County (NAD 83 UTM 13) EnCana 2010  
 Structure / Slot: Encana 14-08S-96W (D14OU Pad) / Orchard Unit 15-12H  
 Well: Orchard Unit 15-12H  
 Borehole: Original Hole  
 UWI / API#: Unknown / Unknown  
 Survey Name: Orchard Unit 15-12H R1 mlb 12-Oct-10  
 Survey Date: October 11, 2010  
 Tort / AHD / DDI / ERD Ratio: 114.038 ° / 6562.608 ft / 6.080 / 0.718  
 Grid Coordinate System: NAD83 UTM Zone 13N, US Feet  
 Location Lat / Long: N 39° 21' 20.31839", W 108° 5' 3.00845"  
 Location Grid N/E Y/X: N 14306998.940 RUS, E 768545.420 RUS  
 Grid Convergence Angle: -1.95691414 °  
 Grid Scale Factor: 1.00046962

Survey / DLS Computation: Minimum Curvature / Lubinski  
 Vertical Section Azimuth: 239.139 ° (Grid North)  
 Vertical Section Origin: 0.000 ft, 0.000 ft  
 TVD Reference Datum: RKB  
 TVD Reference Elevation: 5985.000 ft above MSL  
 Seabed / Ground Elevation: 5963.000 ft above MSL  
 Magnetic Declination: 10.466 °  
 Total Field Strength: 52217.902 nT  
 Magnetic Dip Angle: 65.650 °  
 Declination Date: October 11, 2010  
 Magnetic Declination Model: BGGM 2010  
 North Reference: Grid North  
 Grid Correction: -1.957 °  
 Total Corr Mag North->Grid North: 12.423 °  
 Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Tie-In	0.00	0.00	150.07	0.00	0.00	0.00	0.00	N/A	14306998.94	768545.42	N 39 21 20.32	W 108 5 3.01
KOP, Build @ 2deg/100' DLS	300.00	0.00	150.07	300.00	0.00	0.00	0.00	0.00	14306998.94	768545.42	N 39 21 20.32	W 108 5 3.01
Begin Tanpent Ohio Creek (Top Km)	850.95	11.02	150.07	847.56	0.86	-45.77	26.35	2.00	14308953.15	768571.78	N 39 21 19.88	W 108 5 2.65
Williams Fork Fm	2524.24	11.02	150.07	2490.00	6.08	-322.96	185.90	0.00	14306675.83	768731.41	N 39 21 17.19	W 108 5 0.50
	3083.55	11.02	150.07	3039.00	7.83	-415.61	239.23	0.00	14306583.14	768784.76	N 39 21 16.29	W 108 4 59.78
Top Gas	4045.28	11.02	150.07	3983.00	10.83	-574.92	330.93	0.00	14306423.75	768876.51	N 39 21 14.75	W 108 4 58.55
Drop @ 1.5deg/100' DLS	4337.59	11.02	150.07	4269.92	11.74	-623.34	358.81	0.00	14306375.31	768904.39	N 39 21 14.28	W 108 4 58.17
Coal Ridge (Paludal)	4953.17	1.79	150.07	4881.00	12.86	-682.76	393.01	1.50	14306315.86	768938.61	N 39 21 13.71	W 108 4 57.71
Begin Vertical	5072.19	0.00	150.07	5000.00	12.89	-684.37	393.94	1.50	14306314.25	768939.54	N 39 21 13.69	W 108 4 57.70
Rollins SS (lles Fm)	5303.19	0.00	150.07	5231.00	12.89	-684.37	393.94	0.00	14306314.25	768939.54	N 39 21 13.69	W 108 4 57.70
Cozzette	5580.19	0.00	150.07	5508.00	12.89	-684.37	393.94	0.00	14306314.25	768939.54	N 39 21 13.69	W 108 4 57.70
Corcoran	5821.19	0.00	150.07	5749.00	12.89	-684.37	393.94	0.00	14306314.25	768939.54	N 39 21 13.69	W 108 4 57.70
Mancos A	6561.19	0.00	150.07	6489.00	12.89	-684.37	393.94	0.00	14306314.25	768939.54	N 39 21 13.69	W 108 4 57.70
Mancos B	7417.19	0.00	150.07	7345.00	12.89	-684.37	393.94	0.00	14306314.25	768939.54	N 39 21 13.69	W 108 4 57.70
KOP, Build @ 8deg/100' DLS	8492.94	0.00	150.07	8420.75	12.89	-684.37	393.94	0.00	14306314.25	768939.54	N 39 21 13.69	W 108 4 57.70
Niobrara	8755.00	20.96	247.00	8677.00	59.85	-702.89	350.29	8.00	14306295.72	768895.88	N 39 21 13.49	W 108 4 58.25
Begin Lateral	9642.94	92.00	247.00	9136.51	747.12	-973.98	-288.34	8.00	14306024.51	768256.95	N 39 21 10.60	W 108 5 6.25
OU 15-12H PBHLTD	14677.77	92.00	247.00	8960.80	5731.60	-2940.05	-4920.10	0.00	14304057.52	763623.02	N 39 20 49.61	W 108 6 4.32

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 \*\*\* 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

MD From (ft)	MD To (ft)	EOU Freq (ft)	Survey Tool Type	Borehole / Survey
0.000	22.000	1/100.000	SLB_MWD-STD-Depth Only	Original Hole / Orchard Unit 15-12H R1 mlb 12-Oct-10
22.000	14677.774	1/100.000	SLB_MWD-STD	Original Hole / Orchard Unit 15-12H R1 mlb 12-Oct-10