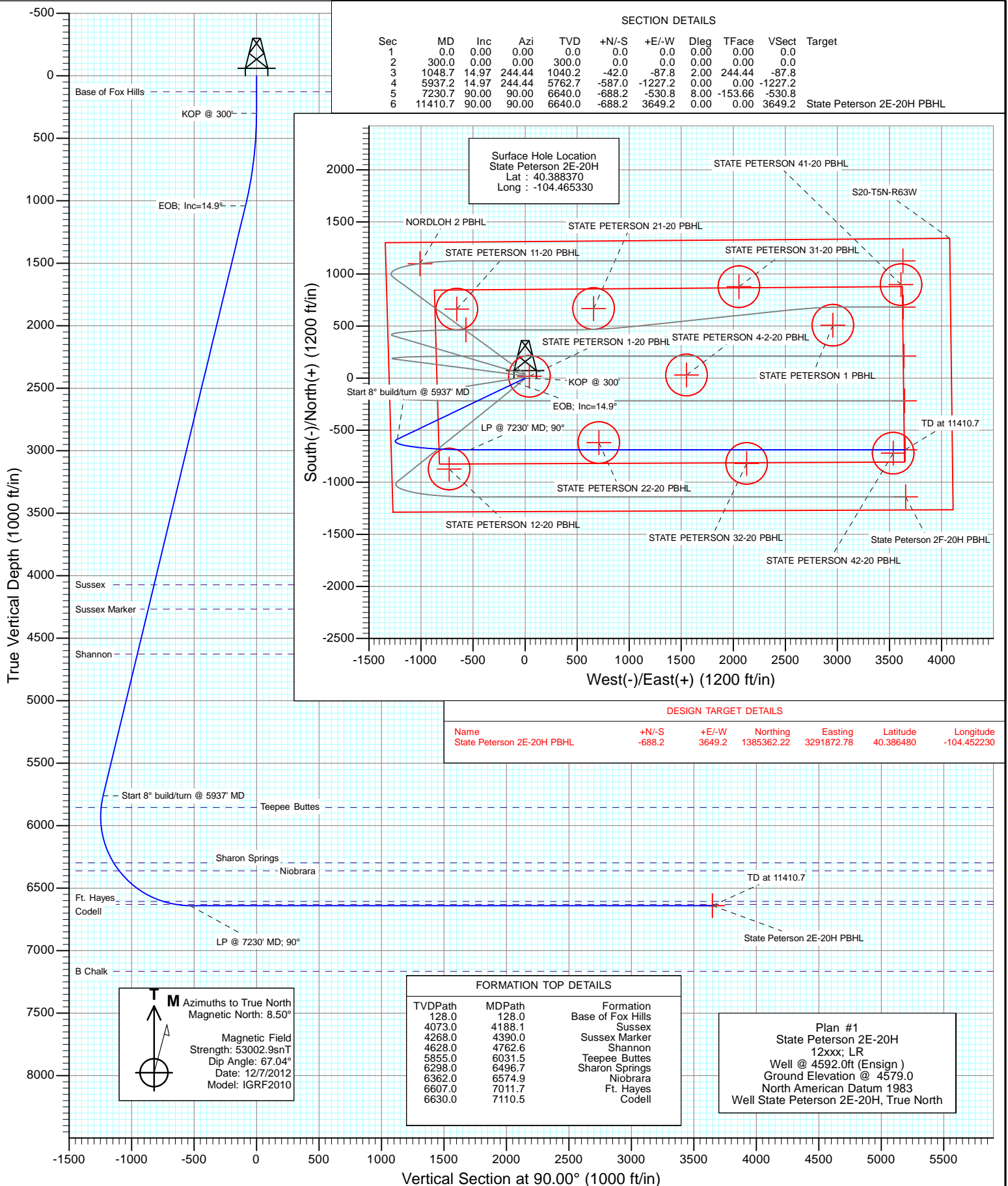




Project: DJ Wattenberg
Site: S20-T5N-R63W (State Peterson)
Well: State Peterson 2E-20H
Wellbore: Hz
Design: Plan #1



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well State Peterson 2E-20H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	Well @ 4592.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	Well @ 4592.0ft (Ensign)
Site:	S20-T5N-R63W (State Peterson)	North Reference:	True
Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Project	DJ Wattenberg		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	S20-T5N-R63W (State Peterson)				
Site Position:		Northing:	1,386,047.92 ft	Latitude:	40.388480
From:	Lat/Long	Easting:	3,288,215.31 ft	Longitude:	-104.465330
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.67 °

Well	State Peterson 2E-20H					
Well Position	+N/-S	0.0 ft	Northing:	1,386,007.83 ft	Latitude:	40.388370
	+E/-W	0.0 ft	Easting:	3,288,215.78 ft	Longitude:	-104.465330
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,579.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/7/2012	8.50	67.04	53,003

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PLAN		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	90.00	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,048.7	14.97	244.44	1,040.2	-42.0	-87.8	2.00	2.00	0.00	244.44	
5,937.2	14.97	244.44	5,762.7	-587.0	-1,227.2	0.00	0.00	0.00	0.00	
7,230.7	90.00	90.00	6,640.0	-688.2	-530.8	8.00	5.80	-11.94	-153.66	
11,410.7	90.00	90.00	6,640.0	-688.2	3,649.2	0.00	0.00	0.00	0.00	State Peterson 2E-20

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well State Peterson 2E-20H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	Well @ 4592.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	Well @ 4592.0ft (Ensign)
Site:	S20-T5N-R63W (State Peterson)	North Reference:	True
Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	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	
128.0	0.00	0.00	128.0	0.0	0.0	0.0	0.00	0.00	Base of Fox Hills
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	KOP @ 300'
400.0	2.00	244.44	400.0	-0.8	-1.6	-1.6	2.00	2.00	
500.0	4.00	244.44	499.8	-3.0	-6.3	-6.3	2.00	2.00	
600.0	6.00	244.44	599.5	-6.8	-14.2	-14.2	2.00	2.00	
700.0	8.00	244.44	698.7	-12.0	-25.2	-25.2	2.00	2.00	
800.0	10.00	244.44	797.5	-18.8	-39.3	-39.3	2.00	2.00	
900.0	12.00	244.44	895.6	-27.0	-56.5	-56.5	2.00	2.00	
1,000.0	14.00	244.44	993.1	-36.7	-76.8	-76.8	2.00	2.00	
1,048.7	14.97	244.44	1,040.2	-42.0	-87.8	-87.8	2.00	2.00	EOB; Inc=14.9°
1,100.0	14.97	244.44	1,089.8	-47.7	-99.7	-99.7	0.00	0.00	
1,200.0	14.97	244.44	1,186.4	-58.8	-123.0	-123.0	0.00	0.00	
1,300.0	14.97	244.44	1,283.0	-70.0	-146.3	-146.3	0.00	0.00	
1,400.0	14.97	244.44	1,379.6	-81.1	-169.6	-169.6	0.00	0.00	
1,500.0	14.97	244.44	1,476.2	-92.3	-193.0	-193.0	0.00	0.00	
1,600.0	14.97	244.44	1,572.8	-103.4	-216.3	-216.3	0.00	0.00	
1,700.0	14.97	244.44	1,669.4	-114.6	-239.6	-239.6	0.00	0.00	
1,800.0	14.97	244.44	1,766.0	-125.7	-262.9	-262.9	0.00	0.00	
1,900.0	14.97	244.44	1,862.6	-136.9	-286.2	-286.2	0.00	0.00	
2,000.0	14.97	244.44	1,959.2	-148.0	-309.5	-309.5	0.00	0.00	
2,100.0	14.97	244.44	2,055.8	-159.2	-332.8	-332.8	0.00	0.00	
2,200.0	14.97	244.44	2,152.4	-170.3	-356.1	-356.1	0.00	0.00	
2,300.0	14.97	244.44	2,249.0	-181.5	-379.4	-379.4	0.00	0.00	
2,400.0	14.97	244.44	2,345.6	-192.6	-402.7	-402.7	0.00	0.00	
2,500.0	14.97	244.44	2,442.2	-203.8	-426.1	-426.1	0.00	0.00	
2,600.0	14.97	244.44	2,538.8	-214.9	-449.4	-449.4	0.00	0.00	
2,700.0	14.97	244.44	2,635.4	-226.1	-472.7	-472.7	0.00	0.00	
2,800.0	14.97	244.44	2,732.0	-237.2	-496.0	-496.0	0.00	0.00	
2,900.0	14.97	244.44	2,828.6	-248.4	-519.3	-519.3	0.00	0.00	
3,000.0	14.97	244.44	2,925.2	-259.5	-542.6	-542.6	0.00	0.00	
3,100.0	14.97	244.44	3,021.8	-270.7	-565.9	-565.9	0.00	0.00	
3,200.0	14.97	244.44	3,118.5	-281.8	-589.2	-589.2	0.00	0.00	
3,300.0	14.97	244.44	3,215.1	-293.0	-612.5	-612.5	0.00	0.00	
3,400.0	14.97	244.44	3,311.7	-304.1	-635.8	-635.8	0.00	0.00	
3,500.0	14.97	244.44	3,408.3	-315.3	-659.1	-659.1	0.00	0.00	
3,600.0	14.97	244.44	3,504.9	-326.4	-682.5	-682.5	0.00	0.00	
3,700.0	14.97	244.44	3,601.5	-337.6	-705.8	-705.8	0.00	0.00	
3,800.0	14.97	244.44	3,698.1	-348.7	-729.1	-729.1	0.00	0.00	
3,900.0	14.97	244.44	3,794.7	-359.9	-752.4	-752.4	0.00	0.00	
4,000.0	14.97	244.44	3,891.3	-371.0	-775.7	-775.7	0.00	0.00	
4,100.0	14.97	244.44	3,987.9	-382.2	-799.0	-799.0	0.00	0.00	
4,188.1	14.97	244.44	4,073.0	-392.0	-819.5	-819.5	0.00	0.00	Sussex
4,200.0	14.97	244.44	4,084.5	-393.3	-822.3	-822.3	0.00	0.00	
4,300.0	14.97	244.44	4,181.1	-404.5	-845.6	-845.6	0.00	0.00	
4,390.0	14.97	244.44	4,268.0	-414.5	-866.6	-866.6	0.00	0.00	Sussex Marker
4,400.0	14.97	244.44	4,277.7	-415.6	-868.9	-868.9	0.00	0.00	
4,500.0	14.97	244.44	4,374.3	-426.8	-892.2	-892.2	0.00	0.00	
4,600.0	14.97	244.44	4,470.9	-437.9	-915.6	-915.6	0.00	0.00	
4,700.0	14.97	244.44	4,567.5	-449.1	-938.9	-938.9	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well State Peterson 2E-20H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	Well @ 4592.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	Well @ 4592.0ft (Ensign)
Site:	S20-T5N-R63W (State Peterson)	North Reference:	True
Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,762.6	14.97	244.44	4,628.0	-456.0	-953.5	-953.5	0.00	0.00	Shannon
4,800.0	14.97	244.44	4,664.1	-460.2	-962.2	-962.2	0.00	0.00	
4,900.0	14.97	244.44	4,760.7	-471.4	-985.5	-985.5	0.00	0.00	
5,000.0	14.97	244.44	4,857.3	-482.5	-1,008.8	-1,008.8	0.00	0.00	
5,100.0	14.97	244.44	4,953.9	-493.7	-1,032.1	-1,032.1	0.00	0.00	
5,200.0	14.97	244.44	5,050.5	-504.8	-1,055.4	-1,055.4	0.00	0.00	
5,300.0	14.97	244.44	5,147.1	-515.9	-1,078.7	-1,078.7	0.00	0.00	
5,400.0	14.97	244.44	5,243.7	-527.1	-1,102.0	-1,102.0	0.00	0.00	
5,500.0	14.97	244.44	5,340.3	-538.2	-1,125.3	-1,125.3	0.00	0.00	
5,600.0	14.97	244.44	5,437.0	-549.4	-1,148.7	-1,148.7	0.00	0.00	
5,700.0	14.97	244.44	5,533.6	-560.5	-1,172.0	-1,172.0	0.00	0.00	
5,800.0	14.97	244.44	5,630.2	-571.7	-1,195.3	-1,195.3	0.00	0.00	
5,900.0	14.97	244.44	5,726.8	-582.8	-1,218.6	-1,218.6	0.00	0.00	
5,937.2	14.97	244.44	5,762.7	-587.0	-1,227.2	-1,227.2	0.00	0.00	Start 8° build/turn @ 5937' MD
6,000.0	10.70	232.36	5,823.9	-594.1	-1,239.2	-1,239.2	8.00	-6.80	
6,031.5	8.85	222.18	5,855.0	-597.6	-1,243.1	-1,243.1	8.00	-5.86	Teepee Buttes
6,100.0	6.60	183.95	5,922.9	-605.5	-1,247.0	-1,247.0	8.00	-3.29	
6,200.0	10.00	130.88	6,022.0	-616.9	-1,240.8	-1,240.8	8.00	3.40	
6,300.0	16.85	112.40	6,119.2	-628.1	-1,220.8	-1,220.8	8.00	6.85	
6,400.0	24.40	104.74	6,212.7	-638.9	-1,187.3	-1,187.3	8.00	7.55	
6,496.7	31.90	100.68	6,298.0	-648.8	-1,142.8	-1,142.8	8.00	7.76	Sharon Springs
6,500.0	32.16	100.58	6,300.8	-649.1	-1,141.1	-1,141.1	8.00	7.81	
6,574.9	38.03	98.49	6,362.0	-656.2	-1,098.7	-1,098.7	8.00	7.84	Niobrara
6,600.0	40.00	97.91	6,381.5	-658.4	-1,083.0	-1,083.0	8.00	7.87	
6,700.0	47.89	95.99	6,453.5	-666.7	-1,014.2	-1,014.2	8.00	7.89	
6,800.0	55.80	94.50	6,515.2	-673.8	-936.0	-936.0	8.00	7.91	
6,900.0	63.73	93.26	6,565.5	-679.6	-849.8	-849.8	8.00	7.93	
7,000.0	71.67	92.19	6,603.4	-684.0	-757.5	-757.5	8.00	7.94	
7,011.7	72.60	92.07	6,607.0	-684.4	-746.4	-746.4	8.00	7.94	Ft. Hayes
7,100.0	79.62	91.21	6,628.2	-686.9	-660.7	-660.7	8.00	7.94	
7,110.5	80.45	91.11	6,630.0	-687.1	-650.4	-650.4	8.00	7.95	Codell
7,200.0	87.56	90.28	6,639.3	-688.2	-561.4	-561.4	8.00	7.95	
7,230.7	90.00	90.00	6,640.0	-688.2	-530.8	-530.8	8.00	7.95	LP @ 7230' MD; 90°
7,300.0	90.00	90.00	6,640.0	-688.2	-461.5	-461.5	0.00	0.00	
7,400.0	90.00	90.00	6,640.0	-688.2	-361.5	-361.5	0.00	0.00	
7,500.0	90.00	90.00	6,640.0	-688.2	-261.5	-261.5	0.00	0.00	
7,600.0	90.00	90.00	6,640.0	-688.2	-161.5	-161.5	0.00	0.00	
7,700.0	90.00	90.00	6,640.0	-688.2	-61.5	-61.5	0.00	0.00	
7,800.0	90.00	90.00	6,640.0	-688.2	38.5	38.5	0.00	0.00	
7,900.0	90.00	90.00	6,640.0	-688.2	138.5	138.5	0.00	0.00	
8,000.0	90.00	90.00	6,640.0	-688.2	238.5	238.5	0.00	0.00	
8,100.0	90.00	90.00	6,640.0	-688.2	338.5	338.5	0.00	0.00	
8,200.0	90.00	90.00	6,640.0	-688.2	438.5	438.5	0.00	0.00	
8,300.0	90.00	90.00	6,640.0	-688.2	538.5	538.5	0.00	0.00	
8,400.0	90.00	90.00	6,640.0	-688.2	638.5	638.5	0.00	0.00	
8,500.0	90.00	90.00	6,640.0	-688.2	738.5	738.5	0.00	0.00	
8,600.0	90.00	90.00	6,640.0	-688.2	838.5	838.5	0.00	0.00	
8,700.0	90.00	90.00	6,640.0	-688.2	938.5	938.5	0.00	0.00	
8,800.0	90.00	90.00	6,640.0	-688.2	1,038.5	1,038.5	0.00	0.00	
8,900.0	90.00	90.00	6,640.0	-688.2	1,138.5	1,138.5	0.00	0.00	
9,000.0	90.00	90.00	6,640.0	-688.2	1,238.5	1,238.5	0.00	0.00	
9,100.0	90.00	90.00	6,640.0	-688.2	1,338.5	1,338.5	0.00	0.00	

Planning Report

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Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	Well @ 4592.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	Well @ 4592.0ft (Ensign)
Site:	S20-T5N-R63W (State Peterson)	North Reference:	True
Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,200.0	90.00	90.00	6,640.0	-688.2	1,438.5	1,438.5	0.00	0.00	
9,300.0	90.00	90.00	6,640.0	-688.2	1,538.5	1,538.5	0.00	0.00	
9,400.0	90.00	90.00	6,640.0	-688.2	1,638.5	1,638.5	0.00	0.00	
9,500.0	90.00	90.00	6,640.0	-688.2	1,738.5	1,738.5	0.00	0.00	
9,600.0	90.00	90.00	6,640.0	-688.2	1,838.5	1,838.5	0.00	0.00	
9,700.0	90.00	90.00	6,640.0	-688.2	1,938.5	1,938.5	0.00	0.00	
9,800.0	90.00	90.00	6,640.0	-688.2	2,038.5	2,038.5	0.00	0.00	
9,900.0	90.00	90.00	6,640.0	-688.2	2,138.5	2,138.5	0.00	0.00	
10,000.0	90.00	90.00	6,640.0	-688.2	2,238.5	2,238.5	0.00	0.00	
10,100.0	90.00	90.00	6,640.0	-688.2	2,338.5	2,338.5	0.00	0.00	
10,200.0	90.00	90.00	6,640.0	-688.2	2,438.5	2,438.5	0.00	0.00	
10,300.0	90.00	90.00	6,640.0	-688.2	2,538.5	2,538.5	0.00	0.00	
10,400.0	90.00	90.00	6,640.0	-688.2	2,638.5	2,638.5	0.00	0.00	
10,500.0	90.00	90.00	6,640.0	-688.2	2,738.5	2,738.5	0.00	0.00	
10,600.0	90.00	90.00	6,640.0	-688.2	2,838.5	2,838.5	0.00	0.00	
10,700.0	90.00	90.00	6,640.0	-688.2	2,938.5	2,938.5	0.00	0.00	
10,800.0	90.00	90.00	6,640.0	-688.2	3,038.5	3,038.5	0.00	0.00	
10,900.0	90.00	90.00	6,640.0	-688.2	3,138.5	3,138.5	0.00	0.00	
11,000.0	90.00	90.00	6,640.0	-688.2	3,238.5	3,238.5	0.00	0.00	
11,100.0	90.00	90.00	6,640.0	-688.2	3,338.5	3,338.5	0.00	0.00	
11,200.0	90.00	90.00	6,640.0	-688.2	3,438.5	3,438.5	0.00	0.00	
11,300.0	90.00	90.00	6,640.0	-688.2	3,538.5	3,538.5	0.00	0.00	
11,400.0	90.00	90.00	6,640.0	-688.2	3,638.5	3,638.5	0.00	0.00	
11,410.7	90.00	90.00	6,640.0	-688.2	3,649.2	3,649.2	0.00	0.00	TD at 11410.7 - State Peterson 2E-20H PBHL

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
State Peterson 2E-20H I	0.00	0.00	6,640.0	-688.2	3,649.2	1,385,362.22	3,291,872.78	40.386480	-104.452230
- plan hits target center									
- Point									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
128.0	128.0	Base of Fox Hills			
4,188.1	4,073.0	Sussex			
4,390.0	4,268.0	Sussex Marker			
4,762.6	4,628.0	Shannon			
6,031.5	5,855.0	Teepee Buttes			
6,496.7	6,298.0	Sharon Springs			
6,574.9	6,362.0	Niobrara			
7,011.7	6,607.0	Ft. Hayes			
7,110.5	6,630.0	Codell			

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well State Peterson 2E-20H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	Well @ 4592.0ft (Ensign)
Project:	DJ Wattenberg	MD Reference:	Well @ 4592.0ft (Ensign)
Site:	S20-T5N-R63W (State Peterson)	North Reference:	True
Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
300.0	300.0	0.0	0.0	KOP @ 300'
1,048.7	1,040.2	-42.0	-87.8	EOB; Inc=14.9°
5,937.2	5,762.7	-587.0	-1,227.2	Start 8° build/turn @ 5937' MD
7,230.7	6,640.0	-688.2	-530.8	LP @ 7230' MD; 90°
11,410.7	6,640.0	-688.2	3,649.2	TD at 11410.7

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S20-T5N-R63W (State Peterson)

State Peterson 2E-20H

Hz

Plan #1

Anticollision Report

07 December, 2012

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2E-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
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 500.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	12/7/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,410.7	Plan #1 (Hz)	MWD	Geolink MWD	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S20-T5N-R63W (State Peterson)						
NORDLOH 2 - DD - Plan #1						Out of range
STATE PETERSON 1 (EXISTING) - Existing - Existing						Out of range
STATE PETERSON 11-20 (EXISTING) - Existing - Existin						Out of range
STATE PETERSON 1-20 (EXISTING) - Existing - Existin	300.0	287.0	45.4	44.4	45.355	CC, ES
STATE PETERSON 1-20 (EXISTING) - Existing - Existin	600.0	586.5	61.1	59.1	29.928	SF
STATE PETERSON 12-20 (EXISTING) - Existing - Existi	7,035.5	6,587.7	188.1	159.4	6.547	CC, ES, SF
STATE PETERSON 21-20 (EXISTING) - Existing - Existi						Out of range
STATE PETERSON 22-20 (EXISTING) - Existing - Existi	8,469.6	6,623.0	69.3	24.5	1.548	CC, ES, SF
State Peterson 2A-20H - Hz - Plan #1	200.0	200.0	40.1	39.4	61.396	CC, ES
State Peterson 2A-20H - Hz - Plan #1	600.0	594.7	63.7	61.5	29.153	SF
State Peterson 2B-20H - Hz - Plan #1	300.0	300.0	32.8	31.8	32.727	CC, ES
State Peterson 2B-20H - Hz - Plan #1	800.0	796.5	63.8	60.6	19.814	SF
State Peterson 2C-20H - Hz - Plan #1	300.0	300.0	21.9	20.9	21.818	CC, ES
State Peterson 2C-20H - Hz - Plan #1	600.0	599.9	30.4	28.3	14.466	SF
State Peterson 2D-20H - Hz - Plan #1	300.0	300.0	10.9	9.9	10.909	CC, ES
State Peterson 2D-20H - Hz - Plan #1	400.0	400.0	11.8	10.4	8.715	SF
State Peterson 2F-20H - Hz - Plan #1	200.0	200.0	7.3	6.6	11.162	CC, ES
State Peterson 2F-20H - Hz - Plan #1	6,100.0	6,084.4	334.8	281.2	6.243	SF
STATE PETERSON 31-20 (EXISTING) - Existing - Existi						Out of range
STATE PETERSON 32-20 (EXISTING) - Existing - Existi	9,889.2	6,636.0	130.6	52.9	1.681	CC, ES, SF
STATE PETERSON 41-20 (EXISTING) - Existing - Existi						Out of range
STATE PETERSON 42-20 (EXISTING) - Existing - Existi	11,296.7	6,672.0	32.1	-79.8	0.287	Level 1, CC, ES, SF
STATE PETERSON 4-2-20 (EXISTING) - Existing - Exist						Out of range

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2E-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T5N-R63W (State Peterson) - STATE PETERSON 1-20 (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	66.87	17.9	41.8	47.3					
100.0	100.0	87.0	87.0	0.2	0.2	66.87	17.9	41.8	45.4	0.30	149.605			
200.0	200.0	187.0	187.0	0.3	0.3	66.87	17.9	41.8	45.4	0.65	69.608			
300.0	300.0	287.0	287.0	0.5	0.5	66.87	17.9	41.8	45.4	1.00	45.355 CC, ES			
400.0	400.0	387.0	387.0	0.7	0.7	-177.66	17.9	41.8	47.2	1.35	34.940			
500.0	499.8	486.8	486.8	0.9	0.8	-177.89	17.9	41.8	52.4	1.70	30.877			
600.0	599.5	586.5	586.5	1.1	1.0	-178.18	17.9	41.8	61.1	2.04	29.928 SF			
700.0	698.7	685.7	685.7	1.3	1.2	-178.48	17.9	41.8	73.3	2.38	30.745			
800.0	797.5	784.5	784.5	1.7	1.4	-178.74	17.9	41.8	88.9	2.72	32.667			
900.0	895.6	882.6	882.6	2.0	1.5	-178.96	17.9	41.8	108.0	3.06	35.336			
1,000.0	993.1	980.1	980.1	2.4	1.7	-179.13	17.9	41.8	130.5	3.39	38.541			
1,100.0	1,089.8	1,076.8	1,076.8	2.9	1.9	-179.27	17.9	41.8	155.9	3.72	41.919			
1,200.0	1,186.4	1,173.4	1,173.4	3.4	2.0	-179.37	17.9	41.8	181.8	4.06	44.753			
1,300.0	1,283.0	1,270.0	1,270.0	3.8	2.2	-179.45	17.9	41.8	207.6	4.40	47.148			
1,400.0	1,379.6	1,366.6	1,366.6	4.3	2.4	-179.51	17.9	41.8	233.5	4.75	49.200			
1,500.0	1,476.2	1,463.2	1,463.2	4.8	2.6	-179.56	17.9	41.8	259.3	5.09	50.978			
1,600.0	1,572.8	1,559.8	1,559.8	5.3	2.7	-179.60	17.9	41.8	285.1	5.43	52.532			
1,700.0	1,669.4	1,656.4	1,656.4	5.8	2.9	-179.63	17.9	41.8	311.0	5.77	53.904			
1,800.0	1,766.0	1,753.0	1,753.0	6.3	3.1	-179.66	17.9	41.8	336.8	6.11	55.123			
1,900.0	1,862.6	1,849.6	1,849.6	6.7	3.2	-179.69	17.9	41.8	362.6	6.45	56.213			
2,000.0	1,959.2	1,946.2	1,946.2	7.2	3.4	-179.71	17.9	41.8	388.5	6.79	57.194			
2,100.0	2,055.8	2,042.8	2,042.8	7.7	3.6	-179.72	17.9	41.8	414.3	7.13	58.081			
2,200.0	2,152.4	2,139.4	2,139.4	8.2	3.7	-179.74	17.9	41.8	440.2	7.47	58.888			
2,300.0	2,249.0	2,236.0	2,236.0	8.7	3.9	-179.75	17.9	41.8	466.0	7.82	59.625			
2,400.0	2,345.6	2,332.6	2,332.6	9.2	4.1	-179.77	17.9	41.8	491.8	8.16	60.300			

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2E-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T5N-R63W (State Peterson) - STATE PETERSON 12-20 (EXISTING) - Existing - Existing												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		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)	Uncertainty Axis		
4,100.0	3,987.9	3,961.9	3,961.9	17.6	6.9	-73.05	-873.2	-729.6	495.9	472.1	23.85	20.797	
4,200.0	4,084.5	4,058.5	4,058.5	18.1	7.1	-75.85	-873.2	-729.6	488.8	464.1	24.69	19.796	
4,300.0	4,181.1	4,155.1	4,155.1	18.6	7.3	-78.73	-873.2	-729.6	482.9	457.4	25.51	18.926	
4,400.0	4,277.7	4,251.7	4,251.7	19.1	7.4	-81.67	-873.2	-729.6	478.4	452.0	26.31	18.181	
4,500.0	4,374.3	4,348.3	4,348.3	19.6	7.6	-84.65	-873.2	-729.6	475.2	448.1	27.07	17.552	
4,600.0	4,470.9	4,444.9	4,444.9	20.1	7.8	-87.66	-873.2	-729.6	473.4	445.6	27.79	17.031	
4,677.6	4,545.8	4,519.8	4,519.8	20.4	7.9	-90.00	-873.2	-729.6	472.9	444.6	28.32	16.699	
4,700.0	4,567.5	4,541.5	4,541.5	20.5	7.9	-90.68	-873.2	-729.6	473.0	444.5	28.47	16.613	
4,800.0	4,664.1	4,638.1	4,638.1	21.0	8.1	-93.70	-873.2	-729.6	474.0	444.9	29.10	16.291	
4,900.0	4,760.7	4,734.7	4,734.7	21.5	8.3	-96.70	-873.2	-729.6	476.4	446.8	29.67	16.057	
5,000.0	4,857.3	4,831.3	4,831.3	22.0	8.4	-99.66	-873.2	-729.6	480.2	450.0	30.19	15.906	
5,100.0	4,953.9	4,927.9	4,927.9	22.5	8.6	-102.57	-873.2	-729.6	485.4	454.7	30.66	15.831	
5,200.0	5,050.5	5,024.5	5,024.5	23.0	8.8	-105.42	-873.2	-729.6	491.8	460.8	31.08	15.827	
5,300.0	5,147.1	5,121.1	5,121.1	23.5	8.9	-108.19	-873.2	-729.6	499.5	468.1	31.44	15.888	
6,500.0	6,300.8	6,274.8	6,274.8	26.0	11.0	20.99	-873.2	-729.6	468.6	437.7	30.96	15.135	
6,600.0	6,381.5	6,355.5	6,355.5	25.2	11.1	29.44	-873.2	-729.6	413.6	383.1	30.56	13.534	
6,700.0	6,453.5	6,427.5	6,427.5	24.4	11.2	40.70	-873.2	-729.6	351.7	321.2	30.49	11.535	
6,800.0	6,515.2	6,489.2	6,489.2	23.4	11.3	55.73	-873.2	-729.6	287.0	256.4	30.61	9.375	
6,900.0	6,565.5	6,539.5	6,539.5	22.4	11.4	72.71	-873.2	-729.6	227.9	197.7	30.22	7.541	
7,000.0	6,603.4	6,577.4	6,577.4	21.5	11.5	86.64	-873.2	-729.6	191.2	162.1	29.10	6.571	
7,035.5	6,613.7	6,587.7	6,587.7	21.1	11.5	90.00	-873.2	-729.6	188.1	159.4	28.73	6.547 CC, ES, SF	
7,100.0	6,628.2	6,602.2	6,602.2	20.6	11.5	93.56	-873.2	-729.6	198.6	170.5	28.15	7.056	
7,200.0	6,639.3	6,613.3	6,613.3	19.8	11.5	92.19	-873.2	-729.6	250.0	222.1	27.87	8.972	
7,300.0	6,640.0	6,614.0	6,614.0	19.2	11.5	90.00	-873.2	-729.6	325.7	298.0	27.76	11.732	
7,400.0	6,640.0	6,614.0	6,614.0	18.7	11.5	90.00	-873.2	-729.6	412.0	384.0	27.96	14.735	

Anticollision Report

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Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T5N-R63W (State Peterson) - STATE PETERSON 22-20 (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program: 0-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		
8,000.0	6,640.0	6,623.0	6,623.0	24.8	11.6	-90.00	-618.9	708.1	474.7	439.3	35.32	13.439		
8,100.0	6,640.0	6,623.0	6,623.0	26.7	11.6	-90.00	-618.9	708.1	376.0	338.8	37.18	10.113		
8,200.0	6,640.0	6,623.0	6,623.0	28.6	11.6	-90.00	-618.9	708.1	278.3	239.2	39.14	7.111		
8,300.0	6,640.0	6,623.0	6,623.0	30.7	11.6	-90.00	-618.9	708.1	183.2	142.0	41.18	4.448		
8,400.0	6,640.0	6,623.0	6,623.0	32.8	11.6	-90.00	-618.9	708.1	98.2	54.9	43.28	2.269		
8,469.6	6,640.0	6,623.0	6,623.0	34.3	11.6	-90.00	-618.9	708.1	69.3	24.5	44.78	1.548	CC, ES, SF	
8,500.0	6,640.0	6,623.0	6,623.0	34.9	11.6	-90.00	-618.9	708.1	75.7	30.3	45.43	1.666		
8,600.0	6,640.0	6,623.0	6,623.0	37.1	11.6	-90.00	-618.9	708.1	147.7	100.1	47.62	3.102		
8,700.0	6,640.0	6,623.0	6,623.0	39.3	11.6	-90.00	-618.9	708.1	240.6	190.8	49.85	4.827		
8,800.0	6,640.0	6,623.0	6,623.0	41.5	11.6	-90.00	-618.9	708.1	337.6	285.5	52.10	6.480		
8,900.0	6,640.0	6,623.0	6,623.0	43.8	11.6	-90.00	-618.9	708.1	436.0	381.6	54.38	8.017		

Anticollision Report

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Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T5N-R63W (State Peterson) - State Peterson 2A-20H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total	Separation	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)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	40.1	0.0	40.1					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	40.1	0.0	40.1	39.8	0.30	131.967		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	40.1	0.0	40.1	39.4	0.65	61.396 CC, ES		
300.0	300.0	299.1	299.1	0.5	0.5	-1.93	41.1	-1.4	41.1	40.1	1.00	41.103		
400.0	400.0	398.1	397.9	0.7	0.7	110.44	44.1	-5.5	45.1	43.7	1.36	33.076		
500.0	499.8	496.7	496.1	0.9	0.9	108.60	49.2	-12.4	52.6	50.9	1.75	30.065		
600.0	599.5	594.7	593.4	1.1	1.2	107.92	56.1	-21.9	63.7	61.5	2.18	29.153 SF		
700.0	698.7	692.0	689.6	1.3	1.5	107.95	65.0	-34.0	78.1	75.4	2.68	29.155		
800.0	797.5	788.4	784.3	1.7	1.8	108.34	75.7	-48.6	95.8	92.6	3.25	29.527		
900.0	895.6	883.8	877.3	2.0	2.2	108.86	88.1	-65.5	116.9	113.0	3.90	30.014		
1,000.0	993.1	977.9	968.4	2.4	2.7	109.38	102.1	-84.7	141.3	136.6	4.63	30.505		
1,100.0	1,089.8	1,071.7	1,058.3	2.9	3.2	110.00	117.8	-106.1	168.6	163.2	5.43	31.069		
1,200.0	1,186.4	1,167.6	1,150.1	3.4	3.7	110.55	134.4	-128.7	196.7	190.5	6.26	31.429		
1,300.0	1,283.0	1,263.6	1,241.8	3.8	4.2	110.96	151.0	-151.3	224.8	217.7	7.10	31.655		
1,400.0	1,379.6	1,359.5	1,333.6	4.3	4.7	111.28	167.6	-173.9	252.9	245.0	7.95	31.801		
1,500.0	1,476.2	1,455.5	1,425.4	4.8	5.2	111.54	184.1	-196.5	281.1	272.3	8.81	31.898		
1,600.0	1,572.8	1,551.4	1,517.2	5.3	5.8	111.75	200.7	-219.1	309.2	299.5	9.67	31.964		
1,700.0	1,669.4	1,647.4	1,608.9	5.8	6.3	111.92	217.3	-241.7	337.3	326.8	10.54	32.010		
1,800.0	1,766.0	1,743.4	1,700.7	6.3	6.8	112.07	233.9	-264.3	365.5	354.1	11.41	32.042		
1,900.0	1,862.6	1,839.3	1,792.5	6.7	7.3	112.20	250.4	-286.9	393.6	381.3	12.28	32.065		
2,000.0	1,959.2	1,935.3	1,884.2	7.2	7.9	112.31	267.0	-309.5	421.8	408.6	13.15	32.081		
2,100.0	2,055.8	2,031.2	1,976.0	7.7	8.4	112.40	283.6	-332.1	449.9	435.9	14.02	32.092		
2,200.0	2,152.4	2,127.2	2,067.8	8.2	8.9	112.49	300.2	-354.7	478.0	463.1	14.89	32.099		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2E-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T5N-R63W (State Peterson) - State Peterson 2B-20H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total	Separation	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)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	32.8	0.0	32.8					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	32.8	0.0	32.8	32.5	0.30	107.962		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	32.8	0.0	32.8	32.1	0.65	50.228		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	32.8	0.0	32.8	31.8	1.00	32.727 CC, ES		
400.0	400.0	399.7	399.6	0.7	0.7	115.38	33.3	-1.7	34.0	32.7	1.35	25.117		
500.0	499.8	499.2	499.1	0.9	0.9	114.91	34.7	-6.6	37.8	36.0	1.73	21.806		
600.0	599.5	598.6	598.1	1.1	1.1	114.29	37.2	-14.9	44.0	41.8	2.16	20.406		
700.0	698.7	697.7	696.4	1.3	1.3	113.64	40.6	-26.4	52.7	50.0	2.65	19.904		
800.0	797.5	796.5	794.0	1.7	1.6	113.03	44.9	-41.2	63.8	60.6	3.22	19.814 SF		
900.0	895.6	894.8	890.5	2.0	2.0	112.49	50.2	-59.0	77.4	73.5	3.89	19.895		
1,000.0	993.1	993.0	986.3	2.4	2.4	112.16	56.3	-79.8	93.3	88.7	4.65	20.084		
1,100.0	1,089.8	1,091.4	1,082.2	2.9	2.8	113.14	62.6	-101.1	110.6	105.1	5.45	20.298		
1,200.0	1,186.4	1,189.9	1,178.1	3.4	3.2	114.14	68.9	-122.5	128.0	121.8	6.26	20.435		
1,300.0	1,283.0	1,288.3	1,274.0	3.8	3.6	114.91	75.2	-143.9	145.5	138.4	7.09	20.516		
1,400.0	1,379.6	1,386.8	1,369.9	4.3	4.0	115.51	81.5	-165.3	163.0	155.1	7.93	20.566		
1,500.0	1,476.2	1,485.2	1,465.8	4.8	4.5	115.99	87.8	-186.6	180.5	171.8	8.76	20.596		
1,600.0	1,572.8	1,583.7	1,561.6	5.3	4.9	116.39	94.1	-208.0	198.0	188.4	9.61	20.615		
1,700.0	1,669.4	1,682.1	1,657.5	5.8	5.3	116.72	100.4	-229.4	215.6	205.1	10.45	20.627		
1,800.0	1,766.0	1,780.5	1,753.4	6.3	5.7	117.00	106.7	-250.8	233.1	221.8	11.30	20.634		
1,900.0	1,862.6	1,879.0	1,849.3	6.7	6.2	117.25	113.0	-272.1	250.7	238.5	12.15	20.638		
2,000.0	1,959.2	1,977.4	1,945.2	7.2	6.6	117.46	119.3	-293.5	268.2	255.2	12.99	20.640		
2,100.0	2,055.8	2,075.9	2,041.1	7.7	7.0	117.64	125.6	-314.9	285.8	271.9	13.85	20.640		
2,200.0	2,152.4	2,174.3	2,137.0	8.2	7.5	117.81	131.9	-336.3	303.3	288.6	14.70	20.639		
2,300.0	2,249.0	2,272.8	2,232.9	8.7	7.9	117.96	138.2	-357.6	320.9	305.3	15.55	20.638		
2,400.0	2,345.6	2,371.2	2,328.7	9.2	8.3	118.09	144.5	-379.0	338.4	322.0	16.40	20.636		
2,500.0	2,442.2	2,469.6	2,424.6	9.7	8.8	118.20	150.8	-400.4	356.0	338.7	17.25	20.633		
2,600.0	2,538.8	2,568.1	2,520.5	10.2	9.2	118.31	157.1	-421.8	373.5	355.4	18.11	20.631		
2,700.0	2,635.4	2,666.5	2,616.4	10.7	9.6	118.41	163.5	-443.1	391.1	372.1	18.96	20.629		
2,800.0	2,732.0	2,765.0	2,712.3	11.2	10.0	118.50	169.8	-464.5	408.7	388.9	19.81	20.626		
2,900.0	2,828.6	2,863.4	2,808.2	11.7	10.5	118.58	176.1	-485.9	426.2	405.6	20.67	20.623		
3,000.0	2,925.2	2,961.9	2,904.1	12.1	10.9	118.65	182.4	-507.3	443.8	422.3	21.52	20.621		
3,100.0	3,021.8	3,060.3	3,000.0	12.6	11.3	118.72	188.7	-528.7	461.4	439.0	22.38	20.618		
3,200.0	3,118.5	3,158.8	3,095.8	13.1	11.8	118.79	195.0	-550.0	478.9	455.7	23.23	20.616		
3,300.0	3,215.1	3,257.2	3,191.7	13.6	12.2	118.85	201.3	-571.4	496.5	472.4	24.09	20.613		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2E-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T5N-R63W (State Peterson) - State Peterson 2C-20H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	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)				
0.0	0.0	0.0	0.0	0.0	0.0	0.00	21.9	0.0	21.9					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	21.9	0.0	21.9	21.6	0.30	71.975		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	21.9	0.0	21.9	21.2	0.65	33.486		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	21.9	0.0	21.9	20.9	1.00	21.818 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	119.53	21.9	0.0	22.7	21.3	1.35	16.754		
500.0	499.8	499.9	499.9	0.9	0.9	125.82	22.1	-1.7	25.5	23.8	1.71	14.879		
600.0	599.5	599.9	599.7	1.1	1.0	129.24	22.7	-6.9	30.4	28.3	2.10	14.466 SF		
700.0	698.7	699.8	699.2	1.3	1.3	130.36	23.8	-15.5	37.1	34.6	2.53	14.661		
800.0	797.5	799.6	798.3	1.7	1.5	130.06	25.4	-27.6	45.7	42.7	3.03	15.059		
900.0	895.6	899.3	896.8	2.0	1.8	129.00	27.4	-43.0	56.0	52.4	3.62	15.461		
1,000.0	993.1	998.8	994.4	2.4	2.1	127.60	29.8	-61.8	68.2	63.8	4.32	15.787		
1,100.0	1,089.8	1,098.0	1,091.1	2.9	2.6	125.94	32.6	-83.9	81.9	76.7	5.12	16.000		
1,200.0	1,186.4	1,197.0	1,187.1	3.4	3.0	123.74	35.7	-108.1	95.7	89.8	5.97	16.027		
1,300.0	1,283.0	1,296.0	1,283.0	3.8	3.4	122.07	38.8	-132.2	109.7	102.9	6.85	16.017		
1,400.0	1,379.6	1,395.0	1,379.0	4.3	3.9	120.78	41.9	-156.4	123.7	116.0	7.74	15.993		
1,500.0	1,476.2	1,493.9	1,474.9	4.8	4.3	119.76	45.0	-180.5	137.8	129.2	8.63	15.963		
1,600.0	1,572.8	1,592.9	1,570.8	5.3	4.8	118.93	48.1	-204.7	152.0	142.4	9.54	15.934		
1,700.0	1,669.4	1,691.9	1,666.8	5.8	5.2	118.23	51.2	-228.8	166.1	155.7	10.44	15.906		
1,800.0	1,766.0	1,790.9	1,762.7	6.3	5.7	117.65	54.3	-253.0	180.3	169.0	11.35	15.879		
1,900.0	1,862.6	1,889.8	1,858.6	6.7	6.2	117.15	57.4	-277.1	194.5	182.2	12.27	15.855		
2,000.0	1,959.2	1,988.8	1,954.6	7.2	6.6	116.72	60.5	-301.3	208.7	195.5	13.18	15.833		
2,100.0	2,055.8	2,087.8	2,050.5	7.7	7.1	116.35	63.5	-325.4	222.9	208.8	14.10	15.812		
2,200.0	2,152.4	2,186.8	2,146.4	8.2	7.5	116.01	66.6	-349.6	237.1	222.1	15.01	15.794		
2,300.0	2,249.0	2,285.7	2,242.4	8.7	8.0	115.72	69.7	-373.7	251.4	235.4	15.93	15.777		
2,400.0	2,345.6	2,384.7	2,338.3	9.2	8.5	115.46	72.8	-397.9	265.6	248.8	16.85	15.761		
2,500.0	2,442.2	2,483.7	2,434.2	9.7	8.9	115.22	75.9	-422.0	279.8	262.1	17.77	15.747		
2,600.0	2,538.8	2,582.7	2,530.2	10.2	9.4	115.01	79.0	-446.2	294.1	275.4	18.69	15.734		
2,700.0	2,635.4	2,681.6	2,626.1	10.7	9.9	114.82	82.1	-470.3	308.3	288.7	19.61	15.722		
2,800.0	2,732.0	2,780.6	2,722.0	11.2	10.3	114.64	85.2	-494.5	322.6	302.1	20.53	15.711		
2,900.0	2,828.6	2,879.6	2,818.0	11.7	10.8	114.48	88.3	-518.6	336.8	315.4	21.45	15.701		
3,000.0	2,925.2	2,978.6	2,913.9	12.1	11.3	114.33	91.4	-542.8	351.1	328.7	22.38	15.691		
3,100.0	3,021.8	3,077.5	3,009.8	12.6	11.7	114.20	94.5	-566.9	365.4	342.1	23.30	15.682		
3,200.0	3,118.5	3,176.5	3,105.8	13.1	12.2	114.07	97.6	-591.1	379.6	355.4	24.22	15.674		
3,300.0	3,215.1	3,275.5	3,201.7	13.6	12.7	113.96	100.7	-615.2	393.9	368.7	25.14	15.666		
3,400.0	3,311.7	3,374.4	3,297.6	14.1	13.2	113.85	103.8	-639.4	408.1	382.1	26.07	15.659		
3,500.0	3,408.3	3,473.4	3,393.6	14.6	13.6	113.75	106.9	-663.5	422.4	395.4	26.99	15.652		
3,600.0	3,504.9	3,572.4	3,489.5	15.1	14.1	113.65	110.0	-687.7	436.7	408.8	27.91	15.646		
3,700.0	3,601.5	3,671.4	3,585.4	15.6	14.6	113.56	113.1	-711.8	450.9	422.1	28.83	15.640		
3,800.0	3,698.1	3,770.3	3,681.3	16.1	15.0	113.48	116.1	-736.0	465.2	435.5	29.76	15.634		
3,900.0	3,794.7	3,869.3	3,777.3	16.6	15.5	113.40	119.2	-760.1	479.5	448.8	30.68	15.628		
4,000.0	3,891.3	3,968.3	3,873.2	17.1	16.0	113.33	122.3	-784.3	493.8	462.2	31.60	15.623		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2E-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T5N-R63W (State Peterson) - State Peterson 2D-20H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program:		0-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		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	10.9	0.0	10.9					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	10.9	0.0	10.9	10.6	0.30	35.987		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	10.9	0.0	10.9	10.3	0.65	16.743		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	10.9	0.0	10.9	9.9	1.00	10.909 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	123.22	10.9	0.0	11.8	10.4	1.35	8.715 SF		
500.0	499.8	499.8	499.8	0.9	0.8	139.80	10.9	0.0	15.3	13.6	1.71	8.963		
600.0	599.5	600.0	600.0	1.1	1.0	151.01	10.7	-1.7	21.4	19.4	2.06	10.391		
700.0	698.7	700.4	700.2	1.3	1.2	155.37	9.8	-6.9	28.5	26.1	2.42	11.765		
800.0	797.5	800.9	800.4	1.7	1.4	156.58	8.4	-15.6	36.2	33.4	2.80	12.916		
900.0	895.6	901.7	900.4	2.0	1.7	156.22	6.5	-27.8	44.4	41.2	3.21	13.817		
1,000.0	993.1	1,002.6	1,000.0	2.4	2.0	155.02	4.0	-43.4	53.1	49.4	3.67	14.459		
1,100.0	1,089.8	1,103.7	1,099.3	2.9	2.3	153.20	0.9	-62.6	61.9	57.7	4.20	14.725		
1,200.0	1,186.4	1,204.0	1,197.1	3.4	2.7	150.38	-2.6	-84.3	69.1	64.3	4.83	14.314		
1,300.0	1,283.0	1,303.7	1,294.3	3.8	3.1	147.97	-6.1	-106.2	76.3	70.8	5.50	13.875		
1,400.0	1,379.6	1,403.4	1,391.5	4.3	3.5	145.98	-9.6	-128.1	83.6	77.4	6.20	13.478		
1,500.0	1,476.2	1,503.1	1,488.7	4.8	3.9	144.31	-13.1	-150.0	91.0	84.0	6.93	13.127		
1,600.0	1,572.8	1,602.8	1,585.9	5.3	4.3	142.89	-16.6	-171.9	98.4	90.7	7.67	12.821		
1,700.0	1,669.4	1,702.5	1,683.1	5.8	4.7	141.68	-20.1	-193.8	105.9	97.5	8.43	12.555		
1,800.0	1,766.0	1,802.2	1,780.3	6.3	5.1	140.62	-23.6	-215.7	113.4	104.2	9.20	12.323		
1,900.0	1,862.6	1,901.9	1,877.5	6.7	5.6	139.69	-27.1	-237.5	121.0	111.0	9.98	12.120		
2,000.0	1,959.2	2,001.6	1,974.7	7.2	6.0	138.88	-30.6	-259.4	128.6	117.8	10.77	11.942		
2,100.0	2,055.8	2,101.3	2,071.9	7.7	6.4	138.15	-34.1	-281.3	136.2	124.7	11.56	11.784		
2,200.0	2,152.4	2,201.0	2,169.1	8.2	6.8	137.50	-37.6	-303.2	143.8	131.5	12.35	11.644		
2,300.0	2,249.0	2,300.7	2,266.3	8.7	7.3	136.92	-41.1	-325.1	151.5	138.4	13.15	11.519		
2,400.0	2,345.6	2,400.4	2,363.5	9.2	7.7	136.39	-44.6	-347.0	159.2	145.2	13.95	11.407		
2,500.0	2,442.2	2,500.1	2,460.7	9.7	8.1	135.92	-48.1	-368.9	166.9	152.1	14.76	11.307		
2,600.0	2,538.8	2,599.8	2,557.9	10.2	8.5	135.48	-51.6	-390.7	174.5	159.0	15.56	11.215		
2,700.0	2,635.4	2,699.4	2,655.1	10.7	9.0	135.08	-55.1	-412.6	182.2	165.9	16.37	11.133		
2,800.0	2,732.0	2,799.1	2,752.3	11.2	9.4	134.71	-58.6	-434.5	190.0	172.8	17.18	11.057		
2,900.0	2,828.6	2,898.8	2,849.5	11.7	9.8	134.37	-62.1	-456.4	197.7	179.7	17.99	10.988		
3,000.0	2,925.2	2,998.5	2,946.7	12.1	10.3	134.06	-65.6	-478.3	205.4	186.6	18.80	10.924		
3,100.0	3,021.8	3,098.2	3,043.9	12.6	10.7	133.77	-69.2	-500.2	213.1	193.5	19.61	10.866		
3,200.0	3,118.5	3,197.9	3,141.1	13.1	11.1	133.50	-72.7	-522.1	220.8	200.4	20.43	10.812		
3,300.0	3,215.1	3,297.6	3,238.3	13.6	11.5	133.25	-76.2	-543.9	228.6	207.3	21.24	10.762		
3,400.0	3,311.7	3,397.3	3,335.5	14.1	12.0	133.01	-79.7	-565.8	236.3	214.3	22.06	10.715		
3,500.0	3,408.3	3,497.0	3,432.7	14.6	12.4	132.79	-83.2	-587.7	244.1	221.2	22.87	10.672		
3,600.0	3,504.9	3,596.7	3,529.9	15.1	12.8	132.59	-86.7	-609.6	251.8	228.1	23.69	10.631		
3,700.0	3,601.5	3,696.4	3,627.1	15.6	13.3	132.39	-90.2	-631.5	259.6	235.1	24.50	10.593		
3,800.0	3,698.1	3,796.1	3,724.3	16.1	13.7	132.21	-93.7	-653.4	267.3	242.0	25.32	10.558		
3,900.0	3,794.7	3,895.8	3,821.5	16.6	14.1	132.04	-97.2	-675.3	275.1	248.9	26.14	10.525		
4,000.0	3,891.3	3,995.5	3,918.7	17.1	14.6	131.87	-100.7	-697.1	282.8	255.9	26.95	10.493		
4,100.0	3,987.9	4,095.2	4,015.9	17.6	15.0	131.72	-104.2	-719.0	290.6	262.8	27.77	10.464		
4,200.0	4,084.5	4,194.9	4,113.1	18.1	15.4	131.57	-107.7	-740.9	298.4	269.8	28.59	10.436		
4,300.0	4,181.1	4,294.6	4,210.3	18.6	15.8	131.43	-111.2	-762.8	306.1	276.7	29.41	10.410		
4,400.0	4,277.7	4,394.3	4,307.5	19.1	16.3	131.30	-114.7	-784.7	313.9	283.7	30.23	10.385		
4,500.0	4,374.3	4,494.0	4,404.7	19.6	16.7	131.18	-118.2	-806.6	321.7	290.6	31.05	10.361		
4,600.0	4,470.9	4,593.7	4,501.9	20.1	17.1	131.06	-121.7	-828.5	329.4	297.6	31.86	10.338		
4,700.0	4,567.5	4,693.4	4,599.1	20.5	17.6	130.94	-125.2	-850.3	337.2	304.5	32.68	10.317		
4,800.0	4,664.1	4,793.1	4,696.3	21.0	18.0	130.83	-128.7	-872.2	345.0	311.5	33.50	10.297		
4,900.0	4,760.7	4,892.7	4,793.5	21.5	18.4	130.73	-132.2	-894.1	352.7	318.4	34.32	10.277		
5,000.0	4,857.3	4,992.4	4,890.7	22.0	18.9	130.63	-135.7	-916.0	360.5	325.4	35.14	10.259		
5,100.0	4,953.9	5,092.1	4,987.9	22.5	19.3	130.53	-139.2	-937.9	368.3	332.3	35.96	10.241		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2E-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T5N-R63W (State Peterson) - State Peterson 2D-20H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-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	5,050.5	5,191.8	5,085.1	23.0	19.7	130.44	-142.7	-959.8	376.1	339.3	36.78	10.224		
5,300.0	5,147.1	5,291.5	5,182.3	23.5	20.2	130.35	-146.2	-981.7	383.9	346.2	37.60	10.208		
5,400.0	5,243.7	5,391.2	5,279.5	24.0	20.6	130.27	-149.7	-1,003.5	391.6	353.2	38.42	10.193		
5,500.0	5,340.3	5,490.9	5,376.7	24.5	21.0	130.19	-153.3	-1,025.4	399.4	360.2	39.24	10.178		
5,600.0	5,437.0	5,590.6	5,473.9	25.0	21.5	130.11	-156.8	-1,047.3	407.2	367.1	40.06	10.164		
5,700.0	5,533.6	5,690.3	5,571.1	25.5	21.9	130.03	-160.3	-1,069.2	415.0	374.1	40.88	10.150		
5,800.0	5,630.2	5,790.0	5,668.3	26.0	22.3	129.96	-163.8	-1,091.1	422.8	381.0	41.70	10.137		
5,900.0	5,726.8	5,889.7	5,765.5	26.5	22.8	129.89	-167.3	-1,113.0	430.5	388.0	42.52	10.124		
6,000.0	5,823.9	5,989.4	5,862.7	26.9	23.2	141.60	-170.8	-1,134.8	437.7	394.4	43.33	10.102		
6,100.0	5,922.9	6,087.9	5,958.8	27.1	23.6	-172.13	-174.2	-1,156.5	442.1	397.6	44.54	9.926		
6,200.0	6,022.0	6,183.6	6,052.0	27.1	24.0	-122.85	-177.6	-1,177.5	444.9	398.8	46.06	9.659		
6,300.0	6,119.2	6,274.4	6,140.6	26.9	24.4	-109.39	-180.8	-1,197.4	448.5	401.0	47.49	9.443		
6,400.0	6,212.7	6,358.6	6,222.7	26.5	24.8	-107.29	-183.8	-1,215.9	456.2	407.8	48.40	9.426		
6,500.0	6,300.8	6,434.7	6,296.8	26.0	25.1	-108.43	-186.4	-1,232.6	471.6	423.1	48.51	9.723		
6,600.0	6,381.5	6,517.5	6,378.3	25.2	25.4	-111.26	-189.4	-1,247.3	497.0	449.2	47.81	10.395		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2E-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T5N-R63W (State Peterson) - State Peterson 2F-20H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program:		0-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		
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-7.3	0.0	7.3					
100.0	100.0	100.0	100.0	0.2	0.2	-180.00	-7.3	0.0	7.3	7.0	0.30	23.992		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-7.3	0.0	7.3	6.6	0.65	11.162 CC, ES		
300.0	300.0	299.8	299.8	0.5	0.5	-170.82	-8.4	-1.4	8.5	7.5	1.00	8.446		
400.0	400.0	399.5	399.3	0.7	0.7	-44.97	-11.6	-5.4	11.6	10.2	1.36	8.512		
500.0	499.8	499.0	498.4	0.9	0.9	-41.66	-17.1	-12.1	15.3	13.6	1.72	8.864		
600.0	599.5	598.4	597.1	1.1	1.2	-41.62	-24.6	-21.5	19.5	17.3	2.11	9.210		
700.0	698.7	697.6	695.1	1.3	1.5	-43.16	-34.3	-33.6	24.1	21.5	2.55	9.464		
800.0	797.5	796.7	792.4	1.7	1.9	-45.43	-46.1	-48.2	29.2	26.2	3.05	9.590		
900.0	895.6	895.6	888.8	2.0	2.3	-48.01	-60.0	-65.5	34.8	31.2	3.64	9.582		
1,000.0	993.1	994.6	984.5	2.4	2.8	-50.79	-75.8	-85.2	40.9	36.6	4.34	9.439		
1,100.0	1,089.8	1,094.5	1,080.8	2.9	3.2	-55.20	-92.4	-105.8	46.0	40.8	5.19	8.858		
1,200.0	1,186.4	1,194.3	1,177.1	3.4	3.7	-59.16	-108.9	-126.3	51.0	44.9	6.11	8.350		
1,300.0	1,283.0	1,294.1	1,273.3	3.8	4.2	-62.39	-125.4	-146.8	56.3	49.2	7.06	7.969		
1,400.0	1,379.6	1,393.9	1,369.6	4.3	4.7	-65.06	-142.0	-167.4	61.7	53.7	8.03	7.679		
1,500.0	1,476.2	1,493.7	1,465.9	4.8	5.2	-67.30	-158.5	-187.9	67.2	58.2	9.02	7.455		
1,600.0	1,572.8	1,593.5	1,562.1	5.3	5.7	-69.20	-175.0	-208.5	72.8	62.8	10.00	7.279		
1,700.0	1,669.4	1,693.4	1,658.4	5.8	6.2	-70.82	-191.6	-229.0	78.5	67.5	10.99	7.138		
1,800.0	1,766.0	1,793.2	1,754.7	6.3	6.7	-72.23	-208.1	-249.6	84.2	72.2	11.99	7.025		
1,900.0	1,862.6	1,893.0	1,851.0	6.7	7.2	-73.45	-224.6	-270.1	90.0	77.0	12.98	6.931		
2,000.0	1,959.2	1,992.8	1,947.2	7.2	7.7	-74.53	-241.2	-290.7	95.8	81.8	13.98	6.853		
2,100.0	2,055.8	2,092.6	2,043.5	7.7	8.2	-75.49	-257.7	-311.2	101.6	86.6	14.97	6.787		
2,200.0	2,152.4	2,192.4	2,139.8	8.2	8.7	-76.34	-274.2	-331.8	107.5	91.5	15.96	6.732		
2,300.0	2,249.0	2,292.3	2,236.0	8.7	9.2	-77.10	-290.8	-352.3	113.4	96.4	16.96	6.684		
2,400.0	2,345.6	2,392.1	2,332.3	9.2	9.7	-77.78	-307.3	-372.8	119.2	101.3	17.95	6.642		
2,500.0	2,442.2	2,491.9	2,428.6	9.7	10.2	-78.41	-323.8	-393.4	125.2	106.2	18.95	6.606		
2,600.0	2,538.8	2,591.7	2,524.8	10.2	10.7	-78.97	-340.4	-413.9	131.1	111.2	19.94	6.574		
2,700.0	2,635.4	2,691.5	2,621.1	10.7	11.2	-79.49	-356.9	-434.5	137.0	116.1	20.93	6.546		
2,800.0	2,732.0	2,791.3	2,717.4	11.2	11.7	-79.96	-373.4	-455.0	143.0	121.1	21.93	6.521		
2,900.0	2,828.6	2,891.2	2,813.7	11.7	12.2	-80.40	-390.0	-475.6	148.9	126.0	22.92	6.499		
3,000.0	2,925.2	2,991.0	2,909.9	12.1	12.7	-80.80	-406.5	-496.1	154.9	131.0	23.91	6.479		
3,100.0	3,021.8	3,090.8	3,006.2	12.6	13.2	-81.17	-423.0	-516.7	160.9	136.0	24.90	6.461		
3,200.0	3,118.5	3,190.6	3,102.5	13.1	13.7	-81.52	-439.6	-537.2	166.9	141.0	25.89	6.444		
3,300.0	3,215.1	3,290.4	3,198.7	13.6	14.2	-81.84	-456.1	-557.8	172.8	146.0	26.88	6.429		
3,400.0	3,311.7	3,390.2	3,295.0	14.1	14.7	-82.14	-472.6	-578.3	178.8	151.0	27.87	6.416		
3,500.0	3,408.3	3,490.0	3,391.3	14.6	15.2	-82.42	-489.2	-598.9	184.8	156.0	28.86	6.403		
3,600.0	3,504.9	3,589.9	3,487.5	15.1	15.7	-82.69	-505.7	-619.4	190.8	161.0	29.85	6.392		
3,700.0	3,601.5	3,689.7	3,583.8	15.6	16.2	-82.93	-522.2	-639.9	196.8	166.0	30.84	6.381		
3,800.0	3,698.1	3,789.5	3,680.1	16.1	16.7	-83.17	-538.8	-660.5	202.8	171.0	31.83	6.372		
3,900.0	3,794.7	3,889.3	3,776.3	16.6	17.2	-83.39	-555.3	-681.0	208.8	176.0	32.82	6.363		
4,000.0	3,891.3	3,989.1	3,872.6	17.1	17.7	-83.59	-571.8	-701.6	214.9	181.0	33.81	6.354		
4,100.0	3,987.9	4,088.9	3,968.9	17.6	18.2	-83.79	-588.4	-722.1	220.9	186.1	34.80	6.347		
4,200.0	4,084.5	4,188.8	4,065.2	18.1	18.7	-83.97	-604.9	-742.7	226.9	191.1	35.79	6.339		
4,300.0	4,181.1	4,288.6	4,161.4	18.6	19.2	-84.15	-621.4	-763.2	232.9	196.1	36.78	6.333		
4,400.0	4,277.7	4,388.4	4,257.7	19.1	19.7	-84.32	-637.9	-783.8	238.9	201.2	37.77	6.326		
4,500.0	4,374.3	4,488.2	4,354.0	19.6	20.2	-84.47	-654.5	-804.3	245.0	206.2	38.76	6.320		
4,600.0	4,470.9	4,588.0	4,450.2	20.1	20.7	-84.63	-671.0	-824.9	251.0	211.2	39.74	6.315		
4,700.0	4,567.5	4,687.8	4,546.5	20.5	21.2	-84.77	-687.5	-845.4	257.0	216.3	40.73	6.310		
4,800.0	4,664.1	4,787.7	4,642.8	21.0	21.7	-84.91	-704.1	-865.9	263.0	221.3	41.72	6.305		
4,900.0	4,760.7	4,887.5	4,739.0	21.5	22.2	-85.04	-720.6	-886.5	269.1	226.4	42.71	6.300		
5,000.0	4,857.3	4,987.3	4,835.3	22.0	22.7	-85.16	-737.1	-907.0	275.1	231.4	43.70	6.296		
5,100.0	4,953.9	5,087.1	4,931.6	22.5	23.2	-85.28	-753.7	-927.6	281.1	236.4	44.69	6.291		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2E-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T5N-R63W (State Peterson) - State Peterson 2F-20H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-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	5,050.5	5,186.9	5,027.9	23.0	23.7	-85.40	-770.2	-948.1	287.2	241.5	45.67	6.287		
5,300.0	5,147.1	5,286.7	5,124.1	23.5	24.2	-85.51	-786.7	-968.7	293.2	246.5	46.66	6.284		
5,400.0	5,243.7	5,386.6	5,220.4	24.0	24.7	-85.61	-803.3	-989.2	299.2	251.6	47.65	6.280		
5,500.0	5,340.3	5,486.4	5,316.7	24.5	25.2	-85.72	-819.8	-1,009.8	305.3	256.6	48.64	6.277		
5,600.0	5,437.0	5,586.2	5,412.9	25.0	25.7	-85.81	-836.3	-1,030.3	311.3	261.7	49.62	6.274		
5,700.0	5,533.6	5,686.0	5,509.2	25.5	26.2	-85.91	-852.9	-1,050.9	317.4	266.7	50.61	6.270		
5,800.0	5,630.2	5,785.8	5,605.5	26.0	26.7	-86.00	-869.4	-1,071.4	323.4	271.8	51.60	6.268		
5,900.0	5,726.8	5,885.6	5,701.7	26.5	27.2	-86.09	-885.9	-1,092.0	329.4	276.8	52.58	6.265		
6,000.0	5,823.9	5,985.4	5,798.0	26.9	27.7	-74.15	-902.5	-1,112.5	334.4	280.9	53.48	6.253		
6,100.0	5,922.9	6,084.4	5,893.4	27.1	28.2	-23.87	-918.9	-1,132.9	334.8	281.2	53.63	6.243 SF		
6,200.0	6,022.0	6,180.6	5,986.2	27.1	28.7	33.44	-934.8	-1,152.7	331.8	279.0	52.83	6.280		
6,300.0	6,119.2	6,272.1	6,074.5	26.9	29.1	58.04	-949.9	-1,171.5	328.6	277.7	50.95	6.450		
6,333.8	6,151.4	6,301.7	6,103.0	26.8	29.3	63.63	-954.8	-1,177.6	328.3	278.2	50.05	6.559		
6,400.0	6,212.7	6,357.2	6,156.6	26.5	29.6	72.86	-964.0	-1,189.0	329.9	281.8	48.11	6.858		
6,500.0	6,300.8	6,434.3	6,230.9	26.0	29.9	84.00	-976.8	-1,204.9	341.1	296.2	44.88	7.600		
6,600.0	6,381.5	6,501.7	6,296.0	25.2	30.3	92.20	-988.0	-1,218.8	366.5	324.5	42.07	8.713		
6,700.0	6,453.5	6,567.9	6,359.9	24.4	30.6	98.44	-999.0	-1,231.7	408.0	368.2	39.84	10.241		
6,800.0	6,515.2	6,652.4	6,442.7	23.4	30.9	104.81	-1,013.2	-1,240.6	461.7	424.2	37.54	12.299		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2E-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S20-T5N-R63W (State Peterson) - STATE PETERSON 32-20 (EXISTING) - Existing - Existing													Offset Site Error:	0.0 ft
Survey Program: 0-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		
9,500.0	6,640.0	6,636.0	6,636.0	57.6	11.6	90.00	-818.8	2,127.7	410.5	342.1	68.42	5.999		
9,600.0	6,640.0	6,636.0	6,636.0	60.0	11.6	90.00	-818.8	2,127.7	317.3	246.5	70.80	4.482		
9,700.0	6,640.0	6,636.0	6,636.0	62.3	11.6	90.00	-818.8	2,127.7	229.9	156.7	73.18	3.141		
9,800.0	6,640.0	6,636.0	6,636.0	64.7	11.6	90.00	-818.8	2,127.7	158.1	82.6	75.57	2.093		
9,889.2	6,640.0	6,636.0	6,636.0	66.8	11.6	90.00	-818.8	2,127.7	130.6	52.9	77.71	1.681 CC, ES, SF		
9,900.0	6,640.0	6,636.0	6,636.0	67.1	11.6	90.00	-818.8	2,127.7	131.1	53.1	77.97	1.681		
10,000.0	6,640.0	6,636.0	6,636.0	69.5	11.6	90.00	-818.8	2,127.7	171.3	90.9	80.37	2.131		
10,100.0	6,640.0	6,636.0	6,636.0	71.9	11.6	90.00	-818.8	2,127.7	248.0	165.2	82.78	2.996		
10,200.0	6,640.0	6,636.0	6,636.0	74.3	11.6	90.00	-818.8	2,127.7	337.2	252.0	85.19	3.958		
10,300.0	6,640.0	6,636.0	6,636.0	76.7	11.6	90.00	-818.8	2,127.7	431.1	343.5	87.61	4.921		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2E-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		S20-T5N-R63W (State Peterson) - STATE PETERSON 42-20 (EXISTING) - Existing - Existing										Offset Site Error:		0.0 ft			
Survey Program:		0-MWD												Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis		Distance											
Measured Depth	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore	Centre	Between	Between	Total	Separation	Warning				
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Uncertainty	Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	Axis						
10,800.0	6,640.0	6,672.0	6,672.0	88.7	11.6	90.00	-720.3	3,535.3	497.8	398.0	99.80	4.988					
10,900.0	6,640.0	6,672.0	6,672.0	91.1	11.6	90.00	-720.3	3,535.3	398.0	295.8	102.23	3.894					
11,000.0	6,640.0	6,672.0	6,672.0	93.6	11.6	90.00	-720.3	3,535.3	298.5	193.8	104.66	2.852					
11,100.0	6,640.0	6,672.0	6,672.0	96.0	11.6	90.00	-720.3	3,535.3	199.3	92.2	107.10	1.861					
11,200.0	6,640.0	6,672.0	6,672.0	98.4	11.6	90.00	-720.3	3,535.3	101.9	-7.6	109.54	0.931	Level 1				
11,296.7	6,640.0	6,672.0	6,672.0	100.8	11.6	90.00	-720.3	3,535.3	32.1	-79.8	111.90	0.287	Level 1, CC, ES, SF				
11,300.0	6,640.0	6,672.0	6,672.0	100.8	11.6	90.00	-720.3	3,535.3	32.3	-79.7	111.98	0.288	Level 1				
11,400.0	6,640.0	6,672.0	6,672.0	103.3	11.6	90.00	-720.3	3,535.3	108.1	-6.3	114.42	0.945	Level 1				
11,410.7	6,640.0	6,672.0	6,672.0	103.5	11.6	90.00	-720.3	3,535.3	118.4	3.7	114.69	1.032	Level 2				

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well State Peterson 2E-20H
Project:	DJ Wattenberg	TVD Reference:	Well @ 4592.0ft (Ensign)
Reference Site:	S20-T5N-R63W (State Peterson)	MD Reference:	Well @ 4592.0ft (Ensign)
Site Error:	0.0ft	North Reference:	True
Reference Well:	State Peterson 2E-20H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to Well @ 4592.0ft (Ensign)

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: State Peterson 2E-20H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.67°

