



ENCANA OIL & GAS (USA) INC

Location: COLORADO Slot: Slot #05 Federal Gardner 20-6 (PN20) 1079FSL & 2174FWL
Field: GARFIELD COUNTY (NEW) Well: Federal Gardner 20-6
Facility: SEC.20-T7S-R95W Wellbore: Federal Gardner 20-6 PWB

Plot reference wellpath is Federal Gardner 20-6 PWB Rev-A.0

True vertical depths are referenced to Rig on Slot #05 Federal Gardner 20-6 (PN20) 1079FSL & 2174FWL (RT)	Grid System: NAD83 / Lambert Colorado State Planes, Central Zone (502), US feet
Measured depths are referenced to Rig on Slot #05 Federal Gardner 20-6 (PN20) 1079FSL & 2174FWL (RT)	North Reference: True north
Rig on Slot #05 Federal Gardner 20-6 (PN20) 1079FSL & 2174FWL (RT) to Mean Sea Level: 5795 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: SEC.20-T7S-R95W): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: thomson on 9/16/2009

Location Information

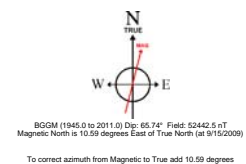
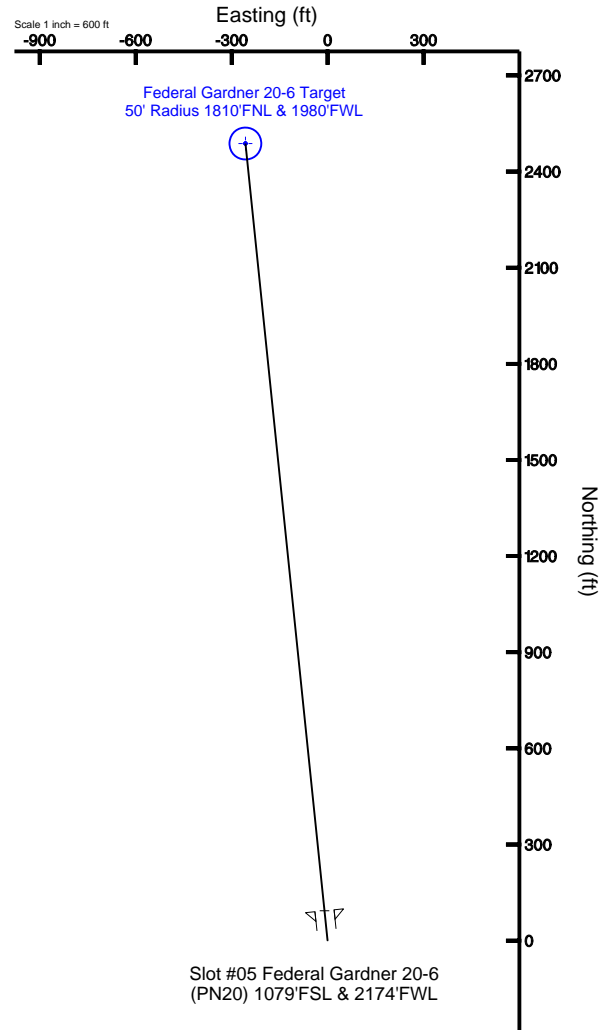
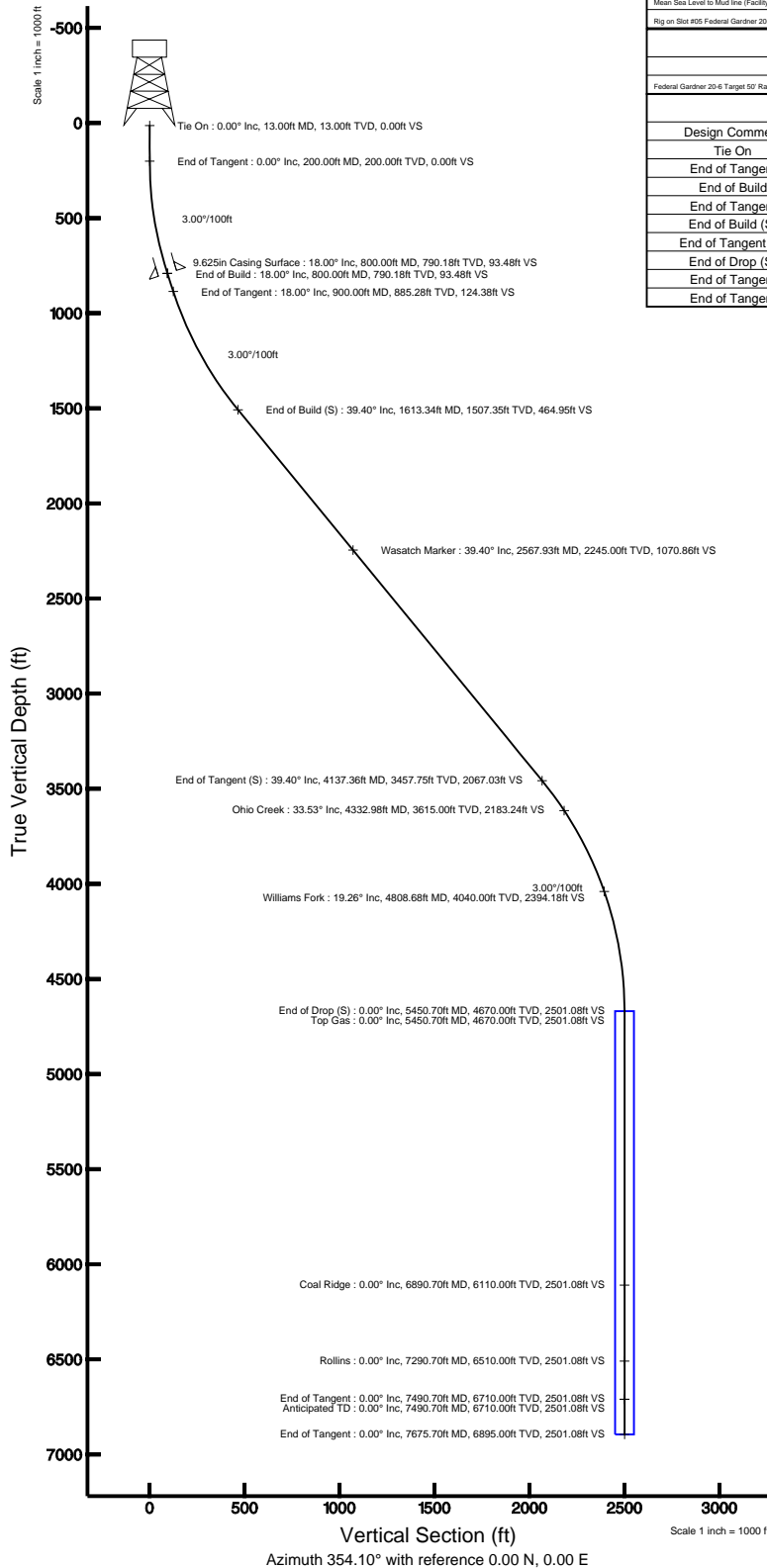
Facility Name			Grid East (US)	Grid North (US)	Latitude	Longitude
SEC.20-T7S-R95W			2287520.922	1587271.857	39°25'07.212"N	108°01'20.208"W
Slot	Local N (ft)	Local E (ft)	Grid East (US)	Grid North (US)	Latitude	Longitude
Slot #05 Federal Gardner 20-6 (PN20) 1079FSL & 2174FWL	-3.64	-11.30	2287509.525	1587268.530	39°25'07.176"N	108°01'20.352"W
Rig on Slot #05 Federal Gardner 20-6 (PN20) 1079FSL & 2174FWL (RT) to Mud line (Facility: SEC.20-T7S-R95W)						5795ft
Mean Sea Level to Mud line (Facility: SEC.20-T7S-R95W)						0ft
Rig on Slot #05 Federal Gardner 20-6 (PN20) 1079FSL & 2174FWL (RT) to Mean Sea Level						5795ft

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US)	Grid North (US)	Latitude	Longitude
Federal Gardner 20-6 Target 50' Radius 1810FNL & 1980FWL	5450.70	4670.00	2487.83	-257.07	2287321.63	1586762.41	39°25'31.764"N	108°01'23.628"W

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	13.00	0.00	354.100	13.00	0.00	0.00	0.00	0.00
End of Tangent	200.00	0.00	354.100	200.00	0.00	0.00	0.00	0.00
End of Build	800.00	18.00	354.100	790.18	92.98	-9.61	3.00	93.48
End of Tangent	900.00	18.00	354.100	885.28	123.72	-12.78	0.00	124.38
End of Build (S)	1613.34	39.40	354.100	1507.35	462.49	-47.79	3.00	464.95
End of Tangent (S)	4137.36	39.40	354.100	3457.75	2056.08	-212.46	0.00	2067.03
End of Drop (S)	5450.70	0.00	354.100	4670.00	2487.83	-257.07	3.00	2501.08
End of Tangent	7490.70	0.00	354.100	6710.00	2487.83	-257.07	0.00	2501.08
End of Tangent	7675.70	0.00	354.100	6895.00	2487.83	-257.07	0.00	2501.08





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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	ENCANA OIL & GAS (USA) INC	Slot	Slot #05 Federal Gardner 20-6 (PN20) 1079'FSL & 2174'FWL
Area	COLORADO	Well	Federal Gardner 20-6
Field	GARFIELD COUNTY (NEW)	Wellbore	Federal Gardner 20-6 PWB
Facility	SEC.20-T7S-R95W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado State Planes, Central Zone (502), US feet	Software System	WellArchitect® 2.0
North Reference	True	User	Thomsuzc
Scale	0.999951	Report Generated	9/16/2009 at 1:47:26 PM
Convergence at slot	1.59° West	Database/Source file	Denver/Federal_Gardner_20-6_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	-3.64	-11.30	2287509.53	1587268.53	39°25'07.176"N	108°01'20.352"W
Facility Reference Pt			2287520.92	1587271.86	39°25'07.212"N	108°01'20.208"W
Field Reference Pt			3000000.01	4560984.48	47°34'21.070"N	105°30'00.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on Slot #05 Federal Gardner 20-6 (PN20) 1079'FSL & 2174'FWL (RT) to Facility Vertical Datum	5795.00ft
Horizontal Reference Pt	Slot	Rig on Slot #05 Federal Gardner 20-6 (PN20) 1079'FSL & 2174'FWL (RT) to Mean Sea Level	5795.00ft
Vertical Reference Pt	Rig on Slot #05 Federal Gardner 20-6 (PN20) 1079'FSL & 2174'FWL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on Slot #05 Federal Gardner 20-6 (PN20) 1079'FSL & 2174'FWL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	354.10°



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Area	COLORADO	Well	Federal Gardner 20-6
Field	GARFIELD COUNTY (NEW)	Wellbore	Federal Gardner 20-6 PWB
Facility	SEC.20-T7S-R95W		

WELLPATH DATA (86 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]
0.00†	0.000	354.100	0.00	0.00	0.00	0.00	0.00
13.00	0.000	354.100	13.00	0.00	0.00	0.00	0.00
113.00†	0.000	354.100	113.00	0.00	0.00	0.00	0.00
200.00	0.000	354.100	200.00	0.00	0.00	0.00	0.00
213.00†	0.390	354.100	213.00	0.04	0.04	0.00	3.00
313.00†	3.390	354.100	312.93	3.34	3.32	-0.34	3.00
413.00†	6.390	354.100	412.56	11.87	11.80	-1.22	3.00
513.00†	9.390	354.100	511.60	25.59	25.46	-2.63	3.00
613.00†	12.390	354.100	609.79	44.48	44.25	-4.57	3.00
713.00†	15.390	354.100	706.85	68.48	68.12	-7.04	3.00
800.00	18.000	354.100	790.18	93.48	92.98	-9.61	3.00
813.00†	18.000	354.100	802.54	97.49	96.98	-10.02	0.00
900.00	18.000	354.100	885.28	124.38	123.72	-12.78	0.00
913.00†	18.390	354.100	897.63	128.44	127.76	-13.20	3.00
1013.00†	21.390	354.100	991.66	162.45	161.59	-16.70	3.00
1113.00†	24.390	354.100	1083.77	201.35	200.28	-20.70	3.00
1213.00†	27.390	354.100	1173.73	245.01	243.71	-25.18	3.00
1313.00†	30.390	354.100	1261.27	293.31	291.76	-30.15	3.00
1413.00†	33.390	354.100	1346.17	346.14	344.30	-35.58	3.00
1513.00†	36.390	354.100	1428.18	403.33	401.19	-41.46	3.00
1613.00†	39.390	354.100	1507.09	464.74	462.28	-47.77	3.00
1613.34	39.400	354.100	1507.35	464.95	462.49	-47.79	3.00
1713.00†	39.400	354.100	1584.37	528.21	525.41	-54.29	0.00
1813.00†	39.400	354.100	1661.64	591.68	588.55	-60.82	0.00
1913.00†	39.400	354.100	1738.91	655.16	651.69	-67.34	0.00
2013.00†	39.400	354.100	1816.19	718.63	714.82	-73.86	0.00
2113.00†	39.400	354.100	1893.46	782.10	777.96	-80.39	0.00
2213.00†	39.400	354.100	1970.73	845.58	841.10	-86.91	0.00
2313.00†	39.400	354.100	2048.01	909.05	904.23	-93.44	0.00
2413.00†	39.400	354.100	2125.28	972.52	967.37	-99.96	0.00
2513.00†	39.400	354.100	2202.55	1036.00	1030.51	-106.48	0.00
2613.00†	39.400	354.100	2279.83	1099.47	1093.65	-113.01	0.00
2713.00†	39.400	354.100	2357.10	1162.94	1156.78	-119.53	0.00
2813.00†	39.400	354.100	2434.37	1226.42	1219.92	-126.06	0.00
2913.00†	39.400	354.100	2511.65	1289.89	1283.06	-132.58	0.00
3013.00†	39.400	354.100	2588.92	1353.36	1346.19	-139.10	0.00
3113.00†	39.400	354.100	2666.19	1416.83	1409.33	-145.63	0.00
3213.00†	39.400	354.100	2743.47	1480.31	1472.47	-152.15	0.00
3313.00†	39.400	354.100	2820.74	1543.78	1535.60	-158.68	0.00
3413.00†	39.400	354.100	2898.01	1607.25	1598.74	-165.20	0.00
3513.00†	39.400	354.100	2975.29	1670.73	1661.88	-171.73	0.00
3613.00†	39.400	354.100	3052.56	1734.20	1725.02	-178.25	0.00
3713.00†	39.400	354.100	3129.83	1797.67	1788.15	-184.77	0.00
3813.00†	39.400	354.100	3207.11	1861.15	1851.29	-191.30	0.00
3913.00†	39.400	354.100	3284.38	1924.62	1914.43	-197.82	0.00



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REFERENCE WELLPATH IDENTIFICATION

Operator	ENCANA OIL & GAS (USA) INC	Slot	Slot #05 Federal Gardner 20-6 (PN20) 1079'FSL & 2174'FWL
Area	COLORADO	Well	Federal Gardner 20-6
Field	GARFIELD COUNTY (NEW)	Wellbore	Federal Gardner 20-6 PWB
Facility	SEC.20-T7S-R95W		

WELLPATH DATA (86 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]
4013.00†	39.400	354.100	3361.65	1988.09	1977.56	-204.35	0.00
4113.00†	39.400	354.100	3438.93	2051.57	2040.70	-210.87	0.00
4137.36	39.400	354.100	3457.75	2067.03	2056.08	-212.46	0.00
4213.00†	37.131	354.100	3517.13	2113.87	2102.67	-217.27	3.00
4313.00†	34.131	354.100	3598.40	2172.12	2160.62	-223.26	3.00
4413.00†	31.131	354.100	3682.61	2226.04	2214.25	-228.80	3.00
4513.00†	28.131	354.100	3769.52	2275.47	2263.42	-233.88	3.00
4613.00†	25.131	354.100	3858.90	2320.29	2308.00	-238.49	3.00
4713.00†	22.131	354.100	3950.51	2360.37	2347.87	-242.61	3.00
4813.00†	19.131	354.100	4044.08	2395.60	2382.91	-246.23	3.00
4913.00†	16.131	354.100	4139.38	2425.89	2413.04	-249.34	3.00
5013.00†	13.131	354.100	4236.12	2451.14	2438.16	-251.94	3.00
5113.00†	10.131	354.100	4334.06	2471.30	2458.21	-254.01	3.00
5213.00†	7.131	354.100	4432.91	2486.31	2473.14	-255.55	3.00
5313.00†	4.131	354.100	4532.42	2496.12	2482.90	-256.56	3.00
5413.00†	1.131	354.100	4632.30	2500.71	2487.46	-257.03	3.00
5450.70	0.000	354.100	4670.00†	2501.08	2487.83	-257.07	3.00
5513.00†	0.000	354.100	4732.30	2501.08	2487.83	-257.07	0.00
5613.00†	0.000	354.100	4832.30	2501.08	2487.83	-257.07	0.00
5713.00†	0.000	354.100	4932.30	2501.08	2487.83	-257.07	0.00
5813.00†	0.000	354.100	5032.30	2501.08	2487.83	-257.07	0.00
5913.00†	0.000	354.100	5132.30	2501.08	2487.83	-257.07	0.00
6013.00†	0.000	354.100	5232.30	2501.08	2487.83	-257.07	0.00
6113.00†	0.000	354.100	5332.30	2501.08	2487.83	-257.07	0.00
6213.00†	0.000	354.100	5432.30	2501.08	2487.83	-257.07	0.00
6313.00†	0.000	354.100	5532.30	2501.08	2487.83	-257.07	0.00
6413.00†	0.000	354.100	5632.30	2501.08	2487.83	-257.07	0.00
6513.00†	0.000	354.100	5732.30	2501.08	2487.83	-257.07	0.00
6613.00†	0.000	354.100	5832.30	2501.08	2487.83	-257.07	0.00
6713.00†	0.000	354.100	5932.30	2501.08	2487.83	-257.07	0.00
6813.00†	0.000	354.100	6032.30	2501.08	2487.83	-257.07	0.00
6913.00†	0.000	354.100	6132.30	2501.08	2487.83	-257.07	0.00
7013.00†	0.000	354.100	6232.30	2501.08	2487.83	-257.07	0.00
7113.00†	0.000	354.100	6332.30	2501.08	2487.83	-257.07	0.00
7213.00†	0.000	354.100	6432.30	2501.08	2487.83	-257.07	0.00
7313.00†	0.000	354.100	6532.30	2501.08	2487.83	-257.07	0.00
7413.00†	0.000	354.100	6632.30	2501.08	2487.83	-257.07	0.00
7490.70	0.000	354.100	6710.00	2501.08	2487.83	-257.07	0.00
7513.00†	0.000	354.100	6732.30	2501.08	2487.83	-257.07	0.00
7613.00†	0.000	354.100	6832.30	2501.08	2487.83	-257.07	0.00
7675.70	0.000	354.100	6895.00	2501.08	2487.83	-257.07	0.00



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REFERENCE WELLPATH IDENTIFICATION			
Operator	ENCANA OIL & GAS (USA) INC	Slot	Slot #05 Federal Gardner 20-6 (PN20) 1079'FSL & 2174'FWL
Area	COLORADO	Well	Federal Gardner 20-6
Field	GARFIELD COUNTY (NEW)	Wellbore	Federal Gardner 20-6 PWB
Facility	SEC.20-T7S-R95W		

HOLE & CASING SECTIONS Ref Wellbore: Federal Gardner 20-6 PWB Ref Wellpath: Federal Gardner 20-6 PWP Rev-A.0									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	13.00	800.00	787.00	13.00	790.18	0.00	0.00	92.98	-9.61
9.625in Casing Surface	13.00	800.00	787.00	13.00	790.18	0.00	0.00	92.98	-9.61

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) Federal Gardner 20-6 Target 50' Radius 1810'FNL & 1980'FWL	5450.70	4670.00	2487.83	-257.07	2287321.63	1589762.41	39°25'31.764"N	108°01'23.628"W	circle

SURVEY PROGRAM Ref Wellbore: Federal Gardner 20-6 PWB Ref Wellpath: Federal Gardner 20-6 PWP Rev-A.0				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	7675.70	MTC (Collar, post-2000) (Standard)		Federal Gardner 20-6 PWB



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Area	COLORADO	Well	Federal Gardner 20-6
Field	GARFIELD COUNTY (NEW)	Wellbore	Federal Gardner 20-6 PWB
Facility	SEC.20-T7S-R95W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]		Azimuth [°]	TVD [ft]	Comment
2567.93	39.400		354.100	2245.00	Wasatch Marker
4332.98	33.532		354.100	3615.00	Ohio Creek
4808.68	19.261		354.100	4040.00	Williams Fork
5450.70	0.000		354.100	4670.00	Top Gas
6890.70	0.000		354.100	6110.00	Coal Ridge
7290.70	0.000		354.100	6510.00	Rollins
7490.70	0.000		354.100	6710.00	Anticipated TD