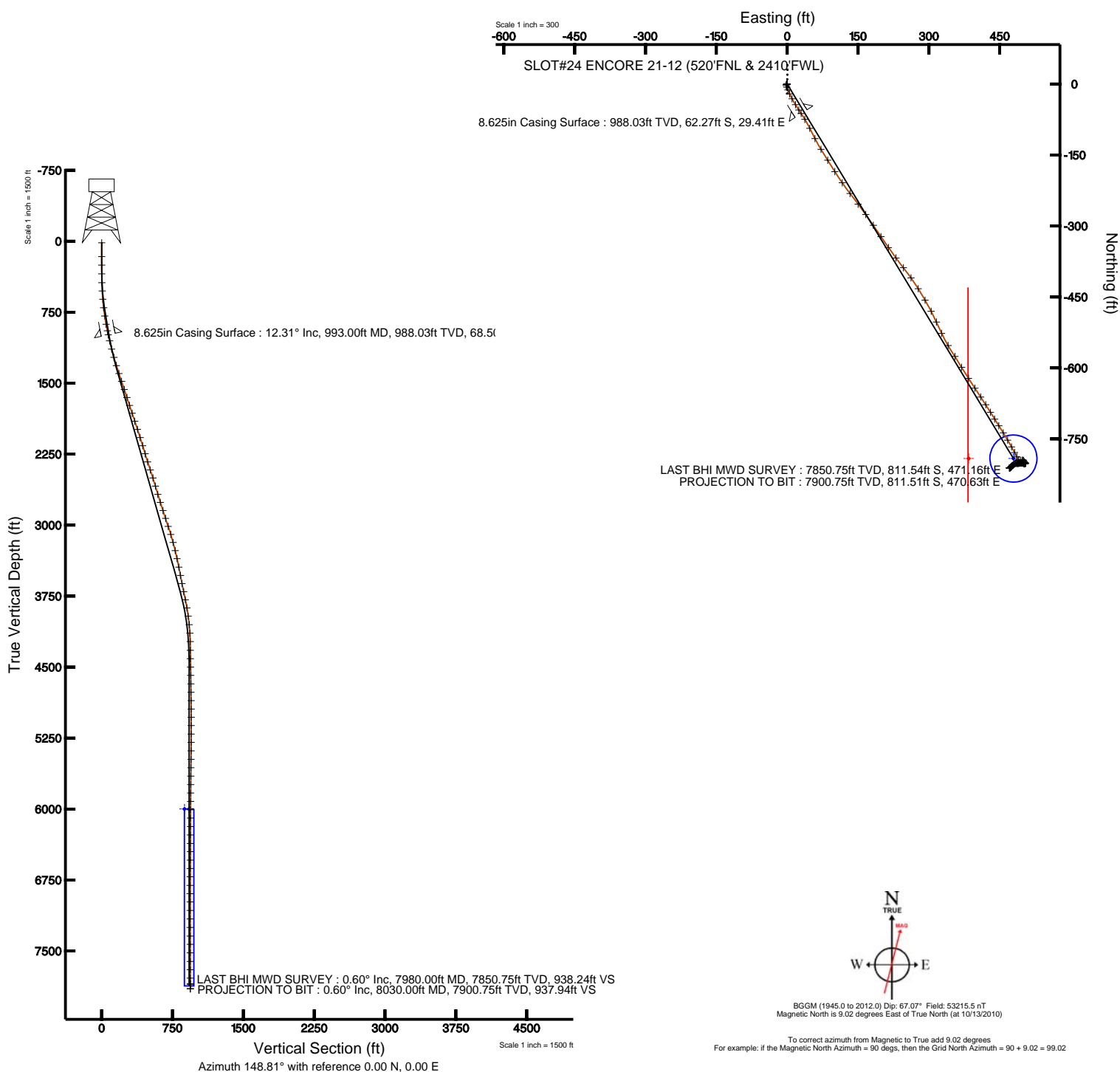


Location:	COLORADO	Slot:	SLOT#24 ENCORE 21-12 (520'FNL & 2410'FWL)
Field:	LARIMER COUNTY	Well:	ENCORE 21-12
Facility:	SEC.12-T5N-R68W	Wellbore:	ENCORE 21-12 PWB



Plot reference wellbore is ENCORE 21-12 (REV-A) PVP	
True vertical depths are referenced to XTREME 6 (RXD)	Grid System: NAD83 / Lambert Colorado State Planes, Northern Zone (S01), US feet
Measured depths are referenced to XTREME 6 (RXD)	North Reference: True north
XTREME 6 (RXD) to Mean Sea Level: 4995 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: SEC-12-TSN-R6W0): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: coxtdm on 1/12/2011





Actual Wellpath Report

ENCORE 21-12 AWP

Page 1 of 5



INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#24 ENCORE 21-12 (520'FNL & 2410'FWL)
Area	COLORADO	Well	ENCORE 21-12
Field	LARIMER COUNTY	Wellbore	ENCORE 21-12 AWB
Facility	SEC.12-T5N-R68W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet	Software System	WellArchitect® 2.0
North Reference	True	User	Cookdanm
Scale	0.999961	Report Generated	1/12/2011 at 1:55:54 PM
Convergence at slot	0.35° East	Database/Source file	Denver Server/ENCORE_21-12_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	2308.08	-2786.90	3151619.37	1396354.16	40°25'12.418"N	104°57'19.588"W
Facility Reference Pt			3154420.53	1394063.64	40°24'49.612"N	104°56'43.555"W
Field Reference Pt			3154420.53	1394063.64	40°24'49.612"N	104°56'43.555"W

WELLPATH DATUM

Calculation method	Minimum curvature	XTREME 6 (RKB) to Facility Vertical Datum	4995.00ft
Horizontal Reference Pt	Slot	XTREME 6 (RKB) to Mean Sea Level	4995.00ft
Vertical Reference Pt	XTREME 6 (RKB)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	XTREME 6 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	148.81°



Actual Wellpath Report

ENCORE 21-12 AWP

Page 2 of 5



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#24 ENCORE 21-12 (520'FNL & 2410'FWL)
Area	COLORADO	Well	ENCORE 21-12
Field	LARIMER COUNTY	Wellbore	ENCORE 21-12 AWB
Facility	SEC.12-T5N-R68W		

WELLPATH DATA (92 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	243.500	0.00	0.00	0.00	0.00	0.00	
16.00	0.000	243.500	16.00	0.00	0.00	0.00	0.00	
161.00	0.400	243.500	161.00	-0.04	-0.23	-0.45	0.28	
251.00	0.500	285.700	251.00	-0.35	-0.26	-1.11	0.37	
344.00	1.000	210.100	343.99	-0.26	-0.85	-1.91	1.08	
437.00	1.700	172.200	436.97	1.40	-2.92	-2.13	1.18	
525.00	3.400	155.300	524.88	5.19	-6.59	-0.86	2.09	
613.00	4.800	158.100	612.65	11.41	-12.37	1.60	1.61	
703.00	6.700	156.300	702.19	20.34	-20.67	5.12	2.12	
791.00	8.400	151.100	789.43	31.85	-31.00	10.29	2.08	
880.00	10.300	149.300	877.24	46.30	-43.54	17.49	2.16	
950.00	11.600	146.800	945.96	59.59	-54.81	24.54	1.98	
1059.00	13.400	147.200	1052.38	83.17	-74.60	37.38	1.65	
1148.00	14.700	154.200	1138.72	104.73	-93.43	47.89	2.40	
1239.00	16.300	152.800	1226.41	128.96	-115.19	58.75	1.81	
1330.00	17.100	148.600	1313.57	155.08	-137.97	71.56	1.59	
1418.00	18.800	147.900	1397.28	182.20	-161.02	85.84	1.95	
1506.00	18.700	148.200	1480.61	210.48	-185.02	100.80	0.16	
1596.00	18.200	144.400	1565.99	238.93	-208.72	116.59	1.45	
1685.00	18.500	143.300	1650.47	266.84	-231.34	133.12	0.51	
1774.00	18.500	143.000	1734.87	294.94	-253.94	150.05	0.11	
1861.00	18.000	143.700	1817.49	322.06	-275.79	166.32	0.63	
1950.00	18.500	145.400	1902.01	349.85	-298.50	182.48	0.82	
2041.00	18.500	146.700	1988.31	378.69	-322.45	198.60	0.45	
2131.00	17.800	144.700	2073.83	406.68	-345.61	214.39	1.04	
2222.00	17.000	143.000	2160.67	433.79	-367.59	230.44	1.04	
2311.00	17.000	142.300	2245.78	459.66	-388.27	246.22	0.23	
2401.00	17.500	144.700	2331.73	486.23	-409.73	262.09	0.97	
2490.00	18.700	147.500	2416.33	513.84	-432.68	277.49	1.66	
2579.00	18.300	150.700	2500.73	542.07	-456.90	291.99	1.23	
2670.00	15.900	151.800	2587.70	568.80	-480.35	304.88	2.66	
2761.00	16.300	155.900	2675.14	593.93	-502.99	315.98	1.32	
2850.00	18.300	155.300	2760.11	620.21	-527.09	326.92	2.26	
2941.00	19.100	147.900	2846.31	649.29	-552.69	340.80	2.75	
3028.00	17.300	148.200	2928.96	676.46	-575.74	355.19	2.07	
3117.00	18.200	148.600	3013.72	703.59	-598.85	369.40	1.02	
3206.00	17.800	147.500	3098.36	731.09	-622.19	383.95	0.59	
3294.00	15.000	146.500	3182.78	755.92	-643.03	397.47	3.20	
3383.00	14.000	146.500	3268.94	778.19	-661.61	409.77	1.12	
3470.00	12.000	147.200	3353.71	797.75	-677.99	420.47	2.31	
3562.00	11.700	148.200	3443.75	816.63	-693.96	430.57	0.40	
3651.00	10.200	148.200	3531.12	833.54	-708.33	439.48	1.69	
3739.00	11.400	147.900	3617.56	850.03	-722.32	448.21	1.37	
3827.00	11.900	147.900	3703.75	867.79	-737.37	457.65	0.57	
3914.00	12.000	150.000	3788.86	885.81	-752.80	466.94	0.51	



Actual Wellpath Report

ENCORE 21-12 AWP

Page 3 of 5



INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#24 ENCORE 21-12 (520'FNL & 2410'FWL)
Area	COLORADO	Well	ENCORE 21-12
Field	LARIMER COUNTY	Wellbore	ENCORE 21-12 AWP
Facility	SEC.12-T5N-R68W		

WELLPATH DATA (92 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
4001.00	9.900	150.400	3874.28	902.33	-767.14	475.16	2.42	
4090.00	7.600	152.100	3962.23	915.85	-778.99	481.69	2.60	
4181.00	5.500	152.800	4052.63	926.21	-788.19	486.50	2.31	
4271.00	4.000	136.300	4142.33	933.58	-794.30	490.64	2.24	
4360.00	2.500	81.100	4231.20	937.35	-796.24	494.70	3.70	
4452.00	1.500	63.500	4323.14	938.20	-795.40	497.76	1.26	
4540.00	1.100	103.200	4411.12	938.89	-795.07	499.62	1.09	
4629.00	1.400	156.300	4500.11	940.57	-796.27	500.89	1.29	
4717.00	1.300	172.500	4588.08	942.55	-798.24	501.45	0.45	
4806.00	1.000	118.400	4677.07	944.14	-799.61	502.26	1.21	
4895.00	1.000	121.200	4766.05	945.50	-800.38	503.61	0.05	
4984.00	0.700	138.800	4855.04	946.72	-801.19	504.63	0.44	
5073.00	0.300	204.500	4944.04	947.39	-801.81	504.89	0.72	
5160.00	0.400	276.600	5031.04	947.33	-801.99	504.50	0.48	
5247.00	0.400	258.300	5118.04	947.04	-802.01	503.90	0.15	
5337.00	0.400	256.900	5208.03	946.84	-802.15	503.29	0.01	
5424.00	0.400	248.400	5295.03	946.70	-802.33	502.71	0.07	
5514.00	0.600	274.500	5385.03	946.37	-802.41	501.95	0.33	
5605.00	0.700	298.000	5476.02	945.61	-802.11	500.98	0.31	
5693.00	0.900	289.200	5564.01	944.62	-801.63	499.85	0.27	
5782.00	0.900	295.900	5653.00	943.49	-801.09	498.56	0.12	
5871.00	0.700	275.500	5741.99	942.58	-800.74	497.39	0.39	
5960.00	0.700	268.800	5830.99	941.99	-800.70	496.31	0.09	
6049.00	0.500	270.900	5919.98	941.51	-800.70	495.38	0.23	
6138.00	0.800	267.400	6008.98	941.00	-800.72	494.37	0.34	
6225.00	0.600	265.300	6095.97	940.51	-800.79	493.31	0.23	
6315.00	0.700	245.300	6185.96	940.24	-801.06	492.34	0.27	
6404.00	0.800	248.100	6274.96	940.08	-801.52	491.27	0.12	
6493.00	1.100	258.600	6363.94	939.69	-801.92	489.85	0.39	
6580.00	1.000	269.500	6450.93	939.02	-802.09	488.28	0.26	
6669.00	0.900	268.100	6539.92	938.28	-802.12	486.80	0.12	
6758.00	1.000	276.900	6628.91	937.46	-802.05	485.33	0.20	
6846.00	1.100	263.600	6716.89	936.63	-802.05	483.73	0.30	
6937.00	1.000	248.100	6807.88	936.14	-802.44	482.13	0.33	
7024.00	1.700	227.000	6894.85	936.28	-803.61	480.48	0.97	
7112.00	1.400	231.600	6982.82	936.68	-805.16	478.68	0.37	
7201.00	1.100	225.900	7071.80	937.01	-806.43	477.21	0.36	
7292.00	0.800	227.000	7162.79	937.33	-807.47	476.12	0.33	
7381.00	0.600	237.200	7251.78	937.47	-808.15	475.28	0.26	
7472.00	0.400	207.600	7342.78	937.65	-808.69	474.73	0.35	
7560.00	0.400	212.200	7430.77	937.95	-809.22	474.42	0.04	
7650.00	0.500	217.900	7520.77	938.23	-809.80	474.01	0.12	
7741.00	0.600	216.800	7611.77	938.55	-810.49	473.48	0.11	
7828.00	0.700	243.700	7698.76	938.67	-811.09	472.74	0.37	
7917.00	0.600	253.400	7787.76	938.51	-811.47	471.80	0.17	



Actual Wellpath Report

ENCORE 21-12 AWP

Page 4 of 5



INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#24 ENCORE 21-12 (520'FNL & 2410'FWL)
Area	COLORADO	Well	ENCORE 21-12
Field	LARIMER COUNTY	Wellbore	ENCORE 21-12 AWB
Facility	SEC.12-T5N-R68W		

WELLPATH DATA (92 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
7980.00	0.600	273.800	7850.75	938.24	-811.54	471.16	0.34	LAST BHI MWD SURVEY
8030.00	0.600	273.800	7900.75	937.94	-811.51	470.63	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS Ref Wellbore: ENCORE 21-12 AWB Ref Wellpath: ENCORE 21-12 AWP

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	16.00	1007.00	991.00	16.00	1001.70	0.00	0.00	-64.79	31.05
8.625in Casing Surface	16.00	993.00	977.00	16.00	988.03	0.00	0.00	-62.27	29.41
7.875in Open Hole	993.00	8030.00	7037.00	988.03	7900.75	-62.27	29.41	-811.51	470.63

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
ENCORE 21-12 GEO TARGET 50' RADIUS (1300'FNL & 2600'FEL, REV-1)		6000.00	-791.65	479.21	3152103.41	1395565.50	40°25'04.595"N	104°57'13.392"W	circle
ENCORE 21-12 HARDLINE 95'W OF THE GEO TARGET		6000.00	-791.65	384.21	3152008.41	1395564.91	40°25'04.595"N	104°57'14.620"W	point

WELLPATH COMPOSITION Ref Wellbore: ENCORE 21-12 AWB Ref Wellpath: ENCORE 21-12 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	950.00	NaviTrak (Standard)	BHI MWD SURVEYS 12.25 HOLE <161-950>	ENCORE 21-12 AWB
950.00	7980.00	NaviTrak (Standard)	BHI MWD SURVEYS 7.875 HOLE <1059-7980>	ENCORE 21-12 AWB
7980.00	8030.00	Blind Drilling (std)	Projection to bit	ENCORE 21-12 AWB



Actual Wellpath Report

ENCORE 21-12 AWP

Page 5 of 5



INTEQ

REFERENCE WELLPATH IDENTIFICATION

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Area	COLORADO	Well	ENCORE 21-12
Field	LARIMER COUNTY	Wellbore	ENCORE 21-12 AWB
Facility	SEC.12-T5N-R68W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
7980.00	0.600	273.800	7850.75	LAST BHI MWD SURVEY
8030.00	0.600	273.800	7900.75	PROJECTION TO BIT