

# KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#06 SALAZAR 23-20 (1696'FNL & 1469'FWL)  
 Field: WELD COUNTY (KERR MCGEE) Well: SALAZAR 23-20  
 Facility: SEC.20-T3N-R67W Wellbore: SALAZAR 23-20 PWB



## Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	115.000	17.00	0.00	0.00	0.00	0.00
End of Tangent	200.00	0.000	115.000	200.00	0.00	0.00	0.00	0.00
End of Build	700.00	15.000	115.000	694.31	-27.50	58.98	3.00	54.11
End of Tangent	1000.00	15.000	115.000	984.09	-60.32	129.35	0.00	118.68
3D Arc (S)	1517.98	25.000	151.418	1471.97	-185.53	243.16	3.00	284.77
End of Tangent (S)	6756.30	25.000	151.418	6219.50	-2129.54	1302.30	0.00	2496.17
Drop (S)	7589.63	0.000	151.418	7026.64	-2286.67	1387.91	3.00	2674.91
End of Tangent	7953.99	0.000	151.418	7391.00	-2286.67	1387.91	0.00	2674.91

## Location Information

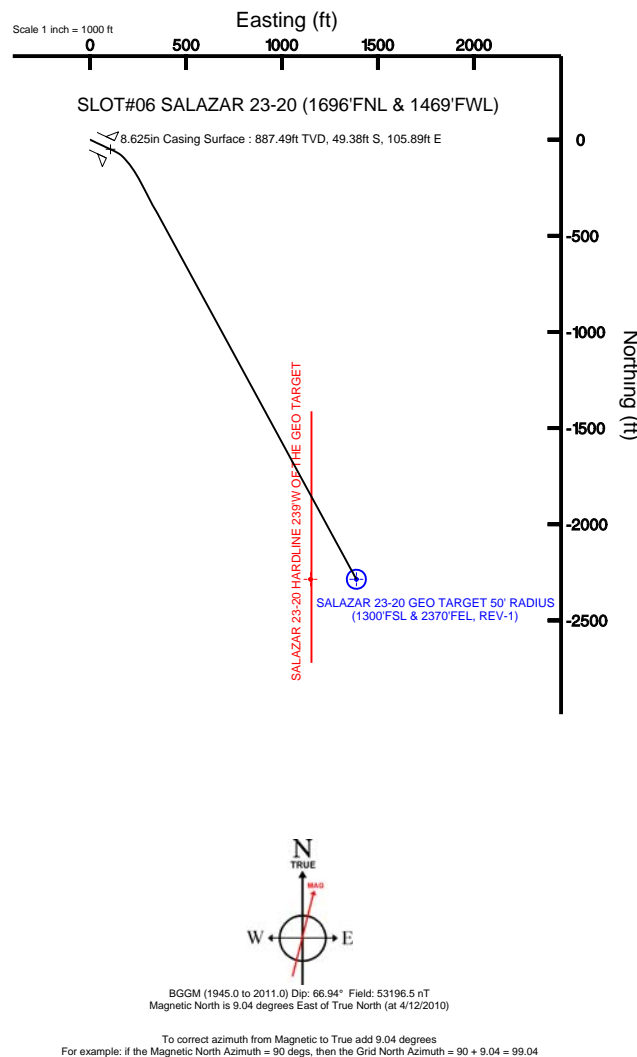
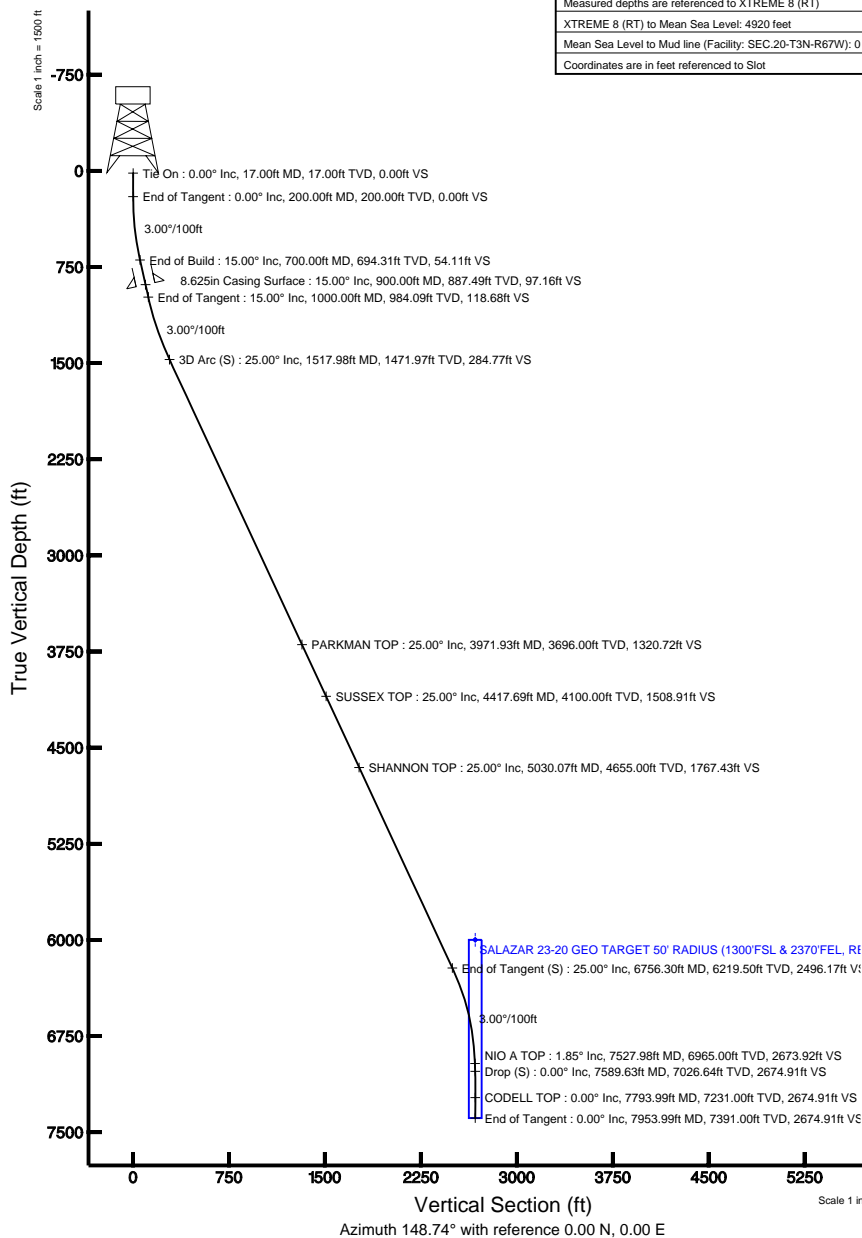
Facility Name				Grid East (USft)	Grid North (USft)	Latitude	Longitude
SEC.20-T3N-R67W				3165368.854	1322534.878	40°13'02.064"N	104°54'28.188"W
Slot				Local N (ft)	Local E (ft)	Grid East (USft)	Grid North (USft)
SLOT#06 SALAZAR 23-20 (1696'FNL & 1469'FWL)				-1188.55	-2845.66	3162531.326	1321327.407
XTREME 8 (RT) to Mud line (Facility: SEC.20-T3N-R67W)				4920ft			
Mean Sea Level to Mud line (Facility: SEC.20-T3N-R67W)				0ft			
XTREME 8 (RT) to Mean Sea Level				4920ft			

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (USft)	Grid North (USft)	Latitude	Longitude
SALAZAR 23-20 HARDLINE 239'W OF THE GEO TARGET	5999.00	-2286.67	1148.90	3163695.16	1319048.42	40°12'27.720"N	104°54'50.060"W	
SALAZAR 23-20 GEO TARGET 50' RADIUS (1300'FSL & 2370'FEL, REV-1)	8000.00	-2286.67	1387.91	3163934.15	1319049.99	40°12'27.720"N	104°54'46.980"W	

## Plot reference wellpath is SALAZAR 23-20 (REV-E.0) PWP

True vertical depths are referenced to XTREME 8 (RT)	Grid System: NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet
Measured depths are referenced to XTREME 8 (RT)	North Reference: True north
XTREME 8 (RT) to Mean Sea Level: 4920 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: SEC.20-T3N-R67W): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: cookdanm on 4/16/2010





# Planned Wellpath Report

SALAZAR 23-20 (REV-E.0) PWP

Page 1 of 5



INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 SALAZAR 23-20 (1696'FNL & 1469'FWL)
Area	COLORADO	Well	SALAZAR 23-20
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SALAZAR 23-20 PWB
Facility	SEC.20-T3N-R67W		

## 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	0.999957	Report Generated	4/16/2010 at 5:22:51 PM
Convergence at slot	0.38° East	Database/Source file	Denver Server/SALAZAR_23-20_PWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	-1188.55	-2845.66	3162531.33	1321327.41	40°12'50.317"N	104°55'04.868"W
Facility Reference Pt			3165368.85	1322534.88	40°13'02.064"N	104°54'28.188"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

## WELLPATH DATUM

Calculation method	Minimum curvature	XTREME 8 (RT) to Facility Vertical Datum	4920.00ft
Horizontal Reference Pt	Slot	XTREME 8 (RT) to Mean Sea Level	4920.00ft
Vertical Reference Pt	XTREME 8 (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	XTREME 8 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	148.74°



# Planned Wellpath Report

SALAZAR 23-20 (REV-E.0) PWP

Page 2 of 5



INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 SALAZAR 23-20 (1696'FNL & 1469'FWL)
Area	COLORADO	Well	SALAZAR 23-20
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SALAZAR 23-20 PWB
Facility	SEC.20-T3N-R67W		

## WELLPATH DATA (93 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	115.000	0.00	0.00	0.00	0.00	0.00	
17.00	0.000	115.000	17.00	0.00	0.00	0.00	0.00	Tie On
117.00†	0.000	115.000	117.00	0.00	0.00	0.00	0.00	
200.00	0.000	115.000	200.00	0.00	0.00	0.00	0.00	End of Tangent
217.00†	0.510	115.000	217.00	0.06	-0.03	0.07	3.00	
317.00†	3.510	115.000	316.93	2.98	-1.51	3.25	3.00	
417.00†	6.510	115.000	416.53	10.24	-5.20	11.16	3.00	
517.00†	9.510	115.000	515.55	21.83	-11.09	23.79	3.00	
617.00†	12.510	115.000	613.69	37.70	-19.16	41.10	3.00	
700.00	15.000	115.000	694.31	54.11	-27.50	58.98	3.00	End of Build
717.00†	15.000	115.000	710.73	57.77	-29.36	62.97	0.00	
817.00†	15.000	115.000	807.32	79.29	-40.30	86.42	0.00	
917.00†	15.000	115.000	903.91	100.81	-51.24	109.88	0.00	
1000.00	15.000	115.000	984.09	118.68	-60.32	129.35	0.00	End of Tangent
1017.00†	15.186	116.824	1000.50	122.40	-62.25	133.33	3.00	
1117.00†	16.553	126.610	1096.70	146.71	-76.66	156.46	3.00	
1217.00†	18.303	134.762	1192.12	175.15	-96.22	179.05	3.00	
1317.00†	20.338	141.436	1286.50	207.63	-120.87	201.04	3.00	
1417.00†	22.581	146.890	1379.57	244.07	-150.54	222.36	3.00	
1517.00†	24.976	151.378	1471.08	284.36	-185.17	242.97	3.00	
1517.98	25.000	151.418	1471.97	284.77	-185.53	243.16	3.00	3D Arc (S)
1617.00†	25.000	151.418	1561.71	326.57	-222.28	263.19	0.00	
1717.00†	25.000	151.418	1652.34	368.79	-259.39	283.41	0.00	
1817.00†	25.000	151.418	1742.97	411.00	-296.50	303.62	0.00	
1917.00†	25.000	151.418	1833.60	453.22	-333.61	323.84	0.00	
2017.00†	25.000	151.418	1924.24	495.44	-370.72	344.06	0.00	
2117.00†	25.000	151.418	2014.87	537.65	-407.83	364.28	0.00	
2217.00†	25.000	151.418	2105.50	579.87	-444.95	384.50	0.00	
2317.00†	25.000	151.418	2196.13	622.08	-482.06	404.72	0.00	
2417.00†	25.000	151.418	2286.76	664.30	-519.17	424.94	0.00	
2517.00†	25.000	151.418	2377.39	706.51	-556.28	445.16	0.00	
2617.00†	25.000	151.418	2468.02	748.73	-593.39	465.38	0.00	
2717.00†	25.000	151.418	2558.65	790.95	-630.50	485.59	0.00	
2817.00†	25.000	151.418	2649.28	833.16	-667.61	505.81	0.00	
2917.00†	25.000	151.418	2739.91	875.38	-704.73	526.03	0.00	
3017.00†	25.000	151.418	2830.54	917.59	-741.84	546.25	0.00	
3117.00†	25.000	151.418	2921.17	959.81	-778.95	566.47	0.00	
3217.00†	25.000	151.418	3011.80	1002.03	-816.06	586.69	0.00	
3317.00†	25.000	151.418	3102.44	1044.24	-853.17	606.91	0.00	
3417.00†	25.000	151.418	3193.07	1086.46	-890.28	627.13	0.00	
3517.00†	25.000	151.418	3283.70	1128.67	-927.39	647.35	0.00	
3617.00†	25.000	151.418	3374.33	1170.89	-964.51	667.57	0.00	
3717.00†	25.000	151.418	3464.96	1213.10	-1001.62	687.78	0.00	
3817.00†	25.000	151.418	3555.59	1255.32	-1038.73	708.00	0.00	
3917.00†	25.000	151.418	3646.22	1297.54	-1075.84	728.22	0.00	



# Planned Wellpath Report

SALAZAR 23-20 (REV-E.0) PWP

Page 3 of 5



INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 SALAZAR 23-20 (1696'FNL & 1469'FWL)
Area	COLORADO	Well	SALAZAR 23-20
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SALAZAR 23-20 PWB
Facility	SEC.20-T3N-R67W		

## WELLPATH DATA (93 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
3971.93†	25.000	151.418	3696.00	1320.72	-1096.22	739.33	0.00	PARKMAN TOP
4017.00†	25.000	151.418	3736.85	1339.75	-1112.95	748.44	0.00	
4117.00†	25.000	151.418	3827.48	1381.97	-1150.06	768.66	0.00	
4217.00†	25.000	151.418	3918.11	1424.18	-1187.17	788.88	0.00	
4317.00†	25.000	151.418	4008.74	1466.40	-1224.28	809.10	0.00	
4417.00†	25.000	151.418	4099.37	1508.62	-1261.40	829.32	0.00	
4417.69†	25.000	151.418	4100.00	1508.91	-1261.65	829.46	0.00	SUSSEX TOP
4517.00†	25.000	151.418	4190.00	1550.83	-1298.51	849.54	0.00	
4617.00†	25.000	151.418	4280.64	1593.05	-1335.62	869.75	0.00	
4717.00†	25.000	151.418	4371.27	1635.26	-1372.73	889.97	0.00	
4817.00†	25.000	151.418	4461.90	1677.48	-1409.84	910.19	0.00	
4917.00†	25.000	151.418	4552.53	1719.69	-1446.95	930.41	0.00	
5017.00†	25.000	151.418	4643.16	1761.91	-1484.06	950.63	0.00	
5030.07†	25.000	151.418	4655.00	1767.43	-1488.91	953.27	0.00	SHANNON TOP
5117.00†	25.000	151.418	4733.79	1804.13	-1521.18	970.85	0.00	
5217.00†	25.000	151.418	4824.42	1846.34	-1558.29	991.07	0.00	
5317.00†	25.000	151.418	4915.05	1888.56	-1595.40	1011.29	0.00	
5417.00†	25.000	151.418	5005.68	1930.77	-1632.51	1031.51	0.00	
5517.00†	25.000	151.418	5096.31	1972.99	-1669.62	1051.73	0.00	
5617.00†	25.000	151.418	5186.94	2015.21	-1706.73	1071.94	0.00	
5717.00†	25.000	151.418	5277.57	2057.42	-1743.84	1092.16	0.00	
5817.00†	25.000	151.418	5368.20	2099.64	-1780.96	1112.38	0.00	
5917.00†	25.000	151.418	5458.84	2141.85	-1818.07	1132.60	0.00	
6017.00†	25.000	151.418	5549.47	2184.07	-1855.18	1152.82	0.00	
6117.00†	25.000	151.418	5640.10	2226.28	-1892.29	1173.04	0.00	
6217.00†	25.000	151.418	5730.73	2268.50	-1929.40	1193.26	0.00	
6317.00†	25.000	151.418	5821.36	2310.72	-1966.51	1213.48	0.00	
6417.00†	25.000	151.418	5911.99	2352.93	-2003.62	1233.70	0.00	
6517.00†	25.000	151.418	6002.62	2395.15	-2040.74	1253.91	0.00	
6617.00†	25.000	151.418	6093.25	2437.36	-2077.85	1274.13	0.00	
6717.00†	25.000	151.418	6183.88	2479.58	-2114.96	1294.35	0.00	
6756.30	25.000	151.418	6219.50	2496.17	-2129.54	1302.30	0.00	End of Tangent (S)
6817.00†	23.179	151.418	6274.91	2520.92	-2151.30	1314.15	3.00	
6917.00†	20.179	151.418	6367.83	2557.81	-2183.73	1331.82	3.00	
7017.00†	17.179	151.418	6462.55	2589.80	-2211.85	1347.14	3.00	
7117.00†	14.179	151.418	6558.82	2616.79	-2235.58	1360.07	3.00	
7217.00†	11.179	151.418	6656.37	2638.72	-2254.85	1370.57	3.00	
7317.00†	8.179	151.418	6754.93	2655.51	-2269.62	1378.61	3.00	
7417.00†	5.179	151.418	6854.24	2667.12	-2279.83	1384.18	3.00	
7517.00†	2.179	151.418	6954.03	2673.53	-2285.46	1387.25	3.00	
7527.98†	1.849	151.418	6965.00	2673.92	-2285.80	1387.43	3.00	NIO A TOP
7589.63	0.000	151.418	7026.64 <sup>1</sup>	2674.91	-2286.67	1387.91	3.00	Drop (S)
7617.00†	0.000	151.418	7054.01	2674.91	-2286.67	1387.91	0.00	
7717.00†	0.000	151.418	7154.01	2674.91	-2286.67	1387.91	0.00	
7793.99†	0.000	151.418	7231.00	2674.91	-2286.67	1387.91	0.00	CODELL TOP



# Planned Wellpath Report

SALAZAR 23-20 (REV-E.0) PWP

Page 4 of 5



INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 SALAZAR 23-20 (1696'FNL & 1469'FWL)
Area	COLORADO	Well	SALAZAR 23-20
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SALAZAR 23-20 PWB
Facility	SEC.20-T3N-R67W		

## WELLPATH DATA (93 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
7817.00†	0.000	151.418	7254.01	2674.91	-2286.67	1387.91	0.00	
7917.00†	0.000	151.418	7354.01	2674.91	-2286.67	1387.91	0.00	
7953.99	0.000	151.418	7391.00	2674.91	-2286.67	1387.91	0.00	End of Tangent

## HOLE & CASING SECTIONS

Ref Wellbore: SALAZAR 23-20 PWB Ref Wellpath: SALAZAR 23-20 (REV-E.0) PWP

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	17.00	900.00	883.00	17.00	887.49	0.00	0.00	-49.38	105.89
8.625in Casing Surface	17.00	900.00	883.00	17.00	887.49	0.00	0.00	-49.38	105.89
7.875in Open Hole	900.00	7953.99	7053.99	887.49	7391.00	-49.38	105.89	-2286.67	1387.91

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
SALAZAR 23-20 HARDLINE 239'W OF THE GEO TARGET		5999.00	-2286.67	1148.90	3163695.16	1319048.42	40°12'27.720"N	104°54'50.060"W	point
1) SALAZAR 23-20 GEO TARGET 50' RADIUS (1300'FSL & 2370'FEL, REV-1)		6000.00	-2286.67	1387.91	3163934.15	1319049.99	40°12'27.720"N	104°54'46.980"W	circle

## SURVEY PROGRAM Ref Wellbore: SALAZAR 23-20 PWB Ref Wellpath: SALAZAR 23-20 (REV-E.0) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7953.99	NaviTrak (Standard)		SALAZAR 23-20 PWB



# Planned Wellpath Report

SALAZAR 23-20 (REV-E.0) PWP

Page 5 of 5



**INTEQ**

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 SALAZAR 23-20 (1696'FNL & 1469'FWL)
Area	COLORADO	Well	SALAZAR 23-20
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SALAZAR 23-20 PWB
Facility	SEC.20-T3N-R67W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
3971.93	25.000	151.418	3696.00	PARKMAN TOP
4417.69	25.000	151.418	4100.00	SUSSEX TOP
5030.07	25.000	151.418	4655.00	SHANNON TOP
7527.98	1.849	151.418	6965.00	NIO A TOP
7793.99	0.000	151.418	7231.00	CODELL TOP