



Location:	COLORADO	Slot:	SLOT#01 NORTHGLENN STATE 4-36 (2436FNL & 2488FEL)
Field:	WELD COUNTY (KERR MCGEE)	Well:	NORTHGLENN STATE 4-36
Facility:	SEC.36-T1N-R68W	Wellbore:	NORTHGLENN STATE 4-36 PWB

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	15.00	0.00	309.829	15.00	0.00	0.00	0.00	0.00
End of Tangent	200.00	0.00	309.829	200.00	0.00	0.00	0.00	0.00
End of Build	600.00	10.00	309.829	597.97	22.30	-26.74	2.50	34.82
End of Tangent	1100.00	10.00	309.829	1090.38	77.91	-93.42	0.00	121.64
End of Build (S)	1700.00	25.00	309.829	1660.97	193.14	-231.58	2.50	301.55
End of Tangent (S)	7046.24	25.00	309.829	6506.32	1640.28	-1966.73	0.00	2560.97
End of Drop (S)	8046.24	0.00	309.829	7474.89	1777.81	-2131.64	2.50	2775.70
End of Tangent	9069.36	0.00	309.829	8498.00	1777.81	-2131.64	0.00	2775.70

Location Information

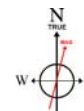
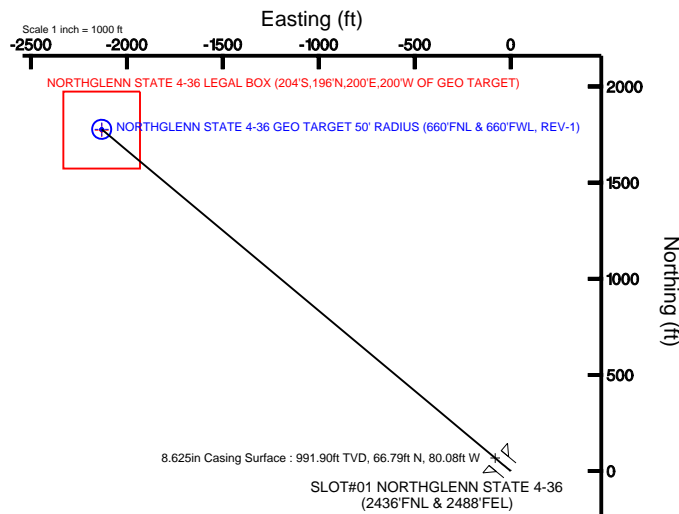
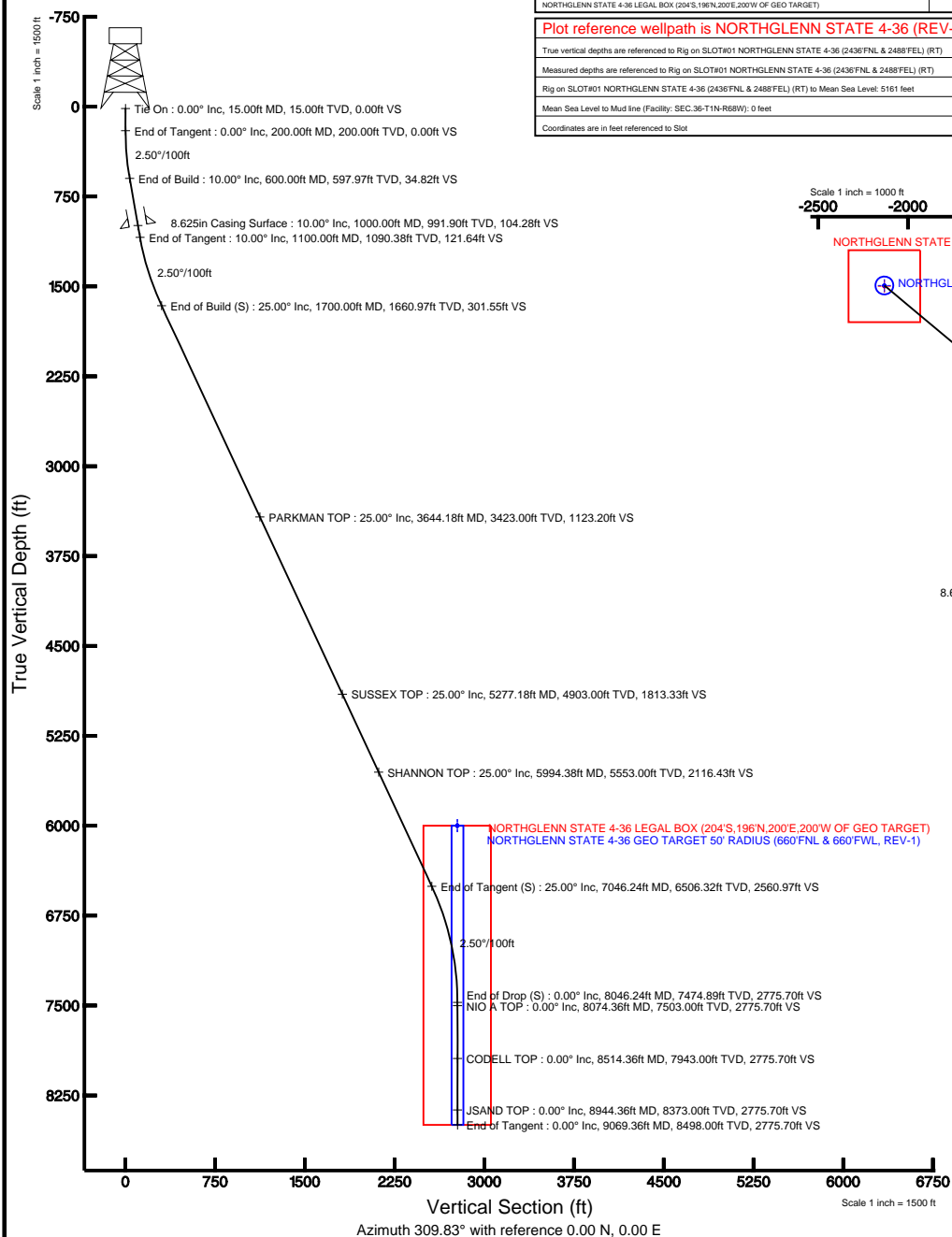
Facility Name				Grid East (USF)	Grid North (USF)	Latitude	Longitude
SEC-36-TIN-R66W				3153664.397	1246309.186	40°00'29.520"N	104°57'05.148"W
Slot	Local N (ft)	Local E (ft)		Grid East (USF)	Grid North (USF)	Latitude	Longitude
SLOT#01 NORTHGLENN STATE 4-36 (2436'FNL & 2488'FEL)	0.00	0.00		3153664.397	1246309.186	40°00'29.520"N	104°57'05.148"W
Rig on SLOT#01 NORTHGLENN STATE 4-36 (2436'FNL & 2488'FEL) (RT) to Mud line (Facility: SEC-36-TIN-R66W)							5161ft
Mean Sea Level to Mud line (Facility: SEC-36-TIN-R66W)							0ft
Rig on SLOT#01 NORTHGLENN STATE 4-36 (2436'FNL & 2488'FEL) (RT) to Mean Sea Level							5161ft

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (USR)	Grid North (USR)	Latitude	Longitude
NORTHGLENN STATE 4-36 GEO TARGET 50' RADIUS (660FWL & 660FWL REV-1)	6000.00	1777.81	-2131.64	3151251.88	1248073.72	40°00' 47.088"N	104°57'32.554"W	
NORTHGLENN STATE 4-36 LEGAL BOX (245.3,196N,202.200W OF GEO TARGET)	6000.00	1777.81	-2131.64	3151251.88	1248069.71	40°00' 47.048"N	104°57'32.554"W	

Plot reference wellpath is NORTHGLENN STATE 4-36 (REV-A.0) PWF

True vertical depths are referenced to Rig on SLOT#01 NORTHGLENN STATE 4-36 (2436FNL & 2488FEL) (RT)	Grid System: NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLOT#01 NORTHGLENN STATE 4-36 (2436FNL & 2488FEL) (RT)	North Reference: True north
Rig on SLOT#01 NORTHGLENN STATE 4-36 (2436FNL & 2488FEL) (RT) to Mean Sea Level: 5161 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: SEC.36-T1N-R68W): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: cookdnn on 10/13/2009



BGGM (1945.0 to 2011.0) Dip: 66.78° Field: 53126.6 nT
Magnetic North is 9.12 degrees East of True North (at 10/13/2009)

To correct azimuth from Magnetic to True add 9.12 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = $90 + 9.12 = 99.12$



Planned Wellpath Report

NORTHGLENN STATE 4-36 (REV-A.0) PWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 NORTHGLENN STATE 4-36 (2436'FNL & 2488'FEL)
Area	COLORADO	Well	NORTHGLENN STATE 4-36
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NORTHGLENN STATE 4-36 PWB
Facility	SEC.36-T1N-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	0.999966	Report Generated	10/13/2009 at 5:21:58 PM
Convergence at slot	0.35° East	Database/Source file	Denver Server/NORTHGLENN_STATE_4-36_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	3153664.40	1246309.19	40°00'29.520"N	104°57'05.148"W
Facility Reference Pt			3153664.40	1246309.19	40°00'29.520"N	104°57'05.148"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on SLOT#01 NORTHGLENN STATE 4-36 (2436'FNL & 2488'FEL) (RT) Vertical Datum
Horizontal Reference Pt	Slot	Rig on SLOT#01 NORTHGLENN STATE 4-36 (2436'FNL & 2488'FEL) (RT) Level
Vertical Reference Pt	Rig on SLOT#01 NORTHGLENN STATE 4-36 (2436'FNL & 2488'FEL) (RT)	Facility Vertical Datum to Mud L
MD Reference Pt	Rig on SLOT#01 NORTHGLENN STATE 4-36 (2436'FNL & 2488'FEL) (RT)	Section Origin
Field Vertical Reference	Mean Sea Level	Section Azimuth



Planned Wellpath Report

NORTHGLENN STATE 4-36 (REV-A.0) PWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 NORTHGLENN STATE 4-36 (2436'FNL & 2488'FEL)
Area	COLORADO	Well	NORTHGLENN STATE 4-36
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NORTHGLENN STATE 4-36 PWB
Facility	SEC.36-T1N-R68W		

WELLPATH DATA (105 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	309.829	0.00	0.00	0.00	0.00	0.00	
15.00	0.000	309.829	15.00	0.00	0.00	0.00	0.00	Tie On
115.00†	0.000	309.829	115.00	0.00	0.00	0.00	0.00	
200.00	0.000	309.829	200.00	0.00	0.00	0.00	0.00	End of Tangent
215.00†	0.375	309.829	215.00	0.05	0.03	-0.04	2.50	
315.00†	2.875	309.829	314.95	2.88	1.85	-2.22	2.50	
415.00†	5.375	309.829	414.68	10.08	6.45	-7.74	2.50	
515.00†	7.875	309.829	514.01	21.61	13.84	-16.60	2.50	
600.00	10.000	309.829	597.97	34.82	22.30	-26.74	2.50	End of Build
615.00†	10.000	309.829	612.74	37.42	23.97	-28.74	0.00	
715.00†	10.000	309.829	711.23	54.79	35.09	-42.07	0.00	
815.00†	10.000	309.829	809.71	72.15	46.21	-55.41	0.00	
915.00†	10.000	309.829	908.19	89.52	57.34	-68.75	0.00	
1015.00†	10.000	309.829	1006.67	106.88	68.46	-82.08	0.00	
1100.00	10.000	309.829	1090.38	121.64	77.91	-93.42	0.00	End of Tangent
1115.00†	10.375	309.829	1105.14	124.30	79.61	-95.45	2.50	
1215.00†	12.875	309.829	1203.08	144.44	92.52	-110.93	2.50	
1315.00†	15.375	309.829	1300.05	168.85	108.14	-129.67	2.50	
1415.00†	17.875	309.829	1395.86	197.45	126.47	-151.64	2.50	
1515.00†	20.375	309.829	1490.33	230.21	147.45	-176.80	2.50	
1615.00†	22.875	309.829	1583.29	267.06	171.05	-205.10	2.50	
1700.00	25.000	309.829	1660.97	301.55	193.14	-231.58	2.50	End of Build (S)
1715.00†	25.000	309.829	1674.57	307.89	197.20	-236.45	0.00	
1815.00†	25.000	309.829	1765.20	350.15	224.27	-268.90	0.00	
1915.00†	25.000	309.829	1855.83	392.41	251.34	-301.36	0.00	
2015.00†	25.000	309.829	1946.46	434.68	278.41	-333.82	0.00	
2115.00†	25.000	309.829	2037.09	476.94	305.47	-366.27	0.00	
2215.00†	25.000	309.829	2127.72	519.20	332.54	-398.73	0.00	
2315.00†	25.000	309.829	2218.35	561.46	359.61	-431.18	0.00	
2415.00†	25.000	309.829	2308.98	603.72	386.68	-463.64	0.00	
2515.00†	25.000	309.829	2399.61	645.98	413.75	-496.09	0.00	
2615.00†	25.000	309.829	2490.25	688.25	440.82	-528.55	0.00	
2715.00†	25.000	309.829	2580.88	730.51	467.89	-561.00	0.00	
2815.00†	25.000	309.829	2671.51	772.77	494.95	-593.46	0.00	
2915.00†	25.000	309.829	2762.14	815.03	522.02	-625.92	0.00	
3015.00†	25.000	309.829	2852.77	857.29	549.09	-658.37	0.00	
3115.00†	25.000	309.829	2943.40	899.56	576.16	-690.83	0.00	
3215.00†	25.000	309.829	3034.03	941.82	603.23	-723.28	0.00	
3315.00†	25.000	309.829	3124.66	984.08	630.30	-755.74	0.00	
3415.00†	25.000	309.829	3215.29	1026.34	657.36	-788.19	0.00	
3515.00†	25.000	309.829	3305.92	1068.60	684.43	-820.65	0.00	
3615.00†	25.000	309.829	3396.55	1110.86	711.50	-853.10	0.00	
3644.18†	25.000	309.829	3423.00	1123.20	719.40	-862.58	0.00	PARKMAN TOP
3715.00†	25.000	309.829	3487.18	1153.13	738.57	-885.56	0.00	
3815.00†	25.000	309.829	3577.81	1195.39	765.64	-918.02	0.00	



Planned Wellpath Report

NORTHGLENN STATE 4-36 (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 NORTHGLENN STATE 4-36 (2436'FNL & 2488'FEL)
Area	COLORADO	Well	NORTHGLENN STATE 4-36
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NORTHGLENN STATE 4-36 PWB
Facility	SEC.36-T1N-R68W		

WELLPATH DATA (105 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
3915.00†	25.000	309.829	3668.45	1237.65	792.71	-950.47	0.00	
4015.00†	25.000	309.829	3759.08	1279.91	819.77	-982.93	0.00	
4115.00†	25.000	309.829	3849.71	1322.17	846.84	-1015.38	0.00	
4215.00†	25.000	309.829	3940.34	1364.44	873.91	-1047.84	0.00	
4315.00†	25.000	309.829	4030.97	1406.70	900.98	-1080.29	0.00	
4415.00†	25.000	309.829	4121.60	1448.96	928.05	-1112.75	0.00	
4515.00†	25.000	309.829	4212.23	1491.22	955.12	-1145.20	0.00	
4615.00†	25.000	309.829	4302.86	1533.48	982.18	-1177.66	0.00	
4715.00†	25.000	309.829	4393.49	1575.74	1009.25	-1210.12	0.00	
4815.00†	25.000	309.829	4484.12	1618.01	1036.32	-1242.57	0.00	
4915.00†	25.000	309.829	4574.75	1660.27	1063.39	-1275.03	0.00	
5015.00†	25.000	309.829	4665.38	1702.53	1090.46	-1307.48	0.00	
5115.00†	25.000	309.829	4756.01	1744.79	1117.53	-1339.94	0.00	
5215.00†	25.000	309.829	4846.65	1787.05	1144.59	-1372.39	0.00	
5277.18†	25.000	309.829	4903.00	1813.33	1161.43	-1392.57	0.00	SUSSEX TOP
5315.00†	25.000	309.829	4937.28	1829.32	1171.66	-1404.85	0.00	
5415.00†	25.000	309.829	5027.91	1871.58	1198.73	-1437.30	0.00	
5515.00†	25.000	309.829	5118.54	1913.84	1225.80	-1469.76	0.00	
5615.00†	25.000	309.829	5209.17	1956.10	1252.87	-1502.22	0.00	
5715.00†	25.000	309.829	5299.80	1998.36	1279.94	-1534.67	0.00	
5815.00†	25.000	309.829	5390.43	2040.62	1307.01	-1567.13	0.00	
5915.00†	25.000	309.829	5481.06	2082.89	1334.07	-1599.58	0.00	
5994.38†	25.000	309.829	5553.00	2116.43	1355.56	-1625.34	0.00	SHANNON TOP
6015.00†	25.000	309.829	5571.69	2125.15	1361.14	-1632.04	0.00	
6115.00†	25.000	309.829	5662.32	2167.41	1388.21	-1664.49	0.00	
6215.00†	25.000	309.829	5752.95	2209.67	1415.28	-1696.95	0.00	
6315.00†	25.000	309.829	5843.58	2251.93	1442.35	-1729.41	0.00	
6415.00†	25.000	309.829	5934.21	2294.20	1469.42	-1761.86	0.00	
6515.00†	25.000	309.829	6024.85	2336.46	1496.48	-1794.32	0.00	
6615.00†	25.000	309.829	6115.48	2378.72	1523.55	-1826.77	0.00	
6715.00†	25.000	309.829	6206.11	2420.98	1550.62	-1859.23	0.00	
6815.00†	25.000	309.829	6296.74	2463.24	1577.69	-1891.68	0.00	
6915.00†	25.000	309.829	6387.37	2505.51	1604.76	-1924.14	0.00	
7015.00†	25.000	309.829	6478.00	2547.77	1631.83	-1956.59	0.00	
7046.24	25.000	309.829	6506.32	2560.97	1640.28	-1966.73	0.00	End of Tangent (S)
7115.00†	23.281	309.829	6569.06	2589.09	1658.29	-1988.33	2.50	
7215.00†	20.781	309.829	6661.75	2626.60	1682.32	-2017.13	2.50	
7315.00†	18.281	309.829	6755.99	2660.03	1703.73	-2042.81	2.50	
7415.00†	15.781	309.829	6851.59	2689.31	1722.49	-2065.30	2.50	
7515.00†	13.281	309.829	6948.39	2714.40	1738.55	-2084.56	2.50	
7615.00†	10.781	309.829	7046.18	2735.24	1751.90	-2100.57	2.50	
7715.00†	8.281	309.829	7144.79	2751.80	1762.51	-2113.29	2.50	
7815.00†	5.781	309.829	7244.03	2764.04	1770.35	-2122.69	2.50	
7915.00†	3.281	309.829	7343.71	2771.94	1775.41	-2128.75	2.50	
8015.00†	0.781	309.829	7443.64	2775.49	1777.68	-2131.47	2.50	



Planned Wellpath Report

NORTHGLENN STATE 4-36 (REV-A.0) PWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 NORTHGLENN STATE 4-36 (2436'FNL & 2488'FEL)
Area	COLORADO	Well	NORTHGLENN STATE 4-36
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NORTHGLENN STATE 4-36 PWB
Facility	SEC.36-T1N-R68W		

WELLPATH DATA (105 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8046.24	0.000	309.829	7474.89 [†]	2775.70	1777.81	-2131.64	2.50	End of Drop (S)
8074.36 [†]	0.000	309.829	7503.00	2775.70	1777.81	-2131.64	0.00	NIO A TOP
8115.00 [†]	0.000	309.829	7543.64	2775.70	1777.81	-2131.64	0.00	
8215.00 [†]	0.000	309.829	7643.64	2775.70	1777.81	-2131.64	0.00	
8315.00 [†]	0.000	309.829	7743.64	2775.70	1777.81	-2131.64	0.00	
8415.00 [†]	0.000	309.829	7843.64	2775.70	1777.81	-2131.64	0.00	
8514.36 [†]	0.000	309.829	7943.00	2775.70	1777.81	-2131.64	0.00	CODELL TOP
8515.00 [†]	0.000	309.829	7943.64	2775.70	1777.81	-2131.64	0.00	
8615.00 [†]	0.000	309.829	8043.64	2775.70	1777.81	-2131.64	0.00	
8715.00 [†]	0.000	309.829	8143.64	2775.70	1777.81	-2131.64	0.00	
8815.00 [†]	0.000	309.829	8243.64	2775.70	1777.81	-2131.64	0.00	
8915.00 [†]	0.000	309.829	8343.64	2775.70	1777.81	-2131.64	0.00	
8944.36 [†]	0.000	309.829	8373.00	2775.70	1777.81	-2131.64	0.00	JSAND TOP
9015.00 [†]	0.000	309.829	8443.64	2775.70	1777.81	-2131.64	0.00	
9069.36	0.000	309.829	8498.00	2775.70	1777.81	-2131.64	0.00	End of Tangent

HOLE & CASING SECTIONS

Ref Wellbore: NORTHGLENN STATE 4-36 PWB

Ref Wellpath: NORTHGLENN STATE 4-36 (REV-A.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	15.00	1000.00	985.00	15.00	991.90	0.00	0.00	66.79	-80.08
8.625in Casing Surface	15.00	1000.00	985.00	15.00	991.90	0.00	0.00	66.79	-80.08
7.875in Open Hole	1000.00	9069.36	8069.36	991.90	8498.00	66.79	-80.08	1777.81	-2131.64

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) NORTHGLENN STATE 4-36 GEO TARGET 50' RADIUS (660'FNL & 660'FWL, REV-1)		6000.00	1777.81	-2131.64	3151521.88	1248073.72	40°00'47.088"N	104°57'32.544"W	circle
NORTHGLENN STATE 4-36 LEGAL BOX (204'S,196'N,200'E,200'W OF GEO TARGET)		6000.00	1773.81	-2131.64	3151521.90	1248069.71	40°00'47.048"N	104°57'32.544"W	square

SURVEY PROGRAM

Ref Wellbore: NORTHGLENN STATE 4-36 PWB

Ref Wellpath: NORTHGLENN STATE 4-36 (REV-A.0) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
15.00	9069.36	MTC (Collar, post-2000) (Standard)		NORTHGLENN STATE 4-36 PWB



Planned Wellpath Report

NORTHGLENN STATE 4-36 (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 NORTHGLENN STATE 4-36 (2436'FNL & 2488'FEL)
Area	COLORADO	Well	NORTHGLENN STATE 4-36
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NORTHGLENN STATE 4-36 PWB
Facility	SEC.36-T1N-R68W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
3644.18	25.000	309.829	3423.00	PARKMAN TOP
5277.18	25.000	309.829	4903.00	SUSSEX TOP
5994.38	25.000	309.829	5553.00	SHANNON TOP
8074.36	0.000	309.829	7503.00	NIO A TOP
8514.36	0.000	309.829	7943.00	CODELL TOP
8944.36	0.000	309.829	8373.00	JSAND TOP