



SECTION DETAILS

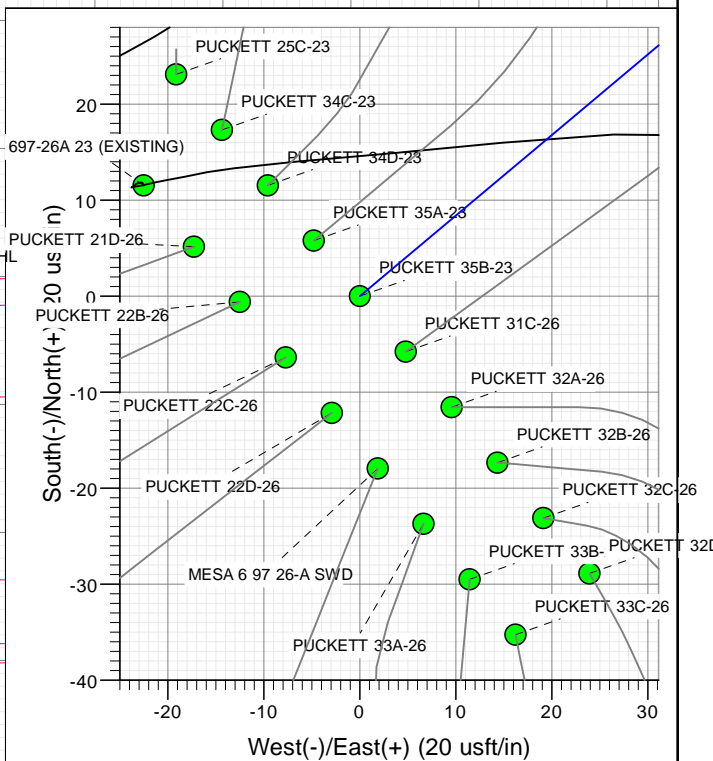
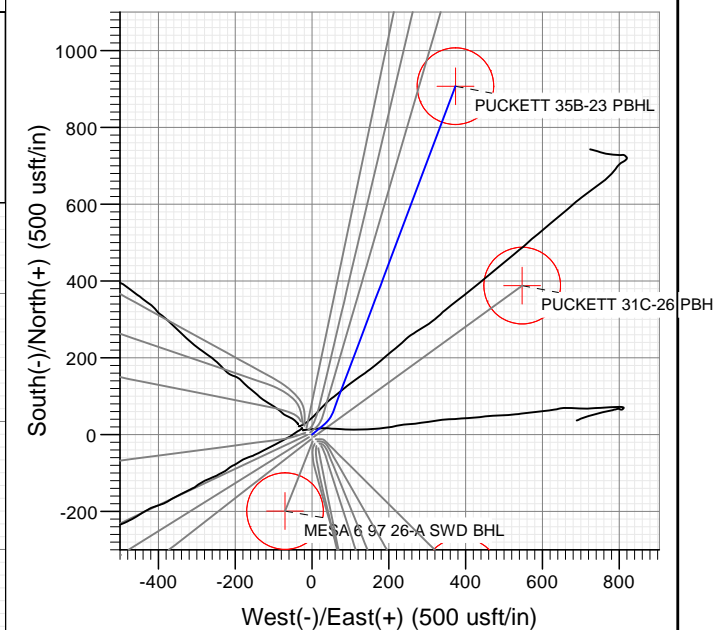
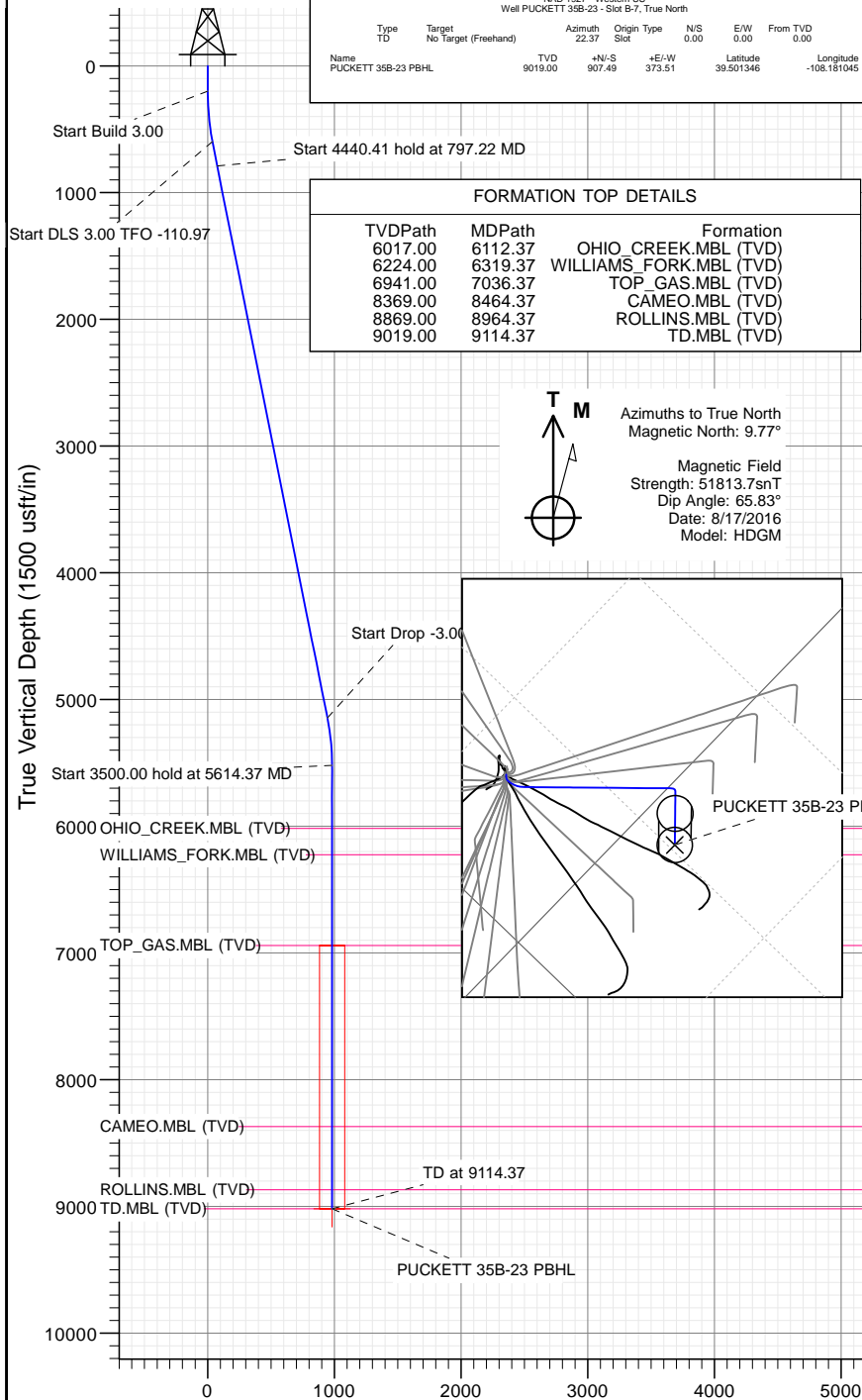
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V/Sect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	600.00	12.00	50.00	597.08	26.83	31.97	3.00	50.00	36.98	
4	797.22	11.30	20.59	790.40	58.12	54.49	3.00	-110.97	74.49	
5	5237.62	11.30	20.59	5144.69	872.81	360.49	0.00	0.00	944.33	
6	5614.37	0.00	0.00	5519.00	907.49	373.51	3.00	180.00	981.35	
7	9114.37	0.00	0.00	9019.00	907.49	373.51	0.00	0.00	981.35	PUCKETT 35B-23 PBHL

Site: S26-T6S-R97W (6 97 26-A)

Well: PUCKETT 35B-23

Wellbore: OH

Design: PLAN #1



WELL DETAILS: PUCKETT 35B-23

+N/-S
0.00+E/-W
0.00Northing
14356006.27Ground Level:
Easting
2435317.778396.00
Latitude
39.498855Longitude
-108.182368

B-7

CATHEDRAL



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 35B-23 - Slot B-7
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8426.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8426.00usft
Site:	S26-T6S-R97W (6 97 26-A)	North Reference:	True
Well:	PUCKETT 35B-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Project	Garfield County, CO (UTM 12N)		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site		S26-T6S-R97W (6 97 26-A)			
Site Position:		Northing:	14,356,905.20 usft	Latitude:	39.501458
From:	Map	Easting:	2,433,730.50 usft	Longitude:	-108.187888
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.79 °

Well	PUCKETT 35B-23 - Slot B-7					
Well Position	+N/-S	0.00 usft	Northing:	14,356,006.27 usft	Latitude:	39.498855
	+E/-W	0.00 usft	Easting:	2,435,317.77 usft	Longitude:	-108.182368
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	8,396.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	8/17/2016	9.77	65.83	51,814

Design	PLAN #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	22.37

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	12.00	50.00	597.08	26.83	31.97	3.00	3.00	0.00	50.00	
797.22	11.30	20.59	790.40	58.12	54.49	3.00	-0.35	-14.91	-110.97	
5,237.62	11.30	20.59	5,144.69	872.81	360.49	0.00	0.00	0.00	0.00	
5,614.37	0.00	0.00	5,519.00	907.49	373.51	3.00	-3.00	0.00	180.00	
9,114.37	0.00	0.00	9,019.00	907.49	373.51	0.00	0.00	0.00	0.00	PUCKETT 35B-23 PE

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 35B-23 - Slot B-7
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8426.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8426.00usft
Site:	S26-T6S-R97W (6 97 26-A)	North Reference:	True
Well:	PUCKETT 35B-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
300.00	3.00	50.00	299.95	1.68	2.01	2.32	3.00	3.00	
400.00	6.00	50.00	399.63	6.73	8.01	9.27	3.00	3.00	
500.00	9.00	50.00	498.77	15.11	18.01	20.83	3.00	3.00	
600.00	12.00	50.00	597.08	26.83	31.97	36.98	3.00	3.00	
700.00	11.27	35.53	695.05	41.47	45.62	55.71	3.00	-0.73	
797.22	11.30	20.59	790.40	58.12	54.49	74.49	3.00	0.03	
800.00	11.30	20.59	793.13	58.64	54.68	75.04	0.00	0.00	
900.00	11.30	20.59	891.19	76.98	61.57	94.62	0.00	0.00	
1,000.00	11.30	20.59	989.25	95.33	68.47	114.21	0.00	0.00	
1,100.00	11.30	20.59	1,087.31	113.68	75.36	133.80	0.00	0.00	
1,200.00	11.30	20.59	1,185.38	132.02	82.25	153.39	0.00	0.00	
1,300.00	11.30	20.59	1,283.44	150.37	89.14	172.98	0.00	0.00	
1,400.00	11.30	20.59	1,381.50	168.72	96.03	192.57	0.00	0.00	
1,500.00	11.30	20.59	1,479.56	187.07	102.92	212.16	0.00	0.00	
1,600.00	11.30	20.59	1,577.62	205.41	109.81	231.75	0.00	0.00	
1,700.00	11.30	20.59	1,675.68	223.76	116.70	251.34	0.00	0.00	
1,800.00	11.30	20.59	1,773.74	242.11	123.59	270.93	0.00	0.00	
1,900.00	11.30	20.59	1,871.80	260.45	130.49	290.52	0.00	0.00	
2,000.00	11.30	20.59	1,969.86	278.80	137.38	310.10	0.00	0.00	
2,100.00	11.30	20.59	2,067.92	297.15	144.27	329.69	0.00	0.00	
2,200.00	11.30	20.59	2,165.98	315.50	151.16	349.28	0.00	0.00	
2,300.00	11.30	20.59	2,264.04	333.84	158.05	368.87	0.00	0.00	
2,400.00	11.30	20.59	2,362.10	352.19	164.94	388.46	0.00	0.00	
2,500.00	11.30	20.59	2,460.16	370.54	171.83	408.05	0.00	0.00	
2,600.00	11.30	20.59	2,558.22	388.88	178.72	427.64	0.00	0.00	
2,700.00	11.30	20.59	2,656.29	407.23	185.62	447.23	0.00	0.00	
2,800.00	11.30	20.59	2,754.35	425.58	192.51	466.82	0.00	0.00	
2,900.00	11.30	20.59	2,852.41	443.93	199.40	486.41	0.00	0.00	
3,000.00	11.30	20.59	2,950.47	462.27	206.29	506.00	0.00	0.00	
3,100.00	11.30	20.59	3,048.53	480.62	213.18	525.58	0.00	0.00	
3,200.00	11.30	20.59	3,146.59	498.97	220.07	545.17	0.00	0.00	
3,300.00	11.30	20.59	3,244.65	517.31	226.96	564.76	0.00	0.00	
3,400.00	11.30	20.59	3,342.71	535.66	233.85	584.35	0.00	0.00	
3,500.00	11.30	20.59	3,440.77	554.01	240.74	603.94	0.00	0.00	
3,600.00	11.30	20.59	3,538.83	572.36	247.64	623.53	0.00	0.00	
3,700.00	11.30	20.59	3,636.89	590.70	254.53	643.12	0.00	0.00	
3,800.00	11.30	20.59	3,734.95	609.05	261.42	662.71	0.00	0.00	
3,900.00	11.30	20.59	3,833.01	627.40	268.31	682.30	0.00	0.00	
4,000.00	11.30	20.59	3,931.07	645.74	275.20	701.89	0.00	0.00	
4,100.00	11.30	20.59	4,029.13	664.09	282.09	721.48	0.00	0.00	
4,200.00	11.30	20.59	4,127.20	682.44	288.98	741.07	0.00	0.00	
4,300.00	11.30	20.59	4,225.26	700.79	295.87	760.65	0.00	0.00	
4,400.00	11.30	20.59	4,323.32	719.13	302.76	780.24	0.00	0.00	
4,500.00	11.30	20.59	4,421.38	737.48	309.66	799.83	0.00	0.00	
4,600.00	11.30	20.59	4,519.44	755.83	316.55	819.42	0.00	0.00	
4,700.00	11.30	20.59	4,617.50	774.17	323.44	839.01	0.00	0.00	
4,800.00	11.30	20.59	4,715.56	792.52	330.33	858.60	0.00	0.00	
4,900.00	11.30	20.59	4,813.62	810.87	337.22	878.19	0.00	0.00	
5,000.00	11.30	20.59	4,911.68	829.22	344.11	897.78	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 35B-23 - Slot B-7
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8426.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8426.00usft
Site:	S26-T6S-R97W (6 97 26-A)	North Reference:	True
Well:	PUCKETT 35B-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
5,100.00	11.30	20.59	5,009.74	847.56	351.00	917.37	0.00	0.00	
5,200.00	11.30	20.59	5,107.80	865.91	357.89	936.96	0.00	0.00	
5,237.62	11.30	20.59	5,144.69	872.81	360.49	944.33	0.00	0.00	
5,300.00	9.43	20.59	5,206.05	883.32	364.43	955.55	3.00	-3.00	
5,400.00	6.43	20.59	5,305.08	896.24	369.28	969.33	3.00	-3.00	
5,500.00	3.43	20.59	5,404.70	904.28	372.31	977.93	3.00	-3.00	
5,600.00	0.43	20.59	5,504.63	907.44	373.49	981.29	3.00	-3.00	
5,614.37	0.00	0.00	5,519.00	907.49	373.51	981.35	3.00	-3.00	
5,700.00	0.00	0.00	5,604.63	907.49	373.51	981.35	0.00	0.00	
5,800.00	0.00	0.00	5,704.63	907.49	373.51	981.35	0.00	0.00	
5,900.00	0.00	0.00	5,804.63	907.49	373.51	981.35	0.00	0.00	
6,000.00	0.00	0.00	5,904.63	907.49	373.51	981.35	0.00	0.00	
6,100.00	0.00	0.00	6,004.63	907.49	373.51	981.35	0.00	0.00	
6,112.37	0.00	0.00	6,017.00	907.49	373.51	981.35	0.00	0.00	OHIO_CREEK.MBL (TVD)
6,200.00	0.00	0.00	6,104.63	907.49	373.51	981.35	0.00	0.00	
6,300.00	0.00	0.00	6,204.63	907.49	373.51	981.35	0.00	0.00	
6,319.37	0.00	0.00	6,224.00	907.49	373.51	981.35	0.00	0.00	WILLIAMS_FORK.MBL (TVD)
6,400.00	0.00	0.00	6,304.63	907.49	373.51	981.35	0.00	0.00	
6,500.00	0.00	0.00	6,404.63	907.49	373.51	981.35	0.00	0.00	
6,600.00	0.00	0.00	6,504.63	907.49	373.51	981.35	0.00	0.00	
6,700.00	0.00	0.00	6,604.63	907.49	373.51	981.35	0.00	0.00	
6,800.00	0.00	0.00	6,704.63	907.49	373.51	981.35	0.00	0.00	
6,900.00	0.00	0.00	6,804.63	907.49	373.51	981.35	0.00	0.00	
7,000.00	0.00	0.00	6,904.63	907.49	373.51	981.35	0.00	0.00	
7,036.37	0.00	0.00	6,941.00	907.49	373.51	981.35	0.00	0.00	TOP_GAS.MBL (TVD)
7,100.00	0.00	0.00	7,004.63	907.49	373.51	981.35	0.00	0.00	
7,200.00	0.00	0.00	7,104.63	907.49	373.51	981.35	0.00	0.00	
7,300.00	0.00	0.00	7,204.63	907.49	373.51	981.35	0.00	0.00	
7,400.00	0.00	0.00	7,304.63	907.49	373.51	981.35	0.00	0.00	
7,500.00	0.00	0.00	7,404.63	907.49	373.51	981.35	0.00	0.00	
7,600.00	0.00	0.00	7,504.63	907.49	373.51	981.35	0.00	0.00	
7,700.00	0.00	0.00	7,604.63	907.49	373.51	981.35	0.00	0.00	
7,800.00	0.00	0.00	7,704.63	907.49	373.51	981.35	0.00	0.00	
7,900.00	0.00	0.00	7,804.63	907.49	373.51	981.35	0.00	0.00	
8,000.00	0.00	0.00	7,904.63	907.49	373.51	981.35	0.00	0.00	
8,100.00	0.00	0.00	8,004.63	907.49	373.51	981.35	0.00	0.00	
8,200.00	0.00	0.00	8,104.63	907.49	373.51	981.35	0.00	0.00	
8,300.00	0.00	0.00	8,204.63	907.49	373.51	981.35	0.00	0.00	
8,400.00	0.00	0.00	8,304.63	907.49	373.51	981.35	0.00	0.00	
8,464.37	0.00	0.00	8,369.00	907.49	373.51	981.35	0.00	0.00	CAMEO.MBL (TVD)
8,500.00	0.00	0.00	8,404.63	907.49	373.51	981.35	0.00	0.00	
8,600.00	0.00	0.00	8,504.63	907.49	373.51	981.35	0.00	0.00	
8,700.00	0.00	0.00	8,604.63	907.49	373.51	981.35	0.00	0.00	
8,800.00	0.00	0.00	8,704.63	907.49	373.51	981.35	0.00	0.00	
8,900.00	0.00	0.00	8,804.63	907.49	373.51	981.35	0.00	0.00	
8,964.37	0.00	0.00	8,869.00	907.49	373.51	981.35	0.00	0.00	ROLLINS.MBL (TVD)
9,000.00	0.00	0.00	8,904.63	907.49	373.51	981.35	0.00	0.00	
9,100.00	0.00	0.00	9,004.63	907.49	373.51	981.35	0.00	0.00	
9,114.37	0.00	0.00	9,019.00	907.49	373.51	981.35	0.00	0.00	TD.MBL (TVD)

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 35B-23 - Slot B-7
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8426.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8426.00usft
Site:	S26-T6S-R97W (6 97 26-A)	North Reference:	True
Well:	PUCKETT 35B-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1		

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
PUCKETT 35B-23 PBHL	0.00	0.00	9,019.00	907.49	373.51	14,356,925.00	2,435,662.70	39.501346	-108.181045
- plan hits target center									
- Circle (radius 100.00)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
6,112.37	6,017.00	OHIO_CREEK.MBL (TVD)				
6,319.37	6,224.00	WILLIAMS_FORK.MBL (TVD)				
7,036.37	6,941.00	TOP_GAS.MBL (TVD)				
8,464.37	8,369.00	CAMEO.MBL (TVD)				
8,964.37	8,869.00	ROLLINS.MBL (TVD)				
9,114.37	9,019.00	TD.MBL (TVD)				