



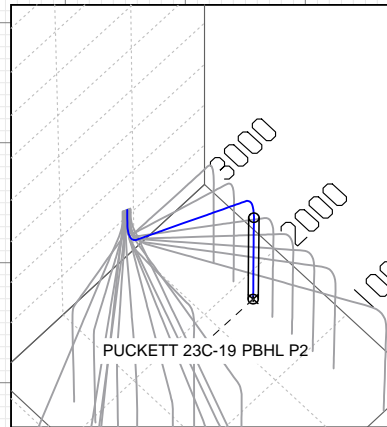
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1245.69	28.37	66.76	1207.52	90.53	210.77	3.00	66.76	229.39	
4	7011.14	28.37	66.76	6280.48	1171.73	2727.99	0.00	0.002968.99		
5	7956.83	0.00	0.00	7188.00	1262.27	2938.76	3.00	180.003198.38		
6	10008.83	0.00	0.00	9240.00	1262.27	2938.76	0.00	0.003198.38	PUCKETT 23C-19 PBHL P2	

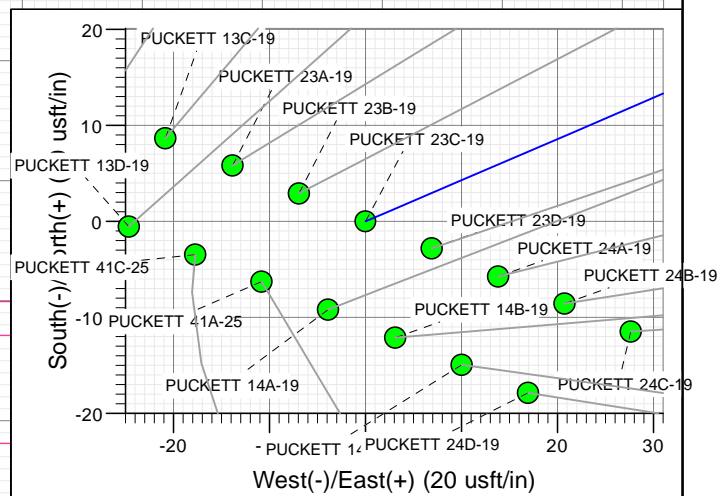
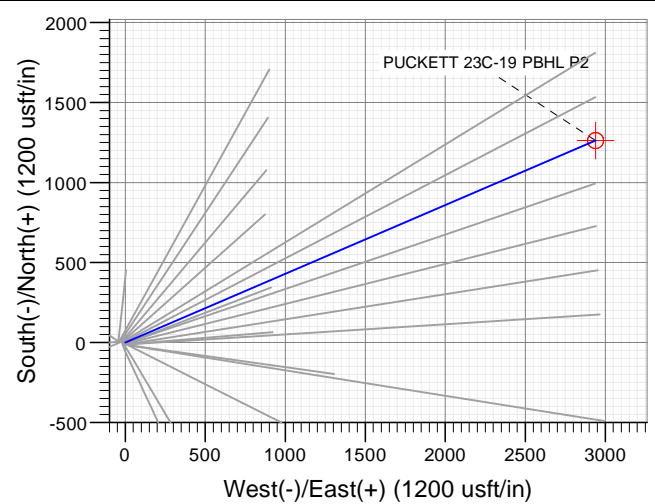
Project: Garfield County, CO (UTM 1
Site: S24-T6N-R97W (MESA P24
Well: PUCKETT 23C-19
Wellbore: OH
Design: PLAN #2

FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
6008.00	6701.46	OHIO_CREEK.MBL (TVD)
6288.00	7019.67	WILLIAMS_FORK.MBL (TVD)
7188.00	7956.83	TOP_GAS.MBL (TVD)
8840.00	9608.83	CAMEO.MBL (TVD)
9090.00	9858.83	ROLLINS.MBL (TVD)
9240.00	10008.83	TD.MBL (TVD)



PLAN #2 PUCKETT 23C-19 16X0X LR 30' KB @ 8151.00ft Ground Level @ 8151.00 NAD 1927 - Western US Well PUCKETT 23C-19 - Slot A5, True North									
Type	Target	No. Target	Freehand	Azimuth	Origin Type	N/S	E/W	From TVD	
Name	TD			TVD	+N/-S	+E/-W	Latitude	Longitude	
PUCKETT 23C-19 PBHL	9240.00			1250.65	2986.62	39.506407	-108.150480		
PUCKETT 23C-19 PBHL P2	9240.00			1262.27	2938.76	39.506439	-108.150649		



Azimuths to True North
Magnetic North: 9.80°

Magnetic Field
Strength: 51880.0nT
Dip Angle: 65.87°
Date: 2/16/2016
Model: HDGM

Vertical Section at 66.76° (1600 usft/in)

WELL DETAILS: PUCKETT 23C-19

+N/-S	+E/-W	Northing	Ground Level:	8151.00	Latitude	Longitude
0.00	0.00	14357695.70	Easting	2441282.50	39.502976	-108.161061

A5



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 23C-19 - Slot A5
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8181.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8181.00usft
Site:	S24-T6N-R97W (MESA P24)	North Reference:	True
Well:	PUCKETT 23C-19	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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		S24-T6N-R97W (MESA P24)			
Site Position:		Northing:	14,357,707.60 usft	Latitude:	39.503013
From:	Map	Easting:	2,441,222.80 usft	Longitude:	-108.161271
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.81 °

Well	PUCKETT 23C-19 - Slot A5					
Well Position	+N/-S	0.00 usft	Northing:	14,357,695.70 usft	Latitude:	39.502976
	+E/-W	0.00 usft	Easting:	2,441,282.50 usft	Longitude:	-108.161061
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	8,151.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	2/16/2016	9.80	65.87	51,880.00000000

Design	PLAN #2			
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	66.76

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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,245.69	28.37	66.76	1,207.52	90.53	210.77	3.00	3.00	0.00	66.76	
7,011.14	28.37	66.76	6,280.48	1,171.73	2,727.99	0.00	0.00	0.00	0.00	
7,956.83	0.00	0.00	7,188.00	1,262.27	2,938.76	3.00	-3.00	0.00	180.00	
10,008.83	0.00	0.00	9,240.00	1,262.27	2,938.76	0.00	0.00	0.00	0.00	PUCKETT 23C-19 PE

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 23C-19 - Slot A5
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8181.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8181.00usft
Site:	S24-T6N-R97W (MESA P24)	North Reference:	True
Well:	PUCKETT 23C-19	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00
400.00	3.00	66.76	399.95	1.03	2.40	2.62	3.00	3.00	
500.00	6.00	66.76	499.63	4.13	9.61	10.46	3.00	3.00	
600.00	9.00	66.76	598.77	9.28	21.60	23.51	3.00	3.00	
700.00	12.00	66.76	697.08	16.47	38.35	41.74	3.00	3.00	
800.00	15.00	66.76	794.31	25.68	59.79	65.08	3.00	3.00	
900.00	18.00	66.76	890.18	36.89	85.89	93.48	3.00	3.00	
1,000.00	21.00	66.76	984.43	50.06	116.56	126.85	3.00	3.00	
1,100.00	24.00	66.76	1,076.81	65.16	151.71	165.12	3.00	3.00	
1,200.00	27.00	66.76	1,167.06	82.15	191.27	208.16	3.00	3.00	
1,245.69	28.37	66.76	1,207.52	90.53	210.77	229.39	3.00	3.00	Start 5765.44 hold at 1245.69 MD
1,300.00	28.37	66.76	1,255.30	100.72	234.48	255.20	0.00	0.00	
1,400.00	28.37	66.76	1,343.29	119.47	278.14	302.71	0.00	0.00	
1,500.00	28.37	66.76	1,431.28	138.22	321.80	350.23	0.00	0.00	
1,600.00	28.37	66.76	1,519.27	156.97	365.46	397.75	0.00	0.00	
1,700.00	28.37	66.76	1,607.26	175.73	409.12	445.27	0.00	0.00	
1,800.00	28.37	66.76	1,695.25	194.48	452.78	492.78	0.00	0.00	
1,900.00	28.37	66.76	1,783.24	213.23	496.44	540.30	0.00	0.00	
2,000.00	28.37	66.76	1,871.23	231.99	540.11	587.82	0.00	0.00	
2,100.00	28.37	66.76	1,959.22	250.74	583.77	635.34	0.00	0.00	
2,200.00	28.37	66.76	2,047.20	269.49	627.43	682.85	0.00	0.00	
2,300.00	28.37	66.76	2,135.19	288.25	671.09	730.37	0.00	0.00	
2,400.00	28.37	66.76	2,223.18	307.00	714.75	777.89	0.00	0.00	
2,500.00	28.37	66.76	2,311.17	325.75	758.41	825.41	0.00	0.00	
2,600.00	28.37	66.76	2,399.16	344.51	802.07	872.92	0.00	0.00	
2,700.00	28.37	66.76	2,487.15	363.26	845.73	920.44	0.00	0.00	
2,800.00	28.37	66.76	2,575.14	382.01	889.39	967.96	0.00	0.00	
2,900.00	28.37	66.76	2,663.13	400.77	933.05	1,015.48	0.00	0.00	
3,000.00	28.37	66.76	2,751.12	419.52	976.71	1,062.99	0.00	0.00	
3,100.00	28.37	66.76	2,839.11	438.27	1,020.37	1,110.51	0.00	0.00	
3,200.00	28.37	66.76	2,927.10	457.03	1,064.03	1,158.03	0.00	0.00	
3,300.00	28.37	66.76	3,015.09	475.78	1,107.69	1,205.55	0.00	0.00	
3,400.00	28.37	66.76	3,103.07	494.53	1,151.35	1,253.07	0.00	0.00	
3,500.00	28.37	66.76	3,191.06	513.28	1,195.01	1,300.58	0.00	0.00	
3,600.00	28.37	66.76	3,279.05	532.04	1,238.67	1,348.10	0.00	0.00	
3,700.00	28.37	66.76	3,367.04	550.79	1,282.33	1,395.62	0.00	0.00	
3,800.00	28.37	66.76	3,455.03	569.54	1,325.99	1,443.14	0.00	0.00	
3,900.00	28.37	66.76	3,543.02	588.30	1,369.65	1,490.65	0.00	0.00	
4,000.00	28.37	66.76	3,631.01	607.05	1,413.31	1,538.17	0.00	0.00	
4,100.00	28.37	66.76	3,719.00	625.80	1,456.97	1,585.69	0.00	0.00	
4,200.00	28.37	66.76	3,806.99	644.56	1,500.64	1,633.21	0.00	0.00	
4,300.00	28.37	66.76	3,894.98	663.31	1,544.30	1,680.72	0.00	0.00	
4,400.00	28.37	66.76	3,982.97	682.06	1,587.96	1,728.24	0.00	0.00	
4,500.00	28.37	66.76	4,070.95	700.82	1,631.62	1,775.76	0.00	0.00	
4,600.00	28.37	66.76	4,158.94	719.57	1,675.28	1,823.28	0.00	0.00	
4,700.00	28.37	66.76	4,246.93	738.32	1,718.94	1,870.79	0.00	0.00	
4,800.00	28.37	66.76	4,334.92	757.08	1,762.60	1,918.31	0.00	0.00	
4,900.00	28.37	66.76	4,422.91	775.83	1,806.26	1,965.83	0.00	0.00	
5,000.00	28.37	66.76	4,510.90	794.58	1,849.92	2,013.35	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 23C-19 - Slot A5
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8181.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8181.00usft
Site:	S24-T6N-R97W (MESA P24)	North Reference:	True
Well:	PUCKETT 23C-19	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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	28.37	66.76	4,598.89	813.34	1,893.58	2,060.86	0.00	0.00	
5,200.00	28.37	66.76	4,686.88	832.09	1,937.24	2,108.38	0.00	0.00	
5,300.00	28.37	66.76	4,774.87	850.84	1,980.90	2,155.90	0.00	0.00	
5,400.00	28.37	66.76	4,862.86	869.59	2,024.56	2,203.42	0.00	0.00	
5,500.00	28.37	66.76	4,950.85	888.35	2,068.22	2,250.93	0.00	0.00	
5,600.00	28.37	66.76	5,038.83	907.10	2,111.88	2,298.45	0.00	0.00	
5,700.00	28.37	66.76	5,126.82	925.85	2,155.54	2,345.97	0.00	0.00	
5,800.00	28.37	66.76	5,214.81	944.61	2,199.20	2,393.49	0.00	0.00	
5,900.00	28.37	66.76	5,302.80	963.36	2,242.86	2,441.00	0.00	0.00	
6,000.00	28.37	66.76	5,390.79	982.11	2,286.52	2,488.52	0.00	0.00	
6,100.00	28.37	66.76	5,478.78	1,000.87	2,330.18	2,536.04	0.00	0.00	
6,200.00	28.37	66.76	5,566.77	1,019.62	2,373.84	2,583.56	0.00	0.00	
6,300.00	28.37	66.76	5,654.76	1,038.37	2,417.51	2,631.07	0.00	0.00	
6,400.00	28.37	66.76	5,742.75	1,057.13	2,461.17	2,678.59	0.00	0.00	
6,500.00	28.37	66.76	5,830.74	1,075.88	2,504.83	2,726.11	0.00	0.00	
6,600.00	28.37	66.76	5,918.73	1,094.63	2,548.49	2,773.63	0.00	0.00	
6,700.00	28.37	66.76	6,006.71	1,113.39	2,592.15	2,821.14	0.00	0.00	
6,701.46	28.37	66.76	6,008.00	1,113.66	2,592.78	2,821.84	0.00	0.00	OHIO_CREEK.MBL (TVD)
6,800.00	28.37	66.76	6,094.70	1,132.14	2,635.81	2,868.66	0.00	0.00	
6,900.00	28.37	66.76	6,182.69	1,150.89	2,679.47	2,916.18	0.00	0.00	
7,000.00	28.37	66.76	6,270.68	1,169.65	2,723.13	2,963.70	0.00	0.00	
7,011.14	28.37	66.76	6,280.48	1,171.73	2,727.99	2,968.99	0.00	0.00	Start Drop -3.00
7,019.67	28.11	66.76	6,288.00	1,173.33	2,731.70	2,973.03	3.00	-3.00	WILLIAMS_FORK.MBL (TVD)
7,100.00	25.70	66.76	6,359.63	1,187.67	2,765.10	3,009.38	3.00	-3.00	
7,200.00	22.70	66.76	6,450.82	1,203.85	2,802.77	3,050.38	3.00	-3.00	
7,300.00	19.70	66.76	6,544.04	1,218.13	2,836.00	3,086.54	3.00	-3.00	
7,400.00	16.70	66.76	6,639.03	1,230.46	2,864.70	3,117.78	3.00	-3.00	
7,500.00	13.70	66.76	6,735.51	1,240.81	2,888.80	3,144.00	3.00	-3.00	
7,600.00	10.70	66.76	6,833.24	1,249.15	2,908.22	3,165.14	3.00	-3.00	
7,700.00	7.70	66.76	6,931.94	1,255.46	2,922.92	3,181.14	3.00	-3.00	
7,800.00	4.70	66.76	7,031.35	1,259.73	2,932.85	3,191.94	3.00	-3.00	
7,900.00	1.70	66.76	7,131.18	1,261.93	2,937.99	3,197.53	3.00	-3.00	
7,956.83	0.00	0.00	7,188.00	1,262.27	2,938.76	3,198.38	3.00	-3.00	Start 2052.00 hold at 7956.83 MD - TOP_GAS.I
8,000.00	0.00	0.00	7,231.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,100.00	0.00	0.00	7,331.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,200.00	0.00	0.00	7,431.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,300.00	0.00	0.00	7,531.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,400.00	0.00	0.00	7,631.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,500.00	0.00	0.00	7,731.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,600.00	0.00	0.00	7,831.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,700.00	0.00	0.00	7,931.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,800.00	0.00	0.00	8,031.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
8,900.00	0.00	0.00	8,131.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,000.00	0.00	0.00	8,231.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,100.00	0.00	0.00	8,331.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,200.00	0.00	0.00	8,431.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,300.00	0.00	0.00	8,531.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,400.00	0.00	0.00	8,631.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,500.00	0.00	0.00	8,731.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,600.00	0.00	0.00	8,831.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,608.83	0.00	0.00	8,840.00	1,262.27	2,938.76	3,198.38	0.00	0.00	CAMEO.MBL (TVD)
9,700.00	0.00	0.00	8,931.17	1,262.27	2,938.76	3,198.38	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 23C-19 - Slot A5
Company:	Caerus Oil & Gas	TVD Reference:	30' KB @ 8181.00usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	30' KB @ 8181.00usft
Site:	S24-T6N-R97W (MESA P24)	North Reference:	True
Well:	PUCKETT 23C-19	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

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
9,800.00	0.00	0.00	9,031.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
9,858.83	0.00	0.00	9,090.00	1,262.27	2,938.76	3,198.38	0.00	0.00	ROLLINS.MBL (TVD)
9,900.00	0.00	0.00	9,131.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
10,000.00	0.00	0.00	9,231.17	1,262.27	2,938.76	3,198.38	0.00	0.00	
10,008.83	0.00	0.00	9,240.00	1,262.27	2,938.76	3,198.38	0.00	0.00	TD at 10008.83 - TD.MBL (TVD)

Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
PUCKETT 23C-19 PBHI	0.00	0.00	9,240.00	1,250.65	2,986.62	14,359,039.90	2,444,228.20	39.506407	-108.150480
- plan misses target center by 49.25usft at 10008.83usft MD (9240.00 TVD, 1262.27 N, 2938.76 E)									
- Circle (radius 50.00)									
PUCKETT 23C-19 PBHI	0.00	0.00	9,240.00	1,262.27	2,938.76	14,359,050.00	2,444,180.00	39.506439	-108.150649
- plan hits target center									
- Circle (radius 50.00)									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,701.46	6,008.00	OHIO_CREEK.MBL (TVD)			
7,019.67	6,288.00	WILLIAMS_FORK.MBL (TVD)			
7,956.83	7,188.00	TOP_GAS.MBL (TVD)			
9,608.83	8,840.00	CAMEO.MBL (TVD)			
9,858.83	9,090.00	ROLLINS.MBL (TVD)			
10,008.83	9,240.00	TD.MBL (TVD)			

Plan Annotations

	Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
			+N/-S (usft)	+E/-W (usft)	
	300.00	300.00	0.00	0.00	Start Build 3.00
	1,245.69	1,207.52	90.53	210.77	Start 5765.44 hold at 1245.69 MD
	7,011.14	6,280.48	1,171.73	2,727.99	Start Drop -3.00
	7,956.83	7,188.00	1,262.27	2,938.76	Start 2052.00 hold at 7956.83 MD
	10,008.83	9,240.00	1,262.27	2,938.76	TD at 10008.83