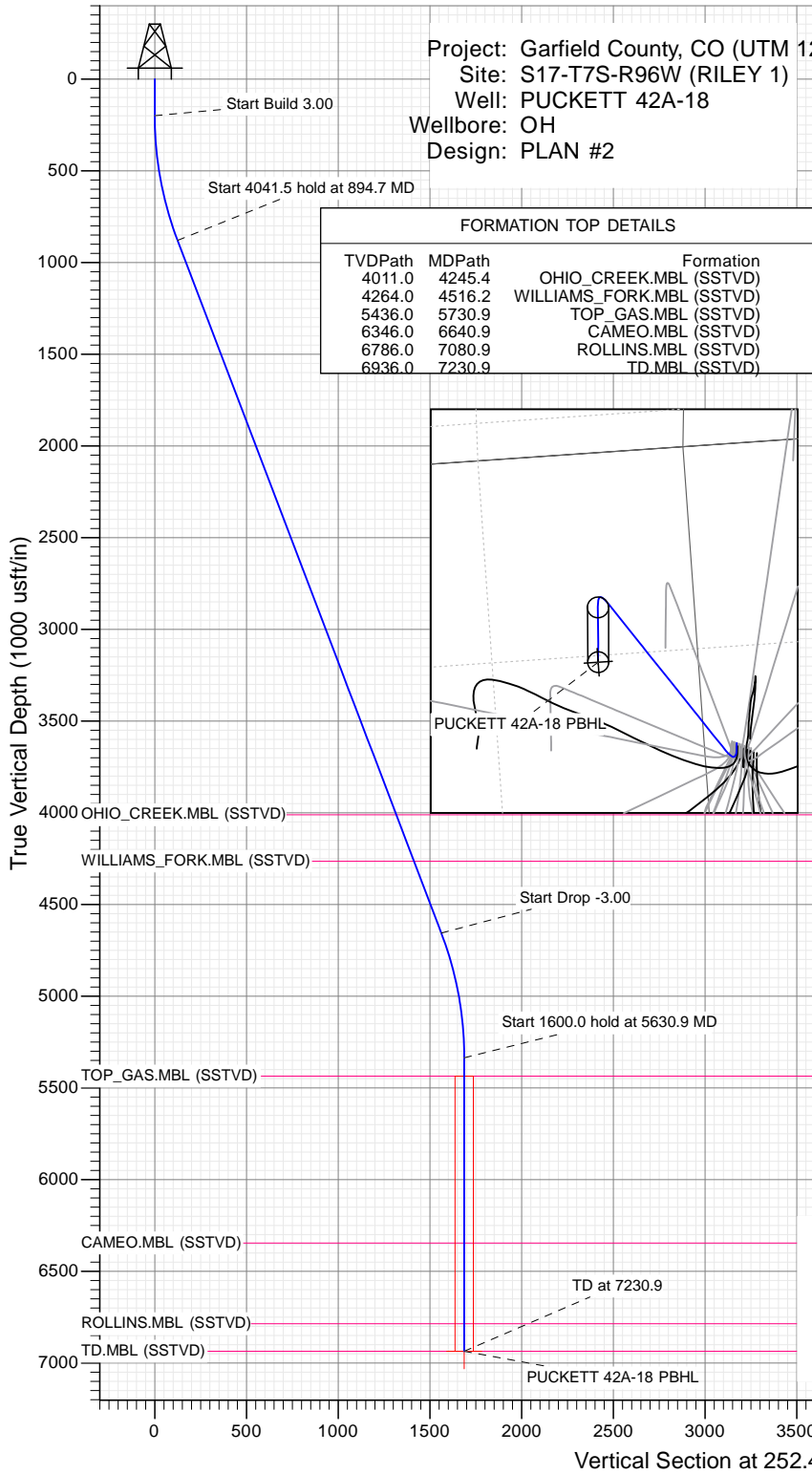




SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	894.7	20.84	252.44	879.5	-37.7	-119.1	3.00	252.44	125.0	
4	4936.2	20.84	252.44	4656.5	-471.6	-1489.9	0.00	0.00	1562.8	
5	5630.9	0.00	0.00	5336.0	-509.3	-1609.1	3.00	180.00	1687.7	
6	7230.9	0.00	0.00	6936.0	-509.3	-1609.1	0.00	0.00	1687.7	PUCKETT 42A-18 PBHL

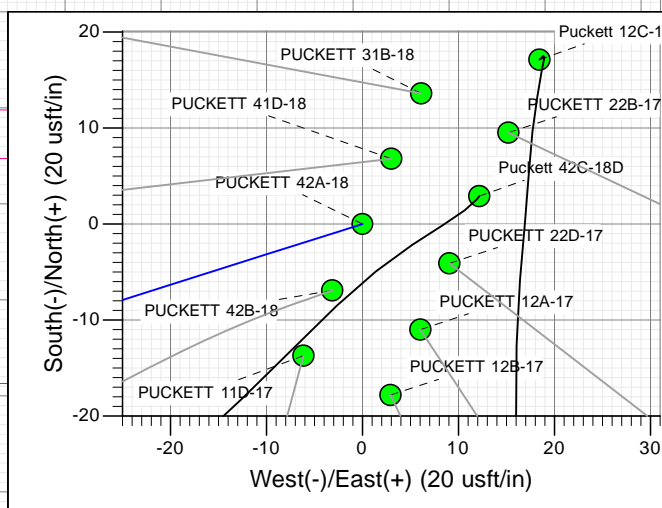
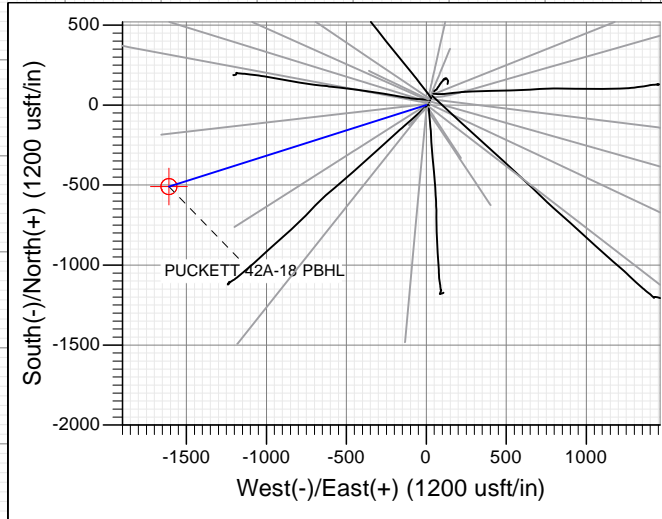


Project: Garfield County, CO (UTM 12
Site: S17-T7S-R96W (RILEY 1)
Well: PUCKETT 42A-18
Wellbore: OH
Design: PLAN #2

FORMATION TOP DETAILS		
TVDPPath	MDPath	Formation
4011.0	4245.4	OHIO_CREEK.MBL (SSTVD)
4264.0	4516.2	WILLIAMS_FORK.MBL (SSTVD)
5436.0	5730.9	TOP_GAS.MBL (SSTVD)
6346.0	6640.9	CAMEO.MBL (SSTVD)
6786.0	7080.9	ROLLINS.MBL (SSTVD)
6936.0	7230.9	TD.MBL (SSTVD)

PLAN #2
PUCKETT 42A-18
15XXX; LR
KB @ 6764.0usft
Ground Level @ 6734.0
NAD 1927 - Western US
Well PUCKETT 42A-18, True North

Type	Target	Origin Type	N/S	E/W	From TVD
TD	No Target (Freehand)	Slot	0.0	0.0	0.0
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
PUCKETT 42A-18 PBHL	6936.0	-509.3	-1609.1	39.440477	-108.143729



TM

Azimuths to True North
Magnetic North: 9.75°

Magnetic Field
Strength: 51971.4snT
Dip Angle: 65.73°
Date: 11/19/2015
Model: HDGM

CASING DETAILS	
No casing data is available	

CATHEDRAL

WELL DETAILS: PUCKETT 42A-18

Ground Level: 6734.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	14335649.30	2448486.60	39.441875	-108.138034

Planning Report

Database: USA EDM 5000 Multi Users DB	Local Co-ordinate Reference: Well PUCKETT 42A-18
Company: Caerus Oil & Gas	TVD Reference: KB @ 6764.0usft
Project: Garfield County, CO (UTM 12N)	MD Reference: KB @ 6764.0usft
Site: S17-T7S-R96W (RILEY 1)	North Reference: True
Well: PUCKETT 42A-18	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 S17-T7S-R96W (RILEY 1)		
Site Position:	Northing: 14,335,697.50 usft	Latitude: 39.442005
From: Map	Easting: 2,448,508.30 usft	Longitude: -108.137952
Position Uncertainty: 0.0 usft	Slot Radius: 13-3/16"	Grid Convergence: 1.82 °

Well PUCKETT 42A-18			
Well Position	+N/-S 0.0 usft	Northing: 14,335,649.30 usft	Latitude: 39.441875
	+E/-W 0.0 usft	Easting: 2,448,486.60 usft	Longitude: -108.138034
Position Uncertainty	0.0 usft	Wellhead Elevation: 0.0 usft	Ground Level: 6,734.0 usft

Wellbore OH					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	HDGM	11/19/2015	(°) 9.75	(°) 65.73	(nT) 51,971

Design PLAN #2				
Audit Notes:				
Version:	Phase: PLAN	Tie On Depth: 0.0		
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	252.44

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
894.7	20.84	252.44	879.5	-37.7	-119.1	3.00	3.00	0.00	252.44	
4,936.2	20.84	252.44	4,656.5	-471.6	-1,489.9	0.00	0.00	0.00	0.00	
5,630.9	0.00	0.00	5,336.0	-509.3	-1,609.1	3.00	-3.00	0.00	180.00	
7,230.9	0.00	0.00	6,936.0	-509.3	-1,609.1	0.00	0.00	0.00	0.00	PUCKETT 42A-18 PE

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 42A-18
Company:	Caerus Oil & Gas	TVD Reference:	KB @ 6764.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	KB @ 6764.0usft
Site:	S17-T7S-R96W (RILEY 1)	North Reference:	True
Well:	PUCKETT 42A-18	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
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	Start Build 3.00
300.0	3.00	252.44	300.0	-0.8	-2.5	2.6	3.00	3.00	
400.0	6.00	252.44	399.6	-3.2	-10.0	10.5	3.00	3.00	
500.0	9.00	252.44	498.8	-7.1	-22.4	23.5	3.00	3.00	
600.0	12.00	252.44	597.1	-12.6	-39.8	41.7	3.00	3.00	
700.0	15.00	252.44	694.3	-19.6	-62.0	65.1	3.00	3.00	
800.0	18.00	252.44	790.2	-28.2	-89.1	93.5	3.00	3.00	
894.7	20.84	252.44	879.5	-37.7	-119.1	125.0	3.00	3.00	Start 4041.5 hold at 894.7 MD
900.0	20.84	252.44	884.4	-38.3	-120.9	126.8	0.00	0.00	
1,000.0	20.84	252.44	977.9	-49.0	-154.9	162.4	0.00	0.00	
1,100.0	20.84	252.44	1,071.3	-59.7	-188.8	198.0	0.00	0.00	
1,200.0	20.84	252.44	1,164.8	-70.5	-222.7	233.6	0.00	0.00	
1,300.0	20.84	252.44	1,258.3	-81.2	-256.6	269.2	0.00	0.00	
1,400.0	20.84	252.44	1,351.7	-92.0	-290.5	304.7	0.00	0.00	
1,500.0	20.84	252.44	1,445.2	-102.7	-324.4	340.3	0.00	0.00	
1,600.0	20.84	252.44	1,538.6	-113.4	-358.4	375.9	0.00	0.00	
1,700.0	20.84	252.44	1,632.1	-124.2	-392.3	411.5	0.00	0.00	
1,800.0	20.84	252.44	1,725.6	-134.9	-426.2	447.0	0.00	0.00	
1,900.0	20.84	252.44	1,819.0	-145.6	-460.1	482.6	0.00	0.00	
2,000.0	20.84	252.44	1,912.5	-156.4	-494.0	518.2	0.00	0.00	
2,100.0	20.84	252.44	2,005.9	-167.1	-528.0	553.8	0.00	0.00	
2,200.0	20.84	252.44	2,099.4	-177.8	-561.9	589.3	0.00	0.00	
2,300.0	20.84	252.44	2,192.8	-188.6	-595.8	624.9	0.00	0.00	
2,400.0	20.84	252.44	2,286.3	-199.3	-629.7	660.5	0.00	0.00	
2,500.0	20.84	252.44	2,379.8	-210.0	-663.6	696.1	0.00	0.00	
2,600.0	20.84	252.44	2,473.2	-220.8	-697.6	731.7	0.00	0.00	
2,700.0	20.84	252.44	2,566.7	-231.5	-731.5	767.2	0.00	0.00	
2,800.0	20.84	252.44	2,660.1	-242.2	-765.4	802.8	0.00	0.00	
2,900.0	20.84	252.44	2,753.6	-253.0	-799.3	838.4	0.00	0.00	
3,000.0	20.84	252.44	2,847.0	-263.7	-833.2	874.0	0.00	0.00	
3,100.0	20.84	252.44	2,940.5	-274.5	-867.1	909.5	0.00	0.00	
3,200.0	20.84	252.44	3,034.0	-285.2	-901.1	945.1	0.00	0.00	
3,300.0	20.84	252.44	3,127.4	-295.9	-935.0	980.7	0.00	0.00	
3,400.0	20.84	252.44	3,220.9	-306.7	-968.9	1,016.3	0.00	0.00	
3,500.0	20.84	252.44	3,314.3	-317.4	-1,002.8	1,051.8	0.00	0.00	
3,600.0	20.84	252.44	3,407.8	-328.1	-1,036.7	1,087.4	0.00	0.00	
3,700.0	20.84	252.44	3,501.2	-338.9	-1,070.7	1,123.0	0.00	0.00	
3,800.0	20.84	252.44	3,594.7	-349.6	-1,104.6	1,158.6	0.00	0.00	
3,900.0	20.84	252.44	3,688.2	-360.3	-1,138.5	1,194.2	0.00	0.00	
4,000.0	20.84	252.44	3,781.6	-371.1	-1,172.4	1,229.7	0.00	0.00	
4,100.0	20.84	252.44	3,875.1	-381.8	-1,206.3	1,265.3	0.00	0.00	
4,200.0	20.84	252.44	3,968.5	-392.5	-1,240.2	1,300.9	0.00	0.00	
4,245.4	20.84	252.44	4,011.0	-397.4	-1,255.7	1,317.1	0.00	0.00	OHIO_CREEK.MBL (SSTVD)
4,300.0	20.84	252.44	4,062.0	-403.3	-1,274.2	1,336.5	0.00	0.00	
4,400.0	20.84	252.44	4,155.4	-414.0	-1,308.1	1,372.0	0.00	0.00	
4,500.0	20.84	252.44	4,248.9	-424.7	-1,342.0	1,407.6	0.00	0.00	
4,516.2	20.84	252.44	4,264.0	-426.5	-1,347.5	1,413.4	0.00	0.00	WILLIAMS_FORK.MBL (SSTVD)
4,600.0	20.84	252.44	4,342.4	-435.5	-1,375.9	1,443.2	0.00	0.00	
4,700.0	20.84	252.44	4,435.8	-446.2	-1,409.8	1,478.8	0.00	0.00	
4,800.0	20.84	252.44	4,529.3	-457.0	-1,443.8	1,514.3	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 42A-18
Company:	Caerus Oil & Gas	TVD Reference:	KB @ 6764.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	KB @ 6764.0usft
Site:	S17-T7S-R96W (RILEY 1)	North Reference:	True
Well:	PUCKETT 42A-18	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
4,900.0	20.84	252.44	4,622.7	-467.7	-1,477.7	1,549.9	0.00	0.00	
4,936.2	20.84	252.44	4,656.5	-471.6	-1,489.9	1,562.8	0.00	0.00	Start Drop -3.00
5,000.0	18.93	252.44	4,716.6	-478.1	-1,510.6	1,584.5	3.00	-3.00	
5,100.0	15.93	252.44	4,812.0	-487.2	-1,539.2	1,614.4	3.00	-3.00	
5,200.0	12.93	252.44	4,908.8	-494.7	-1,562.9	1,639.4	3.00	-3.00	
5,300.0	9.93	252.44	5,006.8	-500.6	-1,581.8	1,659.2	3.00	-3.00	
5,400.0	6.93	252.44	5,105.7	-505.1	-1,595.8	1,673.8	3.00	-3.00	
5,500.0	3.93	252.44	5,205.2	-507.9	-1,604.8	1,683.3	3.00	-3.00	
5,600.0	0.93	252.44	5,305.1	-509.2	-1,608.8	1,687.5	3.00	-3.00	
5,630.9	0.00	0.00	5,336.0	-509.3	-1,609.1	1,687.7	3.00	-3.00	Start 1600.0 hold at 5630.9 MD
5,700.0	0.00	0.00	5,405.1	-509.3	-1,609.1	1,687.7	0.00	0.00	
5,730.9	0.00	0.00	5,436.0	-509.3	-1,609.1	1,687.7	0.00	0.00	TOP_GAS.MBL (SSTVD)
5,800.0	0.00	0.00	5,505.1	-509.3	-1,609.1	1,687.7	0.00	0.00	
5,900.0	0.00	0.00	5,605.1	-509.3	-1,609.1	1,687.7	0.00	0.00	
6,000.0	0.00	0.00	5,705.1	-509.3	-1,609.1	1,687.7	0.00	0.00	
6,100.0	0.00	0.00	5,805.1	-509.3	-1,609.1	1,687.7	0.00	0.00	
6,200.0	0.00	0.00	5,905.1	-509.3	-1,609.1	1,687.7	0.00	0.00	
6,300.0	0.00	0.00	6,005.1	-509.3	-1,609.1	1,687.7	0.00	0.00	
6,400.0	0.00	0.00	6,105.1	-509.3	-1,609.1	1,687.7	0.00	0.00	
6,500.0	0.00	0.00	6,205.1	-509.3	-1,609.1	1,687.7	0.00	0.00	
6,600.0	0.00	0.00	6,305.1	-509.3	-1,609.1	1,687.7	0.00	0.00	
6,640.9	0.00	0.00	6,346.0	-509.3	-1,609.1	1,687.7	0.00	0.00	CAMEO.MBL (SSTVD)
6,700.0	0.00	0.00	6,405.1	-509.3	-1,609.1	1,687.7	0.00	0.00	
6,800.0	0.00	0.00	6,505.1	-509.3	-1,609.1	1,687.7	0.00	0.00	
6,900.0	0.00	0.00	6,605.1	-509.3	-1,609.1	1,687.7	0.00	0.00	
7,000.0	0.00	0.00	6,705.1	-509.3	-1,609.1	1,687.7	0.00	0.00	
7,080.9	0.00	0.00	6,786.0	-509.3	-1,609.1	1,687.7	0.00	0.00	ROLLINS.MBL (SSTVD)
7,100.0	0.00	0.00	6,805.1	-509.3	-1,609.1	1,687.7	0.00	0.00	
7,200.0	0.00	0.00	6,905.1	-509.3	-1,609.1	1,687.7	0.00	0.00	
7,230.9	0.00	0.00	6,936.0	-509.3	-1,609.1	1,687.7	0.00	0.00	TD at 7230.9 - TD.MBL (SSTVD)

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PUCKETT 42A-18 PBHL - hit/miss target - Shape - Circle (radius 50.0)	0.00	0.00	6,936.0	-509.3	-1,609.1	14,335,089.20	2,446,894.50	39.440477	-108.143729

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well PUCKETT 42A-18
Company:	Caerus Oil & Gas	TVD Reference:	KB @ 6764.0usft
Project:	Garfield County, CO (UTM 12N)	MD Reference:	KB @ 6764.0usft
Site:	S17-T7S-R96W (RILEY 1)	North Reference:	True
Well:	PUCKETT 42A-18	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #2		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,245.4	4,011.0	OHIO_CREEK.MBL (SSTVD)		0.00	
4,516.2	4,264.0	WILLIAMS_FORK.MBL (SSTVD)		0.00	
5,730.9	5,436.0	TOP_GAS.MBL (SSTVD)		0.00	
6,640.9	6,346.0	CAMEO.MBL (SSTVD)		0.00	
7,080.9	6,786.0	ROLLINS.MBL (SSTVD)		0.00	
7,230.9	6,936.0	TD.MBL (SSTVD)		0.00	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
200.0	200.0	0.0	0.0		Start Build 3.00
894.7	879.5	-37.7	-119.1		Start 4041.5 hold at 894.7 MD
4,936.2	4,656.5	-471.6	-1,489.9		Start Drop -3.00
5,630.9	5,336.0	-509.3	-1,609.1		Start 1600.0 hold at 5630.9 MD
7,230.9	6,936.0	-509.3	-1,609.1		TD at 7230.9