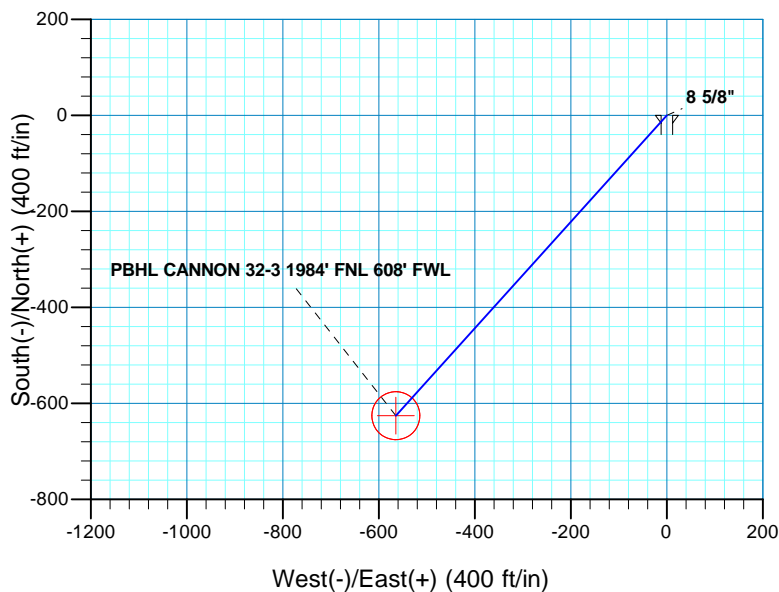
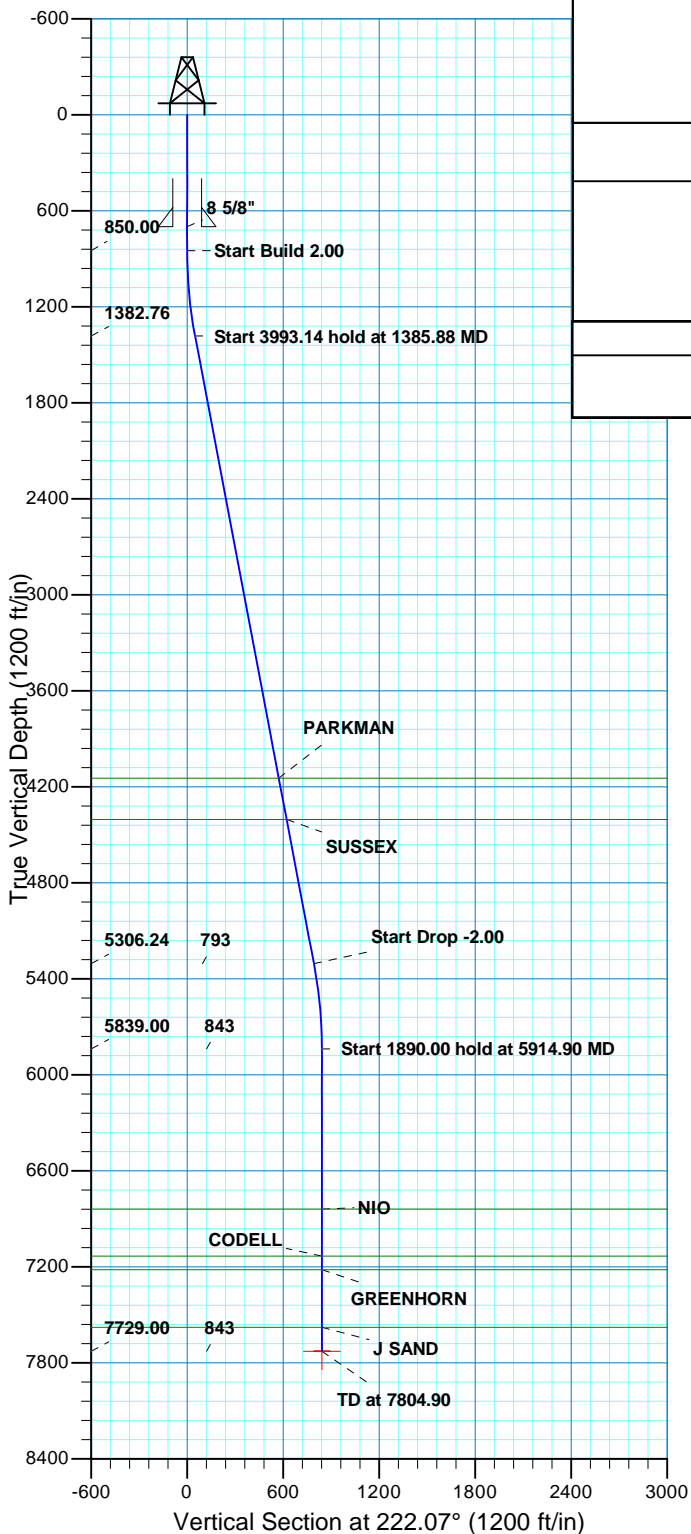


WELL DETAILS: P_CANNON 32-3					
GL 4847' & KB 15' @ 4862.00ft (ASSUMED)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1305604.45	3235570.46	40° 10' 9.141 N	104° 39' 25.322 W

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL	7729.00	-625.46	-564.52	1304973.65	3235011.91	40° 10' 2.960 N	104° 39' 32.594 W
- plan hits target center							
Shape							
Circle (Radius: 50.00)							

SECTION DETAILS										
	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
	0.00	0.00	0.00	0.00	0.00	0.00			0.00	
	850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	
	1385.88	10.72	222.07	1382.76	-37.10	-33.48	2.00	222.07	49.97	
	5379.02	10.72	222.07	5306.24	-588.36	-531.04	0.00	0.00	792.57	
	5914.90	0.00	0.00	5839.00	-625.46	-564.52	2.00	180.00	842.54	
	7804.90	0.00	0.00	7729.00	-625.46	-564.52	0.00	0.00	842.54	PBHL CANNON 32-3 1984' FNL 608' FWL
PROJECT DETAILS: COLORADO NORTHERN ZONE - 83 Geodetic System: US State Plane 1983 Datum: North American Datum 1983 Ellipsoid: GRS 1980 Zone: Colorado Northern Zone Location: SECTION 3 T 2N R65W System Datum: Mean Sea Level							FORMATION TOP DETAILS			
							TVDPath	MDPath	Formation	
							4147.00	4199.20	PARKMAN	
							4405.00	4461.78	SUSSEX	
							6839.00	6914.90	NIO	
							7133.00	7208.90	CODELL	
							7219.00	7294.90	GREENHORN	
							7579.00	7654.90	J SAND	
CASING DETAILS										
				TVD	MD	Name	Size			
				700.00	700.00	8 5/8"	8.625			



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_CANNON 5-3 PAD

P_CANNON 32-3

P_CANNON 32-3

Plan: PLAN #1 9-13-10 RHS

Standard Planning Report

13 September, 2010

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_CANNON 32-3
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4847' & KB 15' @ 4862.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4847' & KB 15' @ 4862.00ft (ASSUMED)
Site:	WELD_CANNON 5-3 PAD	North Reference:	True
Well:	P_CANNON 32-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_CANNON 32-3		
Design:	PLAN #1 9-13-10 RHS		

Project	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	WELD_CANNON 5-3 PAD, SECTION 3 T 2N R65W		
Site Position:		Northing:	1,305,592.91 usft
From:	Lat/Long	Easting:	3,235,581.75 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	40° 10' 9.026 N
		Longitude:	104° 39' 25.178 W
		Grid Convergence:	0.54 °

Well	P_CANNON 32-3, 2550' FSL 50' FWL		
Well Position	+N/-S	11.65 ft	Northing:
	+E/-W	-11.18 ft	Easting:
Position Uncertainty	0.00 ft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	P_CANNON 32-3				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	09/13/2010	8.89	66.91	53,101

Design	PLAN #1 9-13-10 RHS			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	222.07

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,385.88	10.72	222.07	1,382.76	-37.10	-33.48	2.00	2.00	0.00	222.07	
5,379.02	10.72	222.07	5,306.24	-588.36	-531.04	0.00	0.00	0.00	0.00	
5,914.90	0.00	0.00	5,839.00	-625.46	-564.52	2.00	-2.00	0.00	180.00	
7,804.90	0.00	0.00	7,729.00	-625.46	-564.52	0.00	0.00	0.00	0.00	PBHL CANNON 32-3

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_CANNON 32-3
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4847' & KB 15' @ 4862.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4847' & KB 15' @ 4862.00ft (ASSUMED)
Site:	WELD_CANNON 5-3 PAD	North Reference:	True
Well:	P_CANNON 32-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_CANNON 32-3		
Design:	PLAN #1 9-13-10 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	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	0.00	
200.00	0.00	0.00	200.00	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	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
8 5/8"										
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 2.00										
900.00	1.00	222.07	900.00	-0.32	-0.29	0.44	2.00	2.00	0.00	
1,000.00	3.00	222.07	999.93	-2.91	-2.63	3.93	2.00	2.00	0.00	
1,100.00	5.00	222.07	1,099.68	-8.09	-7.30	10.90	2.00	2.00	0.00	
1,200.00	7.00	222.07	1,199.13	-15.85	-14.31	21.35	2.00	2.00	0.00	
1,300.00	9.00	222.07	1,298.15	-26.18	-23.63	35.27	2.00	2.00	0.00	
1,385.88	10.72	222.07	1,382.76	-37.10	-33.48	49.97	2.00	2.00	0.00	
Start 3993.14 hold at 1385.88 MD										
1,400.00	10.72	222.07	1,396.63	-39.05	-35.24	52.60	0.00	0.00	0.00	
1,500.00	10.72	222.07	1,494.89	-52.85	-47.70	71.20	0.00	0.00	0.00	
1,600.00	10.72	222.07	1,593.15	-66.66	-60.16	89.79	0.00	0.00	0.00	
1,700.00	10.72	222.07	1,691.40	-80.46	-72.62	108.39	0.00	0.00	0.00	
1,800.00	10.72	222.07	1,789.66	-94.27	-85.08	126.99	0.00	0.00	0.00	
1,900.00	10.72	222.07	1,887.91	-108.07	-97.54	145.58	0.00	0.00	0.00	
2,000.00	10.72	222.07	1,986.17	-121.88	-110.00	164.18	0.00	0.00	0.00	
2,100.00	10.72	222.07	2,084.42	-135.68	-122.46	182.78	0.00	0.00	0.00	
2,200.00	10.72	222.07	2,182.68	-149.49	-134.92	201.37	0.00	0.00	0.00	
2,300.00	10.72	222.07	2,280.93	-163.29	-147.39	219.97	0.00	0.00	0.00	
2,400.00	10.72	222.07	2,379.19	-177.10	-159.85	238.57	0.00	0.00	0.00	
2,500.00	10.72	222.07	2,477.45	-190.90	-172.31	257.17	0.00	0.00	0.00	
2,600.00	10.72	222.07	2,575.70	-204.71	-184.77	275.76	0.00	0.00	0.00	
2,700.00	10.72	222.07	2,673.96	-218.52	-197.23	294.36	0.00	0.00	0.00	
2,800.00	10.72	222.07	2,772.21	-232.32	-209.69	312.96	0.00	0.00	0.00	
2,900.00	10.72	222.07	2,870.47	-246.13	-222.15	331.55	0.00	0.00	0.00	
3,000.00	10.72	222.07	2,968.72	-259.93	-234.61	350.15	0.00	0.00	0.00	
3,100.00	10.72	222.07	3,066.98	-273.74	-247.07	368.75	0.00	0.00	0.00	
3,200.00	10.72	222.07	3,165.23	-287.54	-259.53	387.34	0.00	0.00	0.00	
3,300.00	10.72	222.07	3,263.49	-301.35	-271.99	405.94	0.00	0.00	0.00	
3,400.00	10.72	222.07	3,361.75	-315.15	-284.45	424.54	0.00	0.00	0.00	
3,500.00	10.72	222.07	3,460.00	-328.96	-296.91	443.13	0.00	0.00	0.00	
3,600.00	10.72	222.07	3,558.26	-342.76	-309.37	461.73	0.00	0.00	0.00	
3,700.00	10.72	222.07	3,656.51	-356.57	-321.83	480.33	0.00	0.00	0.00	
3,800.00	10.72	222.07	3,754.77	-370.37	-334.29	498.92	0.00	0.00	0.00	
3,900.00	10.72	222.07	3,853.02	-384.18	-346.75	517.52	0.00	0.00	0.00	
4,000.00	10.72	222.07	3,951.28	-397.98	-359.21	536.12	0.00	0.00	0.00	
4,100.00	10.72	222.07	4,049.53	-411.79	-371.67	554.71	0.00	0.00	0.00	
4,199.20	10.72	222.07	4,147.00	-425.48	-384.03	573.16	0.00	0.00	0.00	
PARKMAN										
4,200.00	10.72	222.07	4,147.79	-425.59	-384.13	573.31	0.00	0.00	0.00	
4,300.00	10.72	222.07	4,246.05	-439.40	-396.59	591.91	0.00	0.00	0.00	
4,400.00	10.72	222.07	4,344.30	-453.20	-409.05	610.50	0.00	0.00	0.00	

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_CANNON 32-3
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4847' & KB 15' @ 4862.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4847' & KB 15' @ 4862.00ft (ASSUMED)
Site:	WELD_CANNON 5-3 PAD	North Reference:	True
Well:	P_CANNON 32-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_CANNON 32-3		
Design:	PLAN #1 9-13-10 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,461.78	10.72	222.07	4,405.00	-461.73	-416.75	621.99	0.00	0.00	0.00
SUSSEX									
4,500.00	10.72	222.07	4,442.56	-467.01	-421.51	629.10	0.00	0.00	0.00
4,600.00	10.72	222.07	4,540.81	-480.81	-433.97	647.70	0.00	0.00	0.00
4,700.00	10.72	222.07	4,639.07	-494.62	-446.43	666.30	0.00	0.00	0.00
4,800.00	10.72	222.07	4,737.32	-508.43	-458.89	684.89	0.00	0.00	0.00
4,900.00	10.72	222.07	4,835.58	-522.23	-471.35	703.49	0.00	0.00	0.00
5,000.00	10.72	222.07	4,933.83	-536.04	-483.81	722.09	0.00	0.00	0.00
5,100.00	10.72	222.07	5,032.09	-549.84	-496.27	740.68	0.00	0.00	0.00
5,200.00	10.72	222.07	5,130.35	-563.65	-508.73	759.28	0.00	0.00	0.00
5,300.00	10.72	222.07	5,228.60	-577.45	-521.19	777.88	0.00	0.00	0.00
5,379.02	10.72	222.07	5,306.24	-588.36	-531.04	792.57	0.00	0.00	0.00
Start Drop -2.00									
5,400.00	10.30	222.07	5,326.87	-591.20	-533.60	796.40	2.00	-2.00	0.00
5,500.00	8.30	222.07	5,425.55	-603.19	-544.43	812.55	2.00	-2.00	0.00
5,600.00	6.30	222.07	5,524.74	-612.62	-552.94	825.26	2.00	-2.00	0.00
5,700.00	4.30	222.07	5,624.31	-619.48	-559.12	834.49	2.00	-2.00	0.00
5,800.00	2.30	222.07	5,724.13	-623.75	-562.98	840.24	2.00	-2.00	0.00
5,900.00	0.30	222.07	5,824.10	-625.43	-564.50	842.51	2.00	-2.00	0.00
5,914.90	0.00	0.00	5,839.00	-625.46	-564.52	842.54	2.00	-2.00	925.93
Start 1890.00 hold at 5914.90 MD									
6,000.00	0.00	0.00	5,924.10	-625.46	-564.52	842.54	0.00	0.00	0.00
6,100.00	0.00	0.00	6,024.10	-625.46	-564.52	842.54	0.00	0.00	0.00
6,200.00	0.00	0.00	6,124.10	-625.46	-564.52	842.54	0.00	0.00	0.00
6,300.00	0.00	0.00	6,224.10	-625.46	-564.52	842.54	0.00	0.00	0.00
6,400.00	0.00	0.00	6,324.10	-625.46	-564.52	842.54	0.00	0.00	0.00
6,500.00	0.00	0.00	6,424.10	-625.46	-564.52	842.54	0.00	0.00	0.00
6,600.00	0.00	0.00	6,524.10	-625.46	-564.52	842.54	0.00	0.00	0.00
6,700.00	0.00	0.00	6,624.10	-625.46	-564.52	842.54	0.00	0.00	0.00
6,800.00	0.00	0.00	6,724.10	-625.46	-564.52	842.54	0.00	0.00	0.00
6,900.00	0.00	0.00	6,824.10	-625.46	-564.52	842.54	0.00	0.00	0.00
6,914.90	0.00	0.00	6,839.00	-625.46	-564.52	842.54	0.00	0.00	0.00
NIO									
7,000.00	0.00	0.00	6,924.10	-625.46	-564.52	842.54	0.00	0.00	0.00
7,100.00	0.00	0.00	7,024.10	-625.46	-564.52	842.54	0.00	0.00	0.00
7,200.00	0.00	0.00	7,124.10	-625.46	-564.52	842.54	0.00	0.00	0.00
7,208.90	0.00	0.00	7,133.00	-625.46	-564.52	842.54	0.00	0.00	0.00
CODELL									
7,294.90	0.00	0.00	7,219.00	-625.46	-564.52	842.54	0.00	0.00	0.00
GREENHORN									
7,300.00	0.00	0.00	7,224.10	-625.46	-564.52	842.54	0.00	0.00	0.00
7,400.00	0.00	0.00	7,324.10	-625.46	-564.52	842.54	0.00	0.00	0.00
7,500.00	0.00	0.00	7,424.10	-625.46	-564.52	842.54	0.00	0.00	0.00
7,600.00	0.00	0.00	7,524.10	-625.46	-564.52	842.54	0.00	0.00	0.00
7,654.90	0.00	0.00	7,579.00	-625.46	-564.52	842.54	0.00	0.00	0.00
J SAND									
7,700.00	0.00	0.00	7,624.10	-625.46	-564.52	842.54	0.00	0.00	0.00
7,800.00	0.00	0.00	7,724.10	-625.46	-564.52	842.54	0.00	0.00	0.00
7,804.90	0.00	0.00	7,729.00	-625.46	-564.52	842.54	0.00	0.00	0.00
PBHL CANNON 32-3 1984' FNL 608' FWL									

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_CANNON 32-3
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4847' & KB 15' @ 4862.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4847' & KB 15' @ 4862.00ft (ASSUMED)
Site:	WELD_CANNON 5-3 PAD	North Reference:	True
Well:	P_CANNON 32-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_CANNON 32-3		
Design:	PLAN #1 9-13-10 RHS		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL CANNON 32-3 19 - plan hits target center - Circle (radius 50.00)	0.00	0.00	7,729.00	-625.46	-564.52	1,304,973.65	3,235,011.91	40° 10' 2.960 N	104° 39' 32.594 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
700.00	700.00	8 5/8"	8.625	11.000	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,199.20	4,147.00	PARKMAN				
4,461.78	4,405.00	SUSSEX				
6,914.90	6,839.00	NIO				
7,208.90	7,133.00	CODELL				
7,294.90	7,219.00	GREENHORN				
7,654.90	7,579.00	J SAND				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
850.00	850.00	0.00	0.00	Start Build 2.00	
1,385.88	1,382.76	-37.10	-33.48	Start 3993.14 hold at 1385.88 MD	
5,379.02	5,306.24	-588.36	-531.04	Start Drop -2.00	
5,914.90	5,839.00	-625.46	-564.52	Start 1890.00 hold at 5914.90 MD	
7,804.90	7,729.00	-625.46	-564.52	TD at 7804.90	