



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_BRYANT 37-30 PAD

P_BRYANT 16-30

P_BRYANT 16-30

Plan: PLAN #1 4-9-10 RHS

Standard Planning Report

09 April, 2010

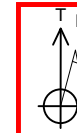




Project: COLORADO NORTHERN ZONE - 83
 Site: WELD_BRYANT 37-30 PAD
 Well: P_BRYANT 16-30
 Wellbore: P_BRYANT 16-30
 Section: SECTION 30 T2N R68W
 SHL: 284 FSL 1280 FEL
 Design: PLAN #1 4-9-10 RHS
 Latitude: 40° 6' 11.019 N
 Longitude: 105° 2' 29.148 W
 GL: 4928.00
 KB: WELL @ 4943.00ft (Original Well Elev)



Weatherford®



Azimuths to True North
 Magnetic North: 9.14°

Magnetic Field
 Strength: 53068.2snT
 Dip Angle: 66.80°
 Date: 4/9/2010
 Model: IGRF2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3830.00	3918.30	PARKMAN
4370.00	4461.55	SUSSEX
4800.00	4891.55	SHANNON
7250.00	7341.55	NIO A
7540.00	7631.55	CODELL
7610.00	7701.55	GRNHRN
7975.00	8066.55	JSAND

CASING DETAILS

TVD	MD	Name	Size
850.00	850.00	8 5/8"	8.62

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1732.47	15.65	57.56	1722.78	56.97	89.62	2.00	57.56	106.20	Start 1946.61 hold at 1732.47 MD
3679.08	15.65	57.56	3597.22	338.66	532.77	0.00	0.00	631.29	Start Drop -2.00
4461.55	0.00	0.00	4370.00	395.63	622.39	2.00	180.00	737.49	Start 3755.00 hold at 4461.55 MD
8216.55	0.00	0.00	8125.00	395.63	622.39	0.00	0.00	737.49	TD at 8216.55

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

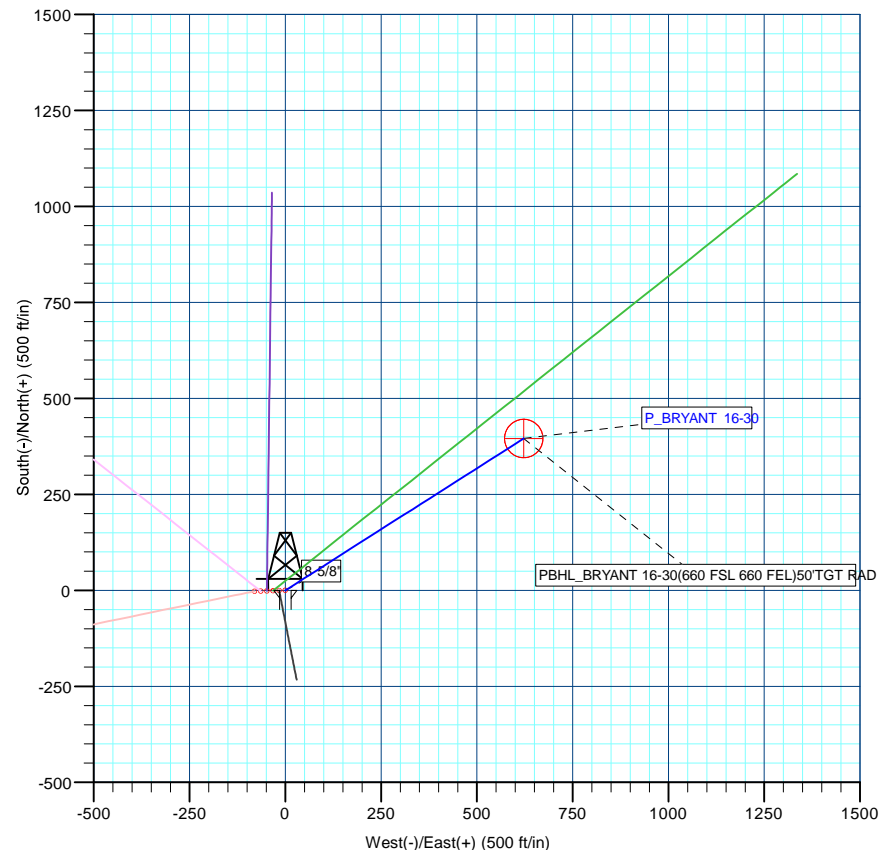
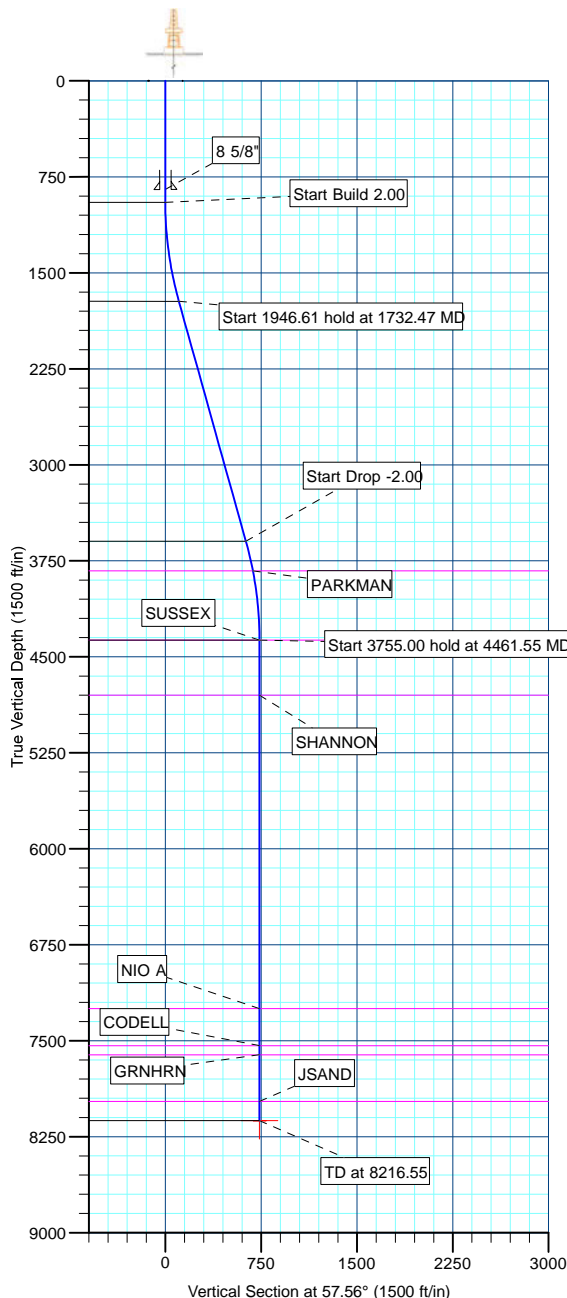
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL	8125.00	395.63	622.39	40° 6' 14.929 N	105° 2' 21.138 W	Circle (Radius: 50.00)

WELL DETAILS: P_BRYANT 16-30

+N/-S	+E/-W	Northing	Ground Level: Easting	4928.00 Latitude	Longitude	Slot
0.00	0.00	1280721.14	3128275.31	40° 6' 11.019 N	105° 2' 29.148 W	

LEGEND

- P_BRYANT 20-30, P_BRYANT 20-30, PLAN #1 4-9-10 RHS V0
- P_BRYANT 23-30, P_BRYANT 23-30, PLAN #1 4-9-10 RHS V0
- P_BRYANT 33-29, P_BRYANT 33-29, PLAN #1 4-9-10 RHS V0
- P_BRYANT 36-30, P_BRYANT 36-30, PLAN #1 4-9-10 RHS V0
- P_BRYANT 37-30, P_BRYANT 37-30, PLAN #1 4-9-10 RHS V0
- PLAN #1 4-9-10 RHS



Plan: PLAN #1 4-9-10 RHS (P_BRYANT 16-30/P_BRYANT 16-30)

Created By: Robert H. Scott Date: 15:15, April 09 2010

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BRYANT 16-30
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4943.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4943.00ft (Original Well Elev)
Site:	WELD_BRYANT 37-30 PAD	North Reference:	True
Well:	P_BRYANT 16-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BRYANT 16-30		
Design:	PLAN #1 4-9-10 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_BRYANT 37-30 PAD, SECTION 30 T2N R68W				
Site Position:		Northing:	1,280,720.26ft	Latitude:	40° 6' 11.012 N
From:	Lat/Long	Easting:	3,128,243.43ft	Longitude:	105° 2' 29.558 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.30 °

Well	P_BRYANT 16-30					
Well Position	+N/-S	0.72 ft	Northing:	1,280,721.14 ft	Latitude:	40° 6' 11.019 N
	+E/-W	31.89 ft	Easting:	3,128,275.31 ft	Longitude:	105° 2' 29.148 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,928.00 ft

Wellbore	P_BRYANT 16-30				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/9/2010	9.14	66.80	53,068

Design	PLAN #1 4-9-10 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	57.56

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	
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,732.47	15.65	57.56	1,722.78	56.97	89.62	2.00	2.00	0.00	57.56	
3,679.08	15.65	57.56	3,597.22	338.66	532.77	0.00	0.00	0.00	0.00	
4,461.55	0.00	0.00	4,370.00	395.63	622.39	2.00	-2.00	0.00	180.00	
8,216.55	0.00	0.00	8,125.00	395.63	622.39	0.00	0.00	0.00	0.00	PBHL_BRYANT 16

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BRYANT 16-30
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4943.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4943.00ft (Original Well Elev)
Site:	WELD_BRYANT 37-30 PAD	North Reference:	True
Well:	P_BRYANT 16-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BRYANT 16-30		
Design:	PLAN #1 4-9-10 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)
Start Build 2.00									
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	1.00	57.56	1,000.00	0.23	0.37	0.44	2.00	2.00	0.00
1,100.00	3.00	57.56	1,099.93	2.11	3.31	3.93	2.00	2.00	0.00
1,200.00	5.00	57.56	1,199.68	5.85	9.20	10.90	2.00	2.00	0.00
1,300.00	7.00	57.56	1,299.13	11.46	18.02	21.35	2.00	2.00	0.00
1,400.00	9.00	57.56	1,398.15	18.92	29.77	35.27	2.00	2.00	0.00
1,500.00	11.00	57.56	1,496.63	28.24	44.42	52.63	2.00	2.00	0.00
1,600.00	13.00	57.56	1,594.44	39.39	61.97	73.42	2.00	2.00	0.00
1,700.00	15.00	57.56	1,691.46	52.37	82.38	97.62	2.00	2.00	0.00
Start 1946.61 hold at 1732.47 MD									
1,732.47	15.65	57.56	1,722.78	56.97	89.62	106.20	2.00	2.00	0.00
1,800.00	15.65	57.56	1,787.80	66.74	105.00	124.41	0.00	0.00	0.00
1,900.00	15.65	57.56	1,884.10	81.21	127.76	151.39	0.00	0.00	0.00
2,000.00	15.65	57.56	1,980.39	95.68	150.53	178.36	0.00	0.00	0.00
2,100.00	15.65	57.56	2,076.68	110.15	173.29	205.34	0.00	0.00	0.00
2,200.00	15.65	57.56	2,172.98	124.62	196.06	232.31	0.00	0.00	0.00
2,300.00	15.65	57.56	2,269.27	139.10	218.82	259.29	0.00	0.00	0.00
2,400.00	15.65	57.56	2,365.56	153.57	241.59	286.26	0.00	0.00	0.00
2,500.00	15.65	57.56	2,461.86	168.04	264.35	313.24	0.00	0.00	0.00
2,600.00	15.65	57.56	2,558.15	182.51	287.12	340.21	0.00	0.00	0.00
2,700.00	15.65	57.56	2,654.44	196.98	309.88	367.19	0.00	0.00	0.00
2,800.00	15.65	57.56	2,750.73	211.45	332.65	394.16	0.00	0.00	0.00
2,900.00	15.65	57.56	2,847.03	225.92	355.41	421.14	0.00	0.00	0.00
3,000.00	15.65	57.56	2,943.32	240.39	378.18	448.11	0.00	0.00	0.00
3,100.00	15.65	57.56	3,039.61	254.86	400.94	475.09	0.00	0.00	0.00
3,200.00	15.65	57.56	3,135.91	269.33	423.71	502.06	0.00	0.00	0.00
3,300.00	15.65	57.56	3,232.20	283.80	446.47	529.04	0.00	0.00	0.00
3,400.00	15.65	57.56	3,328.49	298.27	469.24	556.01	0.00	0.00	0.00
3,500.00	15.65	57.56	3,424.79	312.74	492.00	582.99	0.00	0.00	0.00
3,600.00	15.65	57.56	3,521.08	327.22	514.77	609.96	0.00	0.00	0.00
Start Drop -2.00									
3,679.08	15.65	57.56	3,597.22	338.66	532.77	631.29	0.00	0.00	0.00
3,700.00	15.23	57.56	3,617.39	341.65	537.47	636.86	2.00	-2.00	0.00
3,800.00	13.23	57.56	3,714.32	354.83	558.21	661.45	2.00	-2.00	0.00
3,900.00	11.23	57.56	3,812.04	366.20	576.09	682.63	2.00	-2.00	0.00
PARKMAN									
3,918.30	10.86	57.56	3,830.00	368.08	579.05	686.14	2.00	-2.00	0.00
4,000.00	9.23	57.56	3,910.45	375.73	591.08	700.39	2.00	-2.00	0.00
4,100.00	7.23	57.56	4,009.41	383.40	603.16	714.71	2.00	-2.00	0.00
4,200.00	5.23	57.56	4,108.82	389.23	612.32	725.56	2.00	-2.00	0.00
4,300.00	3.23	57.56	4,208.54	393.18	618.55	732.94	2.00	-2.00	0.00
4,400.00	1.23	57.56	4,308.46	395.27	621.83	736.83	2.00	-2.00	0.00
Start 3755.00 hold at 4461.55 MD - SUSSEX									
4,461.55	0.00	0.00	4,370.00	395.63	622.39	737.49	2.00	-2.00	0.00
4,500.00	0.00	0.00	4,408.45	395.63	622.39	737.49	0.00	0.00	0.00
4,600.00	0.00	0.00	4,508.45	395.63	622.39	737.49	0.00	0.00	0.00
4,700.00	0.00	0.00	4,608.45	395.63	622.39	737.49	0.00	0.00	0.00
4,800.00	0.00	0.00	4,708.45	395.63	622.39	737.49	0.00	0.00	0.00
SHANNON									
4,891.55	0.00	0.00	4,800.00	395.63	622.39	737.49	0.00	0.00	0.00
4,900.00	0.00	0.00	4,808.45	395.63	622.39	737.49	0.00	0.00	0.00
5,000.00	0.00	0.00	4,908.45	395.63	622.39	737.49	0.00	0.00	0.00

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BRYANT 16-30
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4943.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4943.00ft (Original Well Elev)
Site:	WELD_BRYANT 37-30 PAD	North Reference:	True
Well:	P_BRYANT 16-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BRYANT 16-30		
Design:	PLAN #1 4-9-10 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)
5,100.00	0.00	0.00	5,008.45	395.63	622.39	737.49	0.00	0.00	0.00
5,200.00	0.00	0.00	5,108.45	395.63	622.39	737.49	0.00	0.00	0.00
5,300.00	0.00	0.00	5,208.45	395.63	622.39	737.49	0.00	0.00	0.00
5,400.00	0.00	0.00	5,308.45	395.63	622.39	737.49	0.00	0.00	0.00
5,500.00	0.00	0.00	5,408.45	395.63	622.39	737.49	0.00	0.00	0.00
5,600.00	0.00	0.00	5,508.45	395.63	622.39	737.49	0.00	0.00	0.00
5,700.00	0.00	0.00	5,608.45	395.63	622.39	737.49	0.00	0.00	0.00
5,800.00	0.00	0.00	5,708.45	395.63	622.39	737.49	0.00	0.00	0.00
5,900.00	0.00	0.00	5,808.45	395.63	622.39	737.49	0.00	0.00	0.00
6,000.00	0.00	0.00	5,908.45	395.63	622.39	737.49	0.00	0.00	0.00
6,100.00	0.00	0.00	6,008.45	395.63	622.39	737.49	0.00	0.00	0.00
6,200.00	0.00	0.00	6,108.45	395.63	622.39	737.49	0.00	0.00	0.00
6,300.00	0.00	0.00	6,208.45	395.63	622.39	737.49	0.00	0.00	0.00
6,400.00	0.00	0.00	6,308.45	395.63	622.39	737.49	0.00	0.00	0.00
6,500.00	0.00	0.00	6,408.45	395.63	622.39	737.49	0.00	0.00	0.00
6,600.00	0.00	0.00	6,508.45	395.63	622.39	737.49	0.00	0.00	0.00
6,700.00	0.00	0.00	6,608.45	395.63	622.39	737.49	0.00	0.00	0.00
6,800.00	0.00	0.00	6,708.45	395.63	622.39	737.49	0.00	0.00	0.00
6,900.00	0.00	0.00	6,808.45	395.63	622.39	737.49	0.00	0.00	0.00
7,000.00	0.00	0.00	6,908.45	395.63	622.39	737.49	0.00	0.00	0.00
7,100.00	0.00	0.00	7,008.45	395.63	622.39	737.49	0.00	0.00	0.00
7,200.00	0.00	0.00	7,108.45	395.63	622.39	737.49	0.00	0.00	0.00
7,300.00	0.00	0.00	7,208.45	395.63	622.39	737.49	0.00	0.00	0.00
NIO A									
7,341.55	0.00	0.00	7,250.00	395.63	622.39	737.49	0.00	0.00	0.00
7,400.00	0.00	0.00	7,308.45	395.63	622.39	737.49	0.00	0.00	0.00
7,500.00	0.00	0.00	7,408.45	395.63	622.39	737.49	0.00	0.00	0.00
7,600.00	0.00	0.00	7,508.45	395.63	622.39	737.49	0.00	0.00	0.00
CODELL									
7,631.55	0.00	0.00	7,540.00	395.63	622.39	737.49	0.00	0.00	0.00
7,700.00	0.00	0.00	7,608.45	395.63	622.39	737.49	0.00	0.00	0.00
GRNHRN									
7,701.55	0.00	0.00	7,610.00	395.63	622.39	737.49	0.00	0.00	0.00
7,800.00	0.00	0.00	7,708.45	395.63	622.39	737.49	0.00	0.00	0.00
7,900.00	0.00	0.00	7,808.45	395.63	622.39	737.49	0.00	0.00	0.00
8,000.00	0.00	0.00	7,908.45	395.63	622.39	737.49	0.00	0.00	0.00
JSAND									
8,066.55	0.00	0.00	7,975.00	395.63	622.39	737.49	0.00	0.00	0.00
8,100.00	0.00	0.00	8,008.45	395.63	622.39	737.49	0.00	0.00	0.00
8,200.00	0.00	0.00	8,108.45	395.63	622.39	737.49	0.00	0.00	0.00
PBHL_BRYANT 16-30(660 FSL 660 FEL)50'TGT RAD									
8,216.55	0.00	0.00	8,125.00	395.63	622.39	737.49	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL_BRYANT 16-30 - hit/miss target - Shape	0.00	0.00	8,125.00	395.63	622.39	1,281,119.98	3,128,895.65	40° 6' 14.929 N	105° 2' 21.138 W
- plan hits target center - Circle (radius 50.00)									

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BRYANT 16-30
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4943.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4943.00ft (Original Well Elev)
Site:	WELD_BRYANT 37-30 PAD	North Reference:	True
Well:	P_BRYANT 16-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BRYANT 16-30		
Design:	PLAN #1 4-9-10 RHS		

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
850.00	850.00	8 5/8"	8.62	11.00

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,918.30	3,830.00	PARKMAN			
4,461.55	4,370.00	SUSSEX			
4,891.55	4,800.00	SHANNON			
7,341.55	7,250.00	NIO A			
7,631.55	7,540.00	CODELL			
7,701.55	7,610.00	GRNHRN			
8,066.55	7,975.00	JSAND			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
950.00	950.00	0.00	0.00	Start Build 2.00
1,732.47	1,722.78	56.97	89.62	Start 1946.61 hold at 1732.47 MD
3,679.08	3,597.22	338.66	532.77	Start Drop -2.00
4,461.55	4,370.00	395.63	622.39	Start 3755.00 hold at 4461.55 MD
8,216.55	8,125.00	395.63	622.39	TD at 8216.55