

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_CARTER 10 PAD

Carter 9-32

Carter 9-32

Plan: Carter 9-32 (wp02)

Standard Planning Report

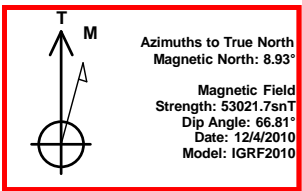
31 January, 2011



Weatherford®

Project: COLORADO NORTHERN ZONE - 83
 Site: WELD_CARTER 10 PAD
 Well: Carter 9-32
 Wellbore: Carter 9-32
 Section:
 SHL:
 Design: Carter 9-32 (wp02)
 Latitude: 40.093728
 Longitude: -104.797092
 GL: 4912.00
 KB: WELL @ 4912.00ft (Original Well Elev)

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3980.00	4064.41	PK Depth
4483.00	4580.23	SX Depth
7128.00	7227.85	NIO Depth
7453.00	7552.85	CD Depth
7543.00	7642.85	GH Depth
7893.00	7992.85	J Depth

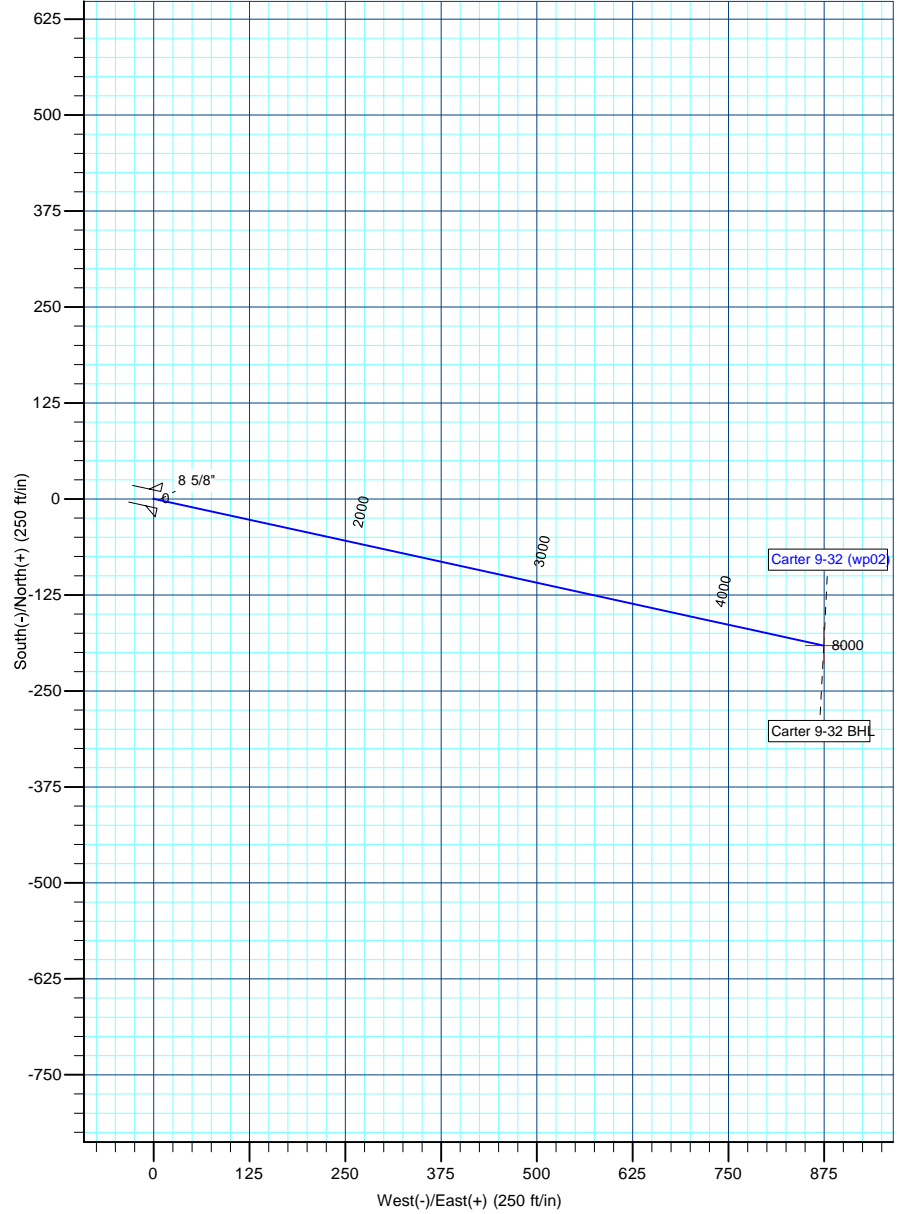
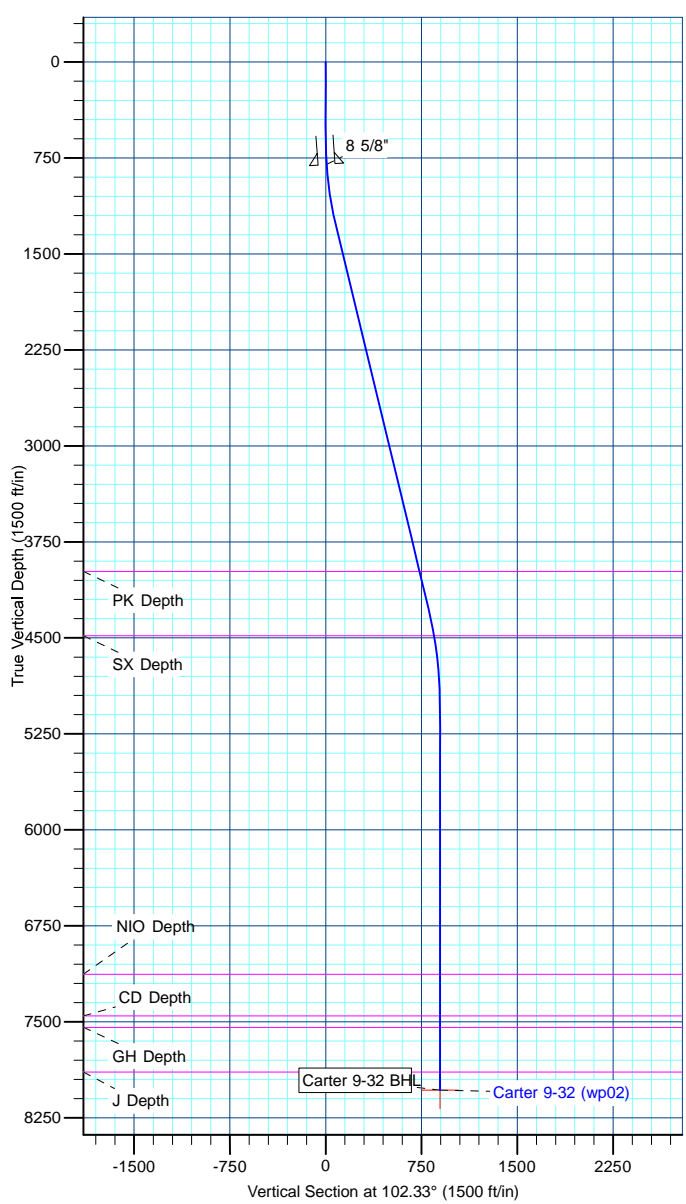


WELL DETAILS: Carter 9-32						
+N/-S	+E/-W	Northing	Ground Level: Easting	4912.00 Latitude	Longitude	Slot
0.00	0.00	1277769.04	3196649.50	40.093728	-104.797092	

CASING DETAILS			
TVD	MD	Name	Size
800.00	800.16	8 5/8"	8-5/8

DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	Point
Carter 9-32 BHL	8033.00	-191.20	874.56	1277584.78	3197525.55	40.093203	-104.793966		

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	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	
1279.87	13.60	102.33	1273.51	-17.15	78.44	2.00	102.33	80.30	
4355.86	13.60	102.33	4263.28	-171.60	784.91	0.00	0.00	803.45	
5132.85	0.00	0.00	5033.00	-191.20	874.56	1.75	180.00	895.22	
8132.85	0.00	0.00	8033.00	-191.20	874.56	0.00	0.00	895.22	



Database:	edm5000p	Local Co-ordinate Reference:	Well Carter 9-32
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4912.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4912.00ft (Original Well Elev)
Site:	WELD_CARTER 10 PAD	North Reference:	True
Well:	Carter 9-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carter 9-32		
Design:	Carter 9-32 (wp02)		

Project	COLORADO NORTHERN ZONE - 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	WELD_CARTER 10 PAD				
Site Position:		Northing:	1,277,768.43 ft	Latitude:	40.093728
From:	Lat/Long	Easting:	3,196,569.49 ft	Longitude:	-104.797378
Position Uncertainty:	0.00 ft	Slot Radius:	0 "	Grid Convergence:	0.45 °

Well	Carter 9-32					
Well Position	+N-S	-0.03 ft	Northing:	1,277,769.04 ft	Latitude:	40.093728
	+E-W	80.01 ft	Easting:	3,196,649.50 ft	Longitude:	-104.797092
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,912.00 ft

Wellbore	Carter 9-32				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/4/2010	8.93	66.81	53,022

Design	Carter 9-32 (wp02)			
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	102.33

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	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,279.87	13.60	102.33	1,273.51	-17.15	78.44	2.00	2.00	0.00	102.33	
4,355.86	13.60	102.33	4,263.28	-171.60	784.91	0.00	0.00	0.00	0.00	
5,132.85	0.00	0.00	5,033.00	-191.20	874.56	1.75	-1.75	0.00	180.00	
8,132.85	0.00	0.00	8,033.00	-191.20	874.56	0.00	0.00	0.00	0.00	Carter 9-32 BHL

Database:	edm5000p	Local Co-ordinate Reference:	Well Carter 9-32
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4912.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4912.00ft (Original Well Elev)
Site:	WELD_CARTER 10 PAD	North Reference:	True
Well:	Carter 9-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carter 9-32		
Design:	Carter 9-32 (wp02)		

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	2.00	102.33	699.98	-0.37	1.70	1.75	2.00	2.00	0.00
800.00	4.00	102.33	799.84	-1.49	6.82	6.98	2.00	2.00	0.00
800.16	4.00	102.33	800.00	-1.49	6.83	6.99	0.00	0.00	0.00
8 5/8"									
900.00	6.00	102.33	899.45	-3.35	15.33	15.69	2.00	2.00	0.00
1,000.00	8.00	102.33	998.70	-5.95	27.24	27.88	2.00	2.00	0.00
1,100.00	10.00	102.33	1,097.47	-9.30	42.52	43.52	2.00	2.00	0.00
1,200.00	12.00	102.33	1,195.62	-13.37	61.16	62.60	2.00	2.00	0.00
1,279.87	13.60	102.33	1,273.51	-17.15	78.44	80.30	2.00	2.00	0.00
1,300.00	13.60	102.33	1,293.07	-18.16	83.07	85.03	0.00	0.00	0.00
1,400.00	13.60	102.33	1,390.27	-23.18	106.03	108.54	0.00	0.00	0.00
1,500.00	13.60	102.33	1,487.47	-28.20	129.00	132.05	0.00	0.00	0.00
1,600.00	13.60	102.33	1,584.66	-33.22	151.97	155.56	0.00	0.00	0.00
1,700.00	13.60	102.33	1,681.86	-38.25	174.94	179.07	0.00	0.00	0.00
1,800.00	13.60	102.33	1,779.06	-43.27	197.90	202.58	0.00	0.00	0.00
1,900.00	13.60	102.33	1,876.26	-48.29	220.87	226.09	0.00	0.00	0.00
2,000.00	13.60	102.33	1,973.45	-53.31	243.84	249.60	0.00	0.00	0.00
2,100.00	13.60	102.33	2,070.65	-58.33	266.80	273.11	0.00	0.00	0.00
2,200.00	13.60	102.33	2,167.85	-63.35	289.77	296.62	0.00	0.00	0.00
2,300.00	13.60	102.33	2,265.04	-68.37	312.74	320.13	0.00	0.00	0.00
2,400.00	13.60	102.33	2,362.24	-73.39	335.71	343.64	0.00	0.00	0.00
2,500.00	13.60	102.33	2,459.44	-78.41	358.67	367.15	0.00	0.00	0.00
2,600.00	13.60	102.33	2,556.64	-83.44	381.64	390.66	0.00	0.00	0.00
2,700.00	13.60	102.33	2,653.83	-88.46	404.61	414.17	0.00	0.00	0.00
2,800.00	13.60	102.33	2,751.03	-93.48	427.58	437.67	0.00	0.00	0.00
2,900.00	13.60	102.33	2,848.23	-98.50	450.54	461.18	0.00	0.00	0.00
3,000.00	13.60	102.33	2,945.42	-103.52	473.51	484.69	0.00	0.00	0.00
3,100.00	13.60	102.33	3,042.62	-108.54	496.48	508.20	0.00	0.00	0.00
3,200.00	13.60	102.33	3,139.82	-113.56	519.45	531.71	0.00	0.00	0.00
3,300.00	13.60	102.33	3,237.02	-118.58	542.41	555.22	0.00	0.00	0.00
3,400.00	13.60	102.33	3,334.21	-123.61	565.38	578.73	0.00	0.00	0.00
3,500.00	13.60	102.33	3,431.41	-128.63	588.35	602.24	0.00	0.00	0.00
3,600.00	13.60	102.33	3,528.61	-133.65	611.31	625.75	0.00	0.00	0.00
3,700.00	13.60	102.33	3,625.80	-138.67	634.28	649.26	0.00	0.00	0.00
3,800.00	13.60	102.33	3,723.00	-143.69	657.25	672.77	0.00	0.00	0.00
3,900.00	13.60	102.33	3,820.20	-148.71	680.22	696.28	0.00	0.00	0.00
4,000.00	13.60	102.33	3,917.40	-153.73	703.18	719.79	0.00	0.00	0.00
4,064.41	13.60	102.33	3,980.00	-156.97	717.98	734.94	0.00	0.00	0.00
PK Depth									
4,100.00	13.60	102.33	4,014.59	-158.75	726.15	743.30	0.00	0.00	0.00
4,200.00	13.60	102.33	4,111.79	-163.78	749.12	766.81	0.00	0.00	0.00
4,300.00	13.60	102.33	4,208.99	-168.80	772.09	790.32	0.00	0.00	0.00
4,355.86	13.60	102.33	4,263.28	-171.60	784.91	803.45	0.00	0.00	0.00
4,400.00	12.82	102.33	4,306.25	-173.76	794.77	813.54	1.75	-1.75	0.00
4,500.00	11.07	102.33	4,404.08	-178.18	815.00	834.25	1.75	-1.75	0.00
4,580.23	9.67	102.33	4,483.00	-181.26	829.11	848.69	1.75	-1.75	0.00

Database:	edm5000p	Local Co-ordinate Reference:	Well Carter 9-32
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4912.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4912.00ft (Original Well Elev)
Site:	WELD_CARTER 10 PAD	North Reference:	True
Well:	Carter 9-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carter 9-32		
Design:	Carter 9-32 (wp02)		

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)
SX Depth									
4,600.00	9.32	102.33	4,502.50	-181.96	832.30	851.95	1.75	-1.75	0.00
4,700.00	7.57	102.33	4,601.41	-185.10	846.65	866.65	1.75	-1.75	0.00
4,800.00	5.82	102.33	4,700.72	-187.59	858.05	878.32	1.75	-1.75	0.00
4,900.00	4.07	102.33	4,800.34	-189.43	866.48	886.94	1.75	-1.75	0.00
5,000.00	2.32	102.33	4,900.18	-190.63	871.93	892.52	1.75	-1.75	0.00
5,100.00	0.57	102.33	5,000.15	-191.17	874.40	895.06	1.75	-1.75	0.00
5,132.85	0.00	0.00	5,033.00	-191.20	874.56	895.22	1.75	-1.75	0.00
5,200.00	0.00	0.00	5,100.15	-191.20	874.56	895.22	0.00	0.00	0.00
5,300.00	0.00	0.00	5,200.15	-191.20	874.56	895.22	0.00	0.00	0.00
5,400.00	0.00	0.00	5,300.15	-191.20	874.56	895.22	0.00	0.00	0.00
5,500.00	0.00	0.00	5,400.15	-191.20	874.56	895.22	0.00	0.00	0.00
5,600.00	0.00	0.00	5,500.15	-191.20	874.56	895.22	0.00	0.00	0.00
5,700.00	0.00	0.00	5,600.15	-191.20	874.56	895.22	0.00	0.00	0.00
5,800.00	0.00	0.00	5,700.15	-191.20	874.56	895.22	0.00	0.00	0.00
5,900.00	0.00	0.00	5,800.15	-191.20	874.56	895.22	0.00	0.00	0.00
6,000.00	0.00	0.00	5,900.15	-191.20	874.56	895.22	0.00	0.00	0.00
6,100.00	0.00	0.00	6,000.15	-191.20	874.56	895.22	0.00	0.00	0.00
6,200.00	0.00	0.00	6,100.15	-191.20	874.56	895.22	0.00	0.00	0.00
6,300.00	0.00	0.00	6,200.15	-191.20	874.56	895.22	0.00	0.00	0.00
6,400.00	0.00	0.00	6,300.15	-191.20	874.56	895.22	0.00	0.00	0.00
6,500.00	0.00	0.00	6,400.15	-191.20	874.56	895.22	0.00	0.00	0.00
6,600.00	0.00	0.00	6,500.15	-191.20	874.56	895.22	0.00	0.00	0.00
6,700.00	0.00	0.00	6,600.15	-191.20	874.56	895.22	0.00	0.00	0.00
6,800.00	0.00	0.00	6,700.15	-191.20	874.56	895.22	0.00	0.00	0.00
6,900.00	0.00	0.00	6,800.15	-191.20	874.56	895.22	0.00	0.00	0.00
7,000.00	0.00	0.00	6,900.15	-191.20	874.56	895.22	0.00	0.00	0.00
7,100.00	0.00	0.00	7,000.15	-191.20	874.56	895.22	0.00	0.00	0.00
7,200.00	0.00	0.00	7,100.15	-191.20	874.56	895.22	0.00	0.00	0.00
7,227.85	0.00	0.00	7,128.00	-191.20	874.56	895.22	0.00	0.00	0.00
NIO Depth									
7,300.00	0.00	0.00	7,200.15	-191.20	874.56	895.22	0.00	0.00	0.00
7,400.00	0.00	0.00	7,300.15	-191.20	874.56	895.22	0.00	0.00	0.00
7,500.00	0.00	0.00	7,400.15	-191.20	874.56	895.22	0.00	0.00	0.00
7,552.85	0.00	0.00	7,453.00	-191.20	874.56	895.22	0.00	0.00	0.00
CD Depth									
7,600.00	0.00	0.00	7,500.15	-191.20	874.56	895.22	0.00	0.00	0.00
7,642.85	0.00	0.00	7,543.00	-191.20	874.56	895.22	0.00	0.00	0.00
GH Depth									
7,700.00	0.00	0.00	7,600.15	-191.20	874.56	895.22	0.00	0.00	0.00
7,800.00	0.00	0.00	7,700.15	-191.20	874.56	895.22	0.00	0.00	0.00
7,900.00	0.00	0.00	7,800.15	-191.20	874.56	895.22	0.00	0.00	0.00
7,992.85	0.00	0.00	7,893.00	-191.20	874.56	895.22	0.00	0.00	0.00
J Depth									
8,000.00	0.00	0.00	7,900.15	-191.20	874.56	895.22	0.00	0.00	0.00
8,100.00	0.00	0.00	8,000.15	-191.20	874.56	895.22	0.00	0.00	0.00
8,132.85	0.00	0.00	8,033.00	-191.20	874.56	895.22	0.00	0.00	0.00
Carter 9-32 BHL									

Database:	edm5000p	Local Co-ordinate Reference:	Well Carter 9-32
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4912.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4912.00ft (Original Well Elev)
Site:	WELD_CARTER 10 PAD	North Reference:	True
Well:	Carter 9-32	Survey Calculation Method:	Minimum Curvature
Wellbore:	Carter 9-32		
Design:	Carter 9-32 (wp02)		

Design Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
Carter 9-32 BHL	0.00	0.00	8,033.00	-191.20	874.56	1,277,584.77	3,197,525.55	40.093203	-104.793966
- plan hits target center									
- Point									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
800.16	800.00	8 5/8"	8-5/8	11

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,064.41	3,980.00	PK Depth			
4,580.23	4,483.00	SX Depth			
7,227.85	7,128.00	NIO Depth			
7,552.85	7,453.00	CD Depth			
7,642.85	7,543.00	GH Depth			
7,992.85	7,893.00	J Depth			