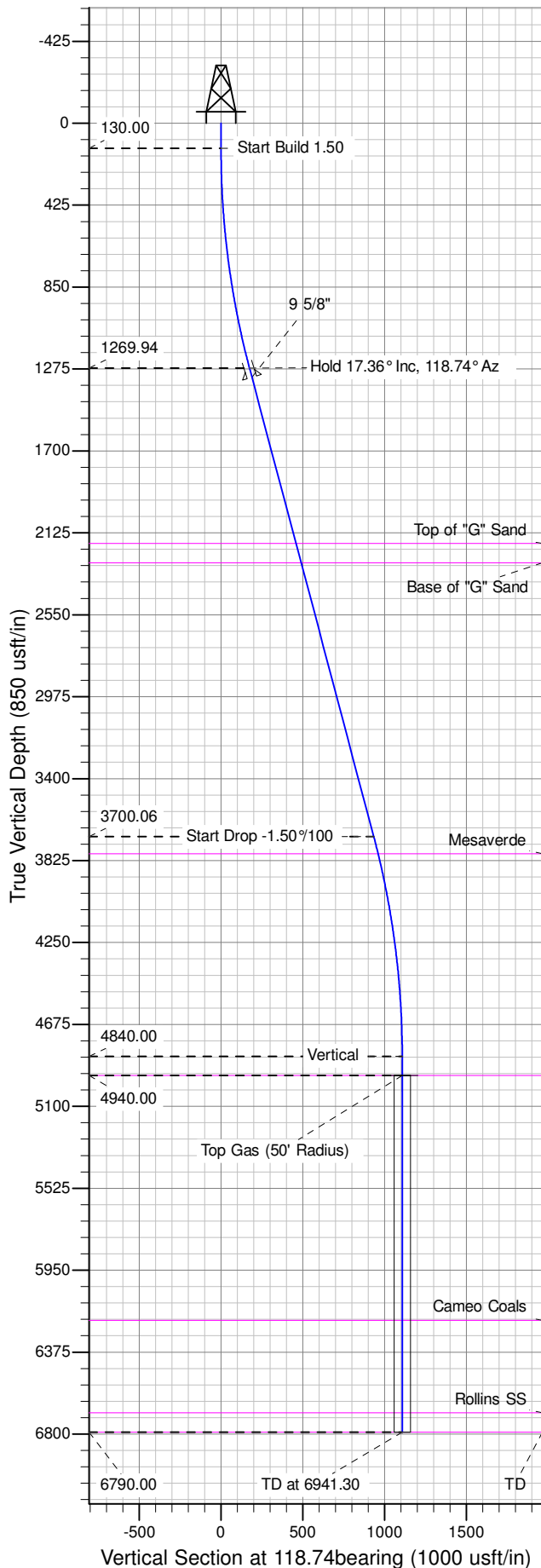
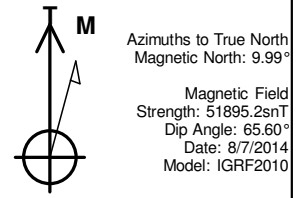
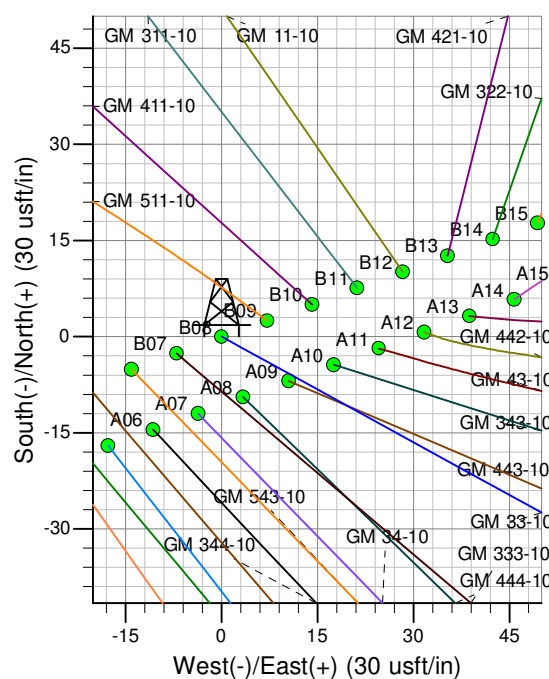
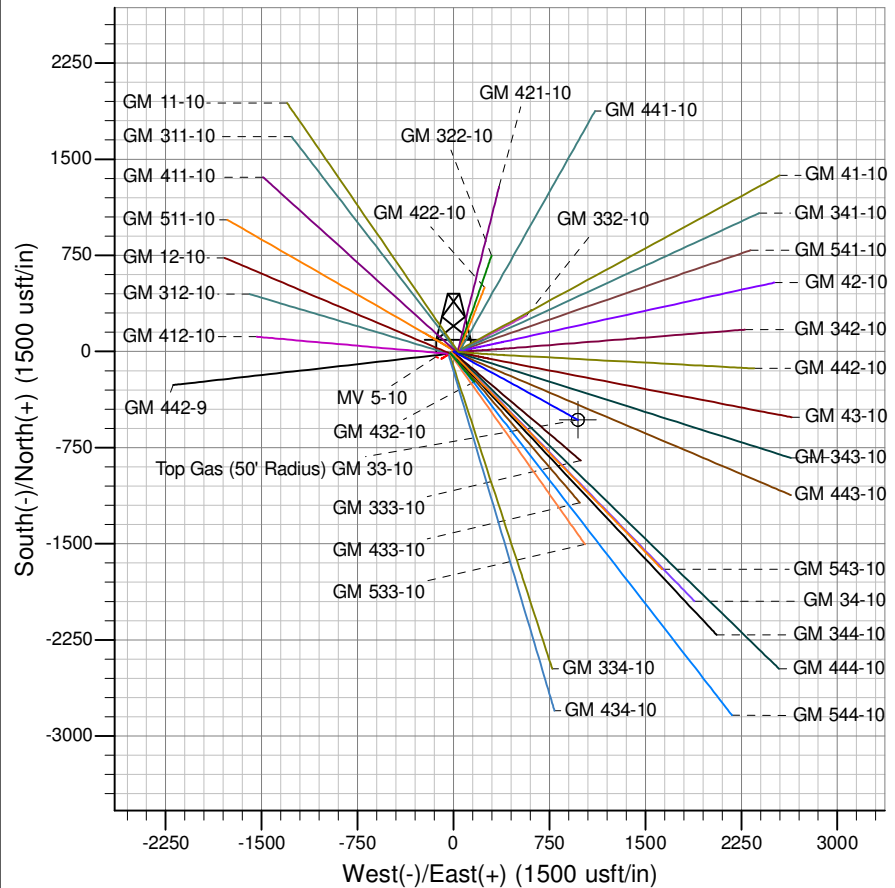




Well Name: GM 33-10  
Surface Location: MV 5-10 Pad  
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone  
Ground Elevation: 6148.00  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.00 0.00 1600368.20000 2266921.30000 39.45302 -108.09649 B09  
KELLY BUSHING @ 6174.00usft (Nabors (26' RKB) mab)



ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation	
130.00	130.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50	
1269.94	1287.58	17.36	118.74	-83.71	152.62	174.07	174.07	Hold 17.36° Inc, 118.74° Az	
3700.06	3833.72	17.36	118.74	-449.13	818.85	933.93	933.93	Start Drop -1.50%/100	
4840.00	4991.30	0.00	0.00	-532.83	971.46	1107.99	1107.99	Vertical	
4940.00	5091.30	0.00	0.00	-532.83	971.46	1107.99	1107.99	Top Gas	
6790.00	6941.30	0.00	0.00	-532.83	971.46	1107.99	1107.99	TD at 6941.30	



Project: GV 10-07S-096W  
Site: MV 5-10 Pad  
Well: GM 33-10  
Design #1 07Aug14 mab

# **PICEANCE VLY NAD 83**

**GV 10-07S-096W**

**MV 5-10 Pad**

**GM 33-10 - Slot B09**

**Wellbore #1**

**Plan: Design #1 07Aug14 mab**

## **Standard Planning Report - Geographic**

**13 October, 2014**

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 33-10 - Slot B09
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
<b>Project:</b>	GV 10-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
<b>Site:</b>	MV 5-10 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 33-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 07Aug14 mab		

<b>Project</b>	GV 10-07S-096W		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		Using geodetic scale factor

<b>Site</b>	MV 5-10 Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,600,354.00000 usft	<b>Latitude:</b> 39.45298
<b>From:</b> Map		<b>Easting:</b>	2,266,910.20000 usft	<b>Longitude:</b> -108.09653
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.64 °

Well	GM 33-10 - Slot B09					
Well Position	+N/-S	0.00 usft	Northing:	1,600,368.20000 usft	Latitude:	39.45302
	+E/-W	0.00 usft	Easting:	2,266,921.30000 usft	Longitude:	-108.09649
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,148.00 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	8/7/2014	9.99	65.60	51,895

<b>Design</b>	Design #1 07Aug14 mab			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (bearing)</b>
	0.00	0.00	0.00	118.74

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130.00	0.00	0.00	130.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,287.58	17.36	118.74	1,269.94	-83.71	152.62	1.50	1.50	0.00	118.74	
3,833.72	17.36	118.74	3,700.06	-449.13	818.85	0.00	0.00	0.00	0.00	
4,991.30	0.00	0.00	4,840.00	-532.83	971.46	1.50	-1.50	0.00	180.00	
5,091.30	0.00	0.00	4,940.00	-532.83	971.46	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
6,941.30	0.00	0.00	6,790.00	-532.83	971.46	0.00	0.00	0.00	0.00	

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 33-10 - Slot B09
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
<b>Project:</b>	GV 10-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
<b>Site:</b>	MV 5-10 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 33-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 07Aug14 mab		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	1,600,368.20000	2,266,921.30000	39.45302	-108.09649	
130.00	0.00	0.00	130.00	0.00	0.00	1,600,368.20000	2,266,921.30000	39.45302	-108.09649	
Start Build 1.50										
200.00	1.05	118.74	200.00	-0.31	0.56	1,600,367.87562	2,266,921.85328	39.45302	-108.09649	
400.00	4.05	118.74	399.78	-4.59	8.36	1,600,363.37598	2,266,929.52835	39.45301	-108.09646	
600.00	7.05	118.74	598.81	-13.89	25.32	1,600,353.59471	2,266,946.21230	39.45298	-108.09640	
800.00	10.05	118.74	796.57	-28.19	51.39	1,600,338.55862	2,266,971.85940	39.45294	-108.09631	
1,000.00	13.05	118.74	992.50	-47.44	86.49	1,600,318.30893	2,267,006.39936	39.45289	-108.09619	
1,200.00	16.05	118.74	1,186.06	-71.60	130.54	1,600,292.90115	2,267,049.73751	39.45282	-108.09603	
1,287.58	17.36	118.74	1,269.94	-83.71	152.62	1,600,280.16850	2,267,071.45563	39.45279	-108.09595	
Hold 17.36° Inc, 118.74° Az										
1,337.58	17.36	118.74	1,317.66	-90.88	165.70	1,600,272.62198	2,267,084.32775	39.45277	-108.09591	
9 5/8"										
1,400.00	17.36	118.74	1,377.24	-99.84	182.03	1,600,263.20094	2,267,100.39726	39.45275	-108.09585	
1,600.00	17.36	118.74	1,568.13	-128.55	234.37	1,600,233.01495	2,267,151.88560	39.45267	-108.09566	
1,800.00	17.36	118.74	1,759.01	-157.25	286.70	1,600,202.82898	2,267,203.37394	39.45259	-108.09548	
2,000.00	17.36	118.74	1,949.90	-185.95	339.03	1,600,172.64299	2,267,254.86227	39.45251	-108.09529	
2,200.00	17.36	118.74	2,140.78	-214.66	391.36	1,600,142.45701	2,267,306.35061	39.45243	-108.09511	
2,241.09	17.36	118.74	2,180.00	-220.55	402.11	1,600,136.25535	2,267,316.92879	39.45241	-108.09507	
Top of "G" Sand										
2,345.86	17.36	118.74	2,280.00	-235.59	429.53	1,600,120.44173	2,267,343.90214	39.45237	-108.09497	
Base of "G" Sand										
2,400.00	17.36	118.74	2,331.67	-243.36	443.69	1,600,112.27102	2,267,357.83895	39.45235	-108.09492	
2,600.00	17.36	118.74	2,522.55	-272.06	496.03	1,600,082.08504	2,267,409.32729	39.45227	-108.09474	
2,800.00	17.36	118.74	2,713.44	-300.77	548.36	1,600,051.89905	2,267,460.81563	39.45219	-108.09455	
3,000.00	17.36	118.74	2,904.33	-329.47	600.69	1,600,021.71307	2,267,512.30396	39.45211	-108.09437	
3,200.00	17.36	118.74	3,095.21	-358.17	653.02	1,599,991.52708	2,267,563.79230	39.45204	-108.09418	
3,400.00	17.36	118.74	3,286.10	-386.88	705.36	1,599,961.34110	2,267,615.28064	39.45196	-108.09400	
3,600.00	17.36	118.74	3,476.98	-415.58	757.69	1,599,931.15511	2,267,666.76897	39.45188	-108.09381	
3,800.00	17.36	118.74	3,667.87	-444.29	810.02	1,599,900.96913	2,267,718.25731	39.45180	-108.09363	
3,833.72	17.36	118.74	3,700.06	-449.13	818.85	1,599,895.87908	2,267,726.93942	39.45179	-108.09359	
Start Drop -1.50°/100										
3,927.61	15.96	118.74	3,790.00	-462.07	842.44	1,599,882.26734	2,267,750.15702	39.45175	-108.09351	
Mesaverde										
4,000.00	14.87	118.74	3,859.79	-471.32	859.31	1,599,872.53767	2,267,766.75294	39.45173	-108.09345	
4,200.00	11.87	118.74	4,054.34	-493.56	899.85	1,599,849.15195	2,267,806.64204	39.45166	-108.09331	
4,400.00	8.87	118.74	4,251.05	-510.87	931.41	1,599,830.94787	2,267,837.69281	39.45162	-108.09320	
4,600.00	5.87	118.74	4,449.38	-523.20	953.90	1,599,817.97533	2,267,859.82014	39.45158	-108.09312	
4,800.00	2.87	118.74	4,648.78	-530.53	967.26	1,599,810.26986	2,267,872.96338	39.45156	-108.09307	
4,991.30	0.00	0.00	4,840.00	-532.83	971.46	1,599,807.84759	2,267,877.09505	39.45156	-108.09305	
Vertical										
5,000.00	0.00	0.00	4,848.70	-532.83	971.46	1,599,807.84759	2,267,877.09505	39.45156	-108.09305	
5,091.30	0.00	0.00	4,940.00	-532.83	971.46	1,599,807.84759	2,267,877.09505	39.45156	-108.09305	
Top Gas - Approx. Top Gas										
5,200.00	0.00	0.00	5,048.70	-532.83	971.46	1,599,807.84759	2,267,877.09505	39.45156	-108.09305	
5,400.00	0.00	0.00	5,248.70	-532.83	971.46	1,599,807.84759	2,267,877.09505	39.45156	-108.09305	
5,600.00	0.00	0.00	5,448.70	-532.83	971.46	1,599,807.84759	2,267,877.09505	39.45156	-108.09305	
5,800.00	0.00	0.00	5,648.70	-532.83	971.46	1,599,807.84759	2,267,877.09505	39.45156	-108.09305	
6,000.00	0.00	0.00	5,848.70	-532.83	971.46	1,599,807.84759	2,267,877.09505	39.45156	-108.09305	
6,200.00	0.00	0.00	6,048.70	-532.83	971.46	1,599,807.84759	2,267,877.09505	39.45156	-108.09305	

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 33-10 - Slot B09
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
<b>Project:</b>	GV 10-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
<b>Site:</b>	MV 5-10 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 33-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 07Aug14 mab		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,361.30	0.00	0.00	6,210.00	-532.83	971.46	1,599,807.84759	2,267,877.09505	39.45156	-108.09305
<b>Cameo Coals</b>									
6,400.00	0.00	0.00	6,248.70	-532.83	971.46	1,599,807.84759	2,267,877.09505	39.45156	-108.09305
6,600.00	0.00	0.00	6,448.70	-532.83	971.46	1,599,807.84759	2,267,877.09505	39.45156	-108.09305
6,800.00	0.00	0.00	6,648.70	-532.83	971.46	1,599,807.84759	2,267,877.09505	39.45156	-108.09305
6,841.30	0.00	0.00	6,690.00	-532.83	971.46	1,599,807.84759	2,267,877.09505	39.45156	-108.09305
<b>Rollins SS</b>									
6,941.30	0.00	0.00	6,790.00	-532.83	971.46	1,599,807.84759	2,267,877.09505	39.45156	-108.09305
<b>TD at 6941.30 - TD</b>									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Top Gas (50' Radius) G1 - plan hits target center - Circle (radius 50.00)	0.00	0.00	4,940.00	-532.83	971.46	1,599,807.84759	2,267,877.09505	39.45156	-108.09305

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,337.58	1,317.66	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,241.09	2,180.00	Top of "G" Sand				
2,345.86	2,280.00	Base of "G" Sand				
3,927.61	3,790.00	Mesaverde				
5,091.30	4,940.00	Approx. Top Gas				
6,361.30	6,210.00	Cameo Coals				
6,841.30	6,690.00	Rollins SS				
6,941.30	6,790.00	TD				

**WPX**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well GM 33-10 - Slot B09
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
<b>Project:</b>	GV 10-07S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 6174.00usft (Nabors _ (26' RKB) mab)
<b>Site:</b>	MV 5-10 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 33-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 07Aug14 mab		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
130.00	130.00	0.00	0.00	Start Build 1.50
1,287.58	1,269.94	-83.71	152.62	Hold 17.36° Inc, 118.74° Az
3,833.72	3,700.06	-449.13	818.85	Start Drop -1.50°/100
4,991.30	4,840.00	-532.83	971.46	Vertical
5,091.30	4,940.00	-532.83	971.46	Top Gas
6,941.30	6,790.00	-532.83	971.46	TD at 6941.30