

Bill Barrett Corp.

Garfield Co., CO (NAD83)

Kaufman Pad #4 (Sec.30-T6S-R91W)

Kaufman 43D-25-692

Wellbore #1

Design: Wellbore #1

Standard Survey Report

17 February, 2012



Project: Garfield Co., CO (NAD83)
 Site: Kaufman Pad #4 (Sec.30-T6S-R91W)
 Well: Kaufman 43D-25-692
 Wellbore: Wellbore #1
 Design: Wellbore #1
 Latitude: 39° 30' 10.84 N
 Longitude: 107° 36' 16.22 W
 Ground Level: 5786.01
 WELL @ 5808.01ft



PROJECT DETAILS: Garfield Co., CO (NAD83)

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Central Zone
 System Datum: Mean Sea Level

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Kaufman 43D-25-692, True North
 Vertical (TVD) Reference: WELL @ 5808.01ft
 Section (VS) Reference: Slot - (0.00N, 0.00E)
 Measured Depth Reference: WELL @ 5808.01ft
 Calculation Method: Minimum Curvature

WELL DETAILS: Kaufman 43D-25-692

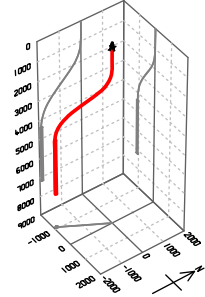
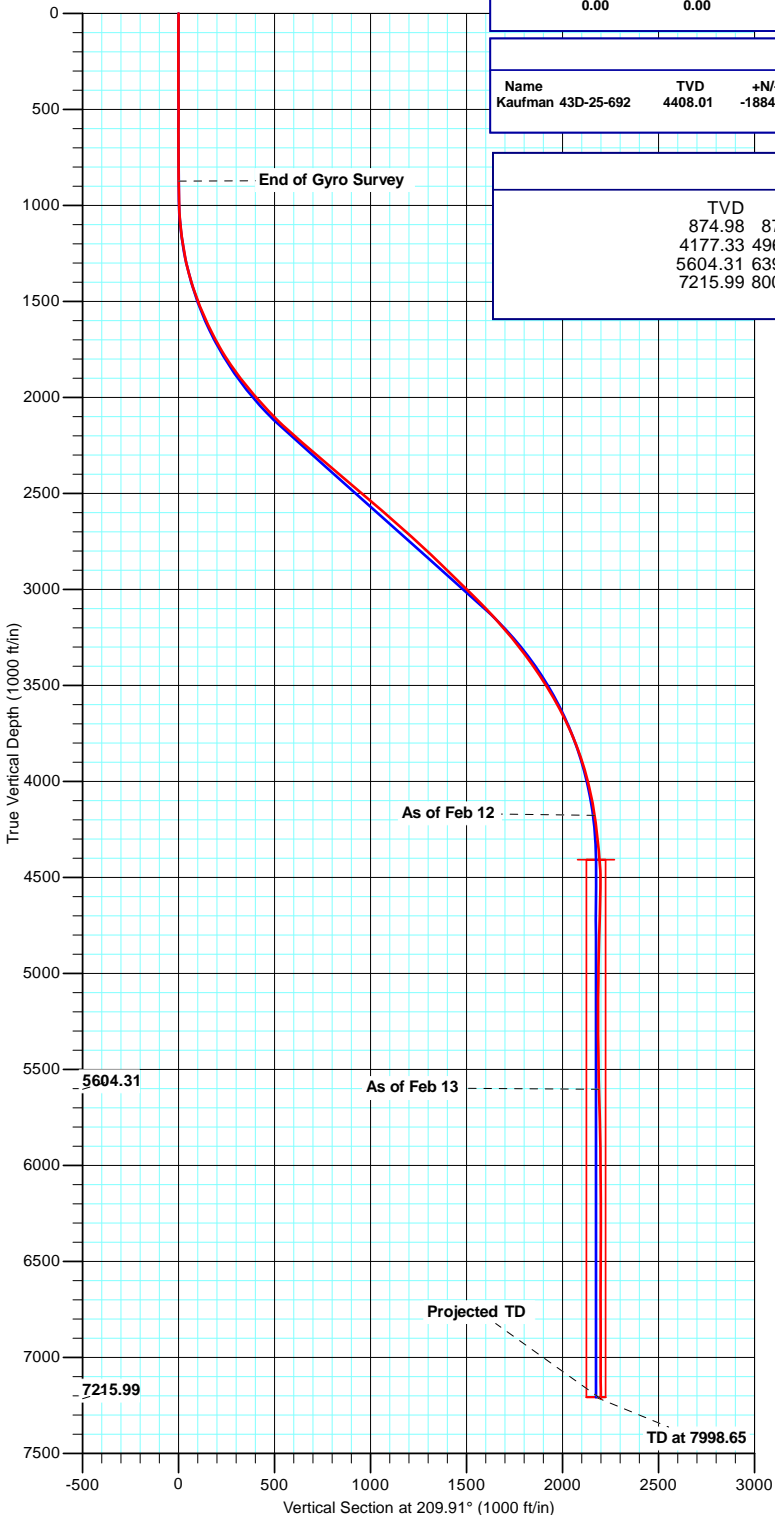
+N/-S	+E/-W	Northing	Ground Level:	5786.01	Latitude	Longitude	Slot
0.00	0.00	1614978.82	Easting	2406219.69	39° 30' 10.84 N	107° 36' 16.22 W	

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Kaufman 43D-25-692	4408.01	-1884.55	-1084.19	1613119.89	2405092.15	39° 29' 52.22 N	107° 36' 30.05 W	Circle (Radius: 50.00)

ANNOTATIONS

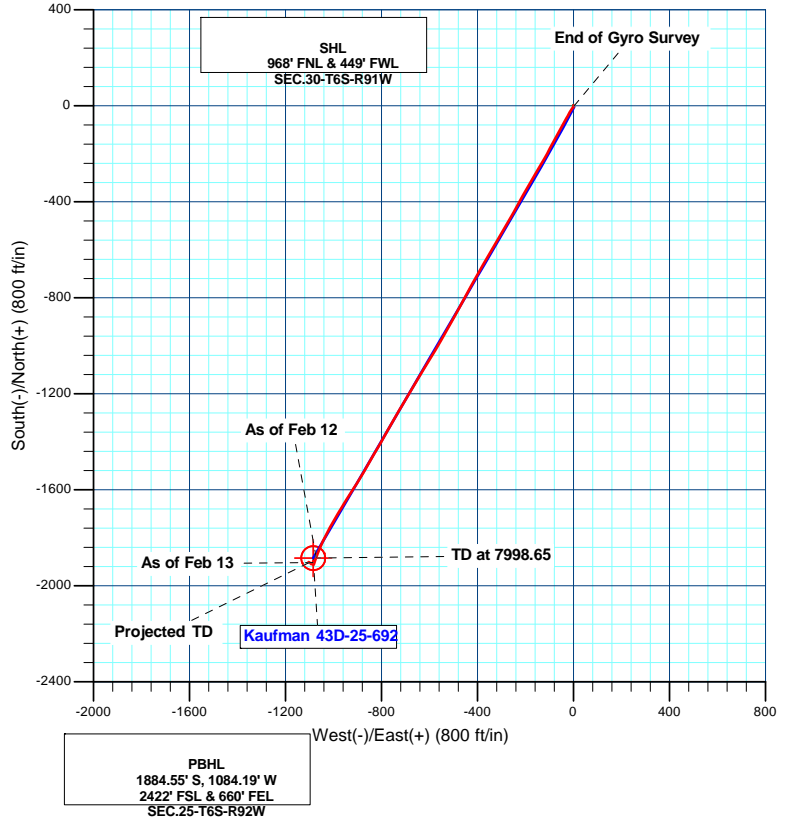
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
874.98	875.00	0.300	133.40	-1.79	1.87	0.62	5.40	End of Gyro Survey
4177.33	4964.00	8.600	199.40	-1882.73	-1071.86	2166.44	2172.88	As of Feb 12
5604.31	6393.00	1.800	180.00	-1902.64	-1084.71	2190.11	2227.46	As of Feb 13
7215.99	8005.00	1.100	143.70	-1903.63	-1101.83	2199.50	2256.60	Projected TD



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Azimuths to True North
 Magnetic North: 10.11°

Magnetic Field
 Strength: 52255.0snT
 Dip Angle: 65.80°
 Date: 12/17/2011
 Model: IGRF2010



Sharewell

Survey Report

Company: Bill Barrett Corp.	Local Co-ordinate Reference: Well Kaufman 43D-25-692
Project: Garfield Co., CO (NAD83)	TVD Reference: WELL @ 5808.01ft
Site: Kaufman Pad #4 (Sec.30-T6S-R91W)	MD Reference: WELL @ 5808.01ft
Well: Kaufman 43D-25-692	North Reference: True
Wellbore: Wellbore #1	Survey Calculation Method: Minimum Curvature
Design: Wellbore #1	Database: CompassVM

Project Garfield Co., CO (NAD83)		
Map System: US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum: North American Datum 1983		
Map Zone: Colorado Central Zone		

Site Kaufman Pad #4 (Sec.30-T6S-R91W)			
Site Position:	Northing: 1,615,037.35 usft	Latitude:	39° 30' 11.42 N
From: Lat/Long	Easting: 2,406,193.68 usft	Longitude:	107° 36' 16.57 W
Position Uncertainty: 0.00 ft	Slot Radius: 1.10 ft	Grid Convergence:	-1.33 °

Well Kaufman 43D-25-692			
Well Position	+N/-S 0.00 ft	Northing: 1,614,978.82 usft	Latitude: 39° 30' 10.84 N
	+E/-W 0.00 ft	Easting: 2,406,219.70 usft	Longitude: 107° 36' 16.22 W
Position Uncertainty	0.00 ft	Wellhead Elevation: ft	Ground Level: 5,786.01 ft

Wellbore Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/17/2011	10.11	65.80	52,255

Design Wellbore #1				
Audit Notes:				
Version: 1.0	Phase: ACTUAL	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	209.91

Survey Program		Date 2/17/2012
From (ft)	To (ft)	Survey (Wellbore)
100.00	875.00	Gyro (Wellbore #1)
875.00	8,005.00	MWD (Wellbore #1)
		Tool Name
		MWD
		Description
		MWD - Standard
		MWD - Standard

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	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.190	350.02	100.00	0.16	-0.03	-0.13	0.19	0.19	0.00	
200.00	0.260	49.76	200.00	0.47	0.12	-0.47	0.23	0.07	59.74	
300.00	0.380	136.58	300.00	0.38	0.52	-0.59	0.45	0.12	86.82	
400.00	0.450	216.58	400.00	-0.18	0.51	-0.10	0.54	0.07	80.00	
500.00	0.270	335.79	500.00	-0.28	0.18	0.15	0.63	-0.18	119.21	
600.00	0.280	90.74	600.00	-0.07	0.33	-0.11	0.46	0.01	114.95	
700.00	0.520	128.94	699.99	-0.35	0.93	-0.15	0.35	0.24	38.20	
752.00	0.780	153.47	751.99	-0.82	1.27	0.08	0.72	0.50	47.17	
875.00	0.300	133.40	874.98	-1.79	1.87	0.62	0.41	-0.39	-16.32	

Sharewell Survey Report

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Kaufman 43D-25-692
Project:	Garfield Co., CO (NAD83)	TVD Reference:	WELL @ 5808.01ft
Site:	Kaufman Pad #4 (Sec.30-T6S-R91W)	MD Reference:	WELL @ 5808.01ft
Well:	Kaufman 43D-25-692	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	CompassVM

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)	
970.00	1.700	209.10	969.97	-3.19	1.37	2.08	1.74	1.47	79.68	
1,065.00	4.100	220.50	1,064.84	-7.01	-1.52	6.83	2.59	2.53	12.00	
1,160.00	7.700	217.30	1,159.32	-14.65	-7.59	16.48	3.80	3.79	-3.37	
1,255.00	10.400	208.60	1,253.13	-27.25	-15.55	31.37	3.18	2.84	-9.16	
1,350.00	14.200	207.30	1,345.94	-45.14	-25.00	51.59	4.01	4.00	-1.37	
1,445.00	18.700	210.00	1,437.03	-68.69	-37.97	78.48	4.80	4.74	2.84	
1,540.00	22.100	209.50	1,526.06	-97.44	-54.39	111.58	3.58	3.58	-0.53	
1,635.00	25.100	207.70	1,613.10	-130.85	-72.56	149.60	3.25	3.16	-1.89	
1,730.00	27.900	208.10	1,698.11	-168.30	-92.40	191.96	2.95	2.95	0.42	
1,825.00	31.700	209.20	1,780.53	-209.71	-115.05	239.15	4.04	4.00	1.16	
1,921.00	35.700	210.80	1,860.39	-255.81	-141.71	292.40	4.27	4.17	1.67	
2,016.00	39.500	210.10	1,935.64	-305.77	-171.07	350.35	4.03	4.00	-0.74	
2,111.00	41.000	209.90	2,008.15	-358.93	-201.75	411.73	1.58	1.58	-0.21	
2,206.00	43.200	208.70	2,078.63	-414.48	-232.91	475.41	2.47	2.32	-1.26	
2,301.00	46.700	209.80	2,145.86	-473.01	-265.71	542.51	3.77	3.68	1.16	
2,396.00	49.800	211.00	2,209.11	-534.13	-301.59	613.37	3.40	3.26	1.26	
2,492.00	49.100	209.80	2,271.52	-597.04	-338.50	686.31	1.20	-0.73	-1.25	
2,587.00	49.400	210.40	2,333.53	-659.30	-374.60	758.28	0.57	0.32	0.63	
2,682.00	49.000	209.10	2,395.61	-721.73	-410.28	830.19	1.12	-0.42	-1.37	
2,777.00	50.000	208.80	2,457.31	-784.94	-445.25	902.41	1.08	1.05	-0.32	
2,872.00	49.700	207.90	2,518.56	-848.85	-479.73	975.00	0.79	-0.32	-0.95	
2,967.00	49.400	209.90	2,580.20	-912.13	-514.66	1,047.27	1.63	-0.32	2.11	
3,062.00	49.100	208.90	2,642.21	-974.83	-549.99	1,119.24	0.86	-0.32	-1.05	
3,157.00	47.700	211.60	2,705.29	-1,036.19	-585.76	1,190.26	2.59	-1.47	2.84	
3,252.00	47.500	211.80	2,769.35	-1,095.88	-622.62	1,260.38	0.26	-0.21	0.21	
3,347.00	46.600	211.30	2,834.08	-1,155.14	-659.00	1,329.89	1.02	-0.95	-0.53	
3,443.00	45.400	209.40	2,900.77	-1,214.72	-693.90	1,398.94	1.89	-1.25	-1.98	
3,538.00	45.600	211.20	2,967.36	-1,273.21	-728.09	1,466.69	1.37	0.21	1.89	
3,633.00	45.400	209.80	3,033.94	-1,331.59	-762.48	1,534.44	1.07	-0.21	-1.47	
3,728.00	44.200	208.70	3,101.35	-1,389.99	-795.19	1,601.37	1.50	-1.26	-1.16	
3,823.00	41.500	211.10	3,171.00	-1,446.00	-827.36	1,665.96	3.32	-2.84	2.53	
3,918.00	39.700	209.20	3,243.13	-1,499.45	-858.42	1,727.78	2.30	-1.89	-2.00	
4,013.00	37.200	211.60	3,317.53	-1,550.40	-888.28	1,786.84	3.06	-2.63	2.53	
4,108.00	34.900	212.30	3,394.33	-1,597.84	-917.85	1,842.70	2.46	-2.42	0.74	
4,203.00	33.300	212.70	3,472.99	-1,642.76	-946.47	1,895.91	1.70	-1.68	0.42	
4,298.00	30.800	211.50	3,553.51	-1,685.45	-973.27	1,946.28	2.72	-2.63	-1.26	
4,393.00	27.200	208.90	3,636.59	-1,725.21	-996.48	1,992.31	4.01	-3.79	-2.74	
4,488.00	24.400	208.80	3,722.11	-1,761.42	-1,016.43	2,033.65	2.95	-2.95	-0.11	
4,584.00	21.300	206.60	3,810.57	-1,794.40	-1,033.79	2,070.89	3.35	-3.23	-2.29	
4,679.00	18.100	205.80	3,899.99	-1,823.12	-1,047.95	2,102.85	3.38	-3.37	-0.84	
4,774.00	14.400	201.70	3,991.19	-1,847.39	-1,058.74	2,129.27	4.08	-3.89	-4.32	
4,869.00	11.400	199.90	4,083.78	-1,867.20	-1,066.31	2,150.21	3.19	-3.16	-1.89	
4,964.00	8.600	199.40	4,177.33	-1,882.73	-1,071.86	2,166.44	2.95	-2.95	-0.53	

Sharewell Survey Report

Company: Bill Barrett Corp.	Local Co-ordinate Reference: Well Kaufman 43D-25-692
Project: Garfield Co., CO (NAD83)	TVD Reference: WELL @ 5808.01ft
Site: Kaufman Pad #4 (Sec.30-T6S-R91W)	MD Reference: WELL @ 5808.01ft
Well: Kaufman 43D-25-692	North Reference: True
Wellbore: Wellbore #1	Survey Calculation Method: Minimum Curvature
Design: Wellbore #1	Database: CompassVM

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)	
5,059.00	7.100	198.50	4,271.43	-1,895.00	-1,076.08	2,179.18	1.58	-1.58	-0.95	
5,158.00	5.300	201.40	4,369.85	-1,905.06	-1,079.69	2,189.70	1.84	-1.82	2.93	
5,253.00	2.700	208.00	4,464.61	-1,911.12	-1,082.35	2,196.28	2.77	-2.74	6.95	
5,348.00	1.100	344.60	4,559.58	-1,912.22	-1,083.64	2,197.87	3.77	-1.68	143.79	
5,443.00	2.300	354.70	4,654.54	-1,909.44	-1,084.06	2,195.67	1.30	1.26	10.63	
5,538.00	2.100	356.50	4,749.47	-1,905.80	-1,084.34	2,192.66	0.22	-0.21	1.89	
5,633.00	1.600	5.50	4,844.42	-1,902.75	-1,084.32	2,190.00	0.61	-0.53	9.47	
5,728.00	1.300	4.90	4,939.39	-1,900.35	-1,084.10	2,187.82	0.32	-0.32	-0.63	
5,823.00	1.000	3.10	5,034.37	-1,898.45	-1,083.96	2,186.10	0.32	-0.32	-1.89	
5,918.00	0.400	342.90	5,129.36	-1,897.31	-1,084.02	2,185.14	0.67	-0.63	-21.26	
6,013.00	0.200	234.10	5,224.36	-1,897.09	-1,084.25	2,185.06	0.53	-0.21	-114.53	
6,108.00	0.400	190.40	5,319.36	-1,897.51	-1,084.44	2,185.53	0.31	0.21	-46.00	
6,203.00	0.900	183.30	5,414.35	-1,898.58	-1,084.54	2,186.51	0.53	0.53	-7.47	
6,298.00	1.100	184.00	5,509.34	-1,900.24	-1,084.65	2,187.99	0.21	0.21	0.74	
6,393.00	1.800	180.00	5,604.31	-1,902.64	-1,084.71	2,190.11	0.74	0.74	-4.21	
6,487.00	1.400	224.20	5,698.27	-1,904.94	-1,085.52	2,192.50	1.34	-0.43	47.02	
6,582.00	1.600	219.60	5,793.24	-1,906.79	-1,087.17	2,194.93	0.25	0.21	-4.84	
6,677.00	0.600	254.20	5,888.22	-1,907.95	-1,088.49	2,196.59	1.22	-1.05	36.42	
6,772.00	0.700	248.60	5,983.22	-1,908.30	-1,089.51	2,197.40	0.12	0.11	-5.89	
6,870.00	0.700	240.80	6,081.21	-1,908.81	-1,090.59	2,198.38	0.10	0.00	-7.96	
6,965.00	0.600	232.10	6,176.20	-1,909.40	-1,091.49	2,199.34	0.15	-0.11	-9.16	
7,060.00	0.400	246.30	6,271.20	-1,909.83	-1,092.19	2,200.07	0.25	-0.21	14.95	
7,155.00	1.600	335.80	6,366.19	-1,908.76	-1,093.04	2,199.56	1.73	1.26	94.21	
7,250.00	1.500	314.70	6,461.15	-1,906.67	-1,094.46	2,198.46	0.61	-0.11	-22.21	
7,345.00	1.500	305.10	6,556.12	-1,905.08	-1,096.36	2,198.03	0.26	0.00	-10.11	
7,440.00	1.800	290.70	6,651.08	-1,903.84	-1,098.78	2,198.16	0.54	0.32	-15.16	
7,535.00	1.600	296.20	6,746.04	-1,902.73	-1,101.36	2,198.49	0.27	-0.21	5.79	
7,630.00	0.800	297.80	6,841.02	-1,901.83	-1,103.14	2,198.60	0.84	-0.84	1.68	
7,726.00	0.100	17.70	6,937.01	-1,901.44	-1,103.71	2,198.54	0.82	-0.73	83.23	
7,821.00	0.400	137.10	7,032.01	-1,901.61	-1,103.46	2,198.56	0.48	0.32	125.68	
7,916.00	0.800	139.10	7,127.01	-1,902.35	-1,102.80	2,198.87	0.42	0.42	2.11	
7,955.00	1.100	143.70	7,166.00	-1,902.86	-1,102.40	2,199.11	0.79	0.77	11.79	
8,005.00	1.100	143.70	7,215.99	-1,903.63	-1,101.83	2,199.50	0.00	0.00	0.00	

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (ft)	Hole Diameter (ft)
857.70	857.69	9 5/8" Csg.	0.80	1.02

Sharewell
Survey Report

Company:	Bill Barrett Corp.	Local Co-ordinate Reference:	Well Kaufman 43D-25-692
Project:	Garfield Co., CO (NAD83)	TVD Reference:	WELL @ 5808.01ft
Site:	Kaufman Pad #4 (Sec.30-T6S-R91W)	MD Reference:	WELL @ 5808.01ft
Well:	Kaufman 43D-25-692	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	CompassVM

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
875.00	874.98	-1.79	1.87	End of Gyro Survey
4,964.00	4,177.33	-1,882.73	-1,071.86	As of Feb 12
6,393.00	5,604.31	-1,902.64	-1,084.71	As of Feb 13
8,005.00	7,215.99	-1,903.63	-1,101.83	Projected TD

Checked By: _____ Approved By: _____ Date: _____