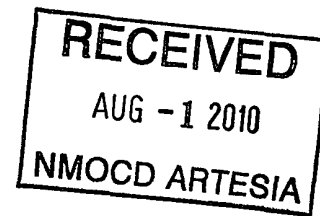


30.015.37461



Cimarex Energy Co.

Eddy County (NM83E)

Sec 17 - T19S - T29E

Parkway State 17 #2H

Wellbore #1

Survey: MWD Survey

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke.

Standard Survey Report

19 May, 2010

Cimarex Energy Co.

Project Eddy County (NM83E)
Site Sec 17 - T19S - T29E
Well Parkway State 17 #2H
Wellbore Wellbore #1
Design Plan #3

WELL DETAILS: Parkway State 17 #2H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	603574.60	616394.40	32° 39' 32.531 N	104° 5' 22.001 W
SHL: 1980' FSL / 330' FEL					
BHL: 1980' FSL / 330' FWL					



Azimuths to Grid North

Total Correction: 7.86°

Magnetic Field
Strength 48997 2snT
Dip Angle 60.55°
Date 2010/04/07
Model IGRF200510

WELLBORE TARGET DETAILS

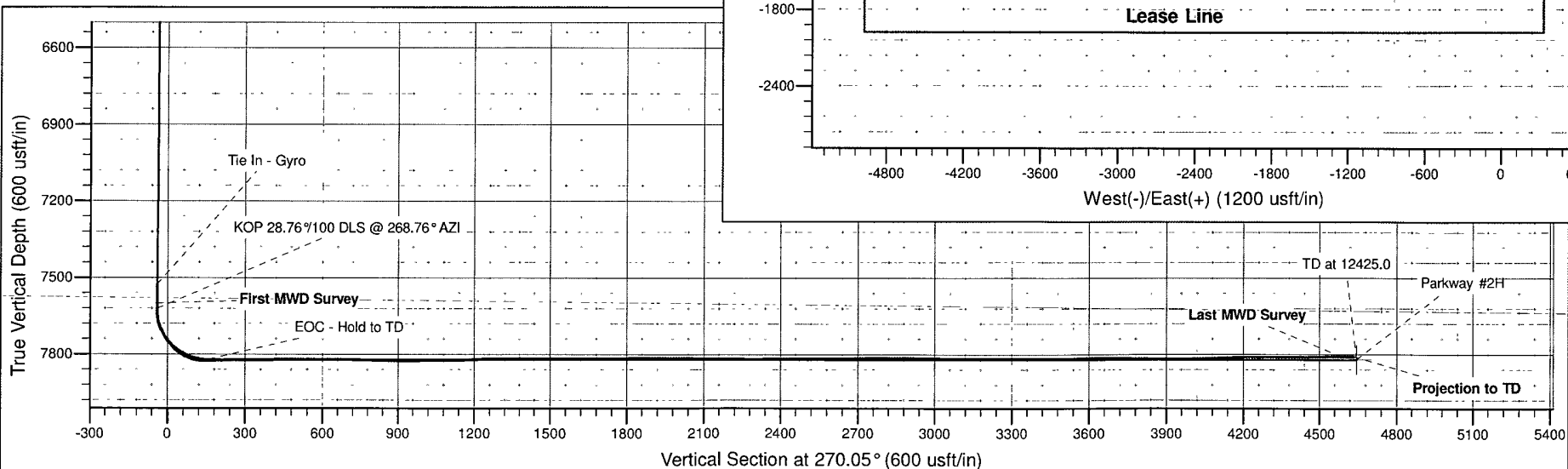
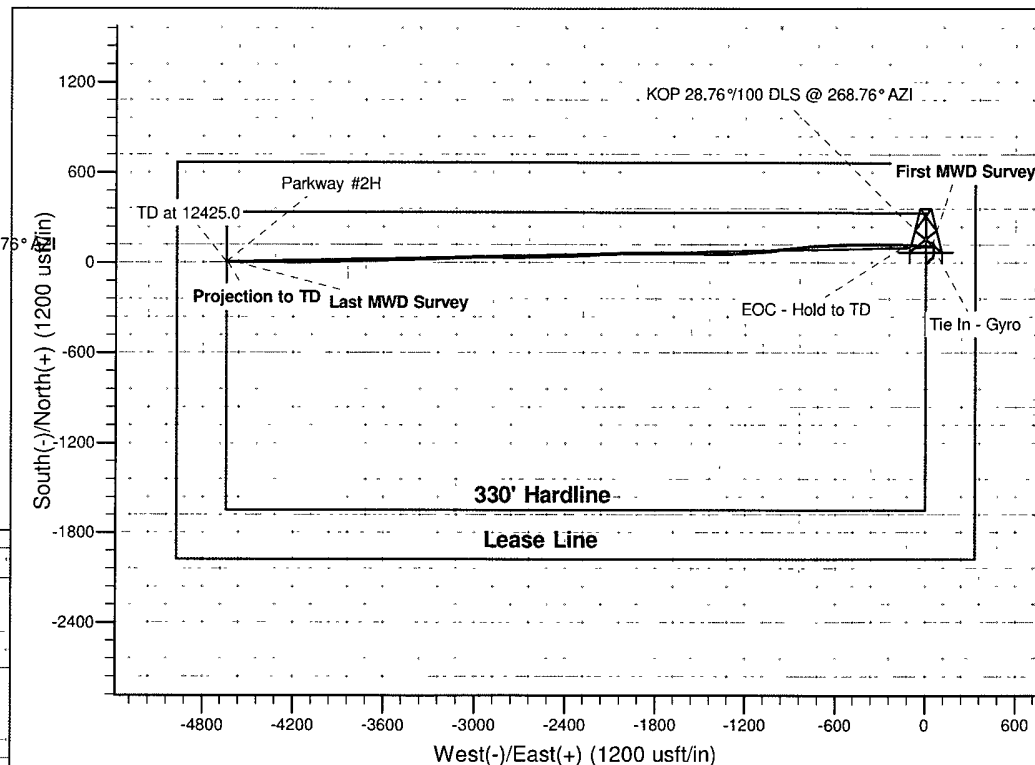
Name	TVD	+N/-S	+E/-W	Northing	Easting	Point
Parkway #2H	7820.0	4.1	-4644.6	603578.70	611749.80	

PLAN DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
7530.0	1.97	180.71	7526.2	115.3	40.7	0.00	0.00	-40.6	
7625.0	1.97	180.71	7621.2	112.0	40.7	0.00	0.00	-40.6	
7937.7	90.00	268.76	7820.0	100.9	-158.3	28.76	88.05	158.4	
12425.0	90.00	268.77	7820.0	4.1	-4644.6	0.00	90.00	4644.6	Parkway #2H

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation
7526.2	7530.0	1.97	180.71	115.3	40.7	-40.6	0.0	Tie In - Gyro
7621.2	7625.0	1.97	180.71	112.0	40.7	-40.6	3.3	KOP 28.76°/100 DLS @ 268.76° AZI
7820.0	7937.7	90.00	268.76	100.9	-158.3	158.4	203.0	EOC - Hold to TD
7820.0	12425.0	90.00	268.77	4.1	-4644.6	4644.6	4690.3	TD at 12425.0



Great White Directional Services

Survey Report

Company:	Cimarex Energy Co.	Local Co-ordinate Reference:	Well Parkway State 17 #2H
Project:	Eddy County (NM83E)	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Sec 17 - T19S - T29E	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Parkway State 17 #2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Eddy County (NM83E)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Sec 17 - T19S - T29E			
Site Position:		Northing:	603,574.60 usft	Latitude:	32° 39' 32.531 N
From:	Map	Easting:	616,394.40 usft	Longitude:	104° 5' 22.001 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.13 °

Well		Parkway State 17 #2H				
Well Position	+N/-S	0.0 usft	Northing:	603,574.60 usft	Latitude:	32° 39' 32.531 N
	+E/-W	0.0 usft	Easting:	616,394.40 usft	Longitude:	104° 5' 22.001 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	0.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF200510	2010/04/07	7.99	60.55	48,997

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.0	0.0	0.0	270.05	

Survey Program	Date	2010/05/19			
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
100.0	7,530.0	Gyro (Wellbore #1)	MWD	MWD - Standard	
7,604.0	12,425.0	MWD Survey (Wellbore #1)	MWD	MWD - Standard	

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate	
(usft)			(usft)			(usft)	(°/100ft)	(°/100ft)	(°/100ft)	
7,530.0	1.97	180.71	7,526.2	115.3	40.7	-40.6	0.00	0.00	0.00	
7,604.0	1.80	179.20	7,600.2	112.8	40.7	-40.6	0.24	-0.23	-2.04	
First MWD Survey										
7,636.0	2.50	210.40	7,632.2	111.7	40.4	-40.3	4.18	2.19	97.50	
7,668.0	11.30	258.60	7,663.9	110.5	36.9	-36.8	30.66	27.50	150.63	
7,699.0	21.70	271.60	7,693.6	110.1	28.2	-28.1	35.40	33.55	41.94	
7,731.0	29.30	272.60	7,722.5	110.6	14.4	-14.3	23.79	23.75	3.13	
7,763.0	35.90	274.10	7,749.4	111.6	-2.8	2.9	20.78	20.63	4.69	
7,794.0	43.70	273.50	7,773.2	112.9	-22.5	22.6	25.19	25.16	-1.94	
7,826.0	54.40	273.20	7,794.1	114.3	-46.6	46.7	33.44	33.44	-0.94	

Great White Directional Services

Survey Report

Company:	Cimarex Energy Co.	Local Co-ordinate Reference:	Well Parkway State 17 #2H
Project:	Eddy County (NM83E)	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Sec 17 - T19S - T29E	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Parkway State 17 #2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
7,858.0	65.20	274.00	7,810.2	116.1	-74.2	74.3	33.82	33.75	2.50	
7,889.0	76.50	274.80	7,820.4	118.3	-103.3	103.4	36.53	36.45	2.58	
7,921.0	88.60	270.50	7,824.5	119.8	-135.0	135.1	40.08	37.81	-13.44	
7,953.0	92.50	270.20	7,824.2	120.0	-167.0	167.1	12.22	12.19	-0.94	
7,984.0	92.00	271.00	7,823.0	120.3	-197.9	198.0	3.04	-1.61	2.58	
8,016.0	91.60	272.10	7,822.0	121.1	-229.9	230.0	3.66	-1.25	3.44	
8,048.0	89.30	272.30	7,821.7	122.4	-261.9	262.0	7.21	-7.19	0.63	
8,079.0	89.40	271.40	7,822.1	123.4	-292.9	293.0	2.92	0.32	-2.90	
8,111.0	90.30	269.80	7,822.2	123.7	-324.9	325.0	5.74	2.81	-5.00	
8,142.0	91.00	269.30	7,821.8	123.5	-355.9	356.0	2.77	2.26	-1.61	
8,174.0	91.50	268.80	7,821.1	122.9	-387.8	388.0	2.21	1.56	-1.56	
8,205.0	90.50	269.00	7,820.6	122.3	-418.8	418.9	3.29	-3.23	0.65	
8,237.0	89.90	268.70	7,820.5	121.7	-450.8	450.9	2.10	-1.88	-0.94	
8,269.0	89.80	268.90	7,820.6	121.0	-482.8	482.9	0.70	-0.31	0.63	
8,300.0	90.70	268.50	7,820.4	120.3	-513.8	513.9	3.18	2.90	-1.29	
8,332.0	90.50	267.70	7,820.1	119.3	-545.8	545.9	2.58	-0.63	-2.50	
8,364.0	90.80	267.70	7,819.7	118.0	-577.8	577.9	0.94	0.94	0.00	
8,395.0	89.90	266.60	7,819.5	116.4	-608.7	608.8	4.58	-2.90	-3.55	
8,427.0	90.00	266.40	7,819.6	114.5	-640.7	640.8	0.70	0.31	-0.63	
8,491.0	88.60	266.10	7,820.3	110.3	-704.5	704.6	2.24	-2.19	-0.47	
8,554.0	88.70	265.60	7,821.8	105.7	-767.3	767.4	0.81	0.16	-0.79	
8,618.0	89.10	264.50	7,823.1	100.2	-831.1	831.2	1.83	0.63	-1.72	
8,681.0	89.50	264.80	7,823.8	94.3	-893.8	893.9	0.79	0.63	0.48	
8,744.0	90.40	263.80	7,823.9	88.1	-956.5	956.6	2.14	1.43	-1.59	
8,807.0	90.40	263.10	7,823.4	80.9	-1,019.1	1,019.2	1.11	0.00	-1.11	
8,870.0	90.10	264.50	7,823.2	74.1	-1,081.7	1,081.8	2.27	-0.48	2.22	
8,934.0	91.90	264.50	7,822.0	68.0	-1,145.4	1,145.5	2.81	2.81	0.00	
8,997.0	92.40	266.80	7,819.7	63.2	-1,208.2	1,208.2	3.73	0.79	3.65	
9,060.0	90.90	267.80	7,817.9	60.2	-1,271.1	1,271.1	2.86	-2.38	1.59	
9,123.0	90.20	269.30	7,817.3	58.6	-1,334.1	1,334.1	2.63	-1.11	2.38	
9,186.0	89.80	270.70	7,817.3	58.6	-1,397.0	1,397.1	2.31	-0.63	2.22	
9,249.0	88.90	271.20	7,818.0	59.7	-1,460.0	1,460.1	1.63	-1.43	0.79	
9,312.0	89.90	271.30	7,818.6	61.0	-1,523.0	1,523.1	1.60	1.59	0.16	
9,375.0	90.90	270.80	7,818.2	62.2	-1,586.0	1,586.1	1.77	1.59	-0.79	
9,438.0	89.90	270.10	7,817.8	62.7	-1,649.0	1,649.1	1.94	-1.59	-1.11	
9,501.0	90.60	269.80	7,817.5	62.6	-1,712.0	1,712.1	1.21	1.11	-0.48	
9,565.0	90.50	269.70	7,816.9	62.4	-1,776.0	1,776.0	0.22	-0.16	-0.16	
9,627.0	90.90	269.70	7,816.1	62.0	-1,838.0	1,838.0	0.65	0.65	0.00	
9,690.0	89.50	269.90	7,815.9	61.8	-1,901.0	1,901.0	2.24	-2.22	0.32	
9,753.0	90.20	269.90	7,816.1	61.7	-1,964.0	1,964.0	1.11	1.11	0.00	
9,816.0	89.40	268.90	7,816.3	61.0	-2,027.0	2,027.0	2.03	-1.27	-1.59	
9,879.0	89.00	266.90	7,817.2	58.7	-2,089.9	2,090.0	3.24	-0.63	-3.17	
9,942.0	89.60	267.00	7,817.9	55.4	-2,152.8	2,152.9	0.97	0.95	0.16	

Great White Directional Services

Survey Report

Company:	Cimarex Energy Co.	Local Co-ordinate Reference:	Well Parkway State 17 #2H
Project:	Eddy County (NM83E)	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Sec 17 - T19S - T29E	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Parkway State 17 #2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,005.0	89.40	267.10	7,818.5	52.1	-2,215.7	2,215.8	0.35	-0.32	0.16
10,086.0	89.80	267.30	7,819.0	48.2	-2,296.6	2,296.7	0.55	0.49	0.25
10,131.0	91.10	267.50	7,818.7	46.1	-2,341.6	2,341.6	2.92	2.89	0.44
10,195.0	90.80	268.80	7,817.6	44.1	-2,405.6	2,405.6	2.08	-0.47	2.03
10,258.0	90.40	268.50	7,817.0	42.6	-2,468.5	2,468.6	0.79	-0.63	-0.48
10,320.0	90.30	268.50	7,816.6	41.0	-2,530.5	2,530.5	0.16	-0.16	0.00
10,383.0	90.20	268.30	7,816.3	39.2	-2,593.5	2,593.5	0.35	-0.16	-0.32
10,446.0	90.70	267.80	7,815.8	37.1	-2,656.4	2,656.5	1.12	0.79	-0.79
10,510.0	91.00	269.60	7,814.9	35.6	-2,720.4	2,720.5	2.85	0.47	2.81
10,573.0	89.50	271.10	7,814.6	36.0	-2,783.4	2,783.4	3.37	-2.38	2.38
10,636.0	89.80	270.90	7,815.0	37.1	-2,846.4	2,846.4	0.57	0.48	-0.32
10,699.0	89.20	270.30	7,815.5	37.8	-2,909.4	2,909.4	1.35	-0.95	-0.95
10,731.0	89.60	270.10	7,815.9	37.9	-2,941.4	2,941.4	1.40	1.25	-0.63
10,762.0	90.00	269.30	7,816.0	37.7	-2,972.4	2,972.4	2.89	1.29	-2.58
10,826.0	89.00	267.60	7,816.5	36.0	-3,036.4	3,036.4	3.08	-1.56	-2.66
10,889.0	89.50	268.20	7,817.4	33.7	-3,099.3	3,099.3	1.24	0.79	0.95
10,952.0	89.60	267.90	7,817.8	31.5	-3,162.3	3,162.3	0.50	0.16	-0.48
11,015.0	89.80	268.00	7,818.2	29.3	-3,225.2	3,225.3	0.35	0.32	0.16
11,079.0	89.70	267.90	7,818.5	27.0	-3,289.2	3,289.2	0.22	-0.16	-0.16
11,142.0	90.70	268.60	7,818.2	25.1	-3,352.2	3,352.2	1.94	1.59	1.11
11,206.0	90.40	268.50	7,817.6	23.4	-3,416.1	3,416.2	0.49	-0.47	-0.16
11,269.0	90.50	268.40	7,817.1	21.7	-3,479.1	3,479.1	0.22	0.16	-0.16
11,332.0	90.80	267.80	7,816.4	19.7	-3,542.1	3,542.1	1.06	0.48	-0.95
11,396.0	90.50	268.20	7,815.7	17.4	-3,606.0	3,606.1	0.78	-0.47	0.63
11,459.0	89.90	268.00	7,815.5	15.3	-3,669.0	3,669.0	1.00	-0.95	-0.32
11,522.0	89.10	268.30	7,816.0	13.3	-3,732.0	3,732.0	1.36	-1.27	0.48
11,586.0	89.30	268.50	7,816.9	11.5	-3,795.9	3,795.9	0.44	0.31	0.31
11,649.0	88.90	268.40	7,817.9	9.8	-3,858.9	3,858.9	0.65	-0.63	-0.16
11,713.0	89.90	268.90	7,818.6	8.3	-3,922.9	3,922.9	1.75	1.56	0.78
11,776.0	90.80	269.10	7,818.2	7.2	-3,985.9	3,985.9	1.46	1.43	0.32
11,839.0	92.10	269.40	7,816.6	6.4	-4,048.8	4,048.8	2.12	2.06	0.48
11,902.0	92.40	269.40	7,814.1	5.7	-4,111.8	4,111.8	0.48	0.48	0.00
11,966.0	91.80	270.10	7,811.8	5.4	-4,175.7	4,175.7	1.44	-0.94	1.09
12,029.0	90.20	270.50	7,810.7	5.8	-4,238.7	4,238.7	2.62	-2.54	0.63
12,093.0	90.20	270.70	7,810.4	6.4	-4,302.7	4,302.7	0.31	0.00	0.31
12,156.0	89.60	270.20	7,810.6	6.9	-4,365.7	4,365.7	1.24	-0.95	-0.79
12,219.0	90.30	269.00	7,810.6	6.5	-4,428.7	4,428.7	2.21	1.11	-1.90
12,283.0	90.50	269.50	7,810.2	5.7	-4,492.7	4,492.7	0.84	0.31	0.78
12,346.0	90.70	270.10	7,809.5	5.4	-4,555.7	4,555.7	1.00	0.32	0.95
12,377.0	91.00	270.00	7,809.0	5.5	-4,586.7	4,586.7	1.02	0.97	-0.32
Last MWD Survey									
12,425.0	91.00	270.30	7,808.2	5.6	-4,634.7	4,634.7	0.62	0.00	0.63
Projection to TD - Parkway #2H									

Great White Directional Services

Survey Report

Company:	Cimarex Energy Co	Local Co-ordinate Reference:	Well Parkway State 17 #2H
Project:	Eddy County (NM83E)	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Sec 17 - T19S - T29E	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Parkway State 17 #2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,604.0	7,600.2	112.8	40.7	First MWD Survey
12,377.0	7,809.0	5.5	-4,586.7	Last MWD Survey
12,425.0	7,808.2	5.6	-4,634.7	Projection to TD

Checked By: _____ Approved By: _____ Date: _____