



ConocoPhillips

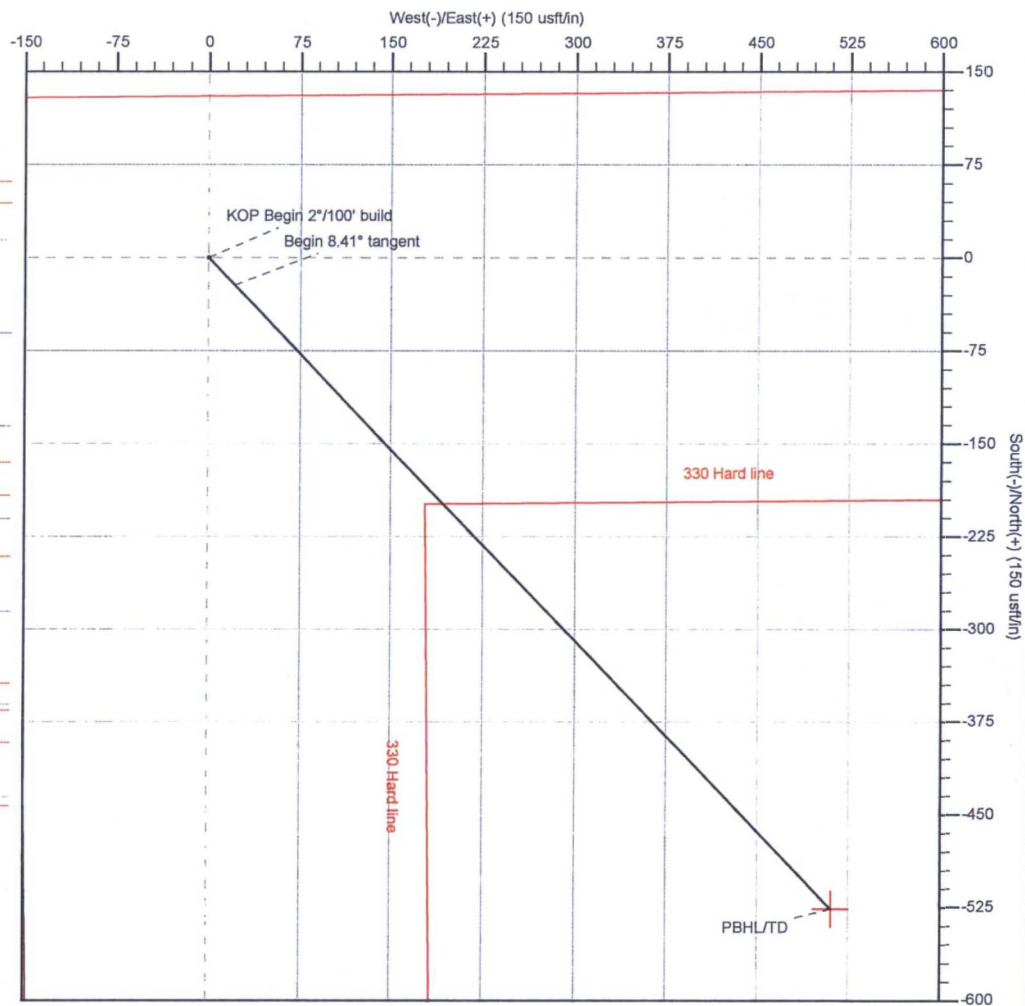
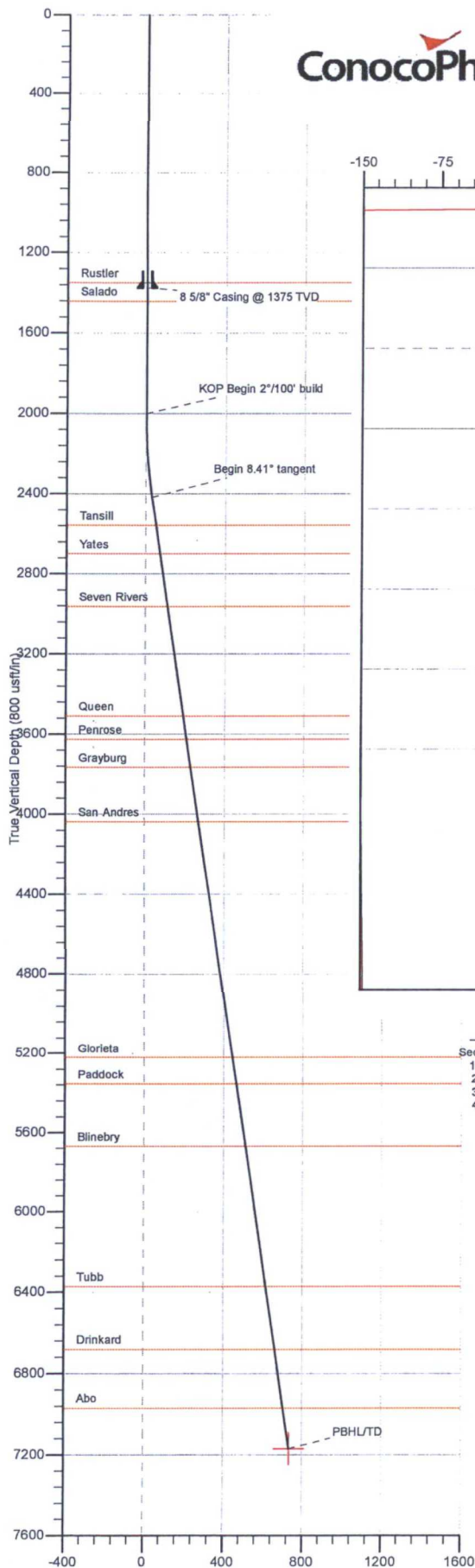
Well: SEMU Well No. 184

Site: SEMU

Project: Lea County, New Mexico

Design: rev1

Rig: PD 194



Section Details										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 2\"/>

Surf Loc: RKB=3578+14 @ 3592.00usft (PD 194)
 US State Plane 1927 (Exact solution)
 New Mexico East 3001
 Northing 576418.25 Easting 838611.44 Latitude 32° 34' 47.537233 N Longitude 103° 14' 2.665845 W

Total Corr: Magnetic to Grid North (M->G) : To convert a Magnetic Direction to a Grid Direction, Add 6.62°

FORMATION TOP DETAILS

TVDPth	MDPath	Formation
1350.00	1350.00	Rustler
1442.00	1442.00	Salado
2557.00	2560.01	Tansill
2700.00	2704.56	Yates
2963.00	2970.42	Seven Rivers
3510.00	3523.37	Queen
3626.00	3640.63	Penrose
3766.00	3782.15	Grayburg
4038.00	4057.11	San Andres
5223.00	5254.99	Glorieta
5355.00	5388.42	Paddock
5669.00	5705.84	Blinberry
6372.00	6416.48	Tubb
6682.00	6729.85	Drinkard
6970.00	7020.98	Abo



Azimuths to Grid North
 True North: -0.59°
 Magnetic North: 6.62°

Magnetic Field
 Strength: 48551.0snT
 Dip Angle: 60.49°
 Date: 10/9/2014
 Model: USER DEFINED BGGM



PRODIRECTIONAL

Database:	Dbase Nov0914	Local Co-ordinate Reference:	Well SEMU Well No. 184
Company:	ConocoPhillips	TVD Reference:	RKB=3578+14 @ 3592.00usft (PD 194)
Project:	Lea County, New Mexico	MD Reference:	RKB=3578+14 @ 3592.00usft (PD 194)
Site:	SEMU	North Reference:	Grid
Well:	SEMU Well No. 184	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original hole		
Design:	rev1		

Project	Lea County, New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	SEMU		
Site Position:		Northing:	569,250.22 usft
From:	Map	Easting:	850,159.22 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 33' 35.417013 N
		Longitude:	103° 11' 48.624563 W
		Grid Convergence:	0.61 °

Well	SEMU Well No. 184		
Well Position	+N/-S	7,168.03 usft	Northing:
	+E/-W	-11,547.78 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	Ground Level:
			3,578.00 usft

Wellbore	Original hole		
Magnetics	Model Name	Sample Date	Declination
			(°)
	User Defined	10/9/2014	7.21
			Dip Angle
			(°)
			60.49
			Field Strength
			(nT)
			48,551

Design	rev1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			135.83

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,420.49	8.41	135.83	2,418.99	-22.10	21.46	2.00	2.00	32.30	135.83	
7,223.15	8.41	135.83	7,170.00	-525.95	510.86	0.00	0.00	0.00	0.00	SEMU 184 PBHL r1

Database:	Dbase Nov0914	Local Co-ordinate Reference:	Well SEMU Well No. 184
Company:	ConocoPhillips	TVD Reference:	RKB=3578+14 @ 3592.00usft (PD 194)
Project:	Lea County, New Mexico	MD Reference:	RKB=3578+14 @ 3592.00usft (PD 194)
Site:	SEMU	North Reference:	Grid
Well:	SEMU Well No. 184	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original hole		
Design:	rev1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,350.00	0.00	0.00	1,350.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,442.00	0.00	0.00	1,442.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 2°/100' build									
2,100.00	2.00	135.83	2,099.98	-1.25	1.22	1.75	2.00	2.00	0.00
2,200.00	4.00	135.83	2,199.84	-5.01	4.86	6.98	2.00	2.00	0.00
2,300.00	6.00	135.83	2,299.45	-11.26	10.93	15.69	2.00	2.00	0.00
2,400.00	8.00	135.83	2,398.70	-20.00	19.43	27.88	2.00	2.00	0.00
2,420.49	8.41	135.83	2,418.99	-22.10	21.46	30.80	2.00	2.00	0.00
Begin 8.41° tangent									
2,500.00	8.41	135.83	2,497.64	-30.44	29.56	42.43	0.00	0.00	0.00
2,560.01	8.41	135.83	2,557.00	-36.73	35.68	51.21	0.00	0.00	0.00
Tansill									
2,600.00	8.41	135.83	2,596.56	-40.93	39.75	57.06	0.00	0.00	0.00
2,700.00	8.41	135.83	2,695.49	-51.42	49.94	71.68	0.00	0.00	0.00
2,704.56	8.41	135.83	2,700.00	-51.90	50.41	72.35	0.00	0.00	0.00
Yates									
2,800.00	8.41	135.83	2,794.41	-61.91	60.14	86.31	0.00	0.00	0.00
2,900.00	8.41	135.83	2,893.34	-72.40	70.33	100.93	0.00	0.00	0.00
2,970.42	8.41	135.83	2,963.00	-79.79	77.50	111.23	0.00	0.00	0.00
Seven Rivers									
3,000.00	8.41	135.83	2,992.26	-82.89	80.52	115.56	0.00	0.00	0.00
3,100.00	8.41	135.83	3,091.19	-93.38	90.71	130.18	0.00	0.00	0.00
3,200.00	8.41	135.83	3,190.11	-103.88	100.90	144.81	0.00	0.00	0.00
3,300.00	8.41	135.83	3,289.03	-114.37	111.09	159.44	0.00	0.00	0.00
3,400.00	8.41	135.83	3,387.96	-124.86	121.28	174.06	0.00	0.00	0.00
3,500.00	8.41	135.83	3,486.88	-135.35	131.47	188.69	0.00	0.00	0.00
3,523.37	8.41	135.83	3,510.00	-137.80	133.85	192.10	0.00	0.00	0.00
Queen									
3,600.00	8.41	135.83	3,585.81	-145.84	141.66	203.31	0.00	0.00	0.00
3,640.63	8.41	135.83	3,626.00	-150.10	145.80	209.25	0.00	0.00	0.00

Database:	Dbase Nov0914	Local Co-ordinate Reference:	Well SEMU Well No. 184
Company:	ConocoPhillips	TVD Reference:	RKB=3578+14 @ 3592.00usft (PD 194)
Project:	Lea County, New Mexico	MD Reference:	RKB=3578+14 @ 3592.00usft (PD 194)
Site:	SEMU	North Reference:	Grid
Well:	SEMU Well No. 184	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original hole		
Design:	rev1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Penrose									
3,700.00	8.41	135.83	3,684.73	-156.33	151.85	217.94	0.00	0.00	0.00
3,782.15	8.41	135.83	3,766.00	-164.95	160.22	229.95	0.00	0.00	0.00
Grayburg									
3,800.00	8.41	135.83	3,783.66	-166.82	162.04	232.56	0.00	0.00	0.00
3,900.00	8.41	135.83	3,882.58	-177.31	172.23	247.19	0.00	0.00	0.00
4,000.00	8.41	135.83	3,981.51	-187.80	182.42	261.81	0.00	0.00	0.00
4,057.11	8.41	135.83	4,038.00	-193.80	188.24	270.17	0.00	0.00	0.00
San Andres									
4,100.00	8.41	135.83	4,080.43	-198.30	192.61	276.44	0.00	0.00	0.00
4,200.00	8.41	135.83	4,179.36	-208.79	202.80	291.06	0.00	0.00	0.00
4,300.00	8.41	135.83	4,278.28	-219.28	212.99	305.69	0.00	0.00	0.00
4,400.00	8.41	135.83	4,377.21	-229.77	223.18	320.31	0.00	0.00	0.00
4,500.00	8.41	135.83	4,476.13	-240.26	233.37	334.94	0.00	0.00	0.00
4,600.00	8.41	135.83	4,575.06	-250.75	243.56	349.57	0.00	0.00	0.00
4,700.00	8.41	135.83	4,673.98	-261.24	253.75	364.19	0.00	0.00	0.00
4,800.00	8.41	135.83	4,772.91	-271.73	263.94	378.82	0.00	0.00	0.00
4,900.00	8.41	135.83	4,871.83	-282.22	274.13	393.44	0.00	0.00	0.00
5,000.00	8.41	135.83	4,970.75	-292.71	284.32	408.07	0.00	0.00	0.00
5,100.00	8.41	135.83	5,069.68	-303.21	294.51	422.69	0.00	0.00	0.00
5,200.00	8.41	135.83	5,168.60	-313.70	304.70	437.32	0.00	0.00	0.00
5,254.99	8.41	135.83	5,223.00	-319.47	310.30	445.36	0.00	0.00	0.00
Glorieta									
5,300.00	8.41	135.83	5,267.53	-324.19	314.89	451.94	0.00	0.00	0.00
5,388.42	8.41	135.83	5,355.00	-333.46	323.90	464.87	0.00	0.00	0.00
Paddock									
5,400.00	8.41	135.83	5,366.45	-334.68	325.08	466.57	0.00	0.00	0.00
5,500.00	8.41	135.83	5,465.38	-345.17	335.27	481.19	0.00	0.00	0.00
5,600.00	8.41	135.83	5,564.30	-355.66	345.46	495.82	0.00	0.00	0.00
5,700.00	8.41	135.83	5,663.23	-366.15	355.65	510.44	0.00	0.00	0.00
5,705.84	8.41	135.83	5,669.00	-366.76	356.24	511.30	0.00	0.00	0.00
Blaine									
5,800.00	8.41	135.83	5,762.15	-376.64	365.84	525.07	0.00	0.00	0.00
5,900.00	8.41	135.83	5,861.08	-387.13	376.03	539.69	0.00	0.00	0.00
6,000.00	8.41	135.83	5,960.00	-397.63	386.22	554.32	0.00	0.00	0.00
6,100.00	8.41	135.83	6,058.93	-408.12	396.41	568.95	0.00	0.00	0.00
6,200.00	8.41	135.83	6,157.85	-418.61	406.60	583.57	0.00	0.00	0.00
6,300.00	8.41	135.83	6,256.78	-429.10	416.79	598.20	0.00	0.00	0.00
6,400.00	8.41	135.83	6,355.70	-439.59	426.98	612.82	0.00	0.00	0.00
6,416.48	8.41	135.83	6,372.00	-441.32	428.66	615.23	0.00	0.00	0.00
Tubb									
6,500.00	8.41	135.83	6,454.63	-450.08	437.17	627.45	0.00	0.00	0.00
6,600.00	8.41	135.83	6,553.55	-460.57	447.36	642.07	0.00	0.00	0.00
6,700.00	8.41	135.83	6,652.47	-471.06	457.55	656.70	0.00	0.00	0.00
6,729.85	8.41	135.83	6,682.00	-474.19	460.59	661.06	0.00	0.00	0.00
Drinkard									
6,800.00	8.41	135.83	6,751.40	-481.55	467.74	671.32	0.00	0.00	0.00
6,900.00	8.41	135.83	6,850.32	-492.05	477.93	685.95	0.00	0.00	0.00
7,000.00	8.41	135.83	6,949.25	-502.54	488.12	700.57	0.00	0.00	0.00
7,020.98	8.41	135.83	6,970.00	-504.74	490.26	703.64	0.00	0.00	0.00
Abo									
7,100.00	8.41	135.83	7,048.17	-513.03	498.31	715.20	0.00	0.00	0.00
7,200.00	8.41	135.83	7,147.10	-523.52	508.50	729.82	0.00	0.00	0.00

Database:	Dbase Nov0914	Local Co-ordinate Reference:	Well SEMU Well No. 184
Company:	ConocoPhillips	TVD Reference:	RKB=3578+14 @ 3592.00usft (PD 194)
Project:	Lea County, New Mexico	MD Reference:	RKB=3578+14 @ 3592.00usft (PD 194)
Site:	SEMU	North Reference:	Grid
Well:	SEMU Well No. 184	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original hole		
Design:	rev1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,223.15	8.41	135.83	7,170.00	-525.95	510.86	733.21	0.00	0.00	0.00
PBHL/TD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
SEMU 184 PBHL r1	0.00	0.00	7,170.00	-525.95	510.86	575,892.30	839,122.30	32° 34' 42.281258 N 103° 13' 56.760005 W	
- plan hits target center									
- Point									
SEMU 184 PBHL	0.00	0.00	7,171.00	-525.95	510.86	575,892.30	839,122.30	32° 34' 42.281258 N 103° 13' 56.760005 W	
- plan misses target center by 1.00usft at 7223.15usft MD (7170.00 TVD, -525.95 N, 510.86 E)									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,375.00	1,375.00	8 5/8" Casing @ 1375 TVD	8-5/8	12-1/4	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,350.00	1,350.00	Rustler		0.00		
1,442.00	1,442.00	Salado		0.00		
2,560.01	2,557.00	Tansill		0.00		
2,704.56	2,700.00	Yates		0.00		
2,970.42	2,963.00	Seven Rivers		0.00		
3,523.37	3,510.00	Queen		0.00		
3,640.63	3,626.00	Penrose		0.00		
3,782.15	3,766.00	Grayburg		0.00		
4,057.11	4,038.00	San Andres		0.00		
5,254.99	5,223.00	Glorieta		0.00		
5,388.42	5,355.00	Paddock		0.00		
5,705.84	5,669.00	Blinebry		0.00		
6,416.48	6,372.00	Tubb		0.00		
6,729.85	6,682.00	Drinkard		0.00		
7,020.98	6,970.00	Abo		0.00		