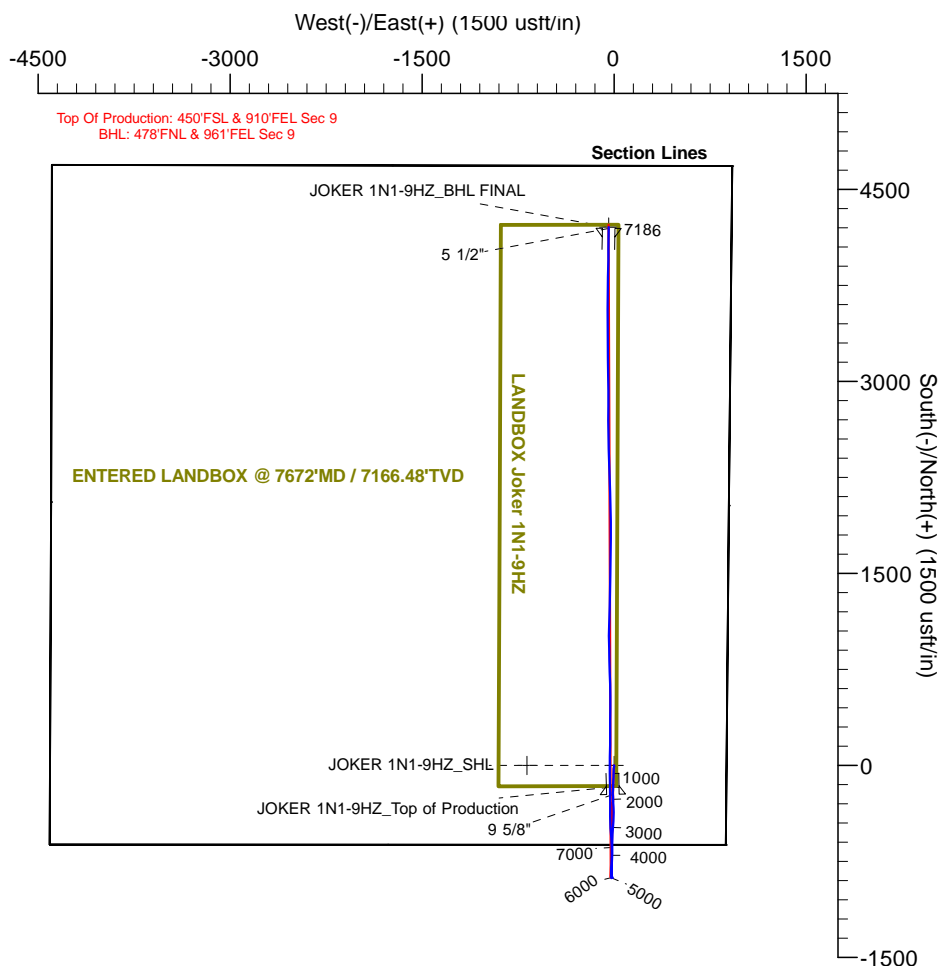


US ROCKIES WATTENBERG PLANNING

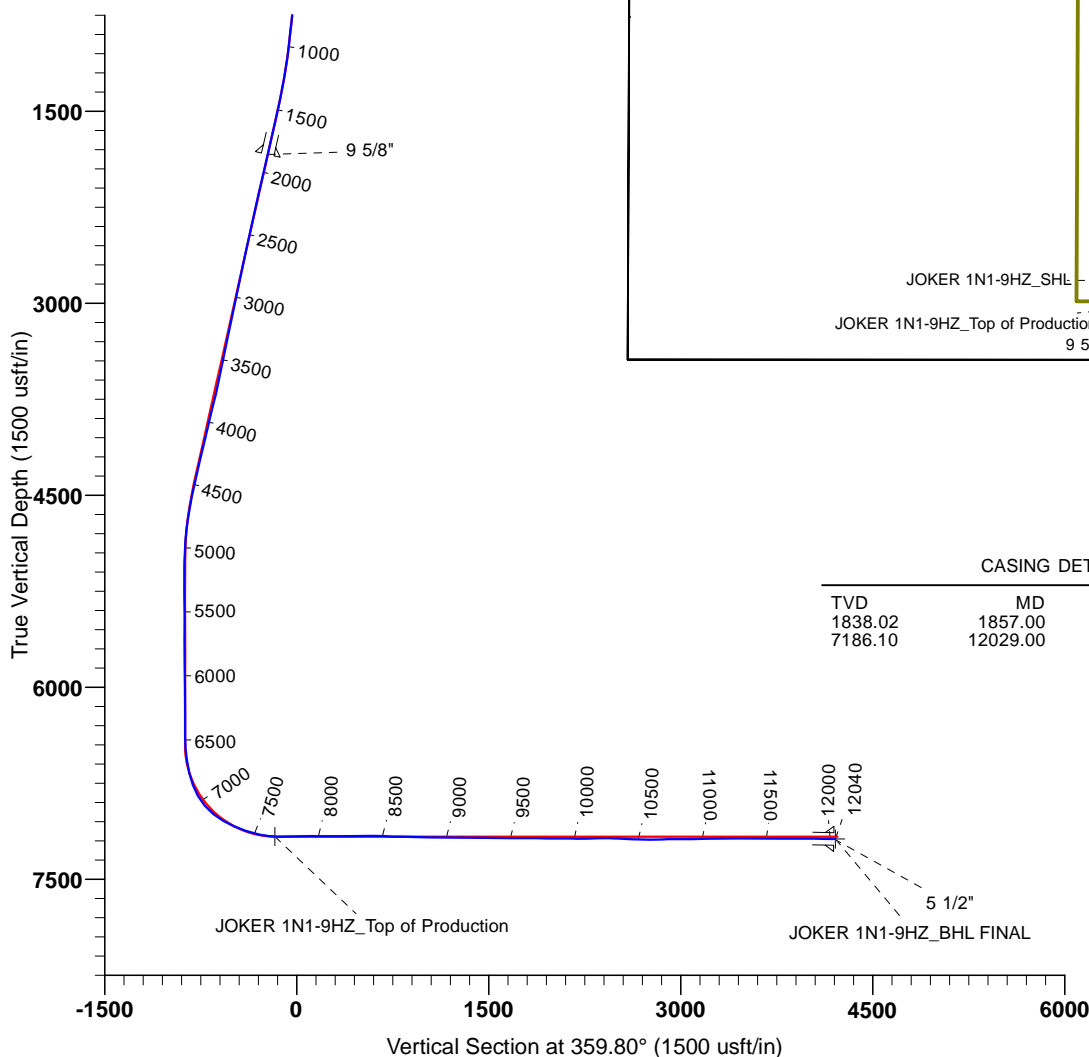


Project: WELD-NAD83-UTMFT13N
 Site: 1N-65W-09 Joker Pad
 Well: JOKER 1N1-9HZ
 Wellbore: Plan A
 Design: PDD Actual Surveys



FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
6991.12	7141.00	SSPG	0.00	359.80
7017.20	7184.00	NBRR	0.00	359.80
7115.17	7407.00	N470_B_CK	0.00	359.80
7166.85	7756.00	N700_C_CK	0.00	359.80



CASING DETAILS

TVD	MD	Name	Size
1838.02	1857.00	9 5/8"	9-5/8
7186.10	12029.00	5 1/2"	5-1/2

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
JOKER 1N1-9HZ_SHL	0.00	0.00	0.00	14548921.72	1734784.81	40.060442	-104.662735	Point
1N-R65W-Sec. 9_Section lines	38.00	0.37	-680.77	14548919.51	1734104.05	40.060443	-104.665168	Polygon
JOKER 1N1-9HZ_Top of Production	7166.00	-169.93	-31.57	14548751.67	1734753.89	40.059975	-104.662848	Point
JOKER 1N1-9HZ_BHL FINAL	7186.25	4207.46	-41.58	14553128.99	1734727.29	40.071996	-104.662884	Point



Premier

Survey Report

Company:	US ROCKIES WATTENBERG PLANNING	Local Co-ordinate Reference:	Well JOKER 1N1-9HZ
Project:	WELD-NAD83-UTMFT13N	TVD Reference:	4969+25 @ 4994.00usft (hp311)
Site:	1N-65W-09 Joker Pad	MD Reference:	4969+25 @ 4994.00usft (hp311)
Well:	JOKER 1N1-9HZ	North Reference:	True
Wellbore:	Plan A	Survey Calculation Method:	Minimum Curvature
Design:	PDD Actual Surveys	Database:	EDM multiuser DB

Project	WELD-NAD83-UTMFT13N		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		

Site	1N-65W-09 Joker Pad, centered on 1N1				
Site Position:		Northing:	14,548,921.72 usft	Latitude:	40.060442
From:	Lat/Long	Easting:	1,734,784.81 usft	Longitude:	-104.662735
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.22 °

Well		JOKER 1N1-9HZ				
Well Position	+N/-S	0.00 usft	Northing:	14,548,921.72 usft	Latitude:	40.060442
	+E/-W	0.00 usft	Easting:	1,734,784.81 usft	Longitude:	-104.662735
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	4,969.00 usft

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/23/2014	8.33	66.68	52,609

Design	PDD Actual Surveys				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	359.80	

Survey Program	Date	7/30/2015			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
105.00	1,808.00	Cathedral MWD Surface (Plan A)	APC_ISCWSA REV 2 MWD	Fixed:v2:standard declination	
1,943.00	11,968.00	PDD MWD+IFR1 Curve/Lateral (Plan A)	APC_ISCWSA REV 2 MWD+	Fixed:v2:crustal field declination	
12,040.00	12,040.00	PDD Projection to Bit (Plan A)	APC_BLIND	OWSG BLIND	

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	
105.00	0.43	280.42	105.00	0.07	-0.39	0.07	0.41	0.41	0.00	
194.00	0.85	163.01	194.00	-0.50	-0.52	-0.50	1.25	0.47	-131.92	
286.00	1.92	172.58	285.97	-2.68	-0.12	-2.68	1.19	1.16	10.40	
382.00	3.71	180.06	381.85	-7.38	0.08	-7.38	1.90	1.86	7.79	
477.00	4.07	190.40	476.63	-13.77	-0.53	-13.77	0.83	0.38	10.88	
604.00	4.77	190.49	603.25	-23.40	-2.31	-23.39	0.55	0.55	0.07	
699.00	5.05	179.17	697.91	-31.46	-2.97	-31.45	1.06	0.29	-11.92	
794.00	5.53	180.23	792.50	-40.22	-2.92	-40.21	0.52	0.51	1.12	

Premier

Survey Report

Company:	US ROCKIES WATTENBERG PLANNING	Local Co-ordinate Reference:	Well JOKER 1N1-9HZ
Project:	WELD-NAD83-UTMFT13N	TVD Reference:	4969+25 @ 4994.00usft (hp311)
Site:	1N-65W-09 Joker Pad	MD Reference:	4969+25 @ 4994.00usft (hp311)
Well:	JOKER 1N1-9HZ	North Reference:	True
Wellbore:	Plan A	Survey Calculation Method:	Minimum Curvature
Design:	PDD Actual Surveys	Database:	EDM multiuser DB

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)
888.00	6.10	180.10	886.02	-49.74	-2.95	-49.73	0.61	0.61	-0.14
983.00	6.60	182.08	980.43	-60.25	-3.16	-60.24	0.57	0.53	2.08
1,110.00	8.80	180.31	1,106.28	-77.26	-3.47	-77.24	1.74	1.73	-1.39
1,205.00	9.75	182.50	1,200.04	-92.56	-3.86	-92.55	1.07	1.00	2.31
1,300.00	9.84	184.70	1,293.65	-108.69	-4.88	-108.67	0.41	0.09	2.32
1,395.00	10.83	182.15	1,387.11	-125.70	-5.88	-125.68	1.15	1.04	-2.68
1,522.00	12.90	180.19	1,511.39	-151.80	-6.38	-151.78	1.66	1.63	-1.54
1,617.00	12.80	184.63	1,604.01	-172.89	-7.26	-172.87	1.04	-0.11	4.67
1,712.00	12.95	182.99	1,696.63	-194.01	-8.67	-193.98	0.42	0.16	-1.73
1,808.00	12.67	179.29	1,790.24	-215.28	-9.10	-215.25	0.90	-0.29	-3.85
1,943.00	13.30	178.20	1,921.79	-245.61	-8.42	-245.58	0.50	0.47	-0.81
2,132.00	12.70	177.00	2,105.94	-288.08	-6.65	-288.06	0.35	-0.32	-0.63
2,321.00	12.70	177.00	2,290.32	-329.58	-4.48	-329.56	0.00	0.00	0.00
2,510.00	12.60	181.00	2,474.73	-370.94	-3.75	-370.92	0.47	-0.05	2.12
2,699.00	12.00	180.60	2,659.39	-411.20	-4.32	-411.18	0.32	-0.32	-0.21
2,888.00	12.00	183.40	2,844.27	-450.46	-5.69	-450.43	0.31	0.00	1.48
3,077.00	12.40	184.20	3,029.00	-490.31	-8.34	-490.27	0.23	0.21	0.42
3,266.00	11.40	186.20	3,213.93	-529.12	-11.84	-529.07	0.57	-0.53	1.06
3,455.00	11.80	181.30	3,399.08	-567.01	-14.30	-566.95	0.56	0.21	-2.59
3,643.00	11.30	180.30	3,583.27	-604.64	-14.83	-604.59	0.29	-0.27	-0.53
3,833.00	14.20	179.50	3,768.57	-646.57	-14.73	-646.51	1.53	1.53	-0.42
4,022.00	12.70	179.40	3,952.38	-690.53	-14.31	-690.47	0.79	-0.79	-0.05
4,211.00	13.80	184.70	4,136.35	-733.77	-15.94	-733.71	0.87	0.58	2.80
4,400.00	13.30	183.10	4,320.09	-777.94	-18.96	-777.87	0.33	-0.26	-0.85
4,588.00	11.80	182.20	4,503.59	-818.75	-20.87	-818.67	0.80	-0.80	-0.48
4,777.00	8.00	183.70	4,689.74	-851.19	-22.46	-851.11	2.02	-2.01	0.79
4,966.00	3.60	178.90	4,877.73	-870.26	-23.19	-870.17	2.34	-2.33	-2.54
5,156.00	1.70	160.60	5,067.52	-878.88	-22.14	-878.80	1.08	-1.00	-9.63
5,345.00	2.60	38.90	5,256.45	-878.19	-18.52	-878.12	2.00	0.48	-64.39
5,533.00	1.30	105.90	5,444.36	-875.46	-13.79	-875.40	1.28	-0.69	35.64
5,722.00	1.10	99.90	5,633.32	-876.36	-9.94	-876.32	0.12	-0.11	-3.17
5,910.00	1.50	308.00	5,821.30	-875.15	-10.10	-875.11	1.34	0.21	-80.80
6,100.00	1.00	277.60	6,011.25	-873.40	-13.70	-873.35	0.43	-0.26	-16.00
6,289.00	0.80	281.00	6,200.23	-872.93	-16.63	-872.87	0.11	-0.11	1.80
6,477.00	0.10	339.30	6,388.22	-872.53	-17.98	-872.46	0.40	-0.37	31.01
6,572.00	5.00	357.50	6,483.10	-868.31	-18.19	-868.24	5.16	5.16	19.16
6,667.00	7.90	356.90	6,577.49	-857.65	-18.72	-857.58	3.05	3.05	-0.63
6,761.00	13.80	359.90	6,669.77	-839.98	-19.09	-839.91	6.30	6.28	3.19
6,856.00	19.60	2.00	6,760.72	-812.70	-18.56	-812.63	6.14	6.11	2.21
6,951.00	29.50	0.50	6,847.03	-773.29	-17.79	-773.22	10.44	10.42	-1.58
7,046.00	40.60	0.80	6,924.68	-718.82	-17.16	-718.75	11.69	11.68	0.32
7,140.00	50.40	359.40	6,990.49	-651.86	-17.11	-651.79	10.48	10.43	-1.49
7,235.00	60.00	355.50	7,044.66	-574.05	-20.73	-573.97	10.65	10.11	-4.11

Premier Survey Report

Company:	US ROCKIES WATTENBERG PLANNING	Local Co-ordinate Reference:	Well JOKER 1N1-9HZ
Project:	WELD-NAD83-UTMFT13N	TVD Reference:	4969+25 @ 4994.00usft (hp311)
Site:	1N-65W-09 Joker Pad	MD Reference:	4969+25 @ 4994.00usft (hp311)
Well:	JOKER 1N1-9HZ	North Reference:	True
Wellbore:	Plan A	Survey Calculation Method:	Minimum Curvature
Design:	PDD Actual Surveys	Database:	EDM multiuser DB

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)
7,330.00	67.00	356.00	7,087.02	-489.32	-27.01	-489.22	7.38	7.37	0.53
7,424.00	70.80	359.80	7,120.86	-401.71	-30.19	-401.60	5.53	4.04	4.04
7,519.00	77.00	359.80	7,147.19	-310.48	-30.51	-310.38	6.53	6.53	0.00
7,614.00	84.40	359.40	7,162.54	-216.80	-31.16	-216.69	7.80	7.79	-0.42
7,708.00	89.90	359.80	7,167.21	-122.95	-31.82	-122.84	5.87	5.85	0.43
7,803.00	92.00	359.60	7,165.63	-27.97	-32.32	-27.86	2.22	2.21	-0.21
7,898.00	90.50	0.50	7,163.56	67.00	-32.23	67.11	1.84	-1.58	0.95
7,993.00	88.80	0.50	7,164.14	161.99	-31.40	162.10	1.79	-1.79	0.00
8,087.00	90.50	0.00	7,164.72	255.98	-30.99	256.09	1.89	1.81	-0.53
8,182.00	89.50	0.30	7,164.72	350.98	-30.75	351.09	1.10	-1.05	0.32
8,277.00	91.70	0.70	7,163.72	445.97	-29.92	446.07	2.35	2.32	0.42
8,371.00	90.20	359.30	7,162.16	539.95	-29.92	540.05	2.18	-1.60	-1.49
8,466.00	89.10	358.90	7,162.74	634.93	-31.41	635.04	1.23	-1.16	-0.42
8,561.00	87.50	358.40	7,165.56	729.86	-33.65	729.98	1.76	-1.68	-0.53
8,655.00	89.10	358.20	7,168.35	823.78	-36.43	823.90	1.72	1.70	-0.21
8,750.00	88.00	359.00	7,170.75	918.72	-38.75	918.85	1.43	-1.16	0.84
8,844.00	90.00	359.60	7,172.39	1,012.69	-39.90	1,012.82	2.22	2.13	0.64
8,939.00	89.20	1.90	7,173.06	1,107.67	-38.66	1,107.80	2.56	-0.84	2.42
9,033.00	88.50	1.90	7,174.94	1,201.60	-35.54	1,201.72	0.74	-0.74	0.00
9,128.00	90.20	1.40	7,176.02	1,296.55	-32.81	1,296.66	1.87	1.79	-0.53
9,222.00	90.00	0.90	7,175.86	1,390.53	-30.92	1,390.63	0.57	-0.21	-0.53
9,317.00	88.40	1.50	7,177.18	1,485.50	-28.93	1,485.59	1.80	-1.68	0.63
9,411.00	89.60	0.50	7,178.82	1,579.47	-27.29	1,579.55	1.66	1.28	-1.06
9,506.00	89.00	0.70	7,179.98	1,674.45	-26.30	1,674.54	0.67	-0.63	0.21
9,600.00	90.40	0.50	7,180.48	1,768.45	-25.31	1,768.52	1.50	1.49	-0.21
9,695.00	89.80	359.90	7,180.31	1,863.44	-24.98	1,863.52	0.89	-0.63	-0.63
9,790.00	89.00	358.60	7,181.31	1,958.43	-26.22	1,958.51	1.61	-0.84	-1.37
9,884.00	90.90	358.30	7,181.39	2,052.39	-28.77	2,052.48	2.05	2.02	-0.32
9,979.00	89.10	358.60	7,181.39	2,147.35	-31.34	2,147.45	1.92	-1.89	0.32
10,074.00	89.90	358.40	7,182.22	2,242.31	-33.82	2,242.42	0.87	0.84	-0.21
10,168.00	91.70	357.60	7,180.90	2,336.24	-37.10	2,336.36	2.10	1.91	-0.85
10,263.00	89.70	357.90	7,179.74	2,431.16	-40.83	2,431.28	2.13	-2.11	0.32
10,357.00	86.70	359.90	7,182.70	2,525.08	-42.64	2,525.21	3.83	-3.19	2.13
10,452.00	87.10	359.70	7,187.83	2,619.94	-42.97	2,620.07	0.47	0.42	-0.21
10,547.00	89.10	359.60	7,190.98	2,714.88	-43.55	2,715.01	2.11	2.11	-0.11
10,641.00	91.20	359.80	7,190.74	2,808.87	-44.04	2,809.01	2.24	2.23	0.21
10,736.00	92.40	359.40	7,187.75	2,903.82	-44.70	2,903.96	1.33	1.26	-0.42
10,831.00	88.70	0.00	7,186.84	2,998.80	-45.20	2,998.94	3.95	-3.89	0.63
10,925.00	90.10	359.40	7,187.83	3,092.79	-45.69	3,092.93	1.62	1.49	-0.64
11,020.00	93.10	358.50	7,185.17	3,187.72	-47.43	3,187.87	3.30	3.16	-0.95
11,115.00	91.70	359.40	7,181.20	3,282.62	-49.17	3,282.77	1.75	-1.47	0.95
11,210.00	89.10	359.90	7,180.53	3,377.61	-49.75	3,377.76	2.79	-2.74	0.53
11,304.00	90.50	359.80	7,180.86	3,471.61	-50.00	3,471.76	1.49	1.49	-0.11

Premier

Survey Report

Company:	US ROCKIES WATTENBERG PLANNING	Local Co-ordinate Reference:	Well JOKER 1N1-9HZ
Project:	WELD-NAD83-UTMFT13N	TVD Reference:	4969+25 @ 4994.00usft (hp311)
Site:	1N-65W-09 Joker Pad	MD Reference:	4969+25 @ 4994.00usft (hp311)
Well:	JOKER 1N1-9HZ	North Reference:	True
Wellbore:	Plan A	Survey Calculation Method:	Minimum Curvature
Design:	PDD Actual Surveys	Database:	EDM multiuser DB

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)	
11,399.00	88.90	0.50	7,181.36	3,566.60	-49.75	3,566.75	1.84	-1.68	0.74	
11,494.00	90.60	359.90	7,181.77	3,661.59	-49.42	3,661.75	1.90	1.79	-0.63	
11,589.00	88.50	1.30	7,182.52	3,756.58	-48.42	3,756.73	2.66	-2.21	1.47	
11,684.00	90.00	1.40	7,183.76	3,851.54	-46.18	3,851.68	1.58	1.58	0.11	
11,779.00	91.30	0.50	7,182.68	3,946.52	-44.61	3,946.65	1.66	1.37	-0.95	
11,873.00	88.20	0.70	7,183.09	4,040.50	-43.62	4,040.63	3.30	-3.30	0.21	
11,968.00	89.20	0.70	7,185.25	4,135.47	-42.46	4,135.59	1.05	1.05	0.00	
12,040.00	89.20	0.70	7,186.25	4,207.46	-41.58	4,207.58	0.00	0.00	0.00	